

Circulating Counterfeits of the Americas

EDITED BY

John M. Kistberg



*Originals of the American Continent
at the American Numismatic Society, New York*

December 7, 1892

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John M. Kleeberg



Coinage of the Americas Conference
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John M. Kleeberg

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ERIC P. NEWMAN

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Preface

Circulating counterfeits of the Western Hemisphere was the subject of the fourteenth Coinage of the Americas Conference, sponsored annually by the American Numismatic Society. Since its inception, this program has enjoyed the enthusiastic support of the Society's governing Council as a forum for the dissemination of emerging research in the coinage and currency of the Americas.

The purpose of these conferences is to facilitate the exchange of information. Toward this end, experts in the subject are invited to present papers, collectors are invited to exhibit, and notice of the conference is circulated widely to encourage attendance by all who have an interest in the topic. The Society also mounts an exhibition from its holdings and invites registrants traveling to the New York area to come to know the Society's collections and library better during the days surrounding the conference.

A number of special exhibits were mounted on the theme of COAC 1998 and remained on view at the Society for several months. A display of counterfeits from the ANS collection was assembled by Curator John Kleeberg and Curatorial Assistant Elena Stolyarik. The Society exhibited counterfeit Mexican 8 reales attributed by die variety according to J. L. Riddell's "A Monograph of the Dollar - Good and Bad." Some of the counterfeit half dollars listed in the Riddell book were also on view. Other ANS exhibits included counterfeits made in platinum and unusual counterfeit halfpence, such as the 1776 piece overstruck on a counterfeit pistareen. Anthony Terranova put on a dramatic exhibit of U.S. coin scales and counterfeit detecting devices. He also displayed his collection of evasive halfpence, plus Blacksmith coppers and related pieces, such as Columbia farthings. Mike Ringo put together an impressive exhibit of Bungtown halfpence, including items borrowed specifically for the occasion from the Eric P. Newman Numismatic Education Society.

Contributors

The Society is grateful to the following contributors who helped make the 1998 Coinage of the Americas Conference possible:

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Introduction

Counterfeiting: A Truer Portrait of the Circulation

Until 1857, many, often most, of the coins in circulation in the United States were not what are popularly considered U.S. coins. Citizens of the early Republic used dollars and quarter dollars from Mexico and Peru, French écus and five franc pieces, Spanish pistareens, Brazilian joes and half joes, English guineas and counterfeit halfpence (Schilke and Solomon 1964). They saw the coins listed in *A Guide Book of United States Coins* less frequently than one might expect.

To reconstruct the circulation of the early Republic, four types of evidence give us a truer picture.

- 1) Hoards, and related numismatic phenomena, such as single finds, coins found in archaeological excavations, and coins from shipwrecks.
- 2) Literary evidence.
- 3) Counterstamps and countermarks.
- 4) Counterfeits, because normally counterfeiters will not forge rare coins. (There are exceptions, such as a remarkable counterfeit of the 1822 half eagle.) A counterfeiter must seek safety in numbers: he will forge a common coin, in the hope it will remain unnoticed when he tries to pass it.

Three of these types of evidence are familiar to numismatic scholars. The fourth type of evidence—counterfeits—is comparatively neglected.

The early Republic regularly experienced monetary turmoil. It was not until the resumption of specie payments in 1879 that the circulation stabilized. Because the United States had a bimetallic system, the

more valuable of the two metals would be hoarded, and not circulate. During several periods, all coins were hoarded and replaced by paper scrip: the 1790s, after the copper panic (Mossman 1993, 239-243, 252); during and after the war of 1812 (Newman 1985b); and during the Hard Times that followed the Panic of 1837 (Carothers 1930).

Counterfeits give us the following picture of currency circulation in the United States before the middle of the nineteenth century:

Half cents and farthings were little used. The most common copper coin was the counterfeit English halfpenny. Along with the English halfpenny circulated coppers from the Confederation period (Newman 1985a), and copper tokens, many issued in Canada. Circulating counterfeits exist of all of these.

Federal half dimes and dimes circulated to some extent. The workhorse silver coins were the Spanish American medios (worth 6¼ cents), the reales (worth 12½ cents) and the 2 reales (worth 25 cents). These were extensively counterfeited. When people of the period before about 1831 referred to a “quarter dollar,” they meant a Spanish-American 2 reales (Kleeberg 1998b, 1871).

Prior to 1830, the pistareen, a Spanish 2 reales struck to the provincial silver standard, worth twenty cents, circulated to some extent. After 1830 it was rarely seen in the United States (Kleeberg 1998b).

The Federal half dollar was the great success of the early United States Mint. We know it was a success because the counterfeiters chose to copy it (Davignon 1996).

No contemporary counterfeits are known of early Federal dollars (Riddell 1845, p. [11], following no. 5). This shows that the early Federal dollar was a failure (Kleeberg 1995, 90-99). In coinage, as elsewhere, imitation is the sincerest form of flattery.

The silver dollars in use in the early United States were those from Spain and Latin America. We know this from literary sources, such as Riddell; we know this from hoards; we know this from counterstamps; and we know this from the abundance of counterfeits, many well catalogued by Riddell (Riddell 1845).

Until 1834, Federal gold did not circulate. The counterfeiters concentrated on Brazilian joes and half joes, Spanish eight escudos and

British guineas. Those were the gold coins commonly encountered in circulation (Gordon 1987, 91-96).

After 1834, the gold/silver ratio was changed, and gold circulated, while silver was hoarded. Some gold counterfeits do exist. Gold is an awkward metal to circulate. If a gold coin becomes too worn, it ceases to be accepted at par. What circulated was not the actual gold coin, but its substitute, the banknote. Counterfeiters had been imitating paper money whenever it appeared. Thanks to counterfeiters we know how some rare issues looked, such as those of the First Bank of the United States. As more and more paper money was issued, paper counterfeiting spread.

Silver, already scarce in circulation after 1834, disappeared faster after gold was discovered in California. Gold became more common, and silver more valuable. The only silver coin that continued to circulate was the trime, which had less silver than other coins (Breen 1988, 271); counterfeit trimes confirm this. In 1853 the government reduced the weight of the quarter and the half dollar, and switched to a fiduciary coinage. The 1853 arrows and rays type is one of the commonest of all quarter and half dollars (Breen 1988, 349-350, 398-399). This gave a new lease on life to silver counterfeiting. Many crude, thick lead counterfeits are known of the arrows and rays quarters and half dollars.

The Panic of 1837 and the falling prices that followed made every cent more valuable. Merchants issued their own copper tokens. Counterfeiters too discovered that they could make money by counterfeiting the Federal cent. Prior to the 1830s counterfeit cents were rarely made. English halfpence and Confederation coppers were easier to copy and required less copper. By the 1840s the U.S. Mint had begun producing large cents in quantity, struck on modern steam presses. Counterfeiters had to keep up with the coins in the circulation. They produced the 1848 small date cent, the curious cast counterfeits in brass dated in the 1850s, the 1818 endless wreath cent, and similar delicacies (Kleeberg 1998a, 62-66).

To summarize, in the United States before the Civil War one would frequently encounter in circulation:

- 1) English halfpence
- 2) Confederation coppers

- 3) U.S. and Canadian tokens
- 4) large cents increasingly after the mid-1830s.
- 5) trimes (after 1851)
- 6) half dimes
- 7) medios
- 8) dimes
- 10) reales
- 11) pistareens (until 1830)
- 12) 2 reales
- 13) Federal quarter dollars (after 1853)
- 14) Federal half dollars
- 15) Spanish and Latin American dollars (until 1851)
- 16) French écus and five franc pieces (until 1851)
- 17) half eagles (after 1834)
- 18) guineas (before 1834)
- 19) joes and half joes (before 1834)
- 20) 8 escudos (before 1834)
- 21) double eagles (after 1850)
- 22) paper currency of various denominations, \$1 to \$100

John M. Kleeberg
Conference Chairman

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Imported and Domestic Counterfeit Copper Coins in Pre-Federal America

Philip L. Mossman and Charles W. Smith

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Introduction

It is important to consider the pre-Federal period of the United States in any discussion of counterfeit coinages of the New World. Not only did counterfeit gold and silver coins circulate widely in this country, but within the small change medium, counterfeit coppers played a major role. Although this story has been previously told, a brief summary will serve as an introduction to this paper. The forgeries discussed here were coins meant to deceive the public as current money and not as numismatic specimens. It will be seen that only successful coinages attracted the attention of counterfeiters since it would not be worth their while to reproduce unpopular coins for which there was little demand in the market place.

The early colonists of British North America had no specific currency allocated for their use by the mother country since the export of English silver and gold, even to the colonies, was prohibited due to the sorry condition of the metropolitan monetary supply of that era. As the colonies grew, there was increasing need to purchase manufactured goods from abroad and so whatever specie did arrive, legally or otherwise, was soon remitted across the Atlantic to finance the specific manufactured goods necessary to carve new homes out of the wilderness. The chief currency available to the colonists was Spanish-American silver obtained through trade with the West Indies. In fact, the bountiful Spanish-American silver mines supplied the mints of Europe as well as the Massachusetts Bay Colony mint which re coined Spanish money into the various denominations of Massachusetts silver. Due to its consistent quality, the Spanish milled dollar of eight reales became the world's currency standard for almost three centuries. Portuguese and Spanish gold comprised the high denomination currency not only in the Americas but in Europe as well. The value for this hard money, in terms of local monies of account, was fixed by the various colonial governments and, in fact, even after independence, these specie coins remained legal tender in this country until 1857 (for a review of foreign legal tender coins, see Schilke and Solomon, 1964). In contrast to gold and silver, the quantity of English coppers exported to the colonies was not restricted.

Foreign Counterfeit Coins in America

Colonial records from the earliest times are replete with instances where persons were apprehended for duplicating and passing

Massachusetts silver, Dutch Lion dollars, Spanish silver, including pistareens, French écus, and all denominations of French, Spanish and Portuguese gold. Counterfeiting of coins and paper currency in Colonial America is well covered in a series of monographs by Kenneth Scott (Scott 1953, 1955, 1957a-c, 1960; additional references include Gillingham 1939, and Bowen 1942). It is quite likely that many false precious metal coins which circulated in America were minted abroad, having arrived here in company with the shipments of bogus coppers which will be subsequently described. These counterfeit specie coins, either cast from molds impressed from genuine specimens, or struck from engraved dies, varied widely in quality of workmanship and propensity for deception. Some were reported in the local press as crude imitations whereas the excellent doubloons, passed in Philadelphia in 1748 and 1749, were so sophisticated that they actually deceived experienced goldsmiths. The counterfeiting trade was represented by all social classes including common laborers, artisans, well-to-do merchants, public officials, professionals, and especially, because of the technical requirements, blacksmiths and silversmiths. As if there were an inadequate supply of native-born talent in the counterfeiting trade, some convicted English counterfeiters, transported to America as punishment, quickly reestablished themselves in their former business but in a new market. Since many of these persons were also engaged in forging paper money, printers were frequently incriminated (Scott 1957a, 6-9). Many of these counterfeiters of coin and paper currencies operated in organized rings, such as those reported in New York and New England in 1767 and 1768, and were suspected of counterfeiting and passing a variety of foreign coins. It was estimated that some 500 individuals were engaged in this nefarious activity from New Hampshire to North Carolina during that period (Scott 1953, 196). In western Massachusetts, where so many illegal Spanish milled dollars were in circulation, it was feared that the Native American population, upon whom these bogus coins were foisted, might retaliate by stealing cattle and horses from the whites (Scott 1957a, 219, 222, 225-35). Although the crime of counterfeiting gold and silver in England was treated as high treason, the fate of those so convicted in the colonies varied from a fine in one province to capital punishment in another. In Virginia (1714), New York (1745), Rhode Island (1766), and Pennsylvania (1767), where foreign gold and silver were made legal tender and considered as "coin of the realm," counterfeiting these monies was deemed a treasonable act and conviction carried the same consequence as in

England (Scott 1957a, 54, 210-212; Scott 1960, 54). Two interesting commentaries describe counterfeit foreign coinages in America in the year 1787 (McMaster 1883, 1:191, 400-401; these passages are well-referenced from several contemporaneous newspaper accounts):

One of the favorite tricks of counterfeiters was to turn French sous into ... moidoires .¹ The sou was a small copper piece, worth about a cent, closely resembling the gold moidoire that when it was gilded over it readily passed with the careless for... thirty-six shillings. Another trick was to wash coppers with silver and pass them off in a handful of change as English sixpence. ...

For years past, counterfeiters and clippers had been busy with the coin, till a good half-penny or a full-weight pistareen could seldom be found in the States. Scarce a month went by but the Gazettes and Journals all over the country warned their readers to be on the guard against French sous that looked like moidoires, and to take no French guineas till they had carefully examined the hair on the King's head. There were bad dollars that bore the date 1782, and could be distinguished from the good by the ugly nostril and the long face; and false English guineas of 1764, that could be told from the true by the downcast eye and the raised brow. But the copper coinage was in a worse state still, for it had become a lucrative trade to manufacture abroad great quantities of base metal in imitation of pence and half-pence, [and] bring them to America So many had been thrown into circulation in Rhode Island that the Legislature had found it necessary to impose a fine of six shillings for every piece taken. Yet they continued to pass from hand to hand, and numbers of them were to be seen in the taverns and coffee-houses at New York. There they were freely taken, for almost every copper in the city was bad.

Whereas in the seventeenth century only coins were falsified, counterfeiters added paper currency to their repertoire when this medium was introduced in the early eighteenth century. This bogus paper money was not only printed in North America, but it is known that large quantities were imported from many European countries where there was no risk to duplicate American currency; much of the counterfeited colonial paper was imported from sources in England,

Holland, Germany and especially Ireland (Scott 1955, 151). In several colonies, the counterfeiting of bills of credit was adjudged a crime that demanded capital punishment although acquittal at the hands of a sympathetic jury was a common occurrence (Scott 1960, 4). In New Jersey, those who confessed to their crime could expect to be pardoned subsequent to a law passed in 1747. Recidivism was extremely common among this class of criminals and, even if offenders suffered branding, the pillory, public flogging, or a cropped ear, many returned to their prior behavior, perhaps in another location or in league with a different band of associates. Due to repeat offenses many individuals eventually ran out of ears for the public executioner's knife! Imprisonment was also an ineffective deterrent, since due to the notoriously lax security of colonial jails, escape was not difficult, especially when aided by outside confederates. On other occasions magistrates, fearful of retribution and public opinion, were persuaded to dismiss charges. The falsification of foreign coins, especially Spanish dollars, continued unabated through the Confederation period.

Counterfeit English and Irish Coppers in America

It is recalled that there was no prohibition against the exportation of regal copper coins from England, which, in reality, were only tokens of little intrinsic value. In the early eighteenth century a pound of copper, costing only 13d., could be minted into 23d. worth of halfpence and farthings—a sum which not only defrayed the price of the metal plus production expenses, but with enough remaining to provide a profit of 10% to the monarchy. In England, counterfeiters quickly sprang into action to falsify this token medium encouraged by both a substantial profit margin and the fact that counterfeiting copper was hardly a punishable offense! Whereas the counterfeiting of gold and silver was a treasonable act, little attention was paid to the counterfeiting of copper until about 1740. By that time, the practice had become so rampant it could no longer be tolerated as a misdemeanor. In 1742, conviction brought a two year prison term followed by two years' parole (Peck 1970, 205). By the reign of George II, shopkeepers and tradesmen petitioned Parliament for enhanced mint production since, by that time, the number of counterfeit halfpence and farthings in circulation was fast approaching the Tower Mint output. These forgeries became more and more prevalent such that by 1753 it was estimated that in England from two-fifths to one-half of the coppers were counterfeit! By the

1770s, in the reign of George III, the vast majority of the coppers in circulation in England was counterfeit. In a letter to George III, ca. 1805, the Earl of Liverpool wrote (Jenkinson [1805] 1880, 198-200):

It is certain that the quantity of counterfeit copper coins greatly exceeds the quantity of legal copper coins: the Officers of the Mint were of the opinion, in the year 1787, that even then they exceeded the legal coins. Their number has certainly increased ever since; the quantity of these counterfeit copper coins is in truth beyond calculation; and yet I am told that many principal manufacturers are obliged to make coins or tokens of this description, to enable them to pay their workmen, and for the convenience of the poor employed by them, so great is the demand for good Copper Coins in almost every part of the kingdom.

Very quickly the counterfeit coppers minted in England found their way to America along with legitimate issues as indicated in a 1698 petition from the citizens of Philadelphia who complained of the “great Quantities of leaden and pewter farthings & half pence” in their community and the potential damage inflicted on commerce (Scott 1955, 9). A large cache of sand cast William III counterfeit halfpence, unearthed in Philadelphia in 1975, was thought to have been made in about 1725 and back-dated (Newman and Gaspar 1978, 453-467; Gaspar and Newman 1978, 127-130). In the 1750s, although there was agitation recorded in the press about the increasing numbers of counterfeit coppers in Pennsylvania, Boston, and New York, these false coppers, both English and Irish, continued to arrive from England and circulate “without discrimination” in parallel with the legitimate issues. Following the Revolution, enormous numbers of counterfeit halfpence flowed again from England into America and by 1789, one estimate suggested that 95% of the copper medium in New York City was counterfeit English halfpence.

Copper coins, counterfeit or legal, only useful to make change and for small transactions, were unacceptable for conversion into hard money or to make foreign purchases. The supply far outpaced the need for small change and merchants had accumulated volumes more than they could spend. By 1787, commerce became so overwhelmed by this excess of copper currency that public confidence began to falter and coppers were devaluated officially from 14 to 20 to the New York shilling. In other localities, the rate was as high as 30 to the shilling.

Still the copper medium continued to expand with imported bogus halfpence until the point was reached in the summer of 1789 when the entire medium collapsed. Coppers now passed, if at all, at 64 to the New York shilling, and in New Haven at 72 to the Connecticut shilling. Why did this so-called Coppers Panic happen? Commerce was submerged under such an excess of unspendable counterfeit coppers that the entire medium lost its value and ceased to circulate. This failure coincided with a time when copper was trading on the international market at an all time low such that even scrap copper—which included unwanted coppers coins—had lost most of its commodity value. This panic, the price extracted for the counterfeiters' greed, is extensively reviewed elsewhere (Mossman 1993, chapter 9).

Until early in the reign of George II, English counterfeiters of coppers used a sand casting technique (extensively reviewed by Smith and Mossman 1998, 1775-1803) but as all classes of technology became more refined during the Industrial Revolution so did the counterfeiting process. By 1752, most coin forgeries were struck from dies on prepared planchets, frequently of a quality comparable to that of the Tower Mint. Counterfeits of George III coppers made after 1770 were invariably struck and it is this series that figured so prominently in the collapse of the copper medium in post-Revolutionary New York and Philadelphia as just recounted (Smith 1995). Specific counterfeit coppers were commonly employed as prepared planchets for overstriking certain state issues. Notably among these were the Irish coppers dated 1781 and 1782 used as planchets for a number of Vermont issues, while certain New Jersey coppers, to be described later, were struck over a wide variety of lighter weight coppers including Irish and English counterfeits.

Counterfeit English Halfpence in America

Although it would be very difficult to identify specific individual counterfeit coppers which circulated in America, we were able to assemble a study collection of 150 unselected counterfeit English halfpence of George II which we compared with a group of 50 regal halfpence. The counterfeit group comprised 64% struck and 36% cast examples, or a 2:1 ratio. But when the study collection was analyzed by coin type, i.e. young bust (1729 to 1736) vs. old bust (1740 to 1754) varieties, a different ratio between cast and struck examples emerged. The young bust specimens are divided 63.5% struck to 36.5% cast,

and the old bust are 71% struck to 29% cast. This indicates that as time progressed, the counterfeiting technology modernized and struck coppers became more common. A similar trend was noted in the 1751 Dunchurch hoard of English coppers where it was observed that 44% of the younger George II bust issues were cast as compared to 32% of the older bust varieties (Robinson 1972, 146-58).

The average weight of the entire cast fraction of George II counterfeits was 130.0 ± 14.5 grains and that for the struck fraction was 134.7 ± 13.6 grains, while the average for the regal group of 50 was 149.8 ± 3.0 grains, well in line with the legal requirement of 46 coppers to the pound, avoirdupois, which translates into an average weight per coin of 152.2 grains. The Tower Mint weight standard for copper coinage required that so many coins be struck per pound of metal, 46 in this case. Thus 152.2 grains is the average weight for coins in the batch, not a required weight for each coin. The Tower Mint was technically capable of controlling their planchet weights more rigidly than the counterfeit operations as the above data indicate. Their adherence to more rigid production standards at the Tower Mint resulted in a substantially narrower range in planchet weight variability by a factor of 4 to 5 (i.e. ± 3.0 to ± 13.6 grains) when compared to the struck counterfeits.

It is incorrect to conclude, based on the knowledge that approximately one-third of the counterfeit halfpence are cast, that one-third of the counterfeiters were using casting technologies. This overlooks the fact that, once set up, the rate of production of coins by striking is very much larger than the rate by casting. This improved technology is confirmed by a letter published in *The Gentleman's Magazine* of November 1752 which spoke of the recent "progress" made in the production of counterfeit coppers.

... the practice of making counterfeit halfpence was revived with this improvement, that whereas they were before cast in sand; they are now made in a stamp or press. The great dispatch these engines make, the number employed in this work, and the vast profits arising to the makers, and the vendors of these goods, must needs occasion a torrent of them to be thrown in upon us, without a speedy prevention. A common stamp, with two pairs of hands, is capable of turning out 50 gross [7,200] in a day: that several of these engines are thus employ'd is evident from the variety of impressions which have appeared among



Fig. 1. Examples of George II English halfpence: a) A regal halfpenny with the young head obverse, the bust used for issues for the eleven year period from 1729 to 1739; b) Although this copper is dated 1754, the bust on this elegant struck counterfeit more nearly fits the appearance of the young head motif; c) A counterfeit cast from a legitimate George II young head copper; d) A regal halfpenny with the old head obverse, the bust used for issues dated 1740 to 1754; e) A struck counterfeit bearing the date 1750; f) A counterfeit cast from a regal 1750 old head halfpenny.

us, all distinguishable for one another, and from the genuine halfpence, to which the counterfeits are very much inferior.

A conservative estimate of the striking rate as compared to the casting rate is 10 to 1, but in principle it can be much greater. One striking operation could, therefore, output twice as many coins as five casting operations combined, in the same time interval. This would give a 2:1 struck to cast counterfeit population although the majority of the counterfeiting operations, 5 out of 6, would be using casting technologies. If the production rate ratio, instead of being 10 to 1, is actually closer to 20 to 1, this would mean that 9 out of every 10 counterfeit operations could be casting coins and yet the struck to cast population would still be maintained at 2:1.

The Tower Mint issuance of regal halfpence, by date, is relatively flat over the period from 1729 to 1754, with weakest production in the three years, 1729, 1741, and 1742, when each year accounted for about 1% of the total series. Strong production occurred in 1734, 1735, 1739, 1740, 1747, and 1752, each at about 5%. The counterfeit group does not depart in any meaningful way from the regal group in distribution by date except for the years toward the end of the series which are slightly more numerous. Back-dating by the counterfeiters after a regal series has terminated is a common phenomenon. In the period 1754 to 1770 when no regal coppers were minted, it is assumed that counterfeiters, in keeping with progress, continued to strike more old head George II coppers. Coins dated beyond the regal series are much less common, although George II English counterfeit halfpence examples, dated 1755, 1756, and 1757, are known.

Pursuant to a Royal Warrant signed by George III on July 24, 1770, Tower Mint production began for halfpence dated 1770 to 1775 and for farthings dated 1771, and 1773 to 1775. For the purposes of this paper, a study group of 50 regal examples and 300 struck counterfeit examples of George III English halfpence was assembled. The average weight of the regal group is 151.2 ± 4.8 grains, well within the mint standard of 46 halfpence to the pound avoirdupois, or an average of 152.2 grains, individually. Of the 300 struck counterfeits, the average weight is 111.4 ± 13.3 grains. Again, by comparing the standard deviations of ± 4.8 to ± 13.3 grains for the regal and counterfeit examples, respectively, we see that the Tower Mint variation in production is substantially smaller than the counterfeit operations, indicating more careful quality control of planchet production at the royal facility. In contrast to the George II study collection, cast copper counterfeits of

George III are very rare. Out of 600 counterfeits examined from this period, only five cast examples were encountered, or less than 1%. We averaged every George III cast example available to us and obtained a value of 136.8 ± 23.2 grains, but acknowledge that this is a selected population.



Fig. 2. Examples of George III English halfpence: a) A 1772 regal George III halfpenny; b) A struck counterfeit dated 1772; c) A rare cast copy taken from a regal Tower Mint halfpenny of 1772.

It should be noted that the heavy side of the counterfeit distribution [mean plus standard deviation] begins to approach the light side [mean minus standard deviation] of the regal production. The lesson here being that, with the exception of very light examples, weight alone is not a measure as to whether or not any one individual coin is a counterfeit. A study of the stylistic features and characteristics plays a major role in building a case for authenticity. This concept is well described by Ernest Bramah (1929).

There are two ready [simple] tests of genuineness: weight and appearance. The former is far less important, for although true specimens are of full weight, so, unfortunately, is a certain proportion of forgeries, though there are farthings of such flimsy fabric that they will float on water [surface tension support]. But appearance imposed a harder task and the various efforts to reproduce the official expression of George III and the correct pose and visage of the lady on the reverse, have resulted in a gallery of uninten-

tional caricatures that makes a good collection of these pieces a very entertaining series.

Tower Mint production for the years 1770 to 1775, based upon long tons of copper used and counterfeit production for the same date range, as reflected by the study collection of 300 examples, is shown in Fig. 3 (Table 66, "Output of English Copper Coins 1762-1775," in Challis 1992, 436). Here we see that counterfeit production by date did not follow Tower Mint production, and that 55.7% of the examples are dated 1775! However, one must keep in mind that the date on a counterfeit coin represents only the earliest hypothetical date of circulation and not necessarily its actual earliest date of circulation or its date of production. Back-dating of George III English halfpence continued at least to the end of the eighteenth century, if not beyond (Smith 1995). There are, however, examples struck with dates after 1775; these include, in order of increasing rarity, 1781, 1776, 1777, 1785, and 1794. A quite scarce group with the obverse legend GEORGE III REX and a bust right device exists which are dated prior to 1770. This patently obvious counterfeit group includes coins dated 1741, 1747, 1751, 1760, and 1761.

ENGLISH GEORGE III HALFPENCE PRODUCTION

DATE	TOWER MINT		COUNTERFEIT
	LONG TONS ^a	PERCENT	STUDY COLLECTION PERCENT
1770	9.0	4.5	1.3
1771	55.0	27.4	4.3
1772	50.5	25.1	3.3
1773	39.7	19.7	18.3
1774	24.0	11.9	17.0
1775	22.8	13.4	55.7

(a) C.E. Challis, *A New History of the Royal Mint* (Cambridge, 1992) p. 436.

Fig. 3. Date distribution of English George III Tower Mint and Contemporary Counterfeit Halfpence Production.

Irish Counterfeit Halfpence in America

A study collection of 50 regal Irish George II halfpence and 150 counterfeit halfpence was assembled for metrological analysis. These coppers are known to have circulated widely in British North America and show a pattern of production similar to their English George II counterfeit colleagues. The fraction of Irish examples that are cast is 37% with an average weight of 110.5 ± 7.0 grains, while the 63% struck fraction show an average weight of 113.8 ± 9.4 grains. The average weight of the regal group was 127.1 ± 4.6 grains, well in line with the 52 coppers to the pound avoirdupois, or an average individual weight of 134.6 grains, slightly lighter than the English standard. Again, one observes that the adherence to standards at the Tower Mint resulted in a narrower range in production variability, although not as dramatic as in the English case. Fig. 4 shows a regal and two counterfeit George II Irish halfpence.

The Tower Mint issuance by date over the series starts strong for the first four years of the series, with about 10% by weight of total production for each year 1737, 1738, 1741, and 1742 and finishes with a very robust output [19%] for the last date, 1760. The tonnage of copper used by the mint in each of these years does not necessarily reflect the number of coins dated for a particular year. Similar to what was



Fig. 4. George II Irish Halfpence: a) A Tower Mint example of the single year type George II 1760 halfpenny; b) A struck counterfeit of a George II Irish halfpenny bearing the date 1760; c) A cast counterfeit of a regal 1742 Irish halfpenny of the young head variety.

observed for the George II English counterfeit halfpence, the date census of this group of false Irish coppers is essentially flat over its date range from 1736 to 1760 and does not coincide with the annual fluctuations in mint output of the regal group.

As the demand for small denomination coinage continued to grow, the Tower Mint commenced production of halfpence under George III. Halfpence were produced in the years 1766, 1769, 1775, 1776, 1781, and 1782, but no farthings were minted. Fig. 5 shows the long tons of copper by year used for halfpence.

For this study, a group of 50 regal George III Irish halfpence and 300 counterfeit examples was assembled. This study group of regal examples had an average weight of 129.0 ± 5.4 grains, in line with the expected value of 52 to the pound avoirdupois at 134.6 grains. The counterfeit study group of 300 examples were 6% cast and 94% struck. The average weight of the 18 cast examples was 120.2 ± 12.0 grains, while the average weight of the 282 struck examples was 107.0 ± 13.2 grains. Because of the subtle variations between the type I and type II bust styles of the Tower Mint halfpence dated 1769, it was impossible in practice to distinguish these differences within the counterfeit study collection. Therefore, these styles are combined under the date 1769 in fig. 5.

IRISH GEORGE III HALFPENCE PRODUCTION

DATE	TOWER MINT		COUNTERFEIT
	LONG TONS ^a	PERCENT	STUDY COLLECTION PERCENT
1766	50.0	25.0	13.7
1769	50.0	25.0	26.1
1775	25.0	12.5	10.6
1776	25.0 ^b	12.5	12.0
1781	5.0 ^b	2.5	22.5
1782	45.0	22.5	15.1

(a) C.E. Challis, *A New History of the Royal Mint* (Cambridge, 1992) p. 436.

(b) The weight of copper used in each of these years does not necessarily reflect the number of coins dated for each particular year.

Fig. 5. George III Irish Halfpence; Tower Mint Production by Date.



Fig. 6. George III Irish Halfpence; Type I (1766 and 1769) and Type III (1774 to 1782): a) An example of a regal Irish halfpenny of 1769, Type I; b) A struck counterfeit 1769 Irish halfpenny in the style of Type I; c) A cast counterfeit of a 1769 regal Irish halfpenny, Type I; d) A genuine 1782 Irish halfpenny, Type III; e) A struck counterfeit 1781 Irish halfpenny in the style of Type III; f) A cast counterfeit of a regal Type III 1781 Irish Halfpenny.

While the percentage of cast counterfeits was virtually identical for both George II English and George II Irish halfpence, there was a significant difference in the numbers of George III issues from both countries. With this later monarch, the census of cast Irish halfpence diminished to 6% of the total examined as compared to less than 1% for

English. This may be indicative of the spread of industrialization, starting in England in the Birmingham and Sheffield areas, and spreading outward to trading partners. Again, variability in production, as indicated by the standard deviation of the mean, shows the Tower Mint with less than half the variability range of the counterfeit operations. Fig. 6 shows Tower Mint and counterfeit George III Irish halfpence production by date.

Tower Mint production for the years 1781 and 1782, based upon examples in the regal study group, is essentially equal, indicating that some of the copper purchased in 1782 was used to strike coins dated 1781. Taken together, these two dates account for 25% of the Tower Mint production of George III halfpence. In contrast, these two dates account for nearly 38% of the counterfeit production. Here again, we see that the date distribution has been enhanced in the last years of the series by the practice of back-dating.

Finally, George III Irish counterfeit halfpence examples exist with non-regal dates, which are in order of rarity, 1783, 1772, and 1773. The six examples examined dated 1772 and the three examples examined dated 1773 were each from a single die combination. The 23 examples in the study collection dated 1783 were from at least four die combinations with an average weight of 107.3 ± 13.1 grains, in line with the struck counterfeit series, while the 1772 and 1773 examples, taken as a group of nine coins, were significantly lighter, weighing an average of 92.0 ± 10.8 grains. It should be noted that certain counterfeit Irish halfpence are closely linked to the 1783 Georgivs Triumpho token suggesting a common manufacturer (Ringo 1995, 1515-20). In addition, bulk quantities of counterfeits dated 1781 and 1782 were used by the Vermont coiners as a source of ready-made "blanks" for their products as discussed within the next sections.

Counterfeit Halfpence of American Origin

Because importation of false English and Irish coppers was such a profitable venture, it was just a matter of time before enterprising individuals in North America established domestic counterfeiting operations to produce such coppers for local consumption. A current taxonomy suggests three categories of struck counterfeit English and Irish coppers: [1] imported counterfeit coppers, well made and of a quality indicative of a "Birmingham/Bristol" product; [2] those domestic coppers linked to America such as "Machin's Mills" imita-

tions or “Tory” halfpence; and [3] those crude coppers whose origins have not been proven for which the term “anonymous” has been suggested (Weston 1994, 1465-68; Wierzba 1997, 1759-60). The issue raised in the third category is that one cannot justify an American provenance for every primitive appearing counterfeit copper without substantiating proof. Until such evidence is gathered, the prudent course is to acknowledge any uncertain origin with the “anonymous” designation. This in no way diminishes its historical status and importance as a coin that participated in our colonial economy—only its provenance remains to be established.

In his exhaustive research, Scott discussed the impact of the counterfeit halfpence imported into New York in the 1750s (Scott 1953, 102-109). Among his many references to false silver and gold coins, there were no accounts of locally made halfpence, except a notation that in Virginia an act was passed in 1729 making the counterfeiting of coppers a treasonable offense incurring the same penalty as falsifying foreign specie coins (Scott 1957a, 15). There is no indication as to what events may have prompted that legislation or if any convictions ever resulted.

The copper counterfeiting activity in British North America was just a reenactment of what had transpired in Great Britain, first by casting and then by striking. Without doubt, some of the cast coppers, which contributed to the glut of counterfeit coppers in America, were local products but these are difficult to trace since they could have been made by any metal smith with the capacity to make sand molds and melt alloys. Eric Newman reported one such operation, conducted by brass founders, discovered in Philadelphia in 1783 which cast counterfeit English halfpence (Newman 1976, 156). Another source may have been North Swansea, Massachusetts, where a report quoted by Lyman Low implicated the Barney family of that town of having “cast in sand-molds, facsimiles of the English Halfpence of that period” (Low 1899, 40). Some hand forged counterfeit coppers from Fort Crown Point, New York, were reported by Gary Trudgen who described the small scale operation of Private William Gilfoil, an English Army blacksmith, who in 1774 apparently supplemented his military compensation by beating out coppers (Trudgen 1987).

There is a series of struck counterfeit halfpence attributed to the post-Revolutionary era, not all from the same source, which has attracted much numismatic interest. Our current state of knowledge is skillfully and objectively summarized in *The Third Annual C-4 Convention*

Sale (1997, 15-16) catalogue to which reference is urged. Since clandestine mints would leave no paper trail, the actual facts may never be known and, lacking proof positive, we may have to content ourselves with several hypotheses, properly acknowledged as just working hypotheses subject to later modification, validation, or rejection. Punch-link evidence has been popularly cited but such results must be interpreted with caution since there may have been a commercial supply of identical letter punches available to any number of professional die sinkers. Whereas stylistic similarity of the major devices may help to identify the work of a particular engraver, unusual planchet fabric may not necessarily signify illegally made coins. Newspaper accounts have been notoriously misleading. This all goes to say that evidence from many sources has to be correlated and interpreted before any particular clandestine mint or engraver can be positively identified.

Trudgen has described four groups of imitation halfpence attributed to the engraver, James F. Atlee. The first group, along with the 1786 counterfeit Connecticut coppers to be subsequently described, was made in New York City, the second group was coined at an unknown mint in association with Ephraim Brasher and John Bailey, and the last two groups originated at Newburgh, New York, at the facility operated by Captain Thomas Machin, whose varied and exciting career has been recounted in previous articles (Trudgen 1983, 831; 1984a, 861; 1984b, 896; 1987, 965; 1989, 1084; 1992, 1317; Barnsley 1975, 536; and August and Sarrafian 1997 for die and punch link evidence). The only positive "legal" proof that Machin made coins is contained in a signed contract to assist the legal Vermont mint with their production. Other persuasive, but circumstantial evidence, particularly stylistic similarities and die and punch linking, place him as the source of certain imitation English halfpence and Connecticut coppers, among other possible emissions.

The imitation halfpence series, attributed to Atlee, has been accepted as American products but as a technicality, only those are counterfeits which are dated the same as regal coppers, i.e. 1747 and 1771 to 1775. The others are termed imitations because their imaginative dates don't correspond with actual Tower Mint emissions. Whether they are counterfeits or imitations is of no consequence since they were minted in the 1786 to 1789 period, well after American independence. Any argument would be with New York officials due to the Act of December 16, 1737 barring further importation of copper money (Scott 1953, 102).

The Machin's Mills imitation halfpence and other early English counterfeit halfpence struck in America have been classified by Robert A. Vlack (1974). The rare Vlack 14-84A, included in that census, does not share the other characteristics of Atlee coppers and Byron Weston presents evidence why this should be considered an "anonymous" piece as previously defined (Weston 1994, 1456-68). He extends the same opinion to Vlack 10-77A which shares no similarity with others linked to James F. Atlee or Captain Machin. Two other crudely made coppers on the Vlack plates, having nothing in common with the Atlee or Machin products, are the halfpence 16-86A [Breen #975] (see Breen 1988) and the Connecticut copper, CT-86A, or 1786 Miller 2.4-U [Breen #762], which together share a common reverse (see August and Sarrafian 1997 for details on these points). These are of the same primitive style of workmanship as 1786 Miller 2.3-T [Breen #761] and this trio of counterfeits is undoubtedly of American origin.

State Coppers: Connecticut

The counterfeit halfpence which inundated the American colonies continued to pass for many years "without discrimination" as long as one received full value for one's money. Although the problem had been long recognized and certain colonies had taken action to curb the further importation of false coppers, no decisive action was taken until the problem was well out of hand by 1785. A Congressional Committee described the situation in May 1785 (Jefferson 1953, 196):

The coinage of copper is a subject that claims our immediate attention. From the small value of the several pieces of copper coin, this medium of exchange has been too much neglected. The more valuable metals are daily giving place to base British half-pence, and no means are used to prevent this fraud. This disease, which is neglected in the beginning, because it appears trifling, may finally prove very destructive to commerce.

The basic remedy adopted by Vermont and Connecticut in 1785, New Jersey in 1786, and Massachusetts and Congress in 1787 was to authorize an official full weight copper coinage with the anticipation that this money would be preferentially accepted by the population and thus all other lesser quality coins would be summarily rejected and cease to circulate. This argument was seriously flawed since many, par-

ticularly the poor and merchants, already had much of their wealth tied up in these base halfpence. To demonetize them could be economically injurious to these social classes. A concise review of this early coinage, presented by Hodder in *CNL* 91 (Hodder 1992, 1310-16), is recommended.

In Connecticut, a group of individuals, combined as The Company for Coining Coppers, was franchised to undertake this project and introduce legitimate, full weight, copper currency designed to suppress the circulation of the abundant light weight English counterfeits. A very skilled engraver, Abel Buell, made the dies for the series. It is important to mention that Buell, as a youth in 1763, was convicted of altering four 2s. 6d. Connecticut notes to 30s. for which he was sentenced to suffer branding, ear cropping, and life imprisonment under the then current law. The executioner, taking pity on this young silversmith, discharged the sentence such that Buell's hair covered his "marks of shame" and by application to the Colonial Assembly, his incarceration was commuted after a £100 bond for good behavior was posted (Scott 1957a, 213-14).

Abel Buell's Connecticut coppers were covered in depth at the seventh COAC in May 1991 (Mossman 1991). There are many more Connecticut coppers than those from dies engraved by Buell and minted by the Company for Coining Coppers and its successors in business, Jarvis and Company. The pertinent and difficult question here is which of the 357 die combinations can be considered contemporaneously struck counterfeits in violation of the authorized state coinage? At least six different mints participated in this prodigious output, several of which were definitely illegal operations (Breen 1974, 459). Some of these coppers are classified as contemporaneous counterfeits based solely on conjecture (Rothschild 1998) but one pragmatic solution might be to reject as legitimate any coppers not from die pairs engraved by Buell.

These non-Buell struck counterfeits are in addition to the large number of cast copies of legitimate Buell coppers previously described in *CNL* 107. In that study, cast copies of some 26 different Connecticut varieties were enumerated and of these, probably five were copies of illegal Connecticut coppers imparting them the unusual status, "counterfeits of counterfeits." As with all counterfeits, cast or struck, their very being was driven by a profit motive, i.e., the duplication of successful, spendable money. Considering that premise and the known coexistence of both cast counterfeit regal halfpence and cast

forgeries of state coppers, John Kleeberg raises the following rhetorical question: "Let us assume that state coppers only circulated within their respective states. Then why would anyone counterfeit state coppers, as opposed to halfpence, which circulated everywhere? Counterfeiters were often on the move, and they would prefer a national currency to a local one"(Kleeberg 1998).

From the 1785 series, the "African" head, Miller 4.1-F.4, has been traditionally suspect. But since all the mailed bust right obverse dies for that year were hand engraved, who is to say that this atypical piece was not an early emission from the mint, or, perhaps the work of an undocumented apprentice? Any other differences notwithstanding, the planchets of this variety were adequate since their average weight exceeds the combined average of all other Buell 1785 mailed bust right coppers (Mossman 1991; see Table 2, p. 110: here the average of 134 1785 MBLs is 134.8 ± 9.0 grains and eight 4.1-F.4s were 138.3 grains.) Another rhetorical question becomes immediately apparent, absent other evidence, how great must the stylistic and letter punch variation become before one pronounces a coin a contemporaneous circulating counterfeit? The careful response to this question is to acknowledge only that the "African" head is different.

For the year 1786, there are six issues that certainly are not the work of Buell (Miller 1-A, 2.1-A 2.1-D.3, 2.2-D.2, 3-D.1, and 3-D.4). Breen has connected this series with James F. Atlee and 1786 New Jersey small date issues on punch link evidence, and Trudgen has associated this output with group one of the imitation halfpence series just described. There is general agreement that these are all contemporaneous counterfeits but without clear-cut confirmation as to the mint of origin (Taylor 1987, 198-99; Breen 1976, 111-13). There has been an attempt to relate the 3-D.1 as a prototype of the Vermont Ryder-9, the "baby head," but this association is vague at best (Breen 1975, 112-13; Carlotto 1998, 103). In May 1786 a bill passed the Lower Connecticut House (but failed in the Senate) designed to curb the importation and circulation of "base and Counterfeit Copper Coin ... in this State" except for those minted by any other state or under the Authority of Congress (Crosby 1875, 220-21). Breen proposed that this legislation was aimed at the prevention of entry into the state of the "Atlee" 1786 bust right counterfeits just discussed. Also as a reaction to this specific style of false coppers, Breen asserted that Buell changed the obverse orientation to the mailed bust left motif late in 1785, so that the local people could distinguish the new, legal Company for Coining Coppers

products from the bogus bust right 1786-dated coppers by Atlee (Breen, 1988, 65). This is not a logical argument since in 1786 the immediate concern was with the vast number of bust right George III English counterfeit halfpence and not with the few, by comparison, spurious Connecticut coppers attributed to Atlee. If indeed a change to the bust left motif were intended to differentiate between two specific genera of coppers, it is more reasonable to consider that this change was effected to assist a largely illiterate population in distinguishing between the new, official bust left Connecticut coppers and the very common bust right, counterfeit English coinages, the latter being the culprits that had caused so many problems in commerce. New bust left coins would resemble George II halfpence which by that time were not as prevalent.

For those dated 1787, Connecticut coppers become more complex, starting with the four examples, Miller 1.3-L, 4-L, 6.1-M, and 6.2-M. These are certainly not characteristic of the work of Buell, who did the draped bust left obverses for that year. The distinctive appearance of



Fig. 7. Connecticut Coppers—genuine and contemporary cast counterfeit examples: a) A 1786 Miller 1.1-A, itself a struck counterfeit; b) A cast copy of a Miller 1786 1.1A, a counterfeit of a counterfeit; c) A genuine 1787 Miller 33.6-KK; d) A cast copy of a 1787 Miller 33.6-KK.

this quartet removes them from the legal Connecticut mints. Breen has attempted to connect the above four with the Morristown manufacture of New Jersey coppers based on punch link evidence, particularly the common, wide horse-shoe shaped "U" (Breen 1976, 111). This hypothesis is a classic example of the pitfalls encountered in using naked-eye examination to determine punch-linking since Michael Hodder later showed from using photographic superimposition techniques, it becomes the "N," "C," and "A" punches that are linked, and not the traditionally asserted "U" (Saccone Sale 1989, footnote lot #1648). The Miller 4-L is the most common Connecticut copper and the second most encountered of all the Confederation series, suggesting that it was the product of a technically sophisticated operation (Mossman 1993, 1385-86; the Maris 56-n is the most commonly encountered state copper). The related "laughing head," Miller 6.1-M, also ranks high in the Connecticut copper frequency census.

Also bearing the date 1787 is the relatively common contemporary counterfeit, the Muttonhead, or Bradford head, 1787 Miller 1.2-C, from an unknown mint. The unusual appearing "Hercules" head varieties, represented by the biennial paired 1786 Miller 5.3 and the rare 1787 Miller 7 obverses, were struck from a severely recut legal die and despite their crude appearance, are authorized coppers.

It appears that the original legislative authorization, which was to have run for five years from October 25, 1785, was suspended effective June 20, 1789, although no coins dated 1789 exist (Crosby 1875, 220-24). For the remainder of 1787 and into 1788 there is more speculation than proven fact about the Connecticut coppers attributed to that period. It was documented that when Abel Buell left for Europe, he allowed his son, Benjamin, to "stamp" coppers but we have no evidence as to what activities the son performed. As Breen asserted, all contributions ascribed to Benjamin are pure conjecture (Breen 1976, 123-24).

In 1787 Abel Buell's new obverse hub style featured a bust adorned with a triple leaves chaplet. This type has two distinct planchet populations and it is at this point that Connecticut coppers start to show a reduction in weight. The heavier triple leaves coppers, at 144.4 ± 14.5 grains (1787 Miller 2-B, 11.1-E, 11.2-K, and 11.3-K), adhere to the authorized standard, whereas the lighter group is comprised of the remaining ten varieties averaging 122.9 ± 19.8 grains, a value very consistent with the non-overstruck 1788-dated triple leaves varieties (121.0 ± 16.3 grains) (Mossman 1991, 114-15). This planchet weight similarity between the these two populations, the ten light 1787 triple leaves

varieties and the 1788-dated varieties, may indicate that the light 1787 triple leaves varieties could have been made in 1788, along with the 1788 varieties, but back-dated to 1787. The observation that there are two different planchet weight populations of the Connecticut triple leaves varieties, i.e. the heavy 1787s and the combined light 1787s and 1788s groups, suggests two different planchet fabrics. Without more facts, this variation in weight, in and of itself, does not cry out “counterfeit” from a non-authorized mint but it does clearly indicate a measure designed to squeeze out more profit for the coiner, whoever he might have been.

Another group of coppers (1787 Miller 1.1-A, 1.1-VV, 1.4-WW, 3-G.1, 52-G.1, 52-G.2; and 1788 Miller 1-I, 2-D, 3.1-B.1, 3.2-B.2, 5-B.2, 4.1-K, 4.1-B.1, 4.2-R, 5-B.2, 6-H) has been attributed to James Atlee from Machin’s Mills because of device style and letter punch similarities with certain imitation halfpence and Vermont coppers, products presumed to have come from that source (Breen 1976, 113-18). This is circumstantial evidence which regards them as contemporaneous Connecticut counterfeits since they cannot be immediately identified as the work of Abel Buell and the legal mint.

State Coppers: New Jersey

Because of all the legal entanglements which beset the early New Jersey mints, it is no easy task to assign these coinages to specific locations. Matthias Ogden was authorized by the state to mint coppers until June 3, 1790, even though the State of New Jersey was in violation of the new Federal Constitution. Therefore, any copper that came from a mint under Ogden’s jurisdiction must be regarded as legal and not a contemporaneous counterfeit, the nature and condition of the coins and their planchets notwithstanding. Specifically, the Elizabethtown mint, for lack of virgin planchets, overstruck the prolific Maris 56-n and obverse series 70 to 73, on light weight demonetized coppers—especially those from Connecticut. Even if this were the series that prompted the June 7, 1790 report at the New Jersey General Assembly, the question would not be their legality but rather their substandard planchet weight (Newman 1976, 154). There are those who feel that the 56-n group originated at Machin’s Mills, in which case, they would have to be considered counterfeit. This perennial argument was recently reviewed elsewhere (Moore 1996, 1626-29). The coppers attributed to John Bailey were obviously legal products having been



Fig. 8. New Jersey—genuine and contemporaneous cast counterfeit examples: a) A 1787 Maris 54-k; this copper has been accepted as a contemporaneously struck counterfeit from an unknown mint; b) This is a cast copy of a 54-k, or rather a counterfeit of a counterfeit; c) A genuine Maris 32-T; d) A cast copy of Maris 32-T; e) A Maris 56-n overstruck on a lightweight counterfeit Irish halfpenny; note the obvious ERNI within the lower left obverse legend, and the GEORGI 12:00 to 2:00 o'clock on the reverse; f) Another Maris 56-n overstruck on a cast counterfeit 1754 English halfpenny with a specific gravity of only 8.58 and weighing a scant 107.2 grains.

minted on a valid subcontractual basis by Walter Mould of the Morristown mint (Trudgen 1990, 1161-62).

There are other New Jersey coppers which fall outside the realm of the authorized and thus can be considered contemporaneous counterfeits. This question was posed to several New Jersey specialists as to which New Jersey coppers, in their opinions, were contemporaneous counterfeits. The answer was quite consistent, anything of Maris 80 to 84 was definitely illegal, with some numismatists adding 79 to that inventory (Hodder, Moore, Wierzba, Williams 1998). Again, these struck counterfeits are in addition to the dozen known different cast counterfeit New Jersey coppers enumerated in *CNL* 107.

The last item deals with the so-called "Hatfield" counterfeit, Maris 54-k. There is nothing but "hearsay" evidence, four times removed from the source, to support the contention that these coppers were struck by an illusive Mr. Hatfield. Mr. Crosby quoted a communication from Mr. Bushnell who had reported to Crosby that he had once heard that his friend, Mr. Halsted, had an acquaintance who knew a Mr. Hatfield "who *claimed* (italics mine, PLM) to have made dies and coined New Jersey coppers" (Crosby 1875, 228). Although the names "Hatfield" and "serpent head" are traditionally applied to Maris 54-k, both nicknames inspire about the same level of confidence regarding accuracy. Even though its provenance is unknown, the 54-k is doubtless a contemporaneous counterfeit because of its substantially different style and its consistently light weight of 117.9 ± 14.7 grains as compared to the 150 grain standard (Mossman 1993, 208-10). Fig. 8 above shows a cast copy of Maris 54-k which makes it another example of a "counterfeit of a counterfeit."

State Coppers: Massachusetts

Among the cents which bear the emblems of Massachusetts, there are four, 1787 1-B, 5-I, 7-H, and 1788 14-J, which are set apart from the coppers of the state mint since their dies were impressed with letters and numbers from different punches than the accepted legal dies prepared by Joseph Callender and Jacob Perkins (Greco 1962; Packard 1991, 1274). Crosby, having observed that the legends of the 1787 1-B cent were so clearly different from the rest of the Massachusetts varieties, considered it was "among the most peculiar of the coins of this State" (Crosby 1875, 250).

The numerals in the date of 1787 1-B and the other two 1787

“counterfeits,” 5-I and 7-H, were discovered by Richard August to match those found on the Machin’s Mills 87C reverse (August 1998; also see August and Sarrafian 1997). The central devices on the four deviant coppers, just mentioned, are very similar to all the legal cents and it is unlikely that any Bay Stater of the period could have recognized the subtleties between the lot of them. Even today, many of us need photographic plates to identify the different varieties.

These 1787 “counterfeits” have been recently studied by Michael Packard from photographic overlays prepared by Tony Carlotto (Packard 1998). From this impressive study, August’s observation regarding the “87” date elements is confirmed. Also it would appear that the 1787 obverses 5 and 7 were engraved by the same artist and the eagles on respective reverses, I and H, are identical, except that the shields were individually added by hand. As earlier related, the letter punches on these four outliers differ from those coppers attributed to Callender (i.e. 1787 open S’s) at the state operated mint.

What conclusion can be drawn from these data? In regard to overall style, these four “spurious” coins far more closely resemble the legal Massachusetts cents than any of the other Confederation period counterfeits match the coppers they were designed to imitate. Whoever he may have been, the individual who engraved the dies for these four coppers was obviously an accomplished professional. While the common date punches are an intriguing observation, it is insufficient evidence to attribute the coins with certainty to Machin’s Mills. The relationship could be explained by the fact that both facilities—that is, Machin’s Mills and whatever mint responsible for the questionable Massachusetts coppers—used similar commercially available date number punches impressed from the same matrices.

These four varieties, just described, are numbered among the eleven very rare Massachusetts coppers with a rarity census of R-7 and R-8. Curiously, this 1787 1-B is more commonly found as a host coin for Connecticut 1788 Miller 16.3-N than seen in the non-overstruck condition. This circumstance seems to raise more questions than it answers. If one considers both Massachusetts 1-B and Connecticut 16.3-N as unauthorized emissions from Machin’s Mills, what was the possible objective of the Newburgh mint to strike its less desirable Connecticut copper over a Massachusetts cent which never depreciated in value during the Coppers Panic? What would have been gained by transmuting an acceptable Massachusetts state copper into a Connecticut token that had significantly depreciated after the summer

of 1787? In regard to weight, 1-B is light (Mossman 1993, 210n; three specimens averaged 116.8 grains), whereas the other “counterfeits” may actually exceed the authorized weight. Thus we are faced with another conundrum, what motive would prompt a clandestine operation to mint coppers heavier than the legal requirement?

So in summary, these four Massachusetts cents have features which set them apart from the other Massachusetts varieties, and as a group they share a common date element with five imitation halfpence. It is unclear when the conclusion was first advanced that the four mentioned coppers are contemporaneous counterfeits. The 1787 1-B is undeniably different in several respects, but I would propose that it requires more study before the three others, 1787 5-I, 7-H, and 1788



Fig. 9. Genuine and presumed counterfeit 1787 Massachusetts cents: a) Genuine Massachusetts cent from the state mint for comparison of details; b) Crosby 1787 1-B; c) 1787 1-B as host coin for 1788 Connecticut Miller 16.3-N; d) Crosby 1787 5-I; e) Crosby 1787 7-H.

14-J, can be summarily dismissed as counterfeits, judged solely because of letter and number fonts which differ from their companion issues. In any case, while one can propose a Machin's Mills connection, it is far from proven. Here is yet another numismatic puzzle from the Confederation period!

State Coppers: Vermont

Two locations participated in the production of Vermont coppers—the state operation at Rupert and the contract facility at Newburgh, New York. There has been an attempt to assign each Vermont copper to its own mint but there are some anomalous, crudely made pieces whose provenance remains a mystery. While it may be tempting to call them counterfeit, they could have been legally produced from dies cut by a poorly trained novice. This roster would include RR-1 and RR-30 (Stack's 1998, lot 115).

The strong tie between Vermont coppers and counterfeit Irish George III halfpence has already been mentioned. The circumstances are thus far lost to history as to how these false coppers became the ready-made planchets for certain Vermont varieties, but it is traditionally stated that this practice occurred at the Machin's Mills mint. Crosby described the very unusual RR-5 Vermont copper in his work; its inclusion in the numbered Vermont series is the fact which makes it a "collectable." The history of this rare piece, well described by Carlotto (1998, 90-93) remains another numismatic mystery.

Other Vermont coppers were counterfeited by casting as in the case of the RR-27 (fig. 10 below).

The Fugio Cents

"Although Fugio coppers were not state coins, the Club Ray varieties should be considered unauthorized varieties not produced under the Jarvis mandate. By whom, or why, we have no evidence other than the many differences in style of workmanship which suggest they were made by others and not the original group of craftsmen" (Spilman 1998). It is also unclear why some varieties are actually heavier than the legally mandated requirement, not a situation expected in counterfeit production.



Fig. 10. Vermont—genuine and contemporary cast counterfeit, and overstruck examples: a) Genuine Ryder/Richardson-27; b) Cast counterfeit of Ryder/Richardson-27; c) Ryder/Richardson-25 struck over a counterfeit Irish halfpenny.

Miscellaneous

Without doubt, there were a number of mints that participated illegally in counterfeiting Confederation-period coppers and foreign specie coins. It has been a regular intellectual exercise for numismatists to attempt to identify these clandestine operations. Some of these struck counterfeit Confederation period coppers, such as the 1785 and 1786 Nova Constellatio (Breen #1115 and #1116), are only forgeries of unauthorized tokens so there is no legal consequence. Breen tended to nominate the elusive Bungtown Mint as the possible site for many such miscellaneous emissions (Breen 1988, 90). Such an attribution adds nothing to our knowledge since essentially one is defining one unknown in the terms of something else equally unknown, and perhaps unknowable. Clearly it is desirable to continue research in this area.

Although some contemporaneous newspaper reports have been found to be erroneous or, at best, misleading and not very helpful, the reliability factor increases when several independent accounts appear in succession. That is the case for the years 1784 to 1786; it is fascinating to peruse the New England papers of that three year period and search for more clues. There was obviously a continuing problem during that era with counterfeit money as indicated in a letter submitted any-

GRIEVANCES OF BOSTON.

THE Grievances which the Inhabitants of this Town have great Reason to complain of are the following.—

- 1st. Foretalling of the Markets,
- 2d. False Measures and false Weights.
- 3d. The Circulation of bad Money.
- 4th. The vast importation of Foreign Goods.
- 5th. The great exportation of Cash to Europe.
- 6th. Scarcity of Gold and Silver Coin.
- 7th. The extravagant, enormous Rents demanded by Landlords.
- 8th. The keeping of Foreign Servants, while Natives are out of Place.
- 9th. The multiplicity of Lawyers—and their Conduct.
- 10th. The hiring of Country Carpenters and Masons, while those of this Town are in real want of Employ.

It is in this time of public tranquility that these objects of complaint, among others, should be taken into consideration:—and that some, if not all, may be remedied, is the ardent wish of

A CITIZEN.

Fig. 11. Courtesy of the American Antiquarian Society, Worcester, MA.

mously by a citizen to *The Boston Gazette and the Country Journal* of April 26, 1786 listing ten grievances which placed “The circulation of bad money” as number three among the enumerated complaints.²

Unfortunately, there was never any follow-up on this citizen-initiated complaint in subsequent issues.

Several items on this list resulted from the significant post-war economic depression of the 1780s. Immediately following the Revolution, there had been ample hard money in the States which was soon remitted to Europe to buy manufactured goods which had been in short supply during the hostilities. Subsequently the bustling wartime economy cooled and foreign export credits dwindled obliging merchants to pay for imported goods in specie. With a money shortage due to this eco-

conomic downturn, there is little wonder why counterfeiters were hard at work again.

From April and May 1784 there are the three separate reports from Providence, Rhode Island, cited by Newman, warning of the counterfeit halfpence coming from nearby Massachusetts with the additional comment that Massachusetts authorities were unable or unwilling to arrest the offenders (Newman 1976, 154-55). Another report from *The Massachusetts Centennial* of March 4, 1786 states in part:

The Copper-Smiths of the neighboring towns [to Boston] have done us much evil, by fabricating in large quantities and throwing into circulation pieces of base metal, resembling the current Copper Coin of the Commonwealth. This seemingly petty business has so long been transacted with impunity, that it had encreased [*sic*] to an alarming degree, and ought to be discouraged and condemned by every considerate citizen.

The term “current Copper Coin of the Commonwealth” cannot mean Massachusetts coppers since the state mint was not authorized by the legislature until October 17, 1786. By the process of elimination, this probably refers primarily to counterfeit English coppers.

These accounts have spawned much speculation about a copper counterfeiting operation in Massachusetts. In this regard, the North Swansea, Massachusetts, area has been the prime suspect as the site of a clandestine mint. The problem remains as to whether sufficient evidence exists to allow us to trace either the facility or its products more than two hundred years after the fact. Newman, in his classic essay, “English and Bungtown Halfpence,” reviewed the subject in detail. Because of the coincidence of certain 1784 newspaper reports alerting citizens to the flurry of counterfeit British halfpence emanating from a southern Massachusetts location and the occurrence of the 1784-dated Vlack 14-84A, Newman opined that it would “be a tempting speculation” to ascribe that notorious halfpenny to a North Swansea origin because of geographic proximity (Newman 1976, 155, 171-72). Speculation as to the provenance of that particular copper and the role of the Swansea mint in general is still alive and well and no consensus has yet been reached (Easterbrooks 1998, 50-52).

Nothing seemed to discourage the counterfeiting of specie coins. From Boston on April 19, 1784, there is an account of the apprehension of persons who counterfeited some “well imitated” 1768 [Spanish

milled] dollars “but the sound will easily denote them as base metal” (*Providence Gazette* 1784a). “Badly executed” 1775 counterfeit dollars were passed in Groton, Connecticut, in July 1784 (*Providence Gazette* 1784b). To add to the frustration of authorities, three convicted counterfeiters of Spanish dollars broke out of the South Kensington jail in October (*Providence Gazette* 1784c). The census of counterfeited specie coins appeared endless during the Confederation Period—but fortunately for us, a writer in *The Vermont Gazette* (1785) provided us with a summary:

The great number of persons lately convicted of passing counterfeit money in the different States, is an alarming subject of consideration. Dollars are the coin most frequently counterfeited. They are variously described in the different papers, and some of them are so good an imitation of the true as to be with difficulty discovered. They are almost universally said to be too light, and those that are nearest weight are swelled in the centre, or visibly thicker than the true. According to the papers, counterfeits have been detected of the following dates, 1771, 1781, 1783, 1784, & 1785.

Summary and Conclusions

Counterfeiting was a thriving activity in British North America during the Colonial and Confederation periods including all types of legal tender specie coins, Lion dollars, pistareens, and copper halfpence. The prime motive was profit and thus it was the successful coinages that were forged either by casting or striking with dies. When Confederation coppers were minted by the states, clandestine mints quickly sprang into operation to falsify those issues. These counterfeits were struck with a screw press while others were made by casting copies of legitimate and, occasionally, struck counterfeit, varieties. We are frustrated that the legitimate mints left incomplete paper trails, but the counterfeiters left even fewer traces unless they were apprehended and a court record was generated. Research will be ongoing to define the source of these many counterfeits—which have lately assumed another major function: to entertain, challenge, perplex and delight future generations of numismatists!

[1] As evidenced by contemporaneous court records, several well organized counterfeiting rings operated in this country in the later half of the eighteenth century. All successful European coinages, including gold, silver and copper denominations, were widely counterfeited in pre-Federal America. None of the existing laws seemed to have had any dramatic effect in curbing this nefarious activity. It is difficult to distinguish from among those surviving examples which ones were imported and which were manufactured domestically.

[2] English and Irish coppers were prime candidates for counterfeiting due to their universal acceptance, potential for large profits, and the minimal risk of prosecution. These coins were imported to America in large numbers.

[3] Initially, counterfeit coppers were made by casting techniques. By the reign of George II, and certainly by the 1750s, counterfeiters took advantage of new industrial methods and the cottage-industry casting technologies were largely supplanted by striking prepared planchets with a screw press, similar to the Tower Mint.

[4] About one third of both George II Irish and English counterfeit coppers in our study collection are cast examples. By the reign of George III, casting had decreased to only 6% for Irish coppers and less than 1% for English coppers. This trend indicates that the displacement of casting by striking technology had progressed at a more rapid pace in England than in Ireland.

[5] Cast counterfeit English and Irish coppers were made in America but it is difficult to identify the location of their production since any facility with the capacity to prepare molds and melt metals would have been capable of casting coins.

[6] James F. Atlee is credited with engraving dies for many imitation English halfpence struck in America. The facility at Machin's Mills, Newburgh, NY, authorized to strike coppers for Vermont, is considered as one of several locations where many of these were minted.

[7] Since casting counterfeit coins is a much slower process than striking coins on prepared planchets from dies, it may take as many as 10 to 20 casting operations to equal the output of a single facility equipped to strike counterfeits.

[8] Due to the large number of counterfeit halfpence that circulated in America, several states attempted to mint their own coppers during the 1785 to 1789 period in order to offer a standard alternative to the circulating counterfeits and thereby discourage their currency. The authorized state coppers were only struck but counterfeit copies of these legally struck state issues were produced by casting methods. Other non-authorized state coppers were struck (and also counterfeited by casting copies) at a variety of clandestine mints whose locations have generally remained unknown. In the Connecticut series, any copper not engraved by Abel Buell is suspect as being a counterfeit since it was produced outside the legal mandate. From New Jersey, the Maris 54-k is probably an unauthorized emission. There are four rare Massachusetts cents whose unusual characteristics suggest they may be counterfeit; their status is currently under evaluation.

[9] In the period 1784 to 1786 in Massachusetts, a large counterfeiting operation was suspected, details about which are the subject of continuing research.

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Endnotes

¹ It is possible that McMaster actually meant "joe" when he wrote "moidoire."

² To forestall a market is to prevent normal trading by buying merchandise on its way to market with the intention of reselling at a higher price, by dissuading persons to bring goods to market, or by persuading those already with goods for sale in the market to raise the price. This would amount to a manipulation of the market by price fixing.

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Counterfeiting of the Bolivian Four Soles Coins of 1830

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Counterfeits

Every coin collector has at one time or another acquired a counterfeit coin for his collection—sometimes deliberately for comparison purposes with a legitimate coin for a specific period, but usually inadvertently through lack of experience with a particular type of coin. Of course, it is the carefully executed counterfeit that causes difficulty for the collector or merchant, but there was a period of time in the history of Bolivia and Peru during which very unsophisticated counterfeits circulated freely and comprised about one-third of all available coins. Even some who might be thought expert in the making of coins occasionally accepted the bad coins. The counterfeit coins circulated not just in Peru and Bolivia, but in adjacent countries as well; they were manufactured not just in Peru and Bolivia, but in other countries—including the United States.

I doubt that any particular aspect of these counterfeit coins is unique in the history of coins; however, the combination of all the political and economic factors which affected the manufacture and acceptance of these coins may well be unique. The relation of these factors is the subject of this article.

Background

As in the case of other new South American Republics in the 1820s, Bolivia adopted the Spanish coinage system, under which all coins made in the Spanish colonial mints were to have a fineness of 10 dineros 20 grains. The coins of these mints were accepted throughout the world because the nominal value of a coin was also the intrinsic value of the metal in the coin. This ready acceptance of the famous “pieces of eight” had led to their counterfeiting (e.g., the counterfeiting of the Mexican eight reales of 1792 in Birmingham) with the implicit permission of the English government. This counterfeiting occurred while England was at war with Spain and France, which was probably the reason why the English government ignored their own law concerning the counterfeiting of the coins of other countries. In the articles by Bordeaux and the documents from the Spanish archives (especially the attachment to the document dated 14 June 1796), there is a

great deal of interesting information on the methods used by counterfeiters in Birmingham at the end of the eighteenth century (Bordeaux 1903, 1915; Archivo de Simancas).

Writing in the mid-nineteenth century, J. L. Riddell observed,

Perhaps no coin has ever been more extensively counterfeited and variously counterfeited, during the same length of time, than the Mexican dollar. This could not have been done, had similarity and regularity prevailed in the dies with which they had been stamped. (Riddell 1845, 6).

Independence for Bolivia, however, only deepened the economic problems of the country. When Andrés Santa Cruz assumed the presidency of Bolivia in 1829, he said that there was only half a peso in the country's treasury (Parkerson 1984, 44), and comparatively little in circulation for the needs of the country.

It is important to understand something of these needs, for they dictated subsequent events. Bolivia needed gold and large silver coins for its purchases in external markets, primarily Europe, while its internal markets required mostly the smaller silver coins. Bolivia, however, also carried on an extensive commerce with its neighbors—primarily Peru, although its natural trading area included Argentina to the south and Ecuador and New Granada (Colombia) to the north. The smaller silver coins were normally involved in this commerce, for other foreign markets absorbed the eight soles. In its external markets, the balance of payments generally ran against Bolivia, leading to the outflow of coins from the country. These small coins flowed primarily to the neighboring countries, where they were gladly accepted because of the need of those countries for small coins as well. During the first few years of independence, only a little over 2% of the country's coinage was in small coins (Flatt 1994, 119), and gradually, even the small coins were no longer to be found in Bolivia.

It was at this point that Santa Cruz made what has been called the worst administrative mistake of his career (Parkerson 1984, 52). He authorized in 1829 the emission of debased coins having a fineness of eight dineros. Begun secretly in order to satisfy the need in Bolivia's internal markets, the small coins quickly became an integral part of Bolivia's commerce with its neighbors, where they were accepted at full

value. These debased coins were also specially minted in 1835 to help finance an invasion of Peru by Santa Cruz in that year. Santa Cruz, however, before his demise as President of the Peru-Bolivian Confederation, recognized his mistake, and attempted to stop the minting of small coins of 8 dineros fineness. In the anarchy following Santa Cruz's departure, the emission of these coins continued nonetheless, and caused financial havoc in Peru and Bolivia for another 20 years (Flatt 1989).

There was a long tradition of counterfeiting in both the silver mining countries of Bolivia and Peru. Counterfeiting provided an even more profitable use of the silver bullion than smuggling the bullion out of the country. In addition to avoiding taxes on the silver bullion and the cost of transportation to the mint, there was obviously the opportunity to use much less silver than in the legitimate coins. Both large and small coins were counterfeited; the simplicity of the design of the coins made it much simpler for an engraver to make dies which could be used to produce very acceptable coins. Moreover, there were many small variations in the design of the legitimate coins because of practices in the mints, thereby allowing the public to attribute some small differences solely to problems at the mint. Some counterfeits were crude and easily recognized, but others were excellent copies, leading to some question whether or not the mints themselves sometimes made counterfeit coins. See for example, the 1834 and 1838 Bolivian eight soles described in Riddell's treatise on the silver dollar (Riddell 1845, Nos. 116-117).

For coins produced in Bolivia beginning in 1830, however, there are other aspects of these coins which are of interest. The debasement from a fineness of 10 dineros 20 grains to a fineness of 8 dineros was confined to the smaller coins, while the eight soles (pesos) remained of full fineness. There was a clear intent to deceive the public as to their true value; for almost 30 years, the coins were accepted by the public at their nominal value. The minting of these coins at this fineness was authorized by law, albeit a secret one, and carried out by the government. In this early period under Santa Cruz, it is difficult to characterize the coins as counterfeit, but it is easy to see how the coins lent themselves to the work of counterfeiters, who concentrated on the four soles coin

(*tostón*). First, the design of the coin, including the date, remained fixed for over 20 years. The design of the coin was also simplistic, and easily duplicated by “unofficial” engravers. The design on officially issued coins blurred quickly in use, because of the higher percentage of copper. Small differences in design were attributed to normal wear from the circulation of the coins. Another practice which made it easier for the counterfeiter was that in larger transactions, instead of counting the coins, they were weighed, so that any particular coin might not even be viewed or handled. Finally, there was a real need for the coins in commerce, and people accepted them, even knowing they were counterfeit.



Two examples of the 1830 Bolivian four soles—both believed genuine coins. Note the differences in design, particularly on the obverse, where both the size and placement of the stars are significantly different. Such differences made the work of the counterfeiter easier. Both coins are examples of the variety with a small Potosí mintmark in the middle of the obverse.

Counterfeits of the Debased Bolivian Coins

It is not known when the counterfeiting of the coins dated 1830 began—probably in 1830. It is also probable that the two soles and smaller coins were also counterfeited, but no examples are known to the author, and in the contemporary newspaper and official accounts, only the counterfeiting of four soles is mentioned.

During the period of the Peru-Bolivian Confederation and the political chaos which followed, there appears to have been little attention paid to the rising problem of the counterfeit coins which had come into circulation. The coins, however, were being made: there is an account of the discovery in 1850 in La Paz of a counterfeiting operation which had been active for ten years (*El Celaje*, 5 November 1850). But this operation could not have been the only one—even in Bolivia or Peru, for by 1846 there was a considerable amount of counterfeit coins in circulation in Peru. After the establishment of the government of Ramón Castilla in Peru, José Paz Soldán summarized the problems of the coins circulating in Peru. In October 1846, it was estimated that there were only 3 million pesos of the Bolivian coins and about 1 1/2 million pesos of the debased Peruvian money in circulation. Paz Soldán did make some suggestions: impede the importation of the Bolivian coins, place no tax upon their export, and take special care to impede the importation of counterfeit coins from Europe and the United States (Biblioteca Nacional 1846).

There is no record of immediate action, but the Peruvian and Bolivian governments did negotiate in 1847 a treaty of friendship and commerce under which the Bolivian government agreed to stop minting the debased coins (Flatt 1994, 51). For a time, the Bolivian government considered a change to a system which would mint coins of full legal fineness of 10 dineros 20 grains, but of lesser weight. The government was financially dependent, however, upon the continued emission of the debased coins, and did not fulfill the terms of the treaty, thereby leading to a short war with Peru (Flatt 1994, 79). At the same time, design changes were made in the coins, with the introduction of a star with five points rather than the six which had been used previously. This change was also reflected in at least some of the coins dated 1830 (Lill 1990).

Following on Paz Soldán's recommendation, in 1848 a directive was issued to the prefects of the departments (*El Peruano*, 30 September 1848). The custom house was ordered not to accept Bolivian coins arriving from overseas, for many of the coins were counterfeit. In December 1848, the English consul in Islay wrote as follows (PRO:FO:61/118):

The Government as yet have not been able to take certain and energetic steps for retiring from circulation the base Money in the Country . . . and which is increasing in a frightful degree by large clandestine Importation from Foreign Ports (said Principally [*sic*] to be from the United States) and coinage in private Mints in the Country tempted by the great profit they make by these nefarious transactions . . . The base money imported and coined in private Mints, all bears the stamp of Bolivia, the date of 1830, and consists entirely of Half dollar pieces . . .

It was said that during this period, there was a private "mint" in New Jersey which made the counterfeit four soles and used them to fill the hollow tubes of an iron bedstead. The bedsteads were then shipped to Peru, where the counterfeit coins were sold locally for a fixed price. And, of course, counterfeiting continued both in Bolivia and Peru. On 5 November 1849, *El Celage*, the newspaper of Potosí of the period, reported the seizure in Cochabamba of a machine that would mint 800 pesos of the *tostónes* daily. Almost a year later, three counterfeiters were captured in La Paz, as mentioned above. They had over 5,200 pesos of counterfeit coins in their possession (*El Celage*, 28 November 1850). Some of those coins were assayed, and the fineness ranged from 5 dineros 13 grains to 5 dineros 15 grains. During this period there were many reports of Bolivian coins with a fineness of six dineros or less. Such counterfeiters did provide an excuse for the Bolivian government when an especially large amount of new *moneda feble* was discovered in Iquique in December 1850. The minting of such coins was prohibited by the recent Treaty of Arequipa; the Bolivian government simply said that counterfeiters had made the coins.

The machinery discovered in Cochabamba was undoubtedly the source of a proposal to obtain equipment for a new mint in Oruro

(Flatt 1994, 97). It was said that the machinery could be purchased for 1,500 pesos and transported to Oruro for another 500 pesos. Note that the machinery was to be purchased, not confiscated; the owner was David Douglas, a powerful friend of President Ballivián (Cunietti-Ferrando 1978). In the list of machinery there were two dies for the four soles of Potosí.

The overall growth in the number of counterfeit coins in circulation was noted by a report of the Bolivian Finance Minister in 1850. In 1850 it was estimated that there were about 20 million pesos of “legitimate” and counterfeit *moneda feble* in Peru, Bolivia, Ecuador, New Granada and the Argentinian provinces adjacent to Bolivia. By 1857, there was a total of about 27 million pesos of the bad coinage in circulation, with about 9 million being counterfeit. This estimate was possibly low, for it is already clear that many of the Bolivian four soles were being remelted to provide the material for coins of even lower fineness. Concern was expressed that if the monetary disorder continued, there soon would be no coins in circulation which had any real value (Flatt 1994, 85).

In 1853, the design of the “official” Bolivian four soles changed for the first time since 1830. These coins were called *arbolitos* because of the prominent tree on the obverse. From that time forward, each year the date on the coins was changed. These coins were accepted in Peru at their nominal value, but it was subsequently ordered that the coins bearing the dates of 1856 or 1857 would not be accepted in Peruvian government offices (*El Comercio*, 9 July 1857). This decision was reversed in 1859, just about the time all of the coins began to decline in value to the intrinsic value of the metals (*El Comercio*, 14 October 1859).

During the middle of the 1850s, counterfeiting operations continued, with an occasional success by the government in stopping a particular operation. An especially large find of equipment and money was discovered in Peru in a raid toward the end of April 1855. In a deep ravine on the ranch of ex-colonel Bonifacio Franco near Cochabamba, a coin press and over 1,400 counterfeit Bolivian four soles coins were discovered along with nine additional pieces of coining machinery (*El Comercio*, 21 May 1855). A subsequent raid led to the discovery of 20 more pieces of machinery, including two large wheels, one of bronze

and one of cast iron, as well as a milling machine (*El Comercio*, 8 June 1855).

Probably the best analysis of the overall problems of coinage in Peru in this period was that of Ernesto Malinowski in 1858. As far as counterfeits were concerned, he noted that the counterfeiters were making coins of ever decreasing fineness, but, at the same time, of increasing sophistication. He commented that even persons accustomed to handling coins were easily deceived, using as an example the agency in Arequipa which sold tickets for the steamship to Lima: of 150 pesos accepted in payment, only about 13 pesos were legitimate coins (Malinowski 1858, 9). He urged the use of more complicated designs for coins which would require very powerful presses to strike, thereby making it more difficult and expensive for counterfeiters to carry on their work.

The efforts of the police had not been able to deter the continued manufacture and circulation of the counterfeit coins. Shortly after the appearance of Malinowski's treatise, the value of the debased coins began to decline, eventually reaching the point at which the coins of 1830 and their successors were accepted only at their intrinsic value—whatever the amount of silver content. This signaled the end of the counterfeit coins as well. Both the Bolivian and Peruvian governments initiated significant reforms in their coinage systems, accompanied by the melting of large quantities of both the debased and counterfeit coins. Through these actions, the reign of counterfeit coins in both countries was ended, although, of course, counterfeiters continued their work, just as in other countries.

Summary

Counterfeit coins have been a part of the economic history of most countries, undoubtedly ever since coins became an accepted means of exchange. While it is impossible to maintain that every aspect of the counterfeiting of the Bolivian four soles coin of 1830 was unique, it is believed that the combination of the factors discussed in the preceding article is unique, particularly from the viewpoint of Peru. The counterfeiting of Bolivian coins was facilitated by their debasement, which unofficially was increased over a period of years. In addition to the pri-

vate counterfeiters operating in Bolivia and Peru, there were operations overseas, accompanied by evidence that counterfeits were being made in at least one Bolivian mint. The objective of the counterfeiters was to introduce the coins into circulation in Peru, where they would be accepted at the nominal value of the coins.

Infrequent raids by the police were unsuccessful in stopping the counterfeiters; in some cases, there was suspicion that such counterfeiters were being protected by government officials. Ultimately, the only solution was the action of the marketplace, which began to accept coins at their intrinsic value—legitimate or counterfeit. Counterfeiting became unprofitable, and the melting of most of the older coins removed them from circulation as coins of the full legal fineness became available.

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Circulating Counterfeit Capped Bust Half Dollars, 1807-1839

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Introduction

The Capped Bust Half dollars of 1807-1839 were the most extensively counterfeited United States coin. In this paper we are going to review the major historical issues of this time period and how the social, political, and economic conditions contributed to create the peak period for counterfeiting in our nation's history. We are going to discuss how the bogus coins were made, including an in-depth look at a proposition that genuine U.S. Mint hubs, dies, or other implements may have been utilized in some counterfeiting operations.

Next we will explore what is known of the identities of the counterfeiters, looking at what evidence exists of who they were and where they operated.

Lastly, we will see how these old counterfeit coins have been mistaken over the last several decades as U.S. Mint patterns, die trials, and experimental coins, and how confusion still exists in the modern numismatic marketplace over these pieces, many of which are still professed to be genuine Mint products.

Circulating counterfeit coins, also known as contemporary counterfeits, were those coins that were made to pass off as genuine in everyday commerce. Although counterfeiting of large denomination paper currency remains a problem today, coin counterfeiting for circulation is



Fig. 1. Map of the United States circa 1830.

rare, due to the miniscule purchasing power of coins in the modern economy.

But back in the 1830s, when 50 cents translated into a day's pay, the counterfeiting of coins was a major problem. The low level of education (even literacy) of the common store clerk made passing bogus coins fairly easy, and the success of early counterfeiters can be measured by the quantities of fake coins surviving to this day.

Picture that you are back in the 1830s! As you can see on the above map, anywhere west of Missouri and the Mississippi River is outside of what was then the United States. Travel is by horse, stagecoach, or riverboat. It was a time of explosive population growth. There was no federal paper currency at this time. The paper money came from hundreds of private banks, and the coins most commonly seen in circulation were Mexican or Spanish silver, and British coppers.

In the early 1800s the U.S. Mint had problems producing enough coins to meet the demands of the young nation's economy. Until 1857 foreign coinage such as Spanish Milled Dollars and Mexican Reales were legal tender; British Halfpennies and tokens circulated as well. In many areas they were more common and recognizable to people than our own currency, which tended to be hoarded by banks and individuals while the old worn out reales circulated.

Diverse coin types in use as legal tender enlarged the serious trouble the public experienced by being constantly swindled with bogus coins (Schilke and Solomon, p. 33).

Small denomination coins were in great demand for everyday transactions and the Mint struggled to meet this need.

Our new need for small change, and our maze of unfamiliar coins, made young America a paradise for counterfeit moneys (Miller).

Because of the scarcity of U.S. Mint coinage, and a variety of foreign legal tender, the people were generally unfamiliar with their currency. This was even more true of paper currency, with state and local banks all issuing their own notes. Eventually merchants needed to have counterfeit "detectors" on hand to educate clerks as to the qualities and varieties of all of the genuine monies then in circulation. Economic hard

times of the late 1830s caused hoarding of coins, making fakes easier to pass. When you combine this huge diversity of types of monies with a general lack of education, you had incredibly fertile ground for counterfeiting.



PETE McCARTNEY,
THE KING OF COUNTERFEITERS.



BILL GURNEY,
ALIAS "BIG BILL," THE QUEERSMAN.



"CRANKY TOM" HALE,
FORGER AND COUNTERFEITER.



BILL DOW,
THE NOTED N. E. "BOODLE-CARRIER."

Fig. 2. Notable Counterfeiters.

The psyche of the young nation was very much geared toward the “American Dream”. Economic success was possible for everyone in this vibrant, expanding economy. Nothing seemed impossible, and entrepreneurship and speculation ran rampant. If you could not find some venture with which to become wealthy, then you were looked upon as a failure. As the country was expanding so rapidly to the west, land speculation became a favorite way to get rich. If you could do your speculating with counterfeit money, it became all the more profitable. In a climate of bold speculation, this additional risk was not seen as being so great as to make it much of a deterrent. Counterfeiting was an easy way to wealth, and the landscape was full of men like Pete McCartney and “Cranky Tom” Hale (see fig. 2).

Although counterfeiting still occurs today, it is certainly not a problem the average person ever has to deal with. Therefore it is difficult for us to understand the magnitude of the problem counterfeiting was in the early years of this country. It was the primary occupation of organized crime, and it is estimated by some that just prior to the Civil War, nearly 50% of the money then in circulation was “bogus”.

This situation had some curious effects. Although people often would find that they had been swindled with bogus money, the more well-made counterfeits continued to circulate as if genuine until well worn. In the rapidly expanding economy of the time, this probably had an unintended positive effect, allowing the money supply to keep up with the growth of the population and with the growth of business.

As a rule, there are not a lot of early contemporary counterfeit coins to be found today. Not too many modern collectors have ever seen a bogus bust dime or quarter, other than a modern counterfeit made to deceive collectors. This is because the profit was to be made in paper money. It was easier to make, the raw materials were cheap, and if you were going to risk being caught, it was better to be making \$5 a pass than 5c, when the criminal penalties were the same.

The one exception to the “rule” of paper money counterfeiting among early United States coins was the Capped Bust Half Dollar (1807-1839). It was a popular target for many reasons, but foremost because it was the largest denomination coin which was widely circulated. A major cause of this was the bimetallic legal tender system,

which set a ratio of the value of gold and silver. This system was constantly undermined by the forces of the free market. When this ratio changed in the open world market, the overvalued metal would immediately disappear from circulation. Because of the relative scarcity of gold in the early nineteenth century, it was usually the large silver coins which would disappear to be melted, and the bullion used to purchase more coins which were melted, on and on. As Schilke and Solomon point out in their book, *America's Foreign Coins*:

Only a small group of "experts" such as bullion dealers, silversmiths, goldsmiths, bankers, money changers and the like were in a position to take advantage of the open invitation presented by the situation. Some people benefited by means of knowledge and facilities, operating in sufficient volume to make good profits over expenses, but many others were willing to participate with a supply of "capital" in the form of bullion or coins. To uncoin money by melting coins to bullion involved financial risk and incurred the displeasure of the government. (Mint Director) Boudinot reported to President Adams on New Year's Day 1800: "The Director is sorry to observe, that the practice of melting down the coin of the United States, by workmen in gold and silver, is, he fears, becoming too common, to the manifest loss of the United States. As there are not any laws prohibiting it, every one is left to his own discretion, which, from the certainty of the standard, becomes so great a convenience, if not a pecuniary advantage, as to render the prevalence of the practice almost beyond a doubt, if not prohibited by law."

This "endless chain" operation made it difficult to keep domestic dollars in circulation. Secretary of State James Madison instructed the Director on May 1, 1806: "In consequence of a representation from the Directors of the Bank of the United States, that considerable purchases have been made of dollars coined at the Mint for the purpose of exporting them, and as it is probable further purchases and exportations will be made, the President directs that all the

silver to be coined at the Mint shall be of small denominations, so that the value of the largest piece shall not exceed half a dollar.”

Eagles suffered the same fate as dollars, mintage of both denominations having already been suspended. Except for half eagles and half dollars, the minting of domestic gold and silver coins was generally either in small quantities or nonexistent in some years until the early 1830s. The authorized eagles and dollars were not produced by the Mint for over three decades, mintage being resumed upon weight and fineness changes of domestic coins, and the alteration of the legal coinage ratio in 1834.

The half dollar, as a result of this situation, became the largest denomination silver coin to be produced for a period of over 30 years, a period of history which was to become known as the heyday of counterfeiting in this country. This chain of events set the stage for the Capped Bust Half Dollar to become, along with the Spanish and Mexican Dollars, the obvious targets for the coin counterfeiters of the period. It is our belief that it was the popularity and recognizability of the Capped Bust Half Dollar, combined with its high value at that time, which made it, by far, the most commonly counterfeited United States coin type of all time.

The Historical Context

Philip L. Mossman writes in *Money of the American Colonies and Confederation, A Numismatic, Economic, and Historical Correlation* (Mossman 1993):

...money, in whatever form—be it commodities, wampum, coin or paper—must be understood in the context of a circulating medium of exchange. This holistic approach to numismatics requires an appreciation of the prevailing economic, political, and historical factors which shaped the environment in which the money was current. Without such an awareness, the coinages of this fascinating era are reduced to interesting specimens in collectors' cabinets rather than active players in the living history of our national tradition.

Philip Mossman's words are a reflection of our beliefs that in order to fully understand the items we collect we must also have an understanding of the times that produced them. Based on this belief we would like to explore the political, social, and economic factors contributing to the wide appearance of counterfeit half dollars during the 1820-1840 time period.

The appearance of the counterfeit half dollars in appreciable quantity began in the early 1820s. This is based on the belief that the counterfeits were created on, or near, the date they bore. The first "common" half dollar counterfeit was the 1823 1A. There are dates prior to this known, but not in quantities that would indicate wide distribution. We will therefore start with the events of 1820.

1820, Missouri was admitted to the Union as a free state as part of the Missouri Compromise which stated that slavery was prohibited north of 36 deg. 30 min. in the Louisiana Purchase Area. The question of slavery would be a recurring problem throughout the next 40 years. James Monroe defeated John Quincy Adams in a landslide victory in the presidential election. The fourth census of the United States was taken showing a population of approximately 10 million. This was a 30% increase during the last decade. New York City had a population of 124,000 with Philadelphia close behind at 113,000. There were 22 states in the union. 72% of the workforce was agricultural.

In 1821 Mexico granted Moses Austin rights to settle 300 families in Texas. This would prove to be a problem area in the next decade. Andrew Jackson was named governor of the Florida region after he formally accepted the territory from Spain at a cost of 5 million dollars to the U.S. Davy Crockett was elected to the Tennessee legislature. *The Saturday Evening Post* was founded.

1822 saw the replacement of Langdon Cheves by Nicholas Biddle as President of The Bank of the United States. This appointment would have interesting consequences during the Jackson administration. Water powered cotton mills opened in Massachusetts. Rochester and Albany, New York were linked by the Erie Canal, which would be completed in 1825. The United States formally recognized Latin American states in their fight for independence from Spain. Stephen F. Austin establishes the first American settlement in The Texas Territory on

lands inherited from his father, Moses.

1823 saw "A Visit from St. Nicholas" (commonly known as "Twas The Night Before Christmas") printed for the first time in the *Troy Centennial*. Stephen Long designates the boundary of the United States and Canada in North Dakota. Argentina and Chile were formally recognized. The Monroe Doctrine was issued by the president in response to the "Holy Alliance" of Russia, Prussia, Austria, and France agreeing to help Spain recover its lost territories in the New World. The Monroe Doctrine stated that the United States would not stand by and let European countries interfere in the affairs of any countries in the Americas. This was the first time the United States attempted to influence the established powers of Europe diplomatically.

The Tariff Act of 1824 was approved by Congress, with the support of Henry Clay, which protected American goods. The Bureau of Indian Affairs was established. Brazil was the next South American country recognized by our government. The Marquis de Lafayette arrived for his yearlong tour of the U.S. In the west, the Great Salt Lake was discovered. The presidential election was sent to the House of Representatives when no candidate won a majority of the electoral votes. Andrew Jackson, Senator from Tennessee and War of 1812 hero, had 99 electoral votes. John Quincy Adams, the current Secretary of State, had 84. W.H. Crawford, the Secretary of the Treasury, garnered 41, while Henry Clay, a Kentucky Congressman, controlled 37.

The Presidential Election of 1824 was decided in 1825 during a session of The House of Representatives. John Quincy Adams was elected President when he gained support from Henry Clay and his 37 electoral votes. Adams then made Clay the Secretary of State in return for his support. Jackson was angry over this seemingly underhanded way he was defeated. He used this as ammunition in the next election. John Stephens invented a steam locomotive for use on rail lines in Hoboken, New Jersey. The Library of Congress suffered a major fire. Schools began using John Pierpoint's readers in the classroom. Robert Owen purchases Harmony Indiana from George Rapp for \$125,000. He renames it New Harmony, Indiana. Rapp returns to Pennsylvania, where he began. Akron, Ohio is planned in the path of the Ohio/Erie Canal. The Erie Canal is completed linking New York City with Lake Erie.

Peru gained independence in 1826 and establishes diplomatic relations with the United States. John Adams and Thomas Jefferson both die on the same day: the fourth of July, 50 years after the signing of the Declaration of Independence. James Fenimore Cooper's *The Last of the Mohicans* is published.

One of the major issues of 1827 is the continuing tariff question. The north wants higher tariffs to protect their products. The south, on the other hand, does not like the higher prices they create. The tariff bill is defeated when Vice President Calhoun casts the deciding vote. Talk by some of the southern states about separating from the north begins. The Supreme Court rules that the state militias may be mobilized by the President. New York officially abolishes slavery. The first sawmill in the Pacific Northwest is opened. Edgar Allan Poe has his first book of poetry published. John Audubon issues "Birds of America" in Scotland. New Harmony, Indiana fails.

In January, 1828 the "tariff of abominations act" was introduced in Congress, designed with abnormally high tariffs. It was intended to be defeated, but eventually passed as thought was that high tariffs were better than none. Adams was blamed for the passage of the act and lost the first hotly contested Presidential campaign to Jackson. High tariffs haunted the new president when, in December of 1828, South Carolina rebelled against them. South Carolina began the nullification controversy as they threatened to secede from the Union. 1828 also saw the United States agree upon a boundary with Mexico at the Sabine River. The Reciprocity Act is passed eliminating excessive duty on goods with nations agreeing not to tax our exports to them. The Baltimore and Ohio Railroad has their groundbreaking. The Delaware and Hudson Canal begins shipping anthracite coal from Pennsylvania to the eastern states. The funds to begin The Smithsonian Institution were bequeathed by James Smithson. *Websters Dictionary* is published.

During the Inauguration of Andrew Jackson, in 1829, his supporters mob the White House. The Chesapeake Canal is opened. The Baltimore and Ohio Railroad begins ferrying passengers over their first section of rail using horse drawn railcars. William A. Burt obtained a patent for the typewriter. The Guerrero Decree is issued eliminating slavery in Mexico and its territories, including Texas. This was later

amended to allow for slavery only in the Texas Territory. Horatio Allen demonstrated his English-built steam locomotive in Honesdale, Pennsylvania, running it on Delaware and Hudson Company tracks.

The 1830 census showed almost 13 million people now populating the United States. There are 73 miles of railroad track and 1,277 miles of canals in the country. The city of Chicago is planned. The first wagon train crosses the Rockies. Peter Cooper experimented with steam running his locomotive, *The Tom Thumb*, on Baltimore and Ohio tracks. He lost a race with a horsedrawn train due to mechanical failure, but this experiment forecast the future of transportation in the United States. The Baltimore and Ohio Rail Company began manufacturing steam locomotives. Robert Stevens invents solid iron rails to support the added weight of the new steam engines. The Removal Act is signed by Jackson, moving the Indians west of the Mississippi.

1831 saw Henry Clay nominated to run against Andrew Jackson in the next election by the newly formed Whig party. Steam railroads continue to make advances in transportation. In Albany, New York, Joseph Henry invents an electric motor and a telegraph. Nat Turner incites a Negro revolt in Virginia that kills numerous whites. He is later caught and hanged for his crimes.

1832 was a very pivotal year for our interests. The Bank of the United States applied for an early extension to their charter. They were worried about criticism of their economic policies. Biddle, the president of The Bank, thought he could push the recharter through Congress against the wishes of President Jackson. Jackson said of the Bank recharter, "Many of our rich men have not been content with equal protection and equal benefits, but have besought us to make them richer by an act of Congress." The charter amendment was passed by Congress but was vetoed by the President. There were not enough votes to override the veto. This was one of the early skirmishes of the great bank war between Jackson and the Bank of the United States. The original charter had four more years to run, each of which would be a year of war between Biddle and Jackson. Jackson and Van Buren were selected to run for President and Vice President in the first Democratic National Convention ever held. In New York City there was a cholera epidemic that killed over 4,000. New Orleans also had cholera and yel-

low fever epidemics that killed in excess of 5,000. Henry Schoolcraft discovered the source of the Mississippi River. Jackson defeated Henry Clay 219 to 49 in electoral votes to remain president. Future president, Martin Van Buren, was elected vice-president. Import tariffs were still a major issue of the day in the south. South Carolina sought to nullify, or ignore, the national laws and gave thought to separating from the nation. Jackson, in December, wrote: "Can anyone of common sense believe the absurdity that a state has a right to secede and destroy this union and the liberty of your country with it, or nullify the laws of the union; then is our Constitution a rope of sand; under such I would not live." Jackson sent reinforcements to the forts located in South Carolina and sent warships to the coast to discourage revolt.

1833 saw political upheaval in the west. Plans for gaining independence by Texas from Mexico were formulated. Sam Colt developed the revolver. The Treasury Building in Washington burns. John Deere invents a steel blade plow for cutting through the "western soils". South Carolina's possible secession is put to rest by passage of Henry Clay's Compromise Tariff Act, which addressed many of the southern states' concerns. Jackson then predicts, correctly, the next great problem with the south, "the Negro or slavery question." The bank war heated up with Jackson ordering the withdrawal of government funds from the Bank of the United States. They were deposited in numerous state banks, called "pet banks" as they were chosen by the administration. Jackson, in order to carry out his plan, had to make changes in his cabinet. His Treasury Secretary, William John Duane, refused to help and was replaced by Roger Taney. Jackson referred to The Bank as "the hydra-headed monster" and "a threat to our liberty." The President views The Bank as an institution benefiting his political enemies and vows to kill it before it kills him.

1834 saw Congress fight the appointment of Roger Taney as Secretary of the Treasury. The British Empire abolishes slavery. Cyrus McCormick patents his grain reaper. This reduced the need for seasonal help on the farms and thus reduced the price of grain. Henry Clay was successful in getting Congress, by a vote of 26 to 20, to censure President Jackson for his removal of the funds from The Bank of the United States without Congressional approval. The Coinage Act of

1834 is passed mandating a 16:1 ratio of silver to gold. This resulted in silver being overvalued compared to gold, and removed it from circulation creating economic difficulties.

1835 saw Congress authorize new mints in the cities of New Orleans, Charlotte, and Dahlonega. France, responding to demands from Jackson in 1834, agrees to pay claims for damages from the Napoleonic Wars. Colt obtained a patent for his revolver and develops plans for a factory in Hartford, Connecticut. The Liberty Bell cracks while tolling the death of Chief Justice John Marshall. Civil War breaks out in Texas. President Jackson survives the first assassination attempt on an American President by Richard Lawrence when both of his pistols misfire.

The Alamo falls to Mexican troops in 1836 after 12 days of fighting. 187 Americans are killed in the battle including Jim Bowie and Davy Crockett. Santa Anna was eventually captured and agreed to acknowledge Texas's independence. Sam Houston becomes the first President of Texas. The United States Mint produces its first steam press coins. Arkansas becomes the 25th state being admitted as a slave state. Michigan is to be admitted next year as a free state. The *McGuffey Readers* come out in Cincinnati, Ohio schools. Martin Van Buren is elected President declaring to carry on the ideals of President Jackson. No candidate wins the majority of votes needed to be elected vice-president, which will now be decided by the Senate. The Bank of the United States has its original charter lapse and is rechartered as a state bank under the laws of Pennsylvania. It becomes The Bank of the United States of Pennsylvania.

1837—Financial Panic! The country falls on hard times after the boom of the last decade collapses. Some of the accepted causes of the panic include:

1. The 10 year boom in business, banking, transportation, and western land acquisition led to excessive borrowing.
2. The demise of The Bank of the United States which was a conservative banking institution.
3. The Specie Circular. The order by President Jackson that federal land sales be made only for specie, hard currency, and not banknotes. This removed the specie (gold and silver) from circulation. There are

some who believe that the widespread use of counterfeit paper money to speculate in land was a major cause of this proclamation.

4. Failure of 1836's wheat crop.
5. 50% drop in the price of cotton hurting growers in the south and brokers in the north.
6. Failure of three banks in England.
7. Downturn in European businesses.
8. Overseas banks calling American short term notes causing specie to be lost to these nations.
9. These factors caused many United States bank failures and unemployment.

Texas's bid for statehood is rejected, due to anti-slavery votes by the Whig party. Jackson leaves office, his legacy of Jacksonian Democracy, a belief of deep conflict between rich and poor, the business community and the farmers and laborers is left behind. Michigan is admitted as the 26th state as a free state. This keeps the balance of 13 states for and 13 against slavery. A smallpox epidemic decimates the Indian Tribes in the west. Samuel Morse applies for a patent for the telegraph.

1838 sees President Van Buren dealing with the problems he inherited from Jackson. The first successful silk mill is opened in Connecticut. Race problems continue to be a national problem. The Specie Circular, the law requiring hard currency for land purchases, is repealed. Morse develops his code for use with the telegraph. Britain begins transatlantic steamship service. The "Trail of Tears", a forced march of 18,000 of the Cherokee Tribe from their ancestral home in Georgia westward, occurs.

1839, France recognizes Texas as an independent nation. The Whig party nominates William Henry Harrison to run for president. He defeated Henry Clay for the right to run against Van Buren in the election. Erastus Bigelow develops the power loom for weaving two-ply carpet. D.S. Rockwell invents the corn planter. American farmers sell more than 84 million bushels of wheat. Charles Goodyear develops rubber making. Abner Doubleday writes the rules for baseball.

1840 sees William Henry Harrison elected President on the slogan of "Tippecanoe and Tyler, too!" At 67 years old, he is our oldest President to date. The first dental college in the United States is opened

in Baltimore. The first postage stamps from the United States are issued. The population has now surpassed the 17 million mark. This is nearly a 33% increase during the last decade. There are now over 2,818 miles of railroad track and 3,326 miles of canals in the United States. The agricultural workforce now is only 69% of the population.

The Administration of John Quincy Adams

The 1820s was the decade of the industrial revolution. Steamboats traveling on the rivers reduced the cost and time it took to ship raw materials to the factories and the manufactured products to market. The railroads were expanding and improving to challenge the canals as the premiere method of shipping and travel. The mechanization of farming reduced the number of laborers needed to run the farms and allowed farmers to expand their size.

The westward movement of the population continued during the decade of the 1820s. Farmers, as well as merchants and tradesmen, came west to settle and build towns. Louisville, Kentucky and Cincinnati, Ohio, grew to populations of over 35,000. The Erie Canal, after completion in 1825, opened immigration into Michigan and Wisconsin via the Great Lakes. The Mississippi River Valley was the center of commerce for the western states. Goods were shipped via flatboat, then later steamboat, to New Orleans. From there ocean going ships transported the merchandise to the east coast and overseas ports. Many major counterfeiting operations could be found just west of the United States border at this time, immune from prosecution, with access to this river-based transportation system.

Theaters were popular forms of entertainment in the 1820s. Traveling companies ventured as far west as St. Louis. American literature began to emerge using legends and frontier stories as bases for their tales. Greek Revival Architecture was the most popular until the Civil War era. Portraiture, long the staple income for artists, began to give way to landscape and nature paintings. Photography began to develop in the late 1830s, which nearly supplanted portraiture painting.

There was a continuous increase in manufacturing facilities and productivity during the 1820s in the United States. An example of this was seen in the increased number of spindles used for manufacturing tex-

tiles. In 1805 there were 4,500 spindles in use, this increased to 87,000 in 1810, 130,000 in 1815, 1820 saw 220,000 in use, and by 1825 there were 800,000! Cotton was the export staple, mainly to England. There was movement westward geographically, and upward socially, for the American population. There was great wealth to be created in the seemingly endless natural resources of the young nation.

Labor parties came into being to protect the rights of the growing numbers of laborers in the cities. These unions attempted to unite workers on city and statewide levels. Numerous lawsuits over the legality of these unions resulted with decisions on each side of the issue. The financial panic of 1837 put to rest labor questions for a couple of years as workers had to accept whatever terms were offered, or someone else would be happy to take their place.

During the 1820s more of the population became involved in political matters. This decade saw the first real competition for the Presidency. Monroe was the last "Great Virginian", and automatic candidate for election. There was great controversy over the election of 1824 where the House of Representatives elected John Quincy Adams President. This led to the formation of a new political party, the Democratic-Republicans. Andrew Jackson led the field in electoral votes with 99, but did not have the majority needed to secure the Presidency. Adams was next with 84 and he forged a deal with Henry Clay, who was fourth. Clay gave support to Adams, and with his electoral votes won the election. Jackson was angry over what he thought was an underhanded deal when Clay was named Secretary of State in Adams's administration.

The tariff laws of the United States divided the manufacturers who viewed them as necessary, and the merchants who wanted lower costs for their imports. The conservative banking system was against the expansion of credit, which protected the manufacturers of the north-east. Cotton prices reached a high in 1818 of 30.8 cents per pound. They dropped to 8.3 cents by 1831. The Bank of the United States declined to support southern businesses with credit during this drop in prices. 1822 saw imports at \$18.5 million more than exports. There were an estimated 500,000 unemployed in 1820. One of the main issues of the day was States rights versus the National rights.

As secretary of state, Adams had defended the country's international business interests and supported territorial expansion. He obtained the cession of Florida from Spain and stopped Russian expansion in the Pacific Northwest. He envisioned the westward expansion of the United States to that point.

The Administration of Andrew Jackson

Jackson entered the White House immediately after the death of his wife, Rachel. He took any opposition personally, often becoming violent as he participated in several duels. He promised to rid Washington of many of the bureaucrats, streamlining government. This made many of the officials in Washington nervous as they feared for their careers.

The average citizen in the cities was better informed than ever before. The newspaper industry grew from 90 papers in 1789 to 800 in 1829.

Steamboats were still the first choice of travelers, soon to be replaced by the railroads. The transportation revolution brought about economic revolution, allowing farmers ready markets for their excess crops. Additionally, increased manufacturing brought about a need for additional financing. This created the need for additional credit, and to fill the need state banks were formed to supply the capital. The number of state banks grew from 88 in 1811, with capital of \$23 million, to 330 in 1830, with capital of \$61 million. This included the capital of \$13 million in the second Bank of the United States. Public land sales during this period almost quadrupled.

Slavery issues came to the forefront of the political and social scene. Nat Turner's slave rebellion began in Virginia in August of 1831. Abolitionists began attacking the ownership of slaves with papers, pamphlets and speeches. Many riots were caused by the actions of the Abolitionists. Slaves numbered about 2 million in 1830.

Foreign policy was preoccupied with the deteriorating relationship with Mexico resulting in the siege of the Alamo in 1836. The defeat of Mexico gave rise to the idea of Manifest Destiny—to spread the country westward, both physically and with products and ideals. Some wanted to expand to all of the Americas.

New England towns depended on the whaling and textile industries

as their major sources of income. Also, trade with China through the Hawaiian Islands was centered in the New England states.

By 1830 New York supplanted Philadelphia as the largest city, premier seaport, and the financial center of the United States when Jackson dissolved The Bank of the United States.

Americans, for the first time, had discretionary income to spend. The national obsession with wealth pushed many investors to overextend themselves hoping to make more money. This led to a split in the agrarian and old ways of doing things, and the commercial interests hoping for a revolution fueled by liberal credit. The more money people had to spend, the more sales they could make. Greed was rampant, there was easy money to be made, with counterfeiting being one of the easiest.

Andrew Jackson and the Bank War

Bad land speculation deals, early in his life, led Jackson to have a fear of credit and speculation. Banks were heavily involved with land speculation, issuing easily counterfeited paper notes as payment, causing Jackson to dislike them. Jackson became very conservative, affecting his thinking as President years later.

Jackson arrived on the political scene as the country was in transition from revolutionary aristocrats of government to new homegrown leaders. Virginians' hold on central government was over, and other parts of the country were ready to assume leadership.

The First Bank of the United States was developed by Alexander Hamilton, Secretary of the Treasury under George Washington. The main bank was located in Philadelphia, with branches in other major cities. The Bank was a depository of government funds, an agent for the collection of taxes; issuing notes redeemable in specie which were accepted for tax payments, thus increasing the money supply to finance the country's growth. The main argument against this system was that a private institution would almost control the country's finances, and that institution was run by wealthy northerners. Hamilton believed The Bank would benefit the entire country providing financial stability and flexible credit. The first charter expired in 1811 and was not immediately renewed; inflation resulted, driving specie from circula-

tion and necessitating the issuance of private “shinplasters” by merchants to use as small change. President James Madison, in 1816, chartered the Second Bank of the United States for 20 years. The Bank’s first president was Captain William Jones, who was a political appointee of Madison. He was inept at the job and involved The Bank in questionable operations. A Congressional investigation ensued and The Bank’s stock dropped, forcing his resignation.

In 1819 Langdon Cheves, a former Congressman and Speaker of the House from South Carolina, replaced Jones and brought The Bank back from the brink of insolvency at the expense of the American public. Cheves called loans and mortgages, and presented state bank notes for payment in specie. Many private banks had overspeculated and were forced into insolvency, which drove many investors into bankruptcy. The resulting depression was part of a worldwide panic made worse in the United States by these actions. The states moved to reduce the effects of this money tightening by The Bank of the United States. Many western states passed “stay laws” to prevent The Bank from foreclosing on loans. Many of Jackson’s future political appointees from these states, especially Kentucky, resented The Bank for these actions.

In 1823 Nicholas Biddle was appointed the next president of The Bank of the United States. Biddle was often described as intelligent, articulate, an aristocrat, wealthy, and handsome. He was a Philadelphian, and a friend of President Monroe. He was also arrogant and vain, two qualities that would get him in trouble with President Jackson in the years to come. Biddle had a habit of covering up problems rather than solving them. He also showed favoritism in loan practices. Biddle exerted control over smaller state run banks by either holding or redeeming, for specie, their bank notes. By 1828 The Bank of the United States had become too large for the good of the country. Biddle had the power to ruin state banks at will. His bank wrote 20% of the country’s loans, circulated 20% of the nation’s notes, and held 33% of the country’s deposits.

The Bank of the United States worked against Jackson in the election of 1828, lending money to his opponents and denying loans to Jackson’s supporters. This deepened Jackson’s resolve to attack Biddle and The Bank.

Jackson and Biddle were each unwilling to compromise, forcing Biddle into a corner. Biddle tried to get around Jackson's authority by asking for a recharter four years early, in 1832, an election year. This became one of the main political issues of that election between Jackson and Henry Clay. Jackson was against the early recharter and Clay supported it. The bill for recharter was passed by Congress and The House of Representatives in 1832. The bill was then vetoed by Jackson who said this of The Bank: "...it was a monopoly whose profits came out of the pockets of the poor and served only to enrich foreign stockholders and a few hundred of our richest citizens...I can not permit the prostitution of our government to the advancement of the few at the expense of the many" (*Annals of America*). Jackson was the first President who made extensive use of his veto power. He vetoed more bills than all his predecessors combined which caused future Congresses to consider Presidential views more closely. Jackson's veto language was written to the electorate, not to the members of Congress. Jackson believed he was representing the demands of the average American in objecting to the power and practices of The Bank. As a result, this issue became the number one question in the next presidential election.

The Bank of the United States spent an estimated \$100,000 to defeat Jackson in the election of 1832. This, in fact, was using the government's money against the present administration. Jackson ran on the "people democracy" vs. Clay, The Bank, the aristocracy. In reality, Jackson made the central government larger and the office of the President stronger. Jackson's policy of a strong office gave rise to a new political party—The Whigs.

Jackson removed government funds from The Bank and deposited them in "pet banks", which were state chartered banks chosen by the administration. In October 1833 there were only 7 of these pet banks in the nation. The number increased to 22 by the end of the year and to over 90 by 1836.

Biddle fought back at the administration for removing the government money by curtailing credit throughout the United States. The Bank also began only accepting specie payment for loans. Businesses at that time were expanding rapidly and needed capital. The Bank's tightening of credit shut down the expansions and created unemployment.

Bankruptcies dramatically increased and wages and prices declined. Biddle's actions, that helped bring on the recession, finally cost The Bank in public opinion. The Bank was doomed when Jackson declared that their drafts were no longer acceptable for payment of taxes.

Jackson inadvertently, through the creation of many new state banks, helped fuel the industrial revolution. These new banks, with deposits from the federal government, had to lend the money, which was used for speculation. Many individuals used these loans to expand or create businesses.

Cotton prices had been rising during the time period just previous to the panic of 1837. In 1834 they were 11 cents per pound and reached 16 cents per pound by the next year. Much of the profits generated by this increase went into the coffers of The Bank. Land sales had also tripled from 1834 to 1835. The United States, as a country, was out of debt and amassing a surplus from the increased land sales.

The 1830s was a decade of growth for industry in the East. Profits fueled internal improvements—mainly roads and canals. The population grew by 50%. There was an increased demand for laborers, not only for state-financed improvements, but for the construction of new rail lines. Cotton was the number one export for the country at a total of \$50 million for 1835. By 1837 most banks were working on a ratio of 10:1 to 30:1 of paper versus specie. This glut of paper (including counterfeits) financed much of the internal improvements of the country. Bonds were being sold on the international market on time credit. English concerns were the major purchasers of these bonds. There was not enough specie on hand to guarantee the amounts of notes circulated by the banks.

America was a demographic and commercial success, and the normal rules of monetary usage did not hold. Faced with an economy that constantly outstripped the orthodox money supply, Americans did what they had done before: they replied with an unorthodox one. Just as the Constitution was taking force, just as it was seeking to channel America's money into a particular direction, the prospective users of that money were cutting a path of their own, with the paper note, from the private bank. And paper

money, not coinage, would be king for the next three-quarters of a century.

It (paper money) had fueled their industries, financed their ships, and fostered their farms. It had gone with them everywhere, and the spread of the private bank note reflected the westward expansion of the Republic itself (Doty 1998).

June 1836 saw the passage of The Act to Distribute Government Surplus to States and Regulation of Deposit Banks. The excess in the treasury over \$5 million was to be distributed to the states in quarterly payments. The deposit banks could not hold the government money in excess of 75% of their paid-in capital. This would fuel the economy and speculation causing inflation. The last installment from this act was never paid to the states.

In July, The Specie Circular was issued dictating that government land sales could only be made in specie or Virginia Land Script. This was issued to curb the effects of the distribution act and help keep inflation in check.

During this time period England was losing gold to foreign trade. This loss was blamed mainly on trade with the United States. The Bank of England took steps to curb this cycle and the price of cotton dropped significantly. Debts in the United States that were secured by cotton became almost worthless, which was a factor in the suspension of specie payments by the state banks.

In 1836 European houses began calling loans demanding specie payments. This led to the depletion of specie from the holdings of the United States banks. This depletion, combined with the effects of the specie circular, curtailed land deals, tightened credit, and exposed questionable banking practices by the state chartered banks.

Public land sales for the three years preceding the panic:

1834—4,658,000 acres

1835—12,564,000 acres

1836—20,074,000 acres

The banks lent out notes to speculators to purchase the lands. It was then paid to the sellers who deposited it with the banks which then sent it out for new loans in a seemingly never ending cycle. The notes that

the bank lent out were a promise to pay in specie, but were actually backed by, generally, less than 10% real money.

First, in order of time as well as of importance, of the long train of events that prepared the way for the panic of 1837, was the destruction of the United States Bank, and the subsequent removal of deposits. The banks selected to receive these governmental funds immediately began to extend their loans; while the hope of obtaining a portion of the deposits led to the creation of hundreds of new banks. Merchants were tempted and invited to borrow from the banks in order to enlarge their business operations. The value of all kinds of property rose to fabulous heights. Men of limited resources, in their mad haste to be rich, bought land, city lots, and stocks. A restless spirit of adventure and daring enterprise swept the nation. Over-trading, speculation, and investments in unproductive undertakings became the dominant note in American society. The sales of public lands outstripped the wildest expectations; and as our nation paid off its debt, and began to pile up a surplus in the treasury, largely as a result of the sales of the public domain, our credit was expanded to maintain the over-action in trading. When such credit could not be secured here, the American people were confident it could be obtained abroad. Thus a large foreign indebtedness was incurred at a time when our imports were exceeding our exports (Temin 1969).

This resulted in the following events:

1. June, 1836 Act for distribution of the surplus revenue to the states.
2. Treasury's order to transfer public money from points of receipt to other areas to ready it for distribution.
3. July 11, 1836. Specie Circular issued, stating only gold and silver is to be received for sale of public lands.
4. Government is forced to make demands on deposit banks for specie.
5. Banks demanded specie from customers at a time of crop shortages.
6. The next spring banks pressed merchants as well as foreign creditors.

Money that had been readily available now suddenly became very scarce. Spurious notes issued by individuals and corporations, contrary to law, took up for the lack of small currency. This was a major problem as many could not be redeemed and the public was at a loss for the value of the notes they held. By 1839 agricultural products dropped in price due to abundant harvest and shortage of currency. This hurt the western states—Ohio, Tennessee, Illinois, Arkansas, Kentucky, Wisconsin and Michigan. Counterfeits circulated heavily, and barter became popular again. Demand notes were often redeemable for farm produce, such as horses, cows, and pigs.

There was a huge demand for coinage for everyday trade, and American greed and ingenuity helped fill this void with the largest production of counterfeit bills and coins in the history of our nation.

The Means and the Methods

It is obvious from studying these “contemporary counterfeits” that they were executed with varying degrees of skill. Some are so crude as to be laughable; others are so clever as to continue to deceive even experienced numismatists today!

Little is known about the specific origins of these coins, as very few of the counterfeiters were caught and successfully prosecuted. As one would expect, successful counterfeiters had a lot of money with which to bribe their jailers and prosecutors and, even when apprehended, seldom faced justice. All we have left to tell the tale are the coins themselves, along with the shreds of evidence we can piece together from the historical record.

Many different methods were employed to produce the bogus half dollars of the period. Among the early attempts, cast copies of soft metals were popular but easily detected. The first widely successful were those made from homemade dies. The earliest of those, made in the 1820s and early 1830s, were struck in copper, bronze, or brass, and then plated in a silver-colored chemical solution, or “wash”. Until these “coins” circulated for a while, wearing off the surface coating of silver, they were hard to detect if the dies were well made, and some of them were, as you can see from fig. 3 below.



Fig. 3. 1825 1/A

This particular coin is so well executed that an example was graded and encapsulated by PCGS in the late 1980s as AU 50. This isn't meant to be critical of PCGS, although I think that the dealer who submitted the coin meant it to be. Rather, it is a testimony to the talent of the early counterfeiter who produced the dies. You have to wonder whether some of the legitimate token and medal engravers of the time, or perhaps even a U.S. Mint engraver or employee, was doing a little moonlighting. There are those who would suggest that these dies are "too good", and that the counterfeiters somehow got hold of genuine mint hubs or dies with which to ply their illegal trade. We'll discuss this at greater length later.

Other home-made dies were not so perfect, as evidenced by the example shown in fig. 4. But as poor a rendition as this may seem to a numismatist today, these were produced in huge quantities in factory like settings, probably in Mexico, and passed successfully for many years.



Fig. 4. Bogus half struck from "homemade" dies.

One of the big technological breakthroughs which aided in the success of these factories was the invention of a new metal alloy. In 1837,

Dr. Lewis Feuchtwanger produced a metal that consisted of nickel, copper, and zinc, and suggested to Congress that his metal be substituted for copper in the manufacture of small-denomination coinage. In 1837 he produced one-cent and three-cent trial pieces in order to promote his idea of having the United States adopt this alloy as an official metal for coins. Of course, he would supply the mint with the planchets at a handsome profit. While the U.S. Mint never did employ the use of "Feuchtwanger's metal", counterfeiters certainly seized the opportunity! Cheap and easy to work with, "German Silver", as "Feuchtwanger's metal" is commonly known, is an alloy with no actual silver, but a similar weight and the look of worn silver. Die-struck bogus halves of this metal were successfully passed in large quantities during the 1830s, and into the early 1840s.

According to Don Taxay in his popular book *Counterfeit Mis-Struck and Unofficial U.S. Coins* (Taxay 1966):

Aside from gold, there are only a few major exceptions to cast counterfeiting. These are predominantly early coins, mostly bust type half dollars which have generally been struck in German Silver, a yellow-white alloy of about 55% copper, 30% zinc and 15% nickel. (In rare instances, mostly early, where the alloy is copper and silver, a superficially good color is given to the coin by pickling the blank planchet; the surface copper is thus dissolved, leaving only the fine silver).



Fig. 5. Obverse die for counterfeit half 1831 3/C.

Fig. 5 and the illustrations that follow, provide a few examples of tools and dies which were used to make bogus half dollars. These particular dies seem to be made to be struck with a heavy hammer.



Fig. 6. Actual coin struck from die shown above.



Fig. 7. The "Settlement" exhibit, Michigan Historical Museum, Lansing, MI. The actual die is an engraved steel plate, which can be seen behind the "tool". Holes in the plate were used to hold it in place in the tool while it was struck, probably with a heavy hammer. The round "blob" seen in the foreground of the photo, to the left of the tool, is a wax impression of the die, which is dated 1832.

The magnitude of the coin counterfeiting problem in this country was first brought to public attention in a book written by J.L. Riddell, *A Monograph of the Silver Dollar, Good and Bad*. Written in 1845, this book lists illustrations and assays of 37 different varieties of spurious half dollars dated 1814-1839. Several varieties of the coins illustrated in this 150 year old book are still found today.

J.L. Riddell, M.D., was a melter and refiner in the U.S. Mint at New Orleans. He was also a professor of chemistry at the medical college of Louisiana. In 1845 he published his treatise on counterfeits in an attempt to educate the public as to the serious problem of the circulating "contemporary counterfeits", the Mexican 8 real and the U.S. bust half dollar in particular. "Illustrated with fac-simile figures of four hundred and twenty-five varieties of dollars, and eighty-seven varieties of half dollars, including the genuine, the low standard, and the counterfeit; giving their weight, quality and exact value, and enabling the inexperienced to detect those which are spurious." This lengthy subtitle pretty much describes the contents of this early exposé on bogus coins.

Perhaps the most interesting of Dr. Riddell's remarks are those describing the process of making genuine dies, and how this contributed to the proliferation of coin counterfeiting in the years prior to the introduction of modern coin making technology in 1836:

It is no small labor to engrave a steel die *de novo*, in a finished style, and with a complicated design; and it is perhaps unattainable by art to counterfeit perfectly, or in other words, to produce by engraving in steel, an exact fac-simile of such a die. Hence the security of well made dies, properly guarded, against the production of spurious money.

The following, at the present day, is the most approved method of preparing dies for coinage: The artist, in the first place, engraves many of the objects to be represented on the coin upon distinct steel punches, such as the bust, figures, letters, and items that are repeated in the legend, coat of arms, &c. With these he proceeds to make female dies, similar to those used in coining, finishing the same, and adding thereto by engraving: a work altogether that for a single pair of dies, sometimes occupies many months. When completed, the steel is hardened, and thus is made a pair of original dies. The impressions are then communicated by great pressure, careful annealing, pressure again, the pressing and annealing being successively many times repeated, until the whole designs are perfectly transferred, resembling in steel the coins to be formed. Thus a pair of king dies to be used

in stamping gold or silver. The impression in the female dies having been made perfect, a steel punch is used to add probably the last figure of the date, and another punch perhaps for a mint mark. The whole surface of the female dies is then ground very slightly convex and polished; after which they are hardened and again polished.

It may be inferred from their coins for the last forty years, that the French and English pursue the foregoing plan or others equally systematic. Those coins are very rarely counterfeited. The mint of the United States has also pursued a like regular system in the production of dies since the year 1836, although there have occasionally been changes in the original dies. It is hence easy to detect any counterfeits of the coins dated since. Previous to that date the dies were much more irregularly produced, and as a consequence many counterfeits, especially of the Half Dollar, have been made and put in circulation, which the ordinary observer cannot well distinguish from those which are good.

The coins of Mexico are particularly obnoxious to this fault. There are seven Mexican mints, each of which uses differently made dies; and in the same mint the dies seem to have often been arbitrarily changed.

Their working dies seem to be made directly from steel punches, for while among many coins many similar items can be identified, their relative position varies somewhat. Perhaps no coin has ever been more extensively and variously counterfeited, during the same length of time, than the Mexican Dollar. This could not have been done, had similarity and regularity prevailed in the dies with which they have been stamped.

The dies used in stamping the coins of the United States at the present time, though very fair, might yet be materially improved, so as to give additional security against a spurious circulation. The very highest order of the die sinking art, should be put in requisition for the production of a series of original dies, which should be adhered to for a long

and definite term of years; when, if desirable, they might give place to another series of dies equally elaborate and perfect. The strictest uniformity should also be maintained in respect to the diameter, thickness, and finish of the coins.

It is easy to see by Riddell's comments that it was not only the large variety of foreign and domestic coin types in circulation at that time which confused the public, providing fertile ground for counterfeiters, but it was also the amount of variety in genuine dies of a single coin type!

Mexican dollars make up a principal part of the specie circulation of this country. Of these, as generally met with, about one in one hundred is counterfeit, and sometimes the proportion is very much greater. The great number of different stamps (dies) borne by the good Mexican dollars, renders the detection of the bad ones, ordinarily, rather difficult (Riddell 1845).

While die variety collectors of today are thankful for this lack of perfect uniformity in Bust Half Dollar dies prior to 1836, so were the counterfeiters!

Means of detection of counterfeit coins were most important to the merchants of the early- to mid-nineteenth century who were being constantly swindled by bogus money. W.E. Dubois, Assayer of the U.S. Mint, Philadelphia, offered the following advice in the *Daily Press*, Jan. 25, 1877:

The genuineness of a half-dollar is something worth looking after, to any of us, and especially to a storekeeper, taking them often through the day. It is, therefore, worth the trouble to have on the counter one or two witnesses easy to be had.

First a balance—which need be no more than a thin strip of wood, eight or ten inches long neatly poised. Place a good piece on one end and the suspected piece on the other and have a weight of three grains at hand; if the difference is more than that decline taking the piece.

Second, a liquid test composed as follows, twenty-four grains of nitrate of silver in crystals, one gramme (say 15

grains) of nitric acid and one ounce of water. Any druggist can put this up in a small bottle with a pointed glass stopper made for lifting drops, taking care to use pure ingredients. Remove a little of the surface of the coin by a knife and then touch the place with a drop from the stopper. If good there will be no action, if bad it will blacken at once.

As for pieces struck from dies, they are generally such poor imitations that the taken almost deserves to lose by them. The writer has chosen to speak mainly of the half dollar, because these are chiefly complained of, and the lesser pieces are less likely to be imitated. Still some men seem to take a pride in this despicable work, even if it yield a small profit. In the long run counterfeiters are never enriched and their sequel is generally in prison walls.

Riddell's assays of dozens of bogus half dollars yielded the following observations as to methods of manufacturing:

Most counterfeit coins will be found to belong to one of the two following classes: 1st, Those which have been produced by impressions with steel dies. 2nd, Those which have been formed in molds of plaster, lead, type metal or fusible metal, either by casting, or by the deposition of metal under the influence of galvanism.

1st. Those that are coined by means of dies.

Except in a few rare instances where the authentic dies have been stolen, these coins can be detected by comparison with the genuine coin, or a facsimile print thereof, as given in this work. The material commonly used is a debased alloy of silver or gold; silver being combined with an undue proportion of copper, to which is sometimes added zinc, tin, nickel, &c., to improve the color. In cases where the alloy is copper and silver, a good color externally is given to the coin by scrubbing it in aqua ammonia, or boiling it in diluted sulfuric acid, or some other pickling menstruum, which dissolves away the copper and leaves the fine silver. In this way, counterfeits of good appearance are made, which are

sonorous, like the genuine coin. They usually range in composition from 150-1000ths to 750-1000ths of fine silver, while genuine Dollar silver has a fineness not far from 900-1000ths. Many of these counterfeits may be detected by cutting or rubbing as the copper thereby becomes apparent. The energetic action of nitric acid when applied, affords also instructive indications. But the varieties more rich in silver are not thus to be easily distinguished. A careful comparison of stamps is then to be chiefly relied upon. If these false coins are not too bulky (too large in thickness or diameter), they are necessarily too light; for silver has a higher specific gravity than copper, and the more coppery an alloy of the two metals is made, the lighter does it become. According to Eckfeldt and Dubois, (*Manual of Coins and Bullion*, page 185,) fine or pure silver hammered has a density compared with distilled water as unity of

	10.55
Alloyed with copper, and 900-1000ths fine,	10.30
“ : 800	10.14
“ : 750	10.05
“ : 700	9.96
“ : 650	9.88
“ : 600	9.80
“ : 550	9.71
“ : 500	9.64
Copper,	8.80

Hence, by obtaining the specific gravity of a sonorous silver coin, (directions for doing which may be found in all treatises upon chemistry and natural philosophy,) we may conjecture pretty closely as to the proportion of silver it contains.

2nd. Spurious Coins made in moulds of plaster, lead, type or fusible metal.

Coins thus made are usually perfect fac-similes of the genuine coins from which they are patterned. The following seems to be one of the villainous plans frequently put in exe-

cution. A complete plaster cast is taken from a coin, after the manner in which stereotyping is performed. This is moderately backed and adjusted into a mould into which some alloy of lead, antimony, tin, zinc, & c., analogous to type-metal, is poured in a melted state. When cold, the cast is removed, finished up, and sometimes nicely silvered over. These alloys are too soft, and usually too light, and cannot be made to ring like the genuine coins. Hence they are easy to be detected.

Of late years the curious powers of galvanism have been pressed into the service of counterfeiters. It is probable they first compress the coin into lead, or semifluid fusible metal, to procure accurate types of their business. Upon the types thus formed copper is deposited, under the well known influence of a galvanic current, adapting itself to the most delicate features of the types. When the copper has attained sufficient thickness it is removed from the types, finished up, and the two sides brazed or soldered together, so as to imitate the original coins. Afterwards the whole is delicately silvered over by the same potent means, galvanism. I have seen spurious coins of this sort, that seem to have been deposited in a mould all at one operation, as there were no signs of soldering apparent.

The coins of galvanic production are usually much too light. A person moderately conversant with hard money would instantly perceive the deficiency in weight by merely handling them. It is true the color might be good, and the impression genuine; but a slight cut or scratch would bring to light the copper, and a close inspection, especially with a magnifying glass, would reveal the cheat, by presenting the fine and sharp lines and corners of the impression rounded, blunted, and perhaps partially obliterated, by the deposition thereon of the silver.



Fig. 8. Examples of cast counterfeits.

Evidence and Suspicion

The Historic Relics

The counterfeiters of the past have left only their handiwork for us to study. There are no minting records or other documents of their manufacture for our study. This leaves us to gather all our knowledge from the “coins” themselves and the limited contemporary accounts of their activities. Keith Davignon, in his book, *Contemporary Counterfeit Capped Bust Half Dollars*, assembles some of the counterfeits into groups based on their similar characteristics. He theorizes that each of the counterfeits in that group were made by the same minter. The majority of the die varieties for the counterfeits were made from rather crude imitations of the originals. These crude attempts, although accounting for many die varieties, actually are responsible for a minority of the extant specimens. They were generally made in much smaller quantities than the varieties we would like to review. The following groups were selected due to their similarities to each other and the fact that, for some of the varieties, there are numerous surviving specimens.

This large population, and uniform appearance, suggest a more sophisticated counterfeiting operation. These pieces could not be produced by the casual counterfeiter working in a cave, or his basement, with basic tools. We have to look at the possibility that the counterfeiter had access to modern (for the time period) minting machinery and had specific knowledge of the process of creating dies. Our conclusion is that some of the counterfeiters had to be trained in the art of die production. This would lead us to believe that someone who worked at the Mint, or a contemporary token manufacturer, was involved in producing base metal coinage for circulation. Following our assumptions that the counterfeiters were made on, or near, the dates they display we will try and narrow our thoughts as to who may have been responsible for some of these unique collectibles.



Fig. 9. 1823 1/A Obverse.

Fig. 10. Common Reverse
for the "Top Gun"
Counterfeits.

Fig. 11. 1825 1/A Obverse.

The first group we studied was the "Top Gun" counterfeiters of 1822 1/A, 1823 1/A, and the 1825 1/A. These are some of the best counterfeit half dollars ever produced. Some have often been mistaken for the real item by collectors, dealers, and yes, even a slabbing service. The 1823 1/A has also often been mistaken by collectors and dealers for a pattern, or trial strike by the Mint. This has been proved false by research done in the 1970's by Stew Witham, which will be discussed in detail in the last section of this paper. The 1823 is also one of the most plentiful of all the varieties of the counterfeit halves. This would suggest that the manufacturer had access to die steel nearly equal to that of the Mint. A closer study of the three varieties suggests something else more sinister in nature. The central devices of each of the three pieces

is the same. This proves that the minter used a hub to create his working dies. The hubbing process required the pressure of a screw press to fully sink the design of the hub into the working dies. The striking qualities of the known examples further suggests that a screw press was used in the manufacture of the counterfeits. A study of the numeral punches also reveals that they are the same for each of the three varieties, virtually proving that they were made by the same hand. Further comparisons of the numerals with ones from original coins shows no similarities between the counterfeits and the Mint punches. The only persons with access to a screw press with enough tonnage to complete the hubbing tasks would be workers at the Mint and medal manufacturers.

Russell Rulau of Krause Publications has provided a short listing of the diesinkers active in the U.S. during this time period. They include: Robert Lovett Sr., Pelletreau Bennett & Cooke, Richard Trested, and Charles Cushing Wright, all of New York, J.M.L. Scovill of Waterbury, Conn., and John S. Warner of Philadelphia. Could one of them been involved with the manufacture of these nefarious pieces? Or, could it have been someone more intimately involved with the Mint? Remember, John Reich had left the Mint's employ only a few years earlier in 1817. Rumor had it that he was not at all happy with his treatment during his tenure. His salary had not increased in the 10 years of his employ. Could he have thought that the country owed him something? Who better knew the nuts and bolts operations of the Mint and the artistry of the half dollar itself? In Reich's defense, Stew Witham speculates in his book, *Johann Matthäus Reich, Also Known as John Reich* (Witham 1993), that he left the Mint's employ due to his failing eyesight. Witham believed that he could no longer produce the quality of work fast enough for the demands of the position. He cited Reich's failure in producing the Decatur medal for the Secretary of the Navy in 1817 and his subsequent letter to the Secretary explaining his failing eyesight. Could Reich have, with the aid of magnification and time, produced just one more hub of his beloved design? We have always found it strange that a figure as influential as Reich was to our early coinage could have just disappeared for the last decade or so of his life leaving us no knowledge of his employment or demise.

Another possible suspect, Moritz Fürst, would have to be added to the list. Fürst was an accomplished engraver competing for a job at the U.S. Mint. He arrived in the U.S. after Reich had been hired as the Assistant Engraver, and was passed over for William Kneass and Christian Gobrecht later in his career. He made a living as a medal and seal engraver with the U.S. Government offices of the War and Navy Departments as his largest clients. He replaced Reich as the engraver for the award medals issued for commanders from the War of 1812. These medals were completed in 1824, leaving a void in Fürst's income. Neuzil, in his paper, "A Reckoning of Moritz Fürst's American Medals" (Neuzil 1999), details Fürst's income and lifestyle showing him in constant debt. Even though Fürst earned much more than the average citizen, even substantially more than Reich as the Assistant Engraver, he managed to live beyond his means. Could this have prompted him to create dies for the half dollar equal to Reich's own? Did Fürst hold a grudge against the U.S. Mint for not employing him before his return to Europe in 1840? This was probably not the case as there is a lack of quality counterfeits from the 1825 to the 1832 date range. Only careful study of the punches Fürst used in creating his medals comparing them to the "Top Gun" counterfeits could prove his possible involvement.



Fig. 12. Ron Landis reproduction 1796 Half Dollar Obverse.



Fig. 13. Original 1796 Half Dollar, courtesy of ANS.

Drawing from modern day events we have to look more closely at the possibility of one of the token and medal makers of the day. Ron Landis, of the Gallery Mint Museum, today creates some wonderful replicas of our early coinages. His talents equal those of the early

engravers, and his products, produced in the same manner of the original coinages, could easily be confused with the originals. We think that one of these merchants would have had the opportunity, knowledge and equipment necessary to produce these well made counterfeits. They would have had no reason to conceal the minting equipment, and its use would have drawn no suspicion. Future research into the punches used in the manufacture of the counterfeits and the ones represented on the tokens and medals of these manufactures may lead to more clues as to their possible involvement.



Fig. 14. 1833 1/A Obverse, note test scratches in field.



Fig. 15. Common Reverse for all the "Too Legit To Quit" varieties except 1838 3/E.



Fig. 16. 1837 2/B Obverse.

The next die group to be studied was Davignon's "Too Legit To Quit" varieties. These counterfeits are tied together by the use of a common reverse on 4 of the 5 varieties. Included in this group is Davignon 1833 1/A, 1836 5/E, 1837 2/B, 1838 3/C, and 1838 3/E. The 1838 3/E is the lone piece with a different reverse than the others. Close examination of the central device again reveals that the working dies were prepared from a hub. The E in LIBERTY is tilted identically with a clockwise rotation on all the pieces. The 3 punch in the date is also the same for each die in this group. The reverses also exhibit the same punches for the denomination. One of the most interesting oddities for these varieties is the fact that the 1837 and 1838 dated coins still exhibit the lettered edge that the Mint discontinued in 1836! Many of these varieties have also been misrepresented in the collecting community as experimental or die trial pieces.

Again, as with the previous group, the manufacture of these pieces suggests the use of a screw press and the knowledge of an experienced

die sinker. These varieties are also the most plentiful of all the counterfeits suggesting a large mintage and wide circulation. The manufacturer of these counterfeits enjoyed much success and wealth from his illicit activities.

The known die sinkers of this era as provided by Russell Rulau include: Z. Bisbee Co. of Cincinnati OH, Bale & Smith, Edward Hulseman, Robert Lovett Sr., James G. Moffet, Frederick B. Smith, and Charles Cushing Wright all of New York, Belleville Mint, Bellevue NJ, Benedict & Burnham, and Scovill Mfg. Co., both of Waterbury Conn., Shubael D. Childs, Chicago IL, Alexander C. Morin, and John S. Warner of Philadelphia PA, H.M. & E.I. Richards, Attleboro, Mass., and Benjamin C. True, Albany, NY. Mr. Rulau also suggests that any good metalsmith was capable of engraving the dies, but would likely lack the presses needed to strike the coins. We are sure that some of the more crudely engraved and manufactured pieces represented in Davignon's book are the products of some of these metalworkers, but evidence suggests they were incapable of the manufacturing methods needed to mass produce the better varieties.



Fig. 17. 1830 1/A Obverse. Note that this piece was double struck by the counterfeiter. Was this intentional to improve on a weak first strike, or did the counterfeiters have the same mechanical failures that sometimes occurred at the U.S. Mint?



Fig. 18. Common reverse of the "Ski-nose" varieties, again note the double striking.



Fig. 19. Obverse of the 1829 1/A. Note the hole which is commonly found on counterfeits.

The next die group is the "Ski-nose" varieties of 1829, 1830, and 1831. All three years are represented by the variety designation 1/A. These varieties are relatively common as the counterfeits go which sug-

gests a rather large mintage. Study of these pieces also shows that the images are hubbed as they are identical for each piece. Again, there are no clues as to who produced these pieces, or where they were originally circulated. Research by token collectors may yet provide some clues as to their origin.



Fig. 20. 1832 Obverse 2/B. Fig. 21. 1832 Obverse 3/B. Fig. 22. 1832 3/B Reverse.



Fig. 23. 1832 3/C Obverse. Fig. 24. 1832 10/J Obverse.

The last group studied revealed the most interesting similarities and raised the most startling questions. This group of counterfeits include the following varieties all dated 1832: 2/B, 3/B, 3/C, 10/J, and 13/M. Our study shows that all the working dies were prepared from a single hub. The reverses also were produced from the same eagle hub. The numeral punches used in the date are all identical. The most alarming thing is that the hubs and the numeral punches all match those used in the U.S. Mint! The obverse hub is the same as the 7th hub used in the production of original half dollar dies at the U.S. Mint from sometime in 1832 through 1834. This was the current hub, not one that was obsolete. How could this happen? Was someone at the Mint actually a midnight counterfeiter? Remember, the Mint was changing locations in 1832, moving to their new building beginning in January of 1833. The process of changing locations after four decades must have been some-

what chaotic. Could someone have liberated the hubs for a limited time to produce the counterfeit dies? The problem is that the hub would have been one of the most valuable items in the Mint's inventory and would have been kept under lock and key. Also, the fact that the numeral punches in the dates match suggests that someone in a position of influence was involved in the manufacture of the counterfeits. The letter punches for the reverse differ not only between the counterfeits, but also from the Mint products. The dentils are also not the same as those found on the original coins. One interesting side note: in studying the dentils we decided to count the quantity on the counterfeits to see if they matched the number on the originals. David Finkelstein notes in his April 1994 *John Reich Journal* article, "Obverse Die Dentil Analysis, Part 2-Capped Bust Halves, 1820-1836", that all dies prepared for 1832 had 110 obverse dentils. The 1832 3/B we found had 123 dentils and the 3/C had 129! This proves that the two obverses are actually different dies! Most of the stars, when charted as to their dentil relationships, were found to be positioned almost in the same relationships. The only noticeable differences are stars 8 and 13. This will change the variety designations for these two counterfeits.



Fig. 25. Obverse 3a, 123 dentils.



Fig. 26. Obverse 3b, 129 dentils.

This evidence of differing letter punches and dentils leads us to believe that the counterfeits were actually produced outside the Mint. Our suspicions again rest with the medal and token manufacturers of the time period. Our findings that the devices were made from actual Mint hubs leads us to the suspicion that one of the Philadelphia medalists would be the most likely candidate for collusion with one of the Mint officials. Our hope is that someone in the exnomia field will pick up on our study and try and identify a fingerprint linking one of

the letter punches found on the counterfeit halves and one found on a medal or token issued by one of the local die sinkers.



Fig. 27. Obverse of authentic half, Overton 103, flanked by counterfeit obs. 2 and 3.



Fig. 28. Counterfeit reverse B of 1832.

Fig. 29. Authentic reverse of Overton 103 for 1832.

In the Paul Bosco numismatic quarterly (fall/winter 1983) the writer suggests:

...in the 1830's the only significant uses of nickel in coin forgery rest with two coin types; Mexican 8 reales and U.S. 50 cents. The latter are struck from crudely engraved dies. Although scarce, they are wide-spread enough, and come with various dates. They are too frequent and some too sophisticated to have been made by some farmer; it's just possible that the crudeness of die work was a ruse to deflect attention from a known manufacturer of (well-executed) tokens. Comparably crude 8-reales are not found.

Some may think it ridiculous to think that genuine Mint hubs or dies may have been somehow used in the manufacture of base coinage. But besides the evidence presented above, which was obtained by Brad Karoleff from the coins themselves, there is much other historical evi-

dence to suggest that this was not only possible, but likely.

Taxay writes:

If we are to be faithful to history, we should also mention a series of very dangerous struck counterfeits which first became known in the 1840's. From the description of these pieces given by the U.S. assayers Eckfeldt and DuBois in their "Coins, Coinage and Bullion," 1851, it is obvious (despite the plaintive denials of the authors) that the spurious dies were sunk from hubs which, in turn, had been made from genuine U.S. dies, secreted or otherwise removed from the mint (Taxay 1963).

On page 44 of his book (Taxay 1963), Taxay Presents a "Rogues' Gallery" of bogus half dollars. Regarding one particular 1833 piece, he states:

1833. A liberty and eagle so perfectly executed as to necessitate their having been "hubbed" into the dies. The border areas, by contrast, are very crude, and the entire date, plus two stars, is heavily recut. ...Eckfeldt and DuBois, unable to account for the perfection of detail in the above counterfeits, assumed that the dies had been transferred from genuine U.S. coins by means of some mechanical process. They did not venture to explain the process, and it is just as well, since no transfer engraving machine, either in their time or in our own, could reproduce models at a one-to-one ratio without a great deal of fine detail being lost. This is the reason that models many times actual coin size are used on the Janvier to produce a hub.

As previously suggested, one of the ways which dies or hubs could have left the Mint would be a Mint employee, on his own, or in cahoots with a local medallist. There is a second quite possible scenario. While security of bullion and current working hubs and dies at the early Mint was no doubt strict, outdated or broken dies were treated literally like scrap iron.

Some of the restrikes were made from genuine mint dies outside the mint. In the early period of the mint, it had

been the custom to sell the dies which has passed their usefulness at the close of the year for old iron. Apparently, it had not occurred to the authorities that the dies would be used for making restrikes (Kosoff 1982).

Charles K. Warner, the veteran Philadelphia medallist writes, in a letter to *The Numismatist* magazine, December 1910 (cited in Taxay 1963):

I have at times in the past promised to write you something regarding my boyhood days around the old mint building, which still stands on the east side of Seventh street and which was pictured and featured in the January and February *Numismatist* of this year.

My father, the late John S. Warner, who from 1823 to 1868 was the oldest established medallist in the United States, was well acquainted with a certain William Sellers who for many years conducted the business of a silversmith in the old mint building. He occupied the entire first floor and a greater part of the basement. In the latter part of 1857, Mr. Sellers gave to my father a large number of old coin dies which were a part of a great lot of both obverse and reverse dies for all the silver and copper denominations that Sellers found in the old building when he first occupied it years before. It was stated at that time that these were found among general rubbish when the basement was cleaned. Most of the dies were considerably rusted, chipped on the edges, or cracked across the face. My father having no use for the old dies gave them to a particular friend of his, the then Chief Coiner of the mint, which was then located in Chestnut street near Broad.

As a lad I frequently visited the old mint building on errands to Mr. Sellers for my father and often played about the building with a son of Sellers, who was about my age. I well remember the old vault. I could easily have explored the vault, and no doubt could have found many things which, if preserved, would be of great interest today, but lad that I was, I had no interest in such things.

Lynn Glaser, in his *Counterfeiting in America* (Glaser 1968), also speculates on this intriguing possibility:

Most of the counterfeits, which fall around the 1830's have ludicrous portraits of liberty, are irregular in size, and ring poorly. There is evidence that they were made in Mexico. There is one remarkable exception. It is a half dollar of 1833 with both obverse and reverse dies so perfectly executed that they could not have been made in any other manner than by having the devices hubbed in from genuine United States Mint matrixes!

Dies did often leave the Mint. Old worn dies were commonly sold as scrap in the early days! A number of them were preserved by numismatists, who occasionally struck them to produce bizarre oddities. In view of this history of cavalier protection of dies at the Mint in those days, it is not unlikely that some of the hubs or dies could have fallen into the hands of counterfeiters. During the early years there was at least one attempt to steal actual coining dies from the Mint. In 1795 an attempt resulted in the arrest of William Hodgins and Charles McNear, but they escaped indictment because of insufficient evidence.

It is unclear which dies Mr. Hodgins and Mr. McNear attempted to steal in 1795, or whether their attempts were successful, but it is possible that this heist was related to a conspiracy to counterfeit U.S. Dollar coins which was discovered in 1799 in what was then the Northwest Territory:

Marietta, Territory N. West of the Ohio
Sirs,

We the Subscribers, Justices of the Peace for the County of Washington in said Territory, take the liberty to inform you, that a certain person who calls himself Charles Maynor was arrested and brought before us this day for examination on a charge of counterfeiting and of aiding and assisting in counterfeiting the current Coins of the United States, Bills of the Bank of the United States, and the other Banks established by law in the United States, and of uttering and pub-

lishing the same as true.

It appeared on the examination that the prisoner had confessed to one or two persons (in order to induce them to join him in his scheme) that a combination was formed consisting of persons in different parts of the United States, for counterfeiting Dollars coined by the United States, and Bills of the Bank of the United States: That two sets of instruments for coining Dollars were taken out of the Mint about two years since (as the witness believes) by a Goldsmith of New York, who was engaged by the party to procure them, that the Goldsmith was detected and one set of the Instruments regained through the information of a Woman in New York, and that the Goldsmith was confined in prison for the crime - that the dollars and Bank Bills were made on the South end of Long Island, at a place called Sandy Point, by a person by the name of Swan, and two persons of the name of Crane, thence circulated to different parts of the Continent.

That a certain Rankins, or Sankins, who kept a Tavern in or near New York at the sign of the Blue Bell was concerned, and also a Col. Eames keeping the White Horse in Boston, also one John C. Fox of the Genesee Country, and one Hard, or Hird, who (as the prisoner said) had gone to Charleston So. Carolina with a large sum of the money. It appeared that the prisoner had further said, that the Bank of the United States had received within one or two years past (according to the best recollection of the Witness) thirty thousand dollars.

The Witness above referred to having informed the prisoner that he intended soon to go to New England, the prisoner told him that the Witness might receive any quantities of the money at Eames' in Boston, sign of the White Horse before mentioned. It appeared further that the prisoner had confessed he had a partner in this Country, a certain Doct. Mursey or Munson of New Haven, Connecticut with whom he had performed a journey last spring or summer up

the Allegheny River and disposed of a considerable quantity of their paper and silver for goods which they lost by accident in coming down the River, that he had left his partner the Doct. a few days since, and came down to this place to sound the Inhabitants to find whether they might venture to put off of this money here, but found it was not safe to attempt it, that in going into the Country a few miles from the Ohio he had left a letter for the Doct. who soon after came to this place, received the letter & left word for the prisoner that he should go to the mouth of the Scioto, where he would wait for the prisoner twelve days and that the Doct. has gone down the River having with him one set of the coining instruments taken from the Mint, and about six thousand Dollars of counterfeit money.

A person of the Doctrs' description did in fact pass this place at the time stated by the Prisoner and inquired for him. Information has since been sent to the Justice below in order to have him arrested. The above are the most material facts related in this affair, as furnishing a clue to a general detection of the plot, if any exists. We have no Statute of this Territory against counterfeiting Coin and can find none enacted by Congress.

The Law on which the prisoner must be convicted here (if convicted at all) is the law for punishing frauds on the Bank of the United States. Or a clause against forgery in the penal laws of this Territory.

However as there is little (if any) proof that the prisoner has been guilty of any of the crimes laid to his charge within this Territory we doubt whether he can be tried and convicted here.

As however by the laws of this Territory we have power only to bind over the prisoner to trial in the General Court of Quarter Sessions in the Territory, we have concluded to require of the prisoner a recognizance in the usual form for his appearance at the next term of the General Court of this Territory, rather than the Circuit or district Court of Pennsylvania where he might more probably be convicted.

Should it be thought proper, the prisoner might be removed by Habeas Corpus from our prison to one of the prisons in the District of Pennsylvania or elsewhere.

We are, Sir, with the greatest respect your most obedient humble servants,

Dudley Woodbridge

Josiah Munro

Wm. Rufus Putnam

Griffin Greene

Ephram Cutler

Justices of the peace for the County of Washington

Marietta, 19th April, 1799

Department of State, 6 May 1799

Sir,

I have the honor to enclose to you a copy of a letter received from the Justices of the Peace for Washington County in the Northwestern Territory, containing information, which, if true, manifests an extensive project for defrauding the Banks and the public. I shall transmit copies of it to the Attornies for the District of Massachusetts, New York, and South Carolina, with instructions to use their best endeavor to ascertain and arrest the offenders, concerned in the scheme alluded to, who may be found in their respective Districts. In the meantime I must request, that any communications you may judge it necessary to make, in order to protect the Banks against the fraud, may be accompanied with injunctions of secrecy, until the event of the intended efforts to make a further discovery and to arrest the offenders shall be known.

I am, Sir, very respectfully

Your most obedient servant

Timothy Pickering

Letter from Timothy Pickering, Secretary of State, to
Thomas Willing Esq.,

President of the Bank of the United States.

Additional evidence exists to support this report of a conspiracy to remove dies from the U.S. Mint. Mint Director Henry De Saussure reported to President Washington on October 27, 1795:

Permit me, sir, to suggest the necessity of protecting laws for the coinage. I understand that none of the laws of Congress have provided any penalties for the various offences which may be committed against the coinage. In most countries, strict laws are enacted, prohibiting the interference of individuals in this attribute of the sovereignty; and, in some, the very possession of dies, or presses, or other implements essential in the coinage, is made criminal. In this country, mints are said to be boldly erected at Baltimore, and elsewhere, professedly to imitate the coins of foreign countries, and to furnish a debased gold coin for the West Indies markets; and so much of the gold bullion which would be brought to the national mint, is carried to these private establishments, which degrade our national character. Encouraged by this negligence of Government, men have carried their ideas farther; and there is too much reason to fear, that a recent attempt at our dies and other implements was made with nefarious views.

De Saussure also points out in his report to the President that he has some serious concerns about security at the mint:

Amongst the unpleasant circumstances which attend the contracted scale on which the mint has been erected, there is one of very serious import. The owner of a small lot adjoining the mint, has a right of passage through the interior lots of the mint. This exposes the works to improper intrusion, and prevents the complete control over the workmen, which is essential to the well ordering of the business. A small sum of money would have purchased that lot some time ago. I believe it may still be had, reasonably.

De Saussure's successor, Elias Boudinot, had more to say about the lack of laws protecting the mint from such attempts to steal dies and hubs for the production of counterfeits in his first report to the

President in December, 1795:

The stealing of the dies, hubbs, milling stamps, screws, presses, or other instruments used in the coinage, as well as the taking, receiving, adulterating, or secreting, the metals kept in, or belonging to, the mint, call for special provision from the Legislature of the United States. The Director is sorry to say, that his observations are justified by facts that have already happened at the mint.

We were unable to locate any surviving specimens of late eighteenth century base coinage of United States dollar coins, made from genuine dies, which would have provided us with evidence that this particular conspiracy was successful, but there is at least one other example of counterfeit coinage from genuine dies which lends further credence to our theory. J.L.Riddell, melter and refiner of the New Orleans Mint, believed that certain circulating counterfeits of Mexican Dollars which had been showing up in deposits of silver for coinage at the United States Mint in New Orleans, were made from genuine dies. Riddell remarked on June 16th, 1845:

After a careful inspection and comparison of...the Durango dollars; and the Guanaxuato dollars, (Durango & Guanaxuato Mints, Mexico) I am induced to entertain the following opinion: that at least one pair of dies, (king dies perhaps)...has been removed from the mint of Guanaxuato, and made subservient to the production of base coinage, ... and that there has probably been a similar removal and prostitution of one or two pairs of dies from the Mint of Durango. It can hardly be supposed that base and fraudulent money would be manufactured systematically in those mints, the great majority of whose Dollars stand so deservedly fair; and since, therefore, the impressions alluded to, appear genuine, it seems probable that the dies were abstracted.

In response to Dr. Riddell's request for information, Dr. Wm. P. Hort, Assayer, replied:

Branch Mint, New Orleans

16th June, 1845

Sir, I have read your note of this day's date. I have much pleasure in imparting whatever information I possess relative to the subject matter of your inquiry...more or less counterfeits were found in almost every deposit; and some were so admirably well executed as to render their detection impossible without an assay. These I considered as debased or depreciated coins, not properly counterfeit. They were, at the time referred to, very abundant in this city. My opinion was confirmed by a gentleman who had resided many years in Mexico, who informed me that the old dies could be purchased at certain Mints, remote from the Capital; that they were sent to Europe, where new dies (fac-similes) were manufactured, and that with the dies so procured, dollars were stamped, and an immense number thrown into circulation. There is reason to believe that this information was correct, for a communication on the subject, which I had inserted in one of our daily papers, attracted the attention of the Mexican Consul here, who apprised his Government of it. Shortly after, a proclamation of the subject issued from the Government of Mexico, and since that time the particular dollars of which I have been speaking, have become comparatively rare.

Truly yours,

Wm. P. Hort, Assayer

We have the strong evidence of the coins themselves to support the theory that genuine Mint hubs or dies were somehow procured and used by counterfeiters in the production of bogus half dollars. That token or medal manufacturers of the time were somehow involved appears likely, though the conclusive link between the two has yet to be found.

Who Were the Counterfeiters?

In discussing the large quantity of contemporary counterfeit bust half dollars which survive to this day, the question most difficult to answer is, "Where did they come from and exactly who made them?"

The answer handed down through the years which has become accepted as gospel is that most of them came from Mexico. There is, however, little hard evidence offered to support this theory. Research into early nineteenth century court records, newspapers, and literature of that time period, has unearthed some evidence as to their true origins, and accounts of the capture and prosecution of some of the culprits has been discovered. Some did originate in Mexico, and in the U.S., and Canada, and elsewhere, including Europe. The sheer quantity of different surviving varieties displays a tremendous range in engraving talents. When you add to this the various base metal alloys seen, and examine the evidence uncovered, it suggests a variety of sources, Mexico included. By basing operations in Mexico or Canada, there was much less risk, as these governments cared little about counterfeits of foreign coins and currency.

One of the first recorded Canadian counterfeiting cases arose when Canada was barely five months old. On November 27, 1867, three brothers named John, Michael, and Nurtagh Tierney, and a friend Daniel Buckley were busily occupied at a farmhouse near Ottawa making American half dollar coins. When police arrived they found 500 pieces of liberty seated half dollars, together with dies, presses, molds, matrixes, tools, machines and five tons of metal (Aaron 1975, 26).

I remained in Canada during most of that winter, visiting several of the important towns in Western Canada, adding many names to the list of my acquaintances, who were of the same order as myself, and in whose society I spent my time, and among them made my home.

At this time, in St. Catherine's, there was a gang of counterfeiters making United States money, so I took a hand in

it; not in the making, but in disposing of it, effecting some sales as traveling agent through the state of New York.

“The Life of Sile Doty”

(Winter 1836)

Court cases abound with the stories of the smuggling of counterfeit coins and currency from abroad. But there is no lack of evidence of purely American conspirators in this pursuit either:

In 1842 the Mint assayers said of coin counterfeiters: “Prosecutions in this part of the country (Philadelphia) are not frequent, nor are spurious coins abundant; but in the southern and western states the case is different. We read continually of organized hordes of deprecators upon the currency, and of the diffusion of ‘bogus money’ throughout the Great Valley of the Mississippi.” The circulation of American Dollars was at that time so small that it received little attention from the counterfeiters, but our large coinage of half dollars was extensively imitated in base metal. (Glaser 1968, 227-231).

An old newspaper clipping from John Kovach, Kinsman, Ohio:

Counterfeit Coin

G.S. Brainard of Burghill, dropped in the other day, to show us one of those counterfeit half dollars, made in Gustavus in the 1830's. His is dated 1832, has the Liberty head on one side and American Eagle on the other. As the counterfeiting story came down to George S. from his grandfather, Lorenzo Brainard, the man who made the spurious coins was named Kellogg, and when about to be “caught”, he destroyed the evidence by dumping the coins on hand and his counterfeiting equipment into a pond or a well in his back yard in Gustavus.

Or this 1834 article from the Portland (Maine) *Advisor* (research courtesy of Ken Cable):

Counterfeiters. — We learn through one of the Stage drivers that a nest of counterfeiters has been discovered in

Rumford, Oxford co. We give the facts as we heard them related. Two young men last week purchased hats at Augusta for which they paid half dollars; the next day they were found to be counterfeit, but so well executed that they could be detected only by weighing. Pursuit was immediately made for the young men, and they were traced to Rumford, where from information obtained of a person concerned in this business, a cave was found in the mountains, very difficult of access, in which from 20 to 30 persons were busily engaged in coining spurious half dollars! The number of persons was found to be so large that the party thought it most prudent to return and increase their forces, and on again visiting the cave, the men had escaped, leaving their tools and money, and their fires burning. Five or six of the gang have since been apprehended.

Since the above was in type, we have seen a letter from Hallowell, which states that counterfeit money had been passed there, and that five of the counterfeiters had been arrested; these are probable (*sic*) part of the same gang. — Portland Adv.

Organized counterfeit rings were comparable to the illicit drug smuggling cartels of today. Intricate networks were set up within regions, with “safehouses” to be found in almost every community for gang members on the run.

It took me but a short time to become well acquainted with all the villains in Clinton, Tecumseh, Adrian, Blissfield, and soon in Toledo, Detroit, and as far west as Chicago; the Kankakee River country, Fort Wayne, Noble and Lagrange Counties in Indiana, and all the places in Southern Michigan; east, to Milan, Norwalk, Cleveland, and as far as Ashtabula.

I found that a very inefficient ring had been formed between these places, by our class of men; but so imperfect was its workings that it did but little. I immediately took the matter in hand, and as near as possible, brought it up to my standard of doing and thinking, extending the ring south,

into Indiana, along the Wabash River.

This organization consisted of every possible grade of a mean rascal - thieves, counterfeiters, burglars and highwaymen - who were guilty of every act, that could be called crime, under the law. Over this immense body of men I was head chief, and ruled with an iron will. When I said do this or that, it was done.

“The Life of Sile Doty”
(Spring, 1834)

Sometimes, a member of a gang would be caught and confess to authorities, giving them the names of others involved in the operation, in return for a lighter sentence; sort of an early version of plea bargaining, as in the following account (from the Duke University Special Collections Library, James Martin Bell Papers, 1768-1870):

To His Excellency J. Andrew Schulze, Governor of the Commonwealth of Pennsylvania

Sir,

A man named Jonathan Border, one of the members of a numerous and very extensive association and confederacy, having long existed among persons resident in this County for the purpose of passing spurious and counterfeit bank notes and coins, and who had (practiced) their diabolical object of defrauding their fellow citizens for a number of years with perfect impunity, was on the 2nd day of December last, arrested for having passed the above mentioned kind of notes and brought before Thomas Johnston, Esquire, a Justice of the Peace of this County.

On being brought before the Justice he confessed that he had passed the spurious and counterfeit notes with which he was charged and informed the Justice that two men named Israel Evans and Henry Beck were engaged with him in the business, that they were his employers, and that in the house of H.B. in a particular place, would be found a considerable quantity of the above mentioned kind of money.

The Justice took his information upon oath, issued war-

rants against Beck & Evans, and on the 3rd of December committed them to jail. In pursuance of Border's information, 200 two dollar spurious notes purporting to be of the Merchants Bank of Newport, with fictitious signatures as Cashier and President, and 20 five dollar notes purporting to be of the Eagle Bank of someplace, unsigned.

A few days previous to our last April Court, there was an understanding between Border and myself that if he would agree to remain in prison until the August Sessions, now past, and would on the trial of Beck and Evans disclose fully and truly all he knew of the above combination, he should be recommended to Your Excellency as a proper object of mercy. I was induced to this for two reasons; one was that it appeared to me that I would not be able to convict Beck and Evans, who were old offenders and heads of the conspiracy, without the evidence of Border. The other was that last April's Sessions was the second he had been imprisoned and had he then been tried he would certainly have been acquitted, as I had not been able to get the necessary proof to convict him, and had he not agreed to remain in jail and applied to the Court, he would have been discharged under the Habeas Corpus Act.

And when last week Beck and Evans and a man named John McFadden, against whom Border gave information after he was in jail, were indicted and tried for a conspiracy to pass spurious bank notes, Border was called by me as a witness, and I believe the evidence which he gave of the conspiracy was the truth. His testimony was consistent and coherent, and as to the criminal transactions between the persons indicted, uncontradicted. B & E were found guilty and McFadden acquitted. Beck was sent by the Court to 5 years imprisonment in the penitentiary. Evans had his horse out - a man stationed to communicate the verdict, which as soon as he heard it he cleared out.

Under these circumstances I pray Your Excellency to grant a pardon to Jonathan Border for the offense of pass-

ing spurious and counterfeit writings, purporting to be bank notes. He has now been imprisoned in the jail of this County, which is a very bad one, 8 months and 10 days, which considering his disclosures have been the means of bringing old and obstinately determined offenders to punishment, if it had not been for the information he gave still would have been left to prey upon their fellow citizens, I am of the opinion is a pretty adequate punishment, when it is likewise taken into consideration that he was but an apprentice in the business.

...I feel confident that I don't go beyond the line of truth in saying there are at least 100 persons, if not many more, in this County connected, combined, and acting in concert for the purpose of passing counterfeit money and that from 20 to 30 thousand dollars of such money has been in, and passed through, their hands within the last five years.

This den of inequity cannot be put down without admitting some of the initiated to give information which may lead to the knowledge of acts sufficient to crush it.

As Border is in jail and may not be able to get bail, if you will please grant him a pardon, as before stated, I wish that it might be sent on as soon as possible.

I have understood that some of the attorneys of the defendants tried, have expressed an intention to remonstrate against Borders being pardoned, and if they attempt to do so, I have no doubt that they could get plenty of counterfeiters and passers of counterfeit money to sign such a remonstrance. But I have as little doubt that you would pay no attention whatever to a remonstrance coming from such a source.

Very Respectfully,
James M. Bell, District Attorney for Blair County

To combat these organized gangs, the public sometimes resorted to the creation of "vigilante" type groups, paramilitary in nature. Given the fact that local law enforcement in those times was limited to perhaps a small, regional sheriff's office, this was often the most effective

way to deal with these criminals. The following is a newspaper clipping from an Indiana newspaper, dated December 3, 1958, provided by the Indiana State Library:

Out Of The Past:

Counterfeiters made their Headquarters In Lawrence County In The Early 1800's

By Claude Parsons

An organized band of counterfeiters reportedly had their headquarters somewhere in Lawrence County in the early 1800's and a police organization composed of several citizens of the county was formed to deal with the criminals.

In addition, a large number of stolen horses were traded from Kentucky and other parts of the hills in and around Lawrence County in those early days, but in most cases further clues were lost.

Suspicion pointed to several persons residing in the county as among ringleaders of the counterfeiters, and several were severely dealt with by this police group of "regulators".

The Association (as the police organization was called) was thought to have been organized about 1819 or 1820 at Palestine, the former site of the Bedford Courthouse. A copy of the original articles (rules and regulations) of the group - written in pen and ink - is now in the possession of Carroll Johnson, Twenty-fifth and G streets.

Hard To Catch

Reports have revealed that the heavy forests and hills of Lawrence County made law breakers hard to catch and they often moved to new hiding places.

A man named George Crior was reportedly punished severely by the Association as one of the supposed leaders in counterfeiting, but this seemed to have no big effect at the time since he remained in the community "with habits unchanged", according to the account.

The horse-stealing offense was quite severe because the early settlers depended on horses for fast traveling and raising crops. Stolen horses could be moved quickly, making the thieves hard to catch. Cattle and pigs were also stolen in those early days, but not as many as horses.

According to the original articles of the Association, the names of 92 citizens of the community are listed as members. Included on the list are such prominent names in county history as Col. Vinson Williams, Winthrop Foote, and Moses Fell.

To Suppress Crime

The members agreed "to form ourselves into an Association for the purpose of suppressing crimes in general, and more particularly those of counterfeiting and horse stealing", and established eight rules and regulations "for the faithful observance of which we do hereby severally pledge our honors and our characters as men and good citizens".

The rules and regulations were, in part, as follows:

- (1) The officers will be a captain, who will appoint such number of subalterns as necessary, and a treasurer.
- (2) The captain will call on company members whenever he thinks proper, to be ready to march at half an hour's notice on any expedition.
- (3) Any member who does not appear at a muster or who disobeys orders shall be fined in any sum not exceeding five dollars, at the discretion of a majority of members present.
- (4) If any member suffers in his property by executing the command of the officers, or if officers shall suffer discharging duties, the expense shall be equally apportioned and defrayed by the entire group.

Two-Thirds Consent

- (5) No important regulating measures will be taken unless by consent of two thirds of members present.
- (6) In case of emergency and in absence of captain, subal-

terns will take over.

- (7) Captain has power to call company to meet at Palestine when he thinks proper.
- (8) Any respectable citizen of the county shall be admitted to Association upon subscribing to these rules and regulations.

This particular Association, according to historical accounts, was abandoned after a time, accomplishing a great deal. A number of similar organizations were in operation in the county, however, after that time until around World War I.

Counterfeits came from hundreds of sources during this time period; from skilled and highly organized gangs, to equally skilled independent individuals, to totally inept criminals looking to get their hands on a piece of the action:

My first stopping place was at a small town about ten miles east of Adrian, called Blissfield. This place was situated on the river Raisin, and was, at that time, a sort of center for blacklegs, some residing in and near the place, and where many would come and go unobserved by the good people who then made up the chief part of the population. Among the few resident villains, I may mention the names of three: Rogers, Blake and Banton, the two last named being the ring-leaders of a small handful of horse-thieves and counterfeiters. Their place of business was a short distance up the river, where they had dug a hole in the bank, and were making money of the most inferior kind. I stopped in Blissfield over night, and was invited to go up and visit them at the den. I went in company with Blake, and when near the place were confronted by the guard, to whom Blake whispered, and we passed on. Judging from the dignity assumed by my conductor, I did not know but we were about to enter the grand hall or council chamber, called Pandemonium, and I was not much disappointed, for it was no other than a branch of it.

The interior of the room was not in the least inviting, and the workmen corresponded in every way with the room. Their tools were an old worn set of dies, and the material they used was very poor. They were running just the kind of a place that would, in a short time, be the means of providing them all with a better home, and something more useful to occupy their time. I learned afterwards that I was correct in the opinion formed of them, as they were enabled to do the State of Michigan some little service. The only kind of nourishment I saw in this place for the men was whisky, of which they freely imbibed, until its effect on them was such as to make it necessary to suspend work for the night.

“The Life of Sile Doty”
(1838)

No area of the country was immune:

A railroad employee discovered a huge safe under a pile of rocks near Gray Cliff, Montana, not far from the cabin where Counterfeiter Ellis was recently arrested and the counterfeiter's tool confiscated. The safe contained a lot of spurious silver dollars and halves, as well as dies and tools used in the manufacture of the same (Glaser 1968, 97, reprinted from Dickerman's *U.S. Treasury Counterfeit Detector* 1891).

Not only was no part of the country immune, but the coins of the United States were not the only subject of the Counterfeiters' "art":

A white-haired old gentleman named Clark was in Newark last week for the first time since the close of the war (Civil War). Since then he has been living in Minnesota. His errand to Newark, he said, was one of curiosity alone. Last week he visited Belleville again for the first time in thirty years, and upon his return to the Continental Hotel that night he told his impressions of the place to a chance acquaintance, another old veteran.

“Belleville is the one place I have revisited which shows

few marked changes," he said. "The river is dirtier, a few of the old houses and factories have crumbled down or been destroyed and a few new factories and dwellings have been put up, but generally speaking, the town is little changed in thirty years, or in fact in seventy for that matter. The upper part of the town along Washington Avenue is all new and I don't count that part. I am interested in that part of the town lying along the river road. It is just as homely and as pretty as it was when I was a boy and when the chief industry in Belleville was coining counterfeit money. Yes, sir, counterfeiting was the most lucrative work in the place sixty years ago or thereabouts. I helped at the work for old man Uffington when I was a boy in the village, and I can assure you nobody thought that there was any harm in it. There was Stevens and Uffington, both Englishmen, partners in the business, Uffington had money which he brought from England with him and Stevens was a skilled coiner and die-sinker. Then there was old James Moffit and T.G. Moffit and Joseph Gardner, all engaged in the business. They did not counterfeit United States coin, or the business would have been quickly stopped. Their business was making good imitations of South American and Central American coins, and at that time there was no law against it. The coins were struck in dies from base metal and were plated and packed in bags containing fifty or seventy-five pounds. These were packed singly in wooden cases and marked as general merchandise. It was taken to Elizabethport and Amboy on a small sloop and transferred to a big sailing vessel. There was no risk attached to the business until foreign waters were reached. Then the coin had to be smuggled in. If the smugglers were pressed too closely they would sometimes drop the money overboard. At one time three of them were caught and hanged in Brazil. They were customers of the Belleville coiners, but were not in any other way identified with Newark. The business went on for many years without interruption."

“You remember Jerry, who used to keep the Black Horse Tavern at the stone bridge, just above Clay Street, in this city? Well, he was a coiner and used to talk freely about it. I have heard Jerry say that it was a dull day when he could not make five or six dollars working for Moffit. Joseph Gardner, who afterward made stove ornaments in Newark, was a skilled die maker, and was imported from Birmingham by Uffington. I think, however, he worked for others first and then went into business for himself and made a big fortune, but lost a great deal of it afterward in a conflict with the government.”

“The Brazilians induced our Government to make a law against counterfeiting foreign coins, and although this did not stop the Belleville enterprise completely, it forced the men to carry on the business more secretly. Another thing that knocked the business out was that some parties seeing how easy it was to make foreign coins, began practicing on our money, and I remember hearing that there was a regular den of counterfeiters over the river in Bergen county. One man, who afterward lived in Newark, could not resist the temptation to make quarters and halves, and was caught through a Negro servant who stole some of the coins and was arrested in trying to pass them. He told where he got them and a search of his employer’s house resulted in getting evidence against the old man. The other coiners rallied to his aid, and the best legal talent in New York was employed. He got frequent stays, but finally spent a term in prison. This broke up the business. For years afterward when a house or factory was pulled down in Belleville it was no uncommon thing to find counterfeit money which had been hidden away in secret corners. I remember well that I went to Dan Rice’s circus with a counterfeit half-dollar that I found in Second River, under the old DeWitt wire mill, and on another occasion when I was poking around in the cellar of a ruined stone house near the river I found a lot of blackened Mexican coins in a pocket in the foundation,

which was stopped with a roughly fitted wedge of stone.”

COUNTERFEITING WAS ONCE A LEGITIMATE BUSINESS
(From the “Sunday Call” of Newark, N.J. issue of June 2, 1895)

One of the most significant examples of an effect coin counterfeiting had on the development of the United States is the story of the early Mormons. An unproven accusation of coin counterfeiting led directly to their early exodus from the state of Illinois in 1846 to the Great Salt Lake in Utah, an event which marked the beginning of the great western migration, and changed American history.

There is no doubt that coin counterfeiting charges and Governor Ford’s threat of the use of United States troops to arrest the accused Mormon leaders led to the early emigration of the Mormons from Illinois to Utah. The exodus of the Mormons was one of the most significant events in American history at that time, an event which led directly to the discovery of gold and was pivotal to the development of the western frontier.

Piecing together the bits of information that can be ferreted out with enough patience and effort, we now can begin to answer the questions of when and where these bogus coins were made, and who made them. By the end of the Civil War it was speculated that almost half the money in circulation was counterfeit, and it was at this time that the Federal Government made its first concerted effort at cracking down. It was from these early efforts that the Secret Service was born in July 1865. It is said that President Lincoln gave verbal approval for the formation of the new agency at the cabinet meeting early in the day that he was assassinated!

While counterfeiting still exists today, the success of the Secret Service in the latter half of the nineteenth century put an end to the “Golden Age of Counterfeiting.”

The Terminology of Counterfeiting

Part of getting the “feel” of the times is to tune in to the slang used among the criminals of the early nineteenth century. The following are some of the most common terms found in the vernacular of counterfeiters, middle men, thieves, and receivers of stolen goods:

- Acknowledge the corn**, to make a full frank confession.
- Beating**, to get the best of, to defraud.
- Bingo**, whiskey or other strong drink.
- Bogus**, counterfeit coins or bank notes of any kind.
- Bone orchard**, a graveyard or cemetery
- Boodle**, counterfeit notes, placed in bundles or parcels.
- Boozing-ken**, a low drinking house for thieves or counterfeiters.
- Coney**, counterfeits.
- Coney dealer**, one who deals in, passes, or handles counterfeits.
- Copped**, arrested or caught by a "cop", or detective.
- Cracksman**, a burglar, or one who breaks a bank.
- Deal**, the act of delivering counterfeits from one hand to another.
- Doss ken**, a lodging house of low character.
- Flush**, having plenty of money on hand.
- Gobbled**, captured suddenly by the cops.
- Gone over**, sent to jail or prison.
- Job out**, to partition or distribute counterfeits among coney men.
- Ken**, a safehouse, a small hotel for criminals.
- Koniacker**, a counterfeiter, or coney man.
- Leg-bail**, to escape, or run away from court or prison.
- Lighted**, "spotted", alighted upon, found out, captured.
- Lush drum**, a disreputable resort for criminals.
- Moll**, a female confederate or mistress.
- Nary red**, out of money, broke.
- Peddler**, an itinerant counterfeit money seller.
- Pipe off**, to follow a suspected person's tracks.
- Queer**, base or worthless; counterfeit money.
- Queersman**, a professional counterfeiter.
- Shove**, to push off, or pass counterfeit money publicly.
- Stuff**, the term used among counterfeiters for bogus money.
- Toes up**, dead.

Patterns or Fakes?

(This final section is largely an excerpt from co-author Keith Davignon's 1996 book *Contemporary Counterfeit Capped Bust Half Dollars*, published by Money Tree Press, with edits and updates.)

The real dangers presented by contemporary counterfeits in today's numismatic marketplace are twofold: being offered a bogus coin as a pattern, experimental, or die trial piece, or, a bogus coin being offered as the discovery of a new die variety.

There are lettered edge halves of the years 1837 and 1838 which are relatively deceiving. A surprising amount of debate and controversy has taken place in the numismatic press over the last several decades concerning these items. Some would propose that they were experimental strikes. But why would the Mint bother to experiment with obsolete features (lettered edge, scroll above eagle, 50C. instead of 50 cents)? If truly experimental they would be found in the alloys commonly used by the Mint (silver, copper) rather than the debased alloy of German Silver, so favored by the counterfeiters of the day. The simple fact is that there are no genuine lettered edge half dollars dated later than 1836, experimental or otherwise.

There is another dangerous contemporary phony which frequently shows up offered as a regular die trial piece. Unfortunately, the Judd reference book (*United States Pattern, Experimental and Trial Pieces*) appears to have been guilty of supporting, and perpetuating, the myth that genuine copper 1823 bust half dollar patterns exist. The myth says that such a coin (J-47), was made either by the Mint, or privately by J. Mickley, with rusty dies discarded by the Mint. The latest edition of the book now lists the piece with a footnote - "authenticity questionable".

The late Stewart Witham, who owned at one time the most complete collection of pattern half dollars ever assembled, searched long and hard for a genuine specimen, and was unsuccessful. The dozen or so copper 1823 halves he was able to locate were all struck with the same pair of dies. The abundance of German Silver, and plated copper, specimens in existence also from the same pair of dies pointed pretty conclusively to the bogus nature of these "coins". All observed speci-

mens also had lettered edges rather than the plain edge described in Judd, and lacked the die engraver's (William Kneass) signature "notch" in the bust drapery. Did a genuine plain-edge piece exist? The following is a chronicle of Stew's search for a genuine J-47.

The following advertisement appeared in the February 12, 1969 issue of *Coin World* under the heading "Patterns-US":

PATTERNS—U.S. 58

PATTERN COIN

U. S. Copper
Half Dollar
1823

(struck from rusty die)

Very Scarce.

Judd's Rarity 8 Rating.

\$325.00

GALA

Jewelers & Coins

205 Fifth Avenue

McKeesport, Penna. 15132

Pattern Coin;
U.S. Copper Half
Dollar, 1823 (struck
from rusty die) Very
Scarce. Judd's Rarity
8 Rating. \$325.00
Gala Jewelers &
Coins, 205 Fifth
Ave., McKeesport,
Penna. 15132

Fig. 30.

Stewart Witham writes (2/18/69):

Dear Mr. Gala,

I bring sad tidings-the copper half 1823-is not a mint product-it is not by known dies of 1823. It is not struck-it is cast. This was my first impression but it has been verified by Mr. Grunthal of ANS (American Numismatic Society) in N.Y.C. as well as Don Taxay-The Author/Authenticator. The coin arrived Saturday 2/15 and I came to N.Y.C. thinking I would have the chance to check it out. I am returning home on 2/19 and will promptly return the coin to you for full reimbursement.

On the other hand I will keep it for \$10 as an interesting sidelight on Bust Halves.

Sorry to bear such sad news-

Sincerely,

Stew Witham

As far as I know, the coin was returned to its owner and its whereabouts remain unknown today. Did it sell for several hundred dollars to a collector less knowledgeable? In 1976 another specimen was offered for public auction by Steve Ivy. Ivy Auction 12/10/76, Lot 1108 was listed as follows:

J-47 1823 50 cents, Fine/Very Fine (15±) copper, R.E., R-8. Regular dies trial piece. One of our earliest examples of pattern coinage. This piece is extremely rare and worthy of your consideration.

Witham had sent a letter only a month earlier to Abe Kosoff, who was then working on the sixth edition of Judd's *U.S., Pattern, Experimental and Trial Pieces* questioning the authenticity of J-47. Kosoff replied on 12/2/76:

Dear Mr. Witham,

Thanks for your of 11/21 re: J-47. I am stating in Judd 6 that the authenticity is questionable. Actually I have not found any that are genuine and will check with Breen to see if he can recall one. I think it is an error carried over from Adams-Woodin. Adams was prolific but did a lot of guessing. The A-W book contained hundreds of errors:

Regards,

A. Kosoff

P.S.:There's one listed in Ivy Auction 12/10/76. I'll have it looked at - it's listed as Fine/V.F.

Witham requested to view the piece and did so, returning the coin with the following letter to Steve Ivy.

November 21, 1976

Gentlemen,

I return lots 608-614-615-616 and 1108- I have retained 609 to compare with my piece at the bank and will send

promptly in another package.

Since I have a special interest in Bust Halves, their related pattern and die trials, I would like to comment on Lot 1108.

You call it J-47 describing it as R-8 with a Reeded Edge. 1st-this piece has a Lettered Edge. 2nd-I have seen 3 other pieces from equal dies, obverse and reverse. 3rd-I have 2 german silver counterfeits from the same obverse and reverse dies.

I am sure you would serve yourself and numismatics with its withdrawal.

Sincerely,
Stew Witham

Upon later learning that it had remained in the auction and had realized a price of \$1,000, he was enraged and drafted the following letter to the ANA:

January 12, 1977

Mr. Ed Rochette, Executive Vice President American Numismatic Association, Colorado Springs, Colorado

RE: Steve Ivy

Dear Mr. Rochette:

The Ivy Company held an auction dated December 10, 11, 1976, which included Judd 47, listed as Lot 1108. Early 50 cent patterns and trial pieces are among my special interests so I asked to see Lot 1108. It was sent, studied and returned with a letter (copy attached) suggesting that the piece be withdrawn because it was not Judd 47.

When I received the prices realized I found that it was recorded as having realized \$1,000. Attached is a Xerox copy of Judd and the Ivy catalogue page so that easy comparisons can be made.

Even if Ivy did not know me and my skills he could have inquired of me regarding the legitimacy of my statements; he did not.

Further, I am told A. Kosoff had the piece examined. It

was found to be a counterfeit and Ivy was so informed.

To me, this is a serious matter which deserves the attention of the ANA.

Yours Sincerely,
Stewart Witham

Before sending the letter to the ANA, Witham decided to show it to Kosoff, saying "if you do not disagree or disapprove I'll send this out." After reading the letter, Kosoff replied:

January 17, 1977

Dear Stewart,

Thank you for the copy of your letter of January 12, 1977 addressed to Ed Rochette in regard to the J-47.

Let me bring you further up to date. When I saw the listing in the Ivy Catalogue, I asked Mike Kliman of Numismatic Enterprises to examine it. Mike is well versed in the series. I did tell him what I expected him to find and, of course, that's what it turned out to be. Mike told one of Ivy's men about it, suggesting that the lot be withdrawn. Mike also spoke to 3 other dealers/collectors all of whom agreed that the piece was not good.

Finally Mike cautioned the Auction people and told them he would outbid anyone bidding on the piece and would then return it to them as a counterfeit. This he did. Kliman outbid everyone to \$1,000.00 and returned the lot as a fake.

Why the Ivy Company, in the face of your letter of November 21, 1976 and Kliman's confirmation of your opinion, did not withdraw the lot is a mystery to me. While I hate to see complaints filed against any dealer in the A.N.A. or the P.N.G. I applaud the efforts to discourage misrepresentation in any form.

Very sincerely yours,
A. Kosoff

Satisfied that the issue was settled and that a collector had not been swindled, the complaint letter was never filed with the A.N.A. It is

assumed that the coin was simply returned to its consignor.

(Author's note: In an effort to relate both sides of the story, Steve Ivy was contacted regarding these events. Bob Merrill, Director of Ivy's auction company, had no recollection of the situation or any record of what became of the coin.)

According to Ivy,

After my discussions with Mr. Merrill, I attempted to call Mike Kliman, with whom I finally spoke yesterday. I related the matter in its entirety to Mike and he, in fact, did remember many of the details relating to this situation. It is his recollection that he did tell us the coin was controversial and that in his opinion it was not a legitimate pattern. He did say, however, that there were knowledgeable people in that field who did not share his opinion. In situations like this it would be unfair to the consignor to withdraw a coin, particularly before anything can be proven dispositively. Under such circumstances, it is our normal policy to make an announcement at the time of the auction indicating that the authenticity of a coin has been questioned. Furthermore if a questioned coin sells to a mail bidder, it is our policy to notify the mail bidder with the same information. In discussing this with Mr. Kliman, it is his recollection that we did make an announcement at the auction. (He wasn't there, but apparently he spoke with other people who were.)

Obviously, our firm is not interested in ever selling a counterfeit coin, or for that matter ever misrepresenting any coin we sell. It is, however, important that we balance the interest of both buyers and consignors in weighing our decisions.



Fig. 31. 1823 1/4 counterfeit half. Copper specimens have frequently been offered as the so-called pattern J-47.

In October 1981, Witham saw yet another ad for a Judd 47. Upon sending for and examining the coin, he had another Dear John letter to write:

I have seen several of the 1823 copper halves purported to be Mint products. Some want to call them Judd 47 (that is listed with a reeded edge). All the pieces I have seen are lettered - as is yours. The edge work is usually very good, and for a counterfeit the die work is excellent. But the bottom line is "contemporary counterfeit." That is the answer on your piece - sorry to say.

Don Taxay had one in 1975 which he called genuine. I took aluminum foil impressions of the piece and they match yours. Steve Ivy in a 1976 sale listed one. I was able after some months to prove to him and Mike Kliman, the consignor, as well as Abe Kosoff, that the piece was bad. I'm told that Mike bought it at the sale and then returned it as a fake.

The reasons that yours and the others are bad are various:

1. There are no known silver pieces with the obv/rev die combination.
2. There are many pieces equal in all respects made of German Silver - I own one of these.
3. In all genuine bust half obverses (1818-1823), the period of Wm. Kneass's Mint work, have his trademark. There is a very small knick cut out in the underside of the drapery of the bust on a horizontal line from the top ceriph of the digit one. This does not show on the counterfeits.
4. The reverse die is found used in combination with obverses of other years. The obverse workmanship is bad (not of Mint caliber) and the metal is usually German Silver.

There are a couple of diagnostic marks on your piece that follows the piece. On the obv. there are two metal "blobs" on the breast just above the drapery. On the rev. the two upper arrow shafts stop at the first claw rather than contin-

uing on to the left.

To those of us who collect counterfeit halves this piece is known as 1/A. Value to that type collector would be \$25.

Sorry for this disappointing report.

Regards,

Stew Witham

In a February 2-4, 1984 sale, Art & Don Kagin offered Lot No. 4023 for public auction. The coin was highlighted in their catalog and even color-plated. The following description of the Lot appeared on Page 82 of that catalog:

4023 - 50 cents 1823 Type Judd-47 copper lettered edge AU-50. Deep red, uneven surfaces from possible cast planchet. Obverse die not used for silver halves recorded by Overton, equal-size digits in date with intact 3, short die cracks at third and fourth stars with notable porosity at sixth star. Reverse weakly struck at center. Edge bears incuse legend FIFTY CENTS OR HALF A DOLLAR (star between DOLLAR and FIFTY).

Copper 1823 pieces with reeded edges have long been associated with Philadelphia numismatist Joseph Mickley's private restriking from salvaged dies in the late 1850's (see Stewart P. Witham's "Rusty Dies, Mint Sports Abound in Half Dollar Patterns" and Thomas K. DeLorey's "What Would You Call" column, *Numismatic Scrapbook*, November 1974 and September 1975.) The known Mickley pieces were struck from dies purchased as scrap steel from the Mint; Witham notes reeded edges on all he has examined, while Judd records plain edges for J-47. The GENA coin's incuse - lettered edge is typical of the 1814-1831 period for half dollars. Mickley's creations are believed to date from 1858-61; Mint attempts to revive lettered edges in 1860 saw only three letters and one star visible on the Liberty Seated copper half dollar, Judd 269. (See Kagin's 1983 ANA Sale, Lot 3026.)

This 1823 lettered-edge copper half dollar may be the dis-

covery that will clarify some of the Witham-Judd uncertainty as to the existence of Mint-struck halves in copper versus Mickley's later additions. Judd 47 is listed as R-8, while this unrecorded edge-lettered type must plainly be of even greater rarity, quite possibly unique.

Upon seeing this commentary in the Kagin Catalog, Stewart Witham responded with the following letter to Don Kagin:

Regarding Lot 4023 February 24 Sale please re-examine my Numismatic Scrapbook Article. The lettered edge was known to me - from three different sources, including Art (Kagin) and Don (Taxay) -in all instances I declared it a counterfeit - equal to my German Silver piece - known as 1A. Your lot is, I'll bet a lot of money, a counterfeit.

Regards,

Stew Witham

He never received a reply. The lot was sold, realizing \$230.00. In summing up his many years of searching for a genuine piece, Witham wrote in 1984:

Judd 47 -

Since I'm getting older, 67 (April I'll be 68) I have less need to coddle to the promoters so I want to talk about an interest of mine. Judd 47 - listed as a copper 1823 bust half with a R.E. (reeded edge, restrikes made at the Mint, 'authenticity questionable.')

Since 1964 I have been a Bust Half specialist - also interested in the half dollar patterns through Judd 103, owning the finest (I think) 50 cents pattern collection through J-103 that ever existed. Thus I had an interest in collecting all/each, including J-47.

In reviewing my files I find the following references to an 1823 copper half:

1. Farouk 1953 #1710 - no mention of edge or other characteristics.

2. Cox Stacks 1962 #2187 - rusty dies, patched three variety - known to Judd but not illustrated. Edge - no mention. (At that time "patched 3" had not been clarified).
3. Foto Center ad in Coin World fall 1963 owned by Bernard Cole, offered at \$325. Saw it; German Silver counterfeit, sold as counterfeit for \$10... lettered edge.
4. February 1969; Gala Jewelers ad in Coin World asked for it and saw it. Returned as counterfeit. Lettered edge, German silver.
5. Charles Fine, 1-10-73. Lettered edge. Saw it and compared it. Equal to my German silver counterfeit.
6. Don Taxay, 1975; saw it and compared it. Equal to Charles Fine German silver counterfeit.
7. November 1976, Steve Ivy #1108 sale 10-11-76 price realized - \$1,000. Saw it and compared it. Lettered edge counterfeit. Mike Kliman bought it and returned as counterfeit.
8. John Rose, Colorado Springs. Same as Don Taxay piece - lettered edge.
9. Jules Reiver; German silver, lettered edge.
10. Kagin - 2-4-84 #4023, listed as J-47. First, it is fair to say that he misread my Numismatic Scrapbook Magazine article. Second, I sent him a letter declaring the piece a counterfeit, no answer.

If the truth be known- 1823 J-47 copper 50 cents Judd says reeded edge. Kagin 2-4-84 auction says Judd records plain edges. Kagin says Witham notes reeded edges on all he has examined. Witham in Numismatic Scrapbook November 1974, Page 15 quote, "it would be fair to suggest that if the dies are rusty, if they have reeded edges, if they are not from known dies - they might better deserve the term "piece de caprice."

Witham did not say “reeded edges on all he had noted.” He said “if.” The fact is on seven pieces Witham has examined from 1963-1984 he has never seen a plain edge nor has he seen a reeded edge.

Nor has he seen what he believes to be a mint-struck 50 cents copper piece. All that Witham has seen have been copper, cast, lettered edge, and all have matched a German Silver piece that he owns.

Since 1960 I have seen pieces in many states’ dealers, collectors, and authors wanting their 1823 copper 50 cents to be legit.

7th edition of Judd lists J-47 as “questionable authenticity.” Never have I heard of a struck copper 1823 half with known dies used on silver pieces.

I don’t think it exists. Who can say else?

As discussed earlier, German Silver was the favorite base alloy used to produce die-struck counterfeit halves. Before this alloy was discovered, the most common method was to strike copper planchets, and then apply a silver plating or silver colored chemical “wash”. This latter method was used to produce the 1823 halves which were erroneously called patterns. The copper planchets were struck, but never plated. A blank copper planchet has been discovered with edge lettering applied, which matches that of the 1823 copper halves. This planchet proves both that the edge lettering was applied before the coins were struck, as they were at the mint, and that the coins were struck; not cast as suggested by Witham. The probable reason for Witham’s confusion were the “blobs” on the reverse, located above the denomination, which he mistook for imperfections in the mould which were often seen on cast coins. These “blobs” were actually the result of die rust, lending another clue that these dies may have been unused or incompleated dies which were discarded, or more likely, stolen from the mint and put to use by the counterfeiters.

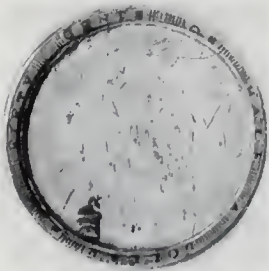


Fig. 32. Counterfeit copper planchet with lettered edge.

The same counterfeiter who produced the 1823 dies has also been guilty of a deception which he never intended, a pair of 1825 dies so good that a coin was slabbed by PCGS and offered for sale for 5 figures as a newly discovered die variety. The 1825 1/A shares the same reverse die as the 1823 copper half complete with telltale raised lumps from die rust above the C of 50C. on the reverse, as well as in other locations on both sides of the coin. Few other bogus dies are capable of this level of deceit. Needless to say, authentication by ANACS or another reputable third party is mandatory on all new "discovery pieces."

While it is fun to consider early bogus halves as examples of "criminal Americana", and collectible in their own right, it is important to recognize the possible dangers that they still do present to today's collectors. Collectors who, temporarily blinded by the excitement or the greed of having "cherried" a new variety or die-trial piece, fail to notice that slightly greasy feel of German Silver or the backward S in E Pluribus Unum!

Patterns

J. Hewitt Judd, M.D. states in the preface of his book on U.S. pattern, experimental and trial pieces that:

In recent years the term pattern has been commonly used to denote any unissued piece, including, unfortunately, pieces not originating in the mint such as copies, casts, electrotypes and all types of false pieces. However, patterns are pieces which present a new design, motto or denomination proposed for adoption as a regular issue, struck in the specified metal, and which were not adopted, at least in that same year.

The first true pattern of the Bust Half Dollar type is the 1836 reed-edge J-57, a transitional design as officially adopted in 1837. (Although with its 1,200 or so "business strikes", many consider this a regular issue.) Many new half dollar patterns were issued in 1838 and 1839.

The important point to be made here is that no genuine "pattern" bust half dollars exist with dates prior to 1836, and any coins offered as

such should be immediately recognized as bogus. It is unlikely that contemporary counterfeits would be offered as such, as they were never made in the correct metal, silver, and unlike all patterns were never produced in proof. The more realistic danger is presented by the off-metal counterfeits, particularly copper, frequently offered as experimental pieces or die trials.

Experimental Pieces & Die Trials

Experimental pieces are those made to try out a new metal or alloy for possible use in an existing coin. Those coins struck in the proper specified experimental metal are “experimental pieces”, and those struck from the same experimental dies in other metals are “experimental trial pieces.” “Regular die trial pieces” are those struck from the same dies as subsequent business strikes for circulation, only they are struck in softer metals such as copper, aluminum, or white metal to “test” the dies prior to regular strikes. “Die trials” are strikes in soft metal, usually uniface, of sometimes uncompleted dies, again for the purpose of testing the impression prior to actual use.

Possibly the only authentic experimental piece of the Bust Half type is the 1814 platinum J-44 of which 3 are known. No experimental trial pieces exist. Therefore, all other off-metal bust halves would fall under the category of “regular die trial” or “die trial” pieces.

The 1913 book on patterns by Edgar H. Adams and William H. Woodin lists 4 copper bust halves as regular die trials (AW34, 35, 36, 38). All but AW34 have since been proven to be counterfeit. This piece is listed in the 7th edition of Judd, Appendix A, as an 1822 uniface obverse die trial “similar to but not exactly the regular die.” Witham believes the die itself to be a mint product but there is evidence that the few known strikes from this die were made at a later date outside the Mint (see Witham’s “Rusty Dies, Mint Sports Abound in Half Dollar Patterns,” *Numismatic Scrapbook Magazine*, November, 1974). Another presumably genuine “regular die trial” listed in Judd Appendix A is an 1811 in white metal. While no 1813 die trials are listed in Adams-Woodin, the Judd Reference lists an 1813 half in both copper and brass, J42 (42a), J43. Although these are from genuine U.S. dies, rust, plain edges, heavy lapping, and a die combination not used for business

strikes (1813 0-107 obv., 1810 0-104 rev.) would again indicate that these were not true die trials, but once again a restrike, or “piece de caprice” made at a later date from discarded dies, probably outside the Mint. The last die trial listed in Judd is an eagle *incompletely* struck on both sides of an 1832 large cent. It is listed as being the type of the 1807-1836 half dollars. I am surprised that Abe Kosoff, who did such a great job weeding out errors carried over by Judd from Adams-Woodin, missed this obvious bogus rendition of an eagle. I call it a “counterfeiter’s die trial” of a bogus die. (Not yet seen on another surviving piece.)

Mint Errors



Fig. 33. Spectacular double-struck 1833 counterfeit half.

Another continuing danger presented by these old fakes is that of a “counterfeiter’s die trial” being mistaken for a United States mint error. Genuine mint errors of early half dollars are rare, sought-after, and command premium

prices. In the Judd Appendix B, for example, 4 bust half dollars are listed as mint errors:

1. 1818 half struck over a cent. Copper, 2 known.
2. 1823 half on large cent planchet. Copper.
3. 1832 half struck over a cent. Copper, 2 known.
4. 1832 half struck on a foreign copper coin.



Fig. 34. 1818 counterfeit half dies trial on 1808 large cent.

Stacks ANA 1976 Sale included Lot 3715, Bust Half Dollar overstruck on a large cent. It was listed as a:

Mint error, no date, (probably 1832) regular dies, however, unattributable to Overton. Overstuck upon an 1844 cent, the date clearly visible among stars R. of bust. Judd, Appendix B, where the comment "2 known" follows. The cent was worn and had a small edge cut at the time of overstriking the half dollar impression is seemingly fine, but part of the appearance of wear may be from the weak uneven striking, which has produced a jumble of impressions. Of the highest rarity and interest.

Price realized \$600.00.

The list goes on. An 1832 Bust Half Dollar, copper (dies not listed in Overton) was offered as lot 4030 in the NASCA T. James Clarke Sale, June 1978, as "a great rarity." A pair of sharp eyes intercepted this fact, however, and the piece was withdrawn from the auction. As a comparison for evaluating their consignment, the catalog noted that an overstruck large cent piece sold for \$600 in Stacks' 1976 ANA Sale. The plate in the catalog confirms the coin's bogus die matches several known German Silver pieces.

I don't know what price this piece brought, but I do know that its present owner is in for a big disappointment someday.

The next example (courtesy of Jules Reiver) is another potentially dangerous piece. It is a genuine 1798 large cent overstruck with contemporary counterfeit 1838 half dollar dies. While most likely a counterfeiter's die trial, the danger exists of a coin like this being sold (at a big price) as a genuine U.S. mint error.



While genuine mint errors of bust halves exist in the forms of off-center strikes, brockages, etc., our advice with regard to any off-metal strikes or strikes of half dollars on large cents, or other foreign copper planchets, is to be extremely skeptical. If the dies do not

Fig. 35. 1838 counterfeit half die trial on 1798 large cent.

match a known die listed in Overton, it probably is counterfeit. It is safe to say that the great majority, if not all of them, are counterfeit die trials.



Fig. 36. Uniface counterfeit 1831 obverse die trial on lead "slug".



Fig. 37. Counterfeit 1832 die trial on Brazilian 80 Reis copper.

All of the pieces listed in Judd as U.S. mint errors have been proven to be bogus, by the matching of their dies with those of known base metal counterfeits.

We would like to conclude this discussion with the history of one such coin, a coin which has become the most famous, or rather infamous contemporary counterfeit. Page 118 of the February 1934 issue of *The Numismatist* illustrates the 1832 over foreign copper coin with this commentary:

A U.S. Half Dollar on Copper Coin of Brazil. Among the oddities which frequently find their way into the hands of collectors is the one illustrated here, which comes to us from H.D. Gibbs of Pittsburgh, PA.

It is a copper coin of Peter II of Brazil (1831-89) for 80 Reis upon which has been impressed the dies for a United States half dollar dated 1832. The reverse shows a double impression. The words "United States of America" show plainly above the eagle, while below it are portions of the same words. The date 1832 also appears above the head of liberty on the obverse, although these are the only evidences of double impressions.

Our guess as to its origin is that it was struck at the U.S. Mint as a die trial or as a pocket piece of someone in the Mint.

Kagin's February 1987 sale lists this same piece on page 42 of that catalog where it is plated and described:

Unique 1832 Bust Half Dollar on Brazil Copper Coin
2217-1832 Bust Half Dollar on a Brazil 80 Reis copper. Basically very fine but hard to grade due to double striking. Originally discovered by Don Taxay and first sold in a November 1974 Kagin Sale as Lot 1864. Later sold in the 1977 ANA sale as Lot 2070. Listed in Scott's Encyclopedia of rare coins as "unique." Undoubtedly a "set-up" piece used for a trial strike when aligning the dies before the actual striking. Listed in Judd (p. 255) as a Mint error. Tiny but not very deep attempted puncture at the center and three serrated marks at the right edge (to hold or align dies?) a major rarity whether called a pattern or off-metal error.

How about calling it a "counterfeiter's die trial?" Once again, Stew Witham took pen in hand and wrote to Kagin's:

Re: Lot 2217, sale of February 2/12/14/97

Gentlemen,

This Lot first appeared in "Numismatist" February 1934, Page 118 from H.D. Gibbs' collection. The next appearance (to me) was from RARCOA in Oct., 1973. I had a chance to study it at length, in my home, and the chance to declare the impression of obv. & rev. from counterfeit dies.

The piece did not match any known silver 1832 die, obv. or rev., the characteristics of letters, digits, bust, and stars were not of the Mint. I pronounced the piece counterfeit.

I next saw the piece at the ANA in Miami Beach in 1974, where Don Taxay bought it for \$1,000 and sold it to Art Kagin for \$1,350. It was still counterfeit. Don Taxay was upset that he had erred but nothing happened. The next appearance ANA Atlanta, 1977 Lot 2070, still counterfeit

still it sold for \$2,000, no floor bid. The Rarcoa piece, the 1974 ANA piece, the 1977 ANA piece, all counterfeit. I'm sure by plate and description your February Sale piece is the same.

Please, end its misery, eliminate a buyer's suffering, and throw it away.

Sincerely,

Stew Witham

In response to this plea, an Errata sheet for Kagin's 1987 Long Beach sale was issued. The Lot was not withdrawn but an amended description was offered:

Lot 2217: The 1832 50 cent dies are from the Mexican counterfeit dies, contemporary issue, from which nickel - struck counterfeits were made.

The auction took place and a pronounced counterfeit U.S. coin was sold in a major auction. Price realized, \$900.00! This piece next showed up as lot 5450 of the Heritage Long Beach Signature Sale in June, 1998. Again it was offered as a genuine U.S. "pattern", this time the suggestion being made that it was some kind of die-trial, or set-up piece (as is still suggested in Pollock's latest pattern book). After receiving multiple letters prior to the sale, informing Heritage as to the true nature of the coin, it stayed in the sale, and Heritage claims to have made an announcement before selling it that it was suspected of being counterfeit. The coin still sold for \$5,610.00 (!) to a dealer acting as an agent for a collector who submitted his bid to the agent thinking that the piece was genuine. A knowledgeable friend informed the new owner that the piece was bogus, and it was returned to Heritage as a counterfeit for a refund! We are curious to see where this now infamous coin will show up again!

Judd Appendix D lists the following U.S. Half Dollars as "False Pieces":

1809 - Brass

1813 - Brass

1821 - Composition Metal

- 1823 - Copper
- 1824 - Copper (Adams-Woodin #35)
- 1825 - Copper (Adams-Woodin #36)
- 1826 - Copper
- 1830 - Copper
- 1831 - Copper (Adams-Woodin #38) and composition metal
- 1832 - Copper
- 1838 - Silver

The list of false pieces currently known is much, much longer. Keith Davignon's 1996 book catalogued 188 "die varieties" of contemporary counterfeit capped bust halves. Since that time, another 75 or so new varieties have been discovered.

Recently, there have been significant offerings of contemporary counterfeit capped bust half dollars at auction by major dealers, with the coins being properly represented as such. It seems that these coins, which have been collected and traded for quite a while by a small group of specialty collectors in an "underground" marketplace, are now generating more visibility and interest in the mainstream.

The idea of collecting contemporary counterfeit coins is not a new development. An illustration of this fact is found in an auction catalog of an *early* sale. The 1885 W. Elliot Woodward sale of the J. Colvin Randall cabinet lists nearly 30 such pieces, including 10 early halves. Among the pieces listed are an 1820, countermarked J.T.B., and copper halves dated 1834 and 1838. Handwritten notations in one catalog shows the prices realized for most of these "coins" to have been "5" (I assume 5 cents).

As much as I dislike to see collectors stuck with anything false, I hate to see these things destroyed by Treasury Agents; they have for me some slight hint to the appeal of barbaric copies of ancient coins. Primitive American Art of a most amusing kind.

(Walter Breen, Sept. 1963 *Coin World*)

There are many people who feel that these coins are a fascinating bit of criminal Americana and that they should be legal to be collected, bought, and sold openly without fear of prosecution or confiscation so

long as they are properly represented. However, as we have seen, the danger to deceive still exists. It is our hope that through educational forums such as the Coinage of the Americas Conference, the collecting fraternity will be made aware of the facts, and armed with this new knowledge go forth to explore further a unique area of numismatics.

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**Counterfeit 2 Reales of the Bust Type:
Charles III, Charles IV, Ferdinand VII
1771-1821
A Survey and a Die Study**

John M. Kleeberg

Coinage of the Americas Conference
at the American Numismatic Society, New York

November 7, 1998

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Counterfeit 2 Reales: The Evidence for Their U.S. Circulation

Researchers have long suspected that counterfeit 2 reales are a component of the United States circulating medium. Where and when were these coins made?

One might think that counterfeit 2 reales were made in Mexico, but this appears not to be the case. Early on I asked Clyde Hubbard for help. Looking through his collection, he did not find a single counterfeit 2 reales. Through the good offices of Ted Buttrey, the ANS was given the fakes and counterfeits from the Pablo Gerber collection. The Gerber collection contained over a hundred Mexican forgeries. It contained only two counterfeit 2 reales (both Ferdinand VII, by the way: variety 21B-Z2). I also showed the ANS collection of counterfeit 2 reales to Ted Buttrey, who said he did not see them frequently. John Lorenzo got similar reactions when he asked dealers who specialize in Mexican coins. In short, collectors of Mexican coins do not often encounter counterfeit 2 reales.

Many counterfeit 2 reales have a provenance that leads back to New York City. The biggest donation to the ANS was made by Abe Kosoff in 1944, when he was a dealer in New York and before he moved to California. Mike Ringo has turned up many in New York City. The New York dealer Paul Bosco has also found many. Other numismatists who have turned up counterfeit 2 reales are long-time collectors from the New York City area, such as Emmett McDonald and Robert Blank.

Finally, an obverse die (87A) links what appears to be a México reverse (M3) and a Lima reverse (L4). No Mexican counterfeiter would make such a mistake. These coins were produced where México and Lima coins were commingled—the United States.

A similar argument that the counterfeit 2 reales were produced in an area where México and Lima coins were commingled is mismatched assayers. Reverse die L12 combines a Lima mintmark with México assayers (TH). L14 does the same, and links an obverse dated 1795 to assayers active from 1804 onwards. P4 has a Popáyan mintmark and is linked to an obverse, 10A, which uses a characteristic Popáyan abbreviation for Ferdinand (FERDND), but has the Mexican assayers HJ.

Most counterfeiters are not numismatists. They pay little attention to date, mintmark and assayer combinations. To them, one 2 reales is

much like another. They often used multiple, contradictory models for their dies, and created impossible mules. These mules indicate that the counterfeits were made where both Lima and México pieces were available in almost equal numbers.

The likeliest place for this is the United States. Before the Civil War, genuine 2 reales made up a significant proportion of the fractional silver in circulation in the United States, as I shall show in the next four sections.

The Circulation of Genuine 2 Reales: The Evidence of Coin Finds

There are four types of evidence for circulation: coin finds; literary evidence; coin vignettes on bank notes and scrip; and counterstamps. Counterstamps proved to be the most fruitful evidence, but I will first discuss the other three types of evidence.

Coin finds were not particularly helpful. Finds of Spanish colonial dollars are so common that hoards of them are often inadequately described, and hoards of 2 reales are considered even less remarkable. The coins are often referred to indiscriminately as “Small Spanish coins,” when they are mentioned at all. An inventory I have compiled of coin finds in the Americas includes three hoards that contain 2 reales: Morgantown, West Virginia (1927); Natural Bridge, Virginia (1959); and New Orleans, Louisiana (1982).

The Morgantown, West Virginia hoard (1927) is small: six 2 reales and one U.S. half dollar of 1811. It does, however, indicate how Spanish American 2 reales and Federal half dollars complemented each other in the silver circulation (More Treasure 1927).

The 2 reales in the New Orleans (1982) hoard were never listed in detail, but we know they were present in substantial numbers. Approximately eighty percent of the hoard was foreign coins, and most of those were Spanish-American 2 reales and 8 reales. The most recent date in the hoard was an 1842 Federal quarter dollar (Cohen 1982; Bowers 1997, 63-65).

The Natural Bridge, Virginia (1959) hoard contained 1,299 silver coins; 129 were described as “Small Spanish coins.” The latest date in the hoard is 1859, and the hoard is supposed to have been buried in June 1864, just before John Hunter’s raid during the Civil War. Federal

quarter dollars were a substantial portion (534), as we would expect from a hoard formed after 1853. The Natural Bridge hoard indicates that even after the weight reduction of 1853 and the redemption of Spanish silver by the U.S. Mint in 1857, Spanish fractional silver coins remained a substantial portion of the circulating currency of the United States: ten per cent of the silver coins (Treasure 1959).

The hoard evidence indicates that 2 reales were common in circulation through the Civil War. All three hoards are from below the Mason-Dixon line, but it would be unwise to generalize about circulation patterns from such little evidence. This regional bias is contradicted by other evidence, namely counterstamps.

The Circulation of Genuine 2 Reales: Literary Evidence

Literary evidence is also problematic. Contemporaries considered Spanish-American 2 reales to be quarter dollars. There was no verbal distinction between them and Federal quarter dollars. We cannot use literary evidence as we did with the pistareen, which was described by a distinct word (Kleeberg 1998, 1870-1871). One pistareen story does indicate the circulation of 2 reales in Philadelphia in the early nineteenth century. The story, *The Four Pistareens*, revolves about the confusion between pistareens and quarter dollars (*Four Pistareens* 1837, 29-30). This indicates that 2 reales, not Federal quarter dollars are meant, because only 2 reales and pistareens could be so easily confused.

There are several estimates of the number of Spanish fractions in circulation in the United States (Carothers 1930, 78, 106, 143-144, 146). The figures are in dollars, but since 4 reales were never minted in significant numbers, the actual number of coins is at least four times the dollar amount.

Date	Dollar Amount	Number of Coins	Source
1830	\$5 million	+20 million	Sen. Finance Committee
1850	\$6 million	+24 million	
1857	\$3 million	+12 million	Snowden
1857-1860	\$2 million	+8 million	Mint recoinage

Carothers says that J. R. Snowden's 1857 estimate is "undoubtedly too low." We have a range of estimates from \$2 million to \$6 million, with the number of coins in circulation ranging from 8 million to 24 million. These figures confirm that before 1853, Spanish-American fractions were a more important part of the U.S. silver currency than any other coin, with the exception of the half dollar.

Another indication of the importance of the circulation of Spanish-American silver is the evidence of denominations. Unfortunately we cannot use denominations to track the circulation of 2 reales, because their denomination is 25 cents; but the denominations 6¼ cents and 12½ cents do indicate the use of medios and reales.

I have examined the issuers of Spanish-American and Federal fractional denominations in the catalogues of paper money written by Eric P. Newman and James Haxby (Newman 1997; Haxby 1988). I divided the issuers into three groups: those that only issue Federal denominations (i.e. 5 and 10 cents); those that only issue Spanish denominations (i.e. 6¼ and 12½ cents); and those that issue both. Eleven issuers issued only Federal denominations; 38 issued only Spanish-American denominations; and 22 issued both. This indicates that at least through 1840 (most of this scrip was issued during periods of crisis, such as the War of 1812 and the Panic of 1837), Spanish-American coins predominated in circulation, compared with dimes and half dimes.

In the Far West, Spanish-American coins circulated for much longer than in the East. Reports from Northern and Southern California in the 1850s mention that 2 reales were frequently encountered (Cross 1927, 1:123-124). This is also indicated by the numerous Western good for trade mirrors that use the denomination 12½ cents. A break down by denominations, from the catalog by Hal Dunn, is given in the table below.

The prevalence of the Spanish-American denomination 12½ cents is very noticeable. Another denomination, 2½ cents, interlocks the Federal decimal and the Spanish-American octal systems. These pieces could only have been issued after 1896, when the celluloid button was patented. The denominations of the Western good for mirrors indicate how prevalent Spanish-American fractional silver coins were in the Far West, even in the first decade of the twentieth century (Dunn 1995).

Denomination	Number of Issuers
2½ cents	2
5 cents	15
10 cents	143
12½ cents	187
15 cents	3
25 cents	3
1 dollar	3
Good for drink or cigar	39

The Circulation of Genuine 2 Reales: The Evidence of Paper Money Vignettes

An interesting source is coin vignettes, which depict 2 reales. These are attractive and actively collected. They have been catalogued by Hatie (Hatie 1975, 1981-1982); I have supplemented his listing by consulting Haxby (Haxby 1988). In theory, banks will circulate notes with vignettes depicting coins that are familiar to their customers. If 2 reales are in widespread circulation in their area, a bank will be more likely to use them in a vignette. But further research indicates that coin vignettes are a security device used as stock engravings by bank note printers. They tell us something about the practices of bank note printers, but not much about coin circulation. Banks used vignettes almost entirely randomly, depending upon what stock engraving appealed to them at the time.

The following table provides a listing of issuers, distributed by state, derived from Hatie. I have added four Canadian issuers: Wolfred Nelson's issues for the Distillerie de St. Denis; the issues for Henry's Bank and the Banque de Québec; and W. & J. Bell's issues from Perth, Ontario (McQuade 1986a, b; Turner 1986; Charlton 1996, 172, 360). Haxby includes three issuers of banknotes who were not listed in Hatie, all from Baltimore, Maryland: the Bank of Baltimore (MD-15, notes G12 and G12a); the Bank of Maryland (MD-95, notes G12 and G12a), and the Union Bank of Maryland (MD-120, note G28).

Three printers (Robinson; Rawdon, Wright & Hatch; and Manouvrier) produced most notes with vignettes of 2 reales. During

State or Province	Number of Issuers
Alabama	1
Georgia	1
Maryland	10
Michigan	2
Mississippi	1
New York	3
Ohio	2
Pennsylvania	2
South Carolina	1
Tennessee	2
Virginia	1
Unidentified [London, Ohio?]	1
Ontario	1
Québec	3

the period after the War of 1812, when scrip was used instead of coin, the printer J. Robinson of Baltimore put coin vignettes of Spanish-American coins on his notes. This accounts for the high occurrence of coin vignettes of 2 reales in Maryland.

The second group of 2 reales coin vignettes has a complex history. The best evidence available suggests that this design originated from Canada. In 1837, four Canadian businesses issued notes depicting 2 reales in rapid succession. Edme Henry issued a banknote depicting a 2 reales of México, assayers FM, in June 1837. This note is said to have been engraved by Burton, Gurley & Edmonds of New York and printed by Adolphus Bourne of Montreal (McQuade 1986a; Charlton 1996, 172). Dr. Wolfred Nelson issued a note for his Distillerie de St. Denis on July 22, 1837 depicting a 2 reales of Lima, assayers IJ (McQuade 1986b). In August 1837, W. & J. Bell of Perth, Ontario, issued a note depicting a 2 reales of Lima, assayers IJ (Turner 1986). This was printed by Bourne and the Bells, in their correspondence, say that Bourne engraved the notes as well. Bourne, however, was also an agent for the engravers Burton, Gurley & Edmonds. The likeliest solution is that the complex vignette was made by Burton, Gurley & Edmonds and the rest of the engraving by Adolphus Bourne. The same vignette then turned

up again when the Banque de Québec issued notes in October 1837. This time it was not printed by Burton, Gurley & Edmonds, or by Bourne, but by Rawdon, Wright & Hatch of New York (Charlton 1996, 360). Partnerships of banknote engravers were very fluid in this period, which may explain how a vignette that had begun by being associated with Bourne/Burton, Gurley & Edmonds ended up with Rawdon, Wright & Hatch. Finally, in the 1840s Rawdon, Wright & Hatch used this vignette for various U.S. issues. The Canadian notes for Bell precede the U.S. notes. The Rawdon, Wright & Hatch engraving did not originate with a U.S. banker who had a 2 reales depicted because it was a coin familiar to his clients; it originates with Canadian merchants.

The third group was printed by J. Manouvrier of New Orleans for the Bank of Tennessee during the Civil War. Federal quarter dollars almost certainly outnumbered 2 reales in circulation in Tennessee by the eve of the Civil War. Tennessee wished to indicate that its notes were as good as specie, but since it was in rebellion against the United States, it did not wish to represent this with United States coin. So its paper money depicted Spanish coins instead.

We cannot look at the evidence of vignettes and conclude, for example, that 2 reales mostly circulated in Maryland. There just happened to be a printer in Baltimore who used that as a stock vignette for fractional scrip. Vignettes do tell us, however, that banknote printers could reasonably assume that 2 reales would be familiar to banknote users throughout the South, the Middle West, and the Mid-Atlantic states; and in Canada.

It is also interesting to see which coins from which mints and assayers were depicted on these notes; Hatie, regrettably, does not identify the mints and the assayers, nor does he illustrate all the notes, so we cannot identify them for all the notes. The following table summarizes the information available.

Vignettes, as one can see, can give a very misleading idea of what was in circulation in the United States in this period. 2 reales from México were as common as 2 reales from Lima. But the vignettes suggest that Lima 2 reales were the overwhelming majority, which they were not.

Mint and Assayers (with dates)	Number of Issuers
Lima IJ [1787-1804]	14
Lima JP [1803-1823]	1
México FM [1772-1801]	1
México TH [1804-1813]	1
México HJ [1810-1813]	1
Guatemala M [1785-1821]	1

The Circulation of 2 Reales: The Evidence of Counterstamps

The best evidence for circulation is counterstamps. I compiled a corpus of counterstamps on 2 reales from Gregory Brunk's catalogue.

State	Number of Issuers	No. of Specimens
California	2	6
Colorado	1	11
Illinois	1	5
Iowa	1	1
Kentucky	3	4
Louisiana	1	1
Maryland	4	36
Massachusetts	8	21
Michigan	1	1
Missouri	1	1
New Hampshire	1	1
New Jersey	2	4
New York	32	137
Ohio	1	1
Pennsylvania	19	64
Rhode Island	1	1
Wisconsin	1	1

Genuine 2 reales circulated all over the United States. Unlike many other early American series—e.g. large cents, which for many years

were more restricted to the east and in particular, New England—2 reales were a truly national coin. Since they circulated until the 1870s, they followed the pattern of settlement westward, to Illinois, to Wisconsin, and even to Colorado and California. The South is somewhat underrepresented. Here we must supplement the evidence of counterstamps with the evidence of coin finds, which are all from the South. But there is a clear predominance of New York State, followed by Pennsylvania, Massachusetts, and Maryland.

It is also interesting to look at cities from which more than one specimen is known. Here is the result from Brunk's catalogue:

Name of City	Number of Issuers	No. of Specimens
Albany, NY	1	2
Baltimore, MD	4	36
Boston, MA	4	17
Brooklyn, NY	1	6
Hanover, PA	2	5
Louisville, KY	2	3
Monmouth, IL	1	5
New Brunswick, NJ	1	2
New York, NY	22	112
Newark, NJ	1	2
Philadelphia, PA	14	56
Sacramento, CA	1	2
San Francisco, CA	1	4
Springfield, MA	3	3
Syracuse, NY	2	11

The city to which most specimens can be traced is New York City; followed by Philadelphia, Baltimore, and Boston. New York City has twice as many specimens known as Philadelphia, and its pre-eminence becomes even more pronounced if we include Newark and Brooklyn in New York City's count. The counterstamp evidence suggests that most 2 reales circulated in New York City, followed by the other large port cities of the Northeast: Philadelphia, Baltimore, and Boston.

When Genuine and Counterfeit 2 Reales Circulated

2 reales, genuine and counterfeit, passed in and out of United States circulation for more than a century. The story is a complex one, and the circulation was frequently interrupted by wars (1775-1781, 1811-1820, 1861-1877) and depressions (1837-1840). My account relies on Carothers.

In 1771 a secret debasement was carried out at the Spanish and Spanish colonial mints. The colonial type was changed from the pillar and globes type to one depicting the bust of Charles III. The first American issues are dated 1772. Pillar type 2 reales continued to circulate to a small extent—we know this from counterstamps and hoards (Cohen 1982)—because Gresham's law works with less strength on the lower denominations. When the War of Independence broke out in 1775, the new bust type coins disappeared from North American circulation. Paper circulated to the exclusion of coin. After the final collapse of the Continental Currency in 1780, coins began to circulate again (Carothers 1930, 37-41).

Many state mints were set up under the Articles of Confederation in the period 1783-1789. It seems probable that some counterfeit 2 reales were struck in this period, just as many counterfeit halfpence were. Counterfeit pistareens certainly were struck in this period: we know this from overstrikes (Kleeberg 1998, 1857-1861). In August 1789 the copper panic occurred, and fractional scrip replaced state coppers and counterfeit halfpence.

In 1795 the Anglesey Copper Company collapsed, increasing the copper price. The weight of the Federal cent was reduced in response (Breen 1988, 186). Copper was exported to Europe because of the wars with France. Copper counterfeits become less likely during this period.

By 1800-1810, the availability of cheap zinc led to an expansion of the U.S. brass founding industry. Die chains of several groups of brass counterfeit 2 reales link up with coins dated 1797 (Group V), 1798 (Group VI), 1801 (Group II) and 1807 (Group IV). Since it is easy to circulate a coin dated in the past, but difficult to circulate a coin dated in the future, the dates on the coins provide a *terminus post quem* for their manufacture. These die chains indicate that the coins were struck after 1800.

In 1810 the Mexican War of Independence began, restricting silver supplies. This led to a financial crisis in 1811, war in 1812-1815, and another panic in 1819. Fractional scrip was used instead of coins (Carothers 1930, 77, 79).

The 1820s and early 1830s are the likeliest date for the issuance of some brass counterfeit 2 reales, especially the Ferdinand VII types.

In 1832, Dr. Lewis Feuchtwanger issued his coins in German silver. Although he could not convince the mint of its utility, counterfeiters soon learned that it was a good way to imitate silver coins (Bosco 1983). German silver counterfeit 2 reales would have been issued in the period 1832-1837 and 1840-1843.

The Panic of 1837 caused hard coin to disappear. Fractional scrip and hard times tokens were used instead of coin through 1840 (Carothers 1930, 95-97).

In 1843, the New York banks reduced the price at which they would accept 2 reales to 23 cents, reales to 10 cents, and medios to 5 cents. By 1848, banks and post offices throughout the country had adopted this valuation (Carothers 1930, 102).

The weight of the Federal quarter was reduced in April 1853 (the "arrows and rays type"). From this period onward it is more practical to counterfeit Federal quarter dollars, instead of 2 reales (Carothers 1930, 123).

From 1857 until 1860 the U.S. Mint redeemed Spanish-American silver for the new flying eagle cents at par; other government offices would take them at only 20 cents (2 reales), 10 cents (reales) and 5 cents (medios) (Carothers 1930, 138-139, 145-147).

In the summer of 1862 full weight Federal silver coin disappeared from circulation because of the Civil War. Thereupon worn 2 reales came into circulation as a substitute for a few months until the greenbacks depreciated further and the worn 2 reales were hoarded as well (Carothers 1930, 162). From 1862 until 1876 paper fractional currency was used instead of coin. In 1876 a little silver began to re-appear in circulation after the Civil War period. In 1877 it became a flood (Carothers 1930, 256-259).

One counterstamp indicates that 2 reales still circulated in New York City as late as the eighteen-seventies. Counterstamps are usually

applied in one batch. We can therefore assume that the date of the latest host coin is the *terminus post quem* for the counterstamp. A counterstamp Parisian Varieties, 16th St. & Broadway, New York, appears on a trade dollar of 1876, and also on a 2 reales (Brunk 1987, 134-135; Brunk variety 30900). This indicates that 2 reales circulated in New York City as late as 1876.

In the West, Spanish-American silver circulated for even longer. The most common denomination encountered for Western “good for” mirrors is the Spanish-American denomination of 12½ cents (Dunn 1995). Yet these “good for” mirrors only began to be made after 1896.

The Limited Circulation of Federal Quarter Dollars

The importance of the Spanish-American 2 reales is indicated by the relative insignificance of the U.S. quarter dollar. This was among the most neglected of all regularly minted silver denominations. In 1794-1836, fewer dollars were minted, but there were special reasons for the suspension of the minting of dollars in 1803. The minting of half dimes was suspended for a longer period, but in periods when half dimes were being minted, the mint made more half dimes than quarter dollars. Until 1843, in every year but one (1835), the U.S. mint made fewer quarter dollars than dimes. Until 1842, in every year (except for 1805) that the mint made both quarter dollars and half dimes, the number of quarter dollars was less. In the sixty-eight year period 1794-1857, half dollars were not minted in five years; half dimes were not minted in twenty-eight years; quarter dollars in twenty-one years; dimes were not minted in fourteen years.

The U.S. Mint was being sensible: it would “hit them where they ain’t.” The Mexican mint made many 8 reales and 2 reales, so the United States Mint made few dollars and quarters. The Mexican mint made few 4 reales, so the United States Mint made many half dollars. Dimes and half dimes were not Mexican denominations, so the United States Mint made those. Moreover, the merchants of the time would turn to the United States Mint for the denominations they lacked. They received many 2 reales and 8 reales from Mexico, but they lacked half dollars, dimes, and half dimes, so it was those coins that they ordered from the Mint.

The limited circulation of the quarter dollar is also shown by the comparative rarity of counterfeit quarter dollars. So far, I have found only three counterfeit bust quarter dollars in the ANS collection, one each dated 1833, 1834, and 1835. This is in contrast to the great abundance of counterfeit bust half dollars.

Before 1853, it was more profitable to counterfeit 2 reales than Federal quarter dollars. As the three specimens in the ANS collection show, a few people tried anyway. We also have literary evidence about some early counterfeiting of Federal quarter dollars. *Niles' National Register* wrote on March 27, 1841:

COUNTERFEITS. The Philadelphia Sentinel says that counterfeit American quarters of dollars are in circulation.

They are dated 1836, and are so well executed that it is difficult to distinguish them from the genuine. (Niles 1841)

These instances are exceptions. It was only the reduction of the weight of the quarter dollar in 1853 that opened the floodgates to massive counterfeiting of the Federal coin.

Where Counterfeit 2 Reales Were Made

Many counterfeit 2 reales have a provenance that leads back to New York City. It is a logical conclusion that, just as most genuine 2 reales circulated here, so did the counterfeits. It is possible that these counterfeits were not only circulated, but also made in New York City. The city was more industrial in the nineteenth century than it is now. In 1849, for example, counterfeit large cents were being made in the city (Julian 1972; Kleeberg 1996). It is likelier, however, that the coins were distributed in New York City but manufactured in one of the industrial towns of the early United States, such as Belleville, New Jersey or Lansingburgh, New York. Before coal was cheap and steam widely used, industry in the early Republic congregated around waterfalls—another example is Fall River, Massachusetts. An obvious candidate for the manufacture of counterfeit 2 reales not far from New York City is Waterbury, Connecticut, a traditional center of brassmaking, with waterpower from the Naugatuck River.

When Counterfeit 2 Reales Were Made

When were these coins made? Literary and counterstamp evidence shows that genuine 2 reales continued circulating even after they lost their legal tender status in 1857, well into the eighteen-seventies. So we have a wide range of dates: from 1772 until 1880.

Counterfeit 2 reales can be divided into three rough chronological groups on the basis of metal: copper, brass, and finally German silver. German silver was not extensively used in the United States until the 1830s, so this group can be assigned to the years 1830-1853. After the weight reduction in the federal quarter dollar in 1853, arrows and rays federal quarters became so plentiful in circulation that counterfeiters shifted to that, rather than 2 reales. So 1853 would be the cut-off date for counterfeit 2 reales. The German silver pieces date to the 1830s—probably within a very narrow span of years. The change in the gold/silver ratio in 1834 increased the value of silver in terms of gold, and silver began to disappear from circulation. Counterfeiters shifted to bogus paper and evasive copper (Hard Times tokens) in the late 1830s, until the weight reduction of 1853 made silver counterfeiting profitable once more.

Some copper pieces are early. 77C-L11 is dated 1777, and has the right assayers for 1780-1787, so it would fit into the heyday of state coppers and counterfeiting in the 1780s. There are, however, many copper pieces that are part of the middle series, the brass one, because specimens are known in both brass and copper from the same dies.

Die links indicate that brass pieces, although bearing eighteenth century dates, must have been struck in the nineteenth century: for example, obverses 88A and 01B are linked by the reverse P1. The bulk of the brass pieces were probably struck in the period 1800-1811. Coin disappeared from circulation for much of the next decade because of the War of 1812. 1820-1830 is another possibility. But if the brass counterfeits were made in the 1820s or later, we would see more counterfeits with the bust of Ferdinand VII. But Ferdinand VII counterfeits are rare.

As a working hypothesis, the brass counterfeit 2 reales—the heart of the series—were made in Waterbury and distributed in New York City during the expansionary economic periods of 1800-1811 and 1820-1830. This is an educated guess, based on where the brass industry was

situated, the dates on the counterfeits, the provenance of the counterfeits and the circulation patterns of the genuine coins.

Counterfeit 2 Reales and Blacksmith Coppers

Much interest in counterfeit 2 reales is because of a presumed connection to the Canadian Blacksmith series, going back to Warren Baker's collection auctioned in the Taylor sale of 1987. Baker included two counterfeit 2 reales, and his arguments for including them among the Blacksmith series are strong. But it would be a mistake to include all counterfeit 2 reales in the Blacksmith series. Many Blacksmiths are counterfeits of counterfeits: we do not include all counterfeit halfpence in the Blacksmith series, even though Blacksmiths imitate them. We do not include all Hard Times Tokens in the Blacksmith series, even though a counterfeit of the Peck's Machine Company token is included. Blacksmiths are the bottom feeders of the counterfeiting chain: they are fakes of fakes.

Most counterfeit 2 reales differ from Blacksmiths in several respects. The weight is lower: counterfeit 2 reales weigh below 6 grams, brass Blacksmiths weigh above that. Secondly, the edges are finished differently; the edges of Blacksmiths are squared off, while those of counterfeit 2 reales often have an imitation of the circle and oblong edge decoration of the genuine pieces. Thirdly, counterfeit 2 reales show a sophisticated use of letter punches. Blacksmiths often have no inscription whatsoever.

We can distinguish three bodies of material, depending on where they were made and where they circulated. First of all, genuine 2 reales. These are produced in the mints of México, Zacatecas, Popayán, Lima, Potosí, Guatemala City and Santiago. They circulate extensively, perhaps even primarily, in the United States. Latin American mints were geared for export, and just as 8 reales were sent to China, 2 reales were sent to the United States. These are coins of Latin American manufacture, which circulated in the U.S. and Canada.

Secondly, counterfeit 2 reales. They are most common in brass; they are made using punches; there are numerous die links. They were made in the United States, possibly at Waterbury, in the period 1800-1811 and 1820-1830. These are coins of United States manufacture, which

circulated in the U.S. and in Canada.

Finally, Blacksmith imitations. These are extremely crude; they are often made without punches; they have Canadian provenances. They are counterfeits of counterfeits. This category includes the pieces that Warren Baker attributed as Blacksmith related pieces. Mike Ringo found a remarkable copper counterfeit 2 reales overstruck on a large cent, which was formerly owned by the Canadian collector S. S. Heal. This piece could fairly be described as Blacksmith-related as well.

The Phenomenon of Mules

The marriages that link two mints indicate that the counterfeits were made in the U.S., where coins from the mints of Lima and México were commingled. Counterfeiters of 2 reales not only created geographical mules; they created chronological ones as well. The obverse of Spanish-American coins bears a date; the reverse bears the assayers' initials, who only appear on a certain range of years. Genuine coins can be dated within a range of years by the assayers' initials on the reverse. Counterfeiters often get this wrong, creating many wonderful mules in the process. 77A is found with L1 and L19, which has the assayers' initials IJ, who were active 1787-1804. 94A is married to L7 and L18, which has assayers' initials JP, who were active 1803-1823. This also gives a *terminus post quem* for these coins; for example, coins with obverse die 77A were certainly struck in 1787 or later; they could not have been struck in 1777.

77C is married to L11, which has assayers' initials MI, who were active 1780-1788. 92A is married to L13, which has assayers PP, active in Potosí in 1795-1802. 12A is linked to L16, with assayers active 1787-1804. 78A is linked to M1, which has assayers FM, who were active 1772-1777 and from 1784 onward, but not in 1778. 1791, the commonest date for counterfeit 2 reales, does not appear on genuine Mexican coins. 87A and 91A are linked to M3, which has assayers FF, active 1778-1784. These impossible mules add much to the charm of the series.

The Role of Cast Counterfeits

Since bust-type 2 reales circulated for over a century throughout North and South America, and since anyone with access to a genuine

2 reales can prepare a decent cast counterfeit, it is hard to figure out where the cast counterfeits fit in. Keith Davignon was in a better position than we are: he included cast counterfeits in his study of counterfeit bust half dollars, but he could draw upon Overton's die study of genuine half dollars and link each cast counterfeit with a specific pair of dies (Overton 1990; Davignon 1996). Genuine 2 reales were minted in such abundance that a die study is extremely difficult.

Cast counterfeits are important because they can tell us what genuine 2 reales were in circulation. A census of cast counterfeit 2 reales will give us a general indication of what 2 reales were in circulation in the United States in that period. A few of these cast counterfeits may not come from the United States, and others may not come from this time period, but over all, with enough examples, the general picture will be one of U.S. circulation in the period 1800-1850. We cannot say for sure that any specific cast counterfeit 2 reales came from the United States in that period; but we can be fairly sure that most of them did.

Many caveats remain. I am fairly sure that these counterfeits are cast, and not struck. Most counterfeits can be detected by their base metal; silver counterfeits can be detected by weight. I compare the counterfeits with a coin I know to be genuine. If the device and letter punches match closely, I consider the coin cast; if not, a die-struck counterfeit. Other features (porosity) also play a role, but a very worn coin can develop a porosity that leads one to condemn it as a cast, when it actually is struck. But for one mint this method fails: the mint of Zacatecas. This was a royalist mint during the Mexican Wars of Independence, and coins thought to be genuine display so much diversity in dies, letter punches, and device punches that it is not possible to determine whether a Zacatecas counterfeit is struck, or merely cast from a bizarre matrix. One assumes for now that the Zacatecas counterfeits (with the exception of the obvious 1791 counterfeit 91B-Z1, and the 1821 counterfeit 21B-Z2), are all cast from odd matrices; but this remains difficult to determine.

Distinguishing cast counterfeits is difficult. An example is a remarkable, but very puzzling counterfeit 2 reales discovered by Mike Ringo. This counterfeit, of which four examples are known, has an obverse with Charles III and the date of 1776, and a reverse mintmark for

México; but the assayers are PR. These assayers are fine for Potosí for 1776, but incorrect for México. Yet the punches are an almost exact match for coins of the period, and the coins have the porosity of a cast. How can a cast mould have an assayers and mintmark combination that is not represented by genuine coins? The most likely explanation is that the counterfeiter cast the reverse mould from a México coin: the mintmark is a very close match for genuine coins, and the style of the numeral 2 (with a nearly closed loop on top) is known for México, but not for other mints in this year. When the assayers' final initials came out too weak, the counterfeiter added them by hand; but he copied a Potosí coin rather than one from México. This is how a counterfeit that appears in all other respects to be a cast, can combine a México mintmark with Potosí assayers.

Here is a list of cast counterfeits I have seen. Unless otherwise indicated, the metal of the counterfeit is either brass or copper-nickel. The condition of the coins is too poor for us to distinguish the two metals further. Weights are in grams. Coins in the ANS collection are given their coin numbers in parentheses:

1772 Bogotá assayers VJ 4.934 (1944.95.2)

1774 Potosí assayers JR 5.174, holed (1944.95.3)

1776 México, but assayers PR, 5.385, 5.579, 5.846, copper (all MKR); 5.652 (Robert Blank)

1776 Lima, assayers MJ, 5.969, silver (JL)

1777 Potosí, assayers PR, 5.501 (MKR)

1779 México assayers FF, 5.363 (1944.95.6)

1780 México assayers FF, 5.355 (0000.5.14)

1781 México, assayers FF, 5.573 (MKR)

1787 México, assayers FM, 5.062, lead (MKR)

1788 México, assayers FM, 4.879 (1944.95.14) and 5.099 (1944.95.15)

- [1789] México, assayers illegible, 3.886, very thin and low weight silver (MKR)
- 1790 México, assayers FM, 4.383 (0000.5.19) and 4.951 (0000.5.20; holed)
- 1791 Lima, assayers IJ, 5.489 (G. Smith-JL), copper
- 1793 Lima, assayers IJ, 5.191 (0000.5.57), copper-nickel
- 1793 Guatemala, assayers M, 6.530 (MKR) (holed; jewelry piece?)
- 1795 México, assayers FM, 5.468 (0000.5.42)
- 1796 Guatemala, assayers M, 4.690, silver (MKR-JL); missing chunk from planchet
- 1797 México, assayers FM, 5.558, lead (0000.5.41)
- 1800 Guatemala, assayers M, 5.286 (1944.95.26)
- 1800 Lima, assayers IJ, 4.558, lead (0000.5.60); 4.829 (ES-JL)
- 1801 México, assayers FT, 5.711 (0000.5.36) and 5.890 (0000.5.35)
- 1802 México, assayers FT, 5.558 (0000.5.62)
- 1802 México, assayers FT, 4.865, holed, silver (1944.95.31), possibly a jewelry piece
- 1807/6 México, assayers TH, 4.947, lead (MKR)
- 1808 México, assayers TH, 4.652, (Skalbe-MKR); 3.988 (ES-JL), 5.630 (MKR-JL)
- 1813 Santiago, assayers FJ, 8.316 (1969.222.1112)
- 1815 México, assayers JJ, 6.179 (1944.95.35) and 6.570 (0000.999.513; button shank attached), silver
- 1817 Lima, assayers JP, 5.017 (1944.95.40), 5.476 (1944.95.39) and 5.168 (1944.95.38)
- 1819 México, assayers JJ, 5.433, holed (Skalbe-MKR)
- 1820 Zacatecas, assayers AG, 4.504 (1944.95.41)

1821 Zacatecas, assayers RG, 4.513 (Paul Bosco Auction 8/4/97:709-JL)

1822 Zacatecas, assayers RG, 6.962 (1944.95.42; see commentary above; may be a struck counterfeit)

Dates Illegible, range determined from the assayers and the royal bust:

[1801-1803] México, assayers FT, 5.046 (1944.95.27)

[1776-1791] Potosí, assayers PR, 5.507, lead (Skalbe-MKR)

[1792-1800] México, assayers FM, 5.202, lead (0000.5.45)

[1812-1821] México, assayers JJ, 5.682 (0000.5.65)

Illegible Charles IV counterfeit, lead, 4.389 (Skalbe-MKR)

Coins Excluded from the Series

Some 2 reales forgeries have been excluded to simplify matters.

1) Cast counterfeits.

2) Imitations of 2 reales made for jewelry. There are some imitations of 2 reales that were never designed to circulate, but were made to use as buttons or jewelry. These pieces often have handcut letters, impossible dates, and are holed at the top. Examples seen include:

1941.150.1, Charles IV, 1725 IJ, Lima, 4.753; holed and plugged.

Charles IV, 1808 IJ, Lima, 4.987; holed. Coins of Beeston, 3/1999-John Lorenzo.

Mike Ringo has found a button that imitates the style of the 2 reales:

Bust of Charles IV, but obverse inscription: A. FERNANDEZ BUEN ORDEN 442; reverse inscription HISPAN.ET IND. REX B. DE PLA. (for *botón de plata*, i.e. silver button). With button shank. The letters are made with punches, not handcut.

3) Counterfeits that appear to be related to the Canadian Blacksmith series. These pieces have Canadian provenances; they are very crudely

made; they are often aneipgraphic. Three pieces so far fall into this category. Two pieces were in Warren Baker's collection that was auctioned as part of the Taylor sale of 1987, lots 1097 and 1098; one piece was dated 1797, and the other 1804. I have looked through nearly two hundred counterfeit 2 reales in the course of doing this die study. I have yet to identify a die link to the two pieces in the Taylor sale. This is a strong indication that Warren Baker was correct in including these pieces as related to the Canadian Blacksmith series. If those pieces turned up in abundant numbers in New York City, with die links to the sophisticated brass 2 reales, we would include them in the regular 2 reales series.

Mike Ringo turned up a third Blacksmith 2 reales. It has no inscription; it is very crude; it is overstruck on a U.S. large cent; it has a good Canadian provenance, since it comes with an envelope from S. S. Heal of Toronto.

I am, however, including some coins purchased in Europe. Both John Lorenzo and Mike Ringo have turned up some remarkable varieties from there. These coins are probably not part of our regular series, which consists of brass counterfeits made in the hinterland of New York City in the nineteenth century. These pieces may be European counterfeits. So long as we keep in mind that these coins are something of a special case, it is useful make a record of the varieties.

Another counterfeit, which Mike Ringo turned up (94A-L18), bore a Chinese chopmark. This piece is die-linked with a coin in the ANS collection. The letters are fairly crude handcut letters, with backward Ns, which seem to indicate that the forger was not wholly comfortable with the Roman alphabet—i.e., this counterfeit was made in China.

I was able to take advantage of the expertise of the ANS volunteer David Jen, who knows Chinese. Three of the chopmarks could be more or less read. The two on the obverse are upside down relative to the normal orientation of the Spanish coin. The one on the left (holding the coin upside down) is “ji,” which means “good luck.” The one on the right is “he,” which means “joining.” “Happy while United” would not be far off. The one on the reverse that is readable (a second chopmark is obliterated by the hole) reads “xian,” which is an intensifier, meaning greatly, very, extremely.

The coin is holed at the top in terms of the orientation of the two chopmarks on the obverse. This suggests that the coin was made into a love token and probably worn around the neck.

Another coin that I know of, but do not include, is a brass counterfeit of 1806 that I have not had a chance physically to examine (Anton and Kesse 1992, no. 120).

Opportunities for Further Study

I have not done a die study of the counterfeit 2 reales with the Republican Mexican design (cap and rays). But there are some marvelous varieties in that series too. John Krajlovich collects coins overstruck on large cents, and Bill Noyes supplied me with a photograph of one coin in his collection: a counterfeit 2 reales of 1827 overstruck on a matron head large cent. A coin from the same dies, struck in copper-nickel, is in the ANS collection. Mike Ringo turned up a third example in copper-nickel. David Gladfelter has pointed out that the letter punches resemble Hard Times tokens made in Belleville, New Jersey.

Much work remains to be done in this area. Collectors and dealers will doubtless find more die varieties and die links, and this will help us chain together some of the singletons. I have not studied the punches, but a careful punch study, similar to Gary Trudgen's classic arrangement of the Machins' Mills coinage, might clear up many mysteries. There are some closely related series that might make good die studies as well—counterfeit Republican 2 reales, counterfeit Federal bust quarter dollars, counterfeit reales and medios, counterfeit fractional cobs (although these lead one into the complicated Caribbean, Central American and Argentinian coinage of the 1820s) and counterfeit pillar 2 reales. Imitations made for jewelry and buttons are worthy of a study in themselves. The time required for the die study has meant I have not had the opportunity to study in detail literary and historical evidence of counterfeiting activity: newspaper reports and court records. This die study should not be the last word in this field, but the beginning of many further studies by other researchers.

The Numbering System

The numbering system has been adapted from that developed by Eric Newman for Robert Vlack's die study of counterfeit halfpence. Spanish coins differ from British coins in that the date is on the obverse, so this has led to a slight alteration in the system. The obverse designation is the last two digits of the date, followed by the letters A, B, C, in order as the dies are discovered. If a new obverse die of 1787 is discovered (three are currently known), it will become 87D. The reverse designation is the initial letter of the Spanish colonial mint—M for México, L for Lima, P for Potosí (and in one instance, for Popayán), S for Santiago, plus a number, in the order that new dies are discovered. If a new México die is discovered, which is not unlikely, it will take the designation M16. All dies are illustrated at the end of this article.

Obverse Descriptions

- 71A.** Impossible date. Ordinal is given as Charles II. TIA of GRATIA are below the point of the bust (on genuine coins only IA are below the point of the bust). The feet of the 7s in 1771 are fat. The top serif of the S of CAROLUS touches the middle bar. Found with: S3, S5. Group VII.
- 71B.** Impossible date. Ordinal given as Charles III. The G of GRATIA is not a letter, but a circle with a cross punched in the middle. Stop after DEL. The bust might be called a baby head—well, more like a toddler. Found with: M5.
- 71C.** The first 1 and 7 of the date are distant from each other. The T leans to the right and touches the first A of GRATIA. The final A of GRATIA is distant from the I. Found with: M15.
- 73A.** Letters and numbers clearly handcut. No stop after the ordinal. The RA of GRATIA and the AR of CAROLUS are joined at the feet. Large ball at the end of the curl of the 3. Found with: M13.
- 74A.** The 4 of 1774 is large. The diesinker did a good job of captur-

ing Charles III's large nose. No stop after the ordinal; its numerals are long and thin; as are the other letters. The final of A of GRATIA touches the bust. Found with: P2.

- 77A. The U of CAROLUS is much lower than the L. CAROLUS is punched in very unevenly, so that R and L appear higher than the rest; the C is distant from AROLUS. The top of the U is joined, the R has a curly tail. The first two 7s of the date touch, and are distant from the 1. Found with: L1, L19. Group V.
- 77B. The 1777 is oddly cut, so that the top is thick and short. The D in DEI is backwards. The ordinal is widely spaced. Found with: M11.
- 77C. Letters crudely cut by hand. The O of CAROLUS is closer to the R than to the L. The G of GRATIA looks like a sickle. Found with: L11.
- 78A. Ordinal of Charles II, who died in 1699. The U of CAROLUS is low, and was originally punched in lower still. The first 7 and the 8 of 1778 are double-punched. The curly tailed R of CAROLUS is very close to the hair ribbon. The D of DEI is small, the E is large. Found with: M1. Group I.
- 79A. The top of the U is joined. The A and the R of CAROLUS are distant from each other, and the bottom of the A is below the bottom of the R. The D and the E of DEI touch. The E of DEI tilts downward to the right, and is below the I. The upper left serifs of the ordinal are weak. Differences in the strength of striking may some times make it look like a different die variety; compare the arrangement of the lettering and the denticles carefully. Found with: P1. Group II.
- 81A. The CA is distant from ROLUS. The O and the L touch. The O is thick. The S of CAROLUS is low. Found with: L8.

- 85A. The letters and numerals are thickly shaded, as is characteristic of mid-nineteenth century typefaces. The thick curves of the 8 and the 5 of 1785 are easy to recognize. The letters are hand-cut, not done with punches. Found with: M10.
- 87A. No L in CAROLUS, hence the CAROUS variety, presumably done on Friday afternoon or Monday morning, when the diesinker's mind was on his weekend carousals. The serifs of the ordinal are joined, which is diagnostic for this group. Found with: L4, M2, M3. Group III.
- 87B. Ordinal of Charles II. The top of the U is joined. The R of CAROLUS has a curly tail. There is a stop between DEI and GRATIA (diagnostic). The upper left serif of the I of DEI is missing. Found with: L5, P5. Group IV.
- 87C. The bust of Charles III is much beakier: the nose is very pointed. The final 7 of 1787 is high. Often double struck, almost never fully struck up. Found with: S1. Group VII.
- 88A. The top of the U is joined. The A and the R of CAROLUS touch. The upper left serif of the I of the ordinal and of the I of DEI has broken off. On several examples the pellet between CAROLUS and the ordinal does not show; it depends on the angle at which they struck the die. CAROL and the 1 in the date are often weakly struck. Found with: P1. Group II.
- 88B. Crude bust. The date, 1788, is much closer to the A of GRATIA than to the C of CAROLUS. The base of the I of DEI is lower than the other two letters. TIA below bust. Found with: L9.
- 88C. Handcut letters. Large stops. The stop between DEI and GRATIA is closer to the G of GRATIA. The S of CAROLUS is lower than the rest of the word. Found with: S4.

- 89A. The top of the U in CAROLUS is joined. The C and 1 of 1789 and the dot between them are very close, and the stop nearly touches the C. The D of DEI is high. Found with: L2, L3. Group VI.
- 91A. Ordinal of Charles III, who had been dead for three years by this time. The tops and bottoms of the ordinal join. The S is distant from CAROLU, and the G from RATIA. Found with: M3. Group III.
- 91B. A beautiful die. The tail of the 9 is long. The base of the U of CAROLUS is lower than the L. The diesinker did a good job at conveying the fatness of Charles IV's head. Found with: Z1.
- 91C. The top of the U is joined. The R of CAROLUS has a curly tail, and touches the O. The final I of the ordinal is higher than the other two. The stops around the date are near the bottom instead of center height. The stop between S and the ordinal is closer to the ordinal. The A of GRATIA is close to the date. Found with: M1. Group I.
- 92A. The 1 of 1792 is higher than the 7. The 9 is rather curly. The 2 is larger than the 9. The D of DEI is higher than the EI. Ordinal: IIII. Found with: L13.
- 92B. The stop between DEI and GRATIA was misplaced so that it is high and touches GRATIA. The right foot of the second A in GRATIA nearly touches the bust. The stop between CAROLUS and the ordinal is closer to the ordinal. The date is widely spread. Found with: L10.
- 93A. I have at times called this the "Liberace head," to continue with the musical references; sometimes the head looks like Napoleon Bonaparte. The I of DEI is closer to the stop than to the E. The stop after GRATIA is closer to A than to the 3 of 1793. The 9 of 1793 is closer to the 3 than to 7. The R and O of CAROLUS touch. Found with: L6.

- 94A. The lazy 4 variety; or, perhaps it is not that the 4 is lazy, rather it is falling down drunk. The C of CAROLUS is much larger than the other letters. Found with: L7, L18. Group VIII.
- 95A. Handcut letters. Ordinal of Charles III. The 9 of 1795 is closer to the 5 than to the 7. The stop before CAROLUS is closer to the C than to the 1 of 1795. The two stops either side of the ordinal are very close to the Roman numeral. The 1 in 1795 is fat, and gets fatter towards its bottom. The foot of the 9 is also fat. Found with: L14.
- 97A. Very large head—the most distinct bust type in the series. You can call it “Hercules head,” but the lips and the jaw make the bust look like Elvis Presley, so I think “Elvis head” is an even better name. Elvis turns up everywhere. My name for this die has not met with universal approval. Paul Bosco’s comment is worth quoting:
- The “Elvis Head” variety, as dubbed by Kleeberg. It would be a public service if some phrenologically-literate-EAC type would make up a list of colonial-sounding head names for Dr. John. The passage from Mutton Head to Jefferson Head to Elvis Head is not harmonious. (Bosco 1997, lot 705)
- Ordinal of Charles III, who had been dead for nine years. The middle I is higher than the other two in the III. Found with: M4.
- 97B. The C of CAROLUS is lower than the A. Large L in CAROLUS. Ordinal IIII. The D of DEI is low. The G of GRATIA is closer to the stop than to the R. The space between the C and the date is smaller than the space between the S and the ordinal. The lower ribbon points at O. Often unevenly struck up. Found with: L1. Group V.
- 97C. No stop between DEI and GRATIA. The lower ribbon points at R. S is higher than the ordinal. Found with: L1. Group V.

- 98A. The top of the U in CAROLUS is joined. The S is distant from CAROLU. The middle bar of the E in DEI is very weak, and on the specimens I examined I could barely make it out. Ordinal of Charles III, who had been dead for ten years. Found with: L3, M6. Group VI.
- 01A. The Beethoven head. The G is distant from the R of RATIA. The C of CAROLUS is low. The S of CAROLUS, the stop, and the first I of the ordinal all touch. The first I of the ordinal is low. The 1s in the date are backward. Found with: M7.
- 01B. The top of the U is joined. DEI is crowded together, GRATIA is wide. The lower ribbon is blobby, and points at the O of CAROLUS. Ordinal of Charles the third, who had been dead for thirteen years by 1801. Found with: P1. Group II.
- 04A. The lower right part of the bust ends in a point, which points towards the stop after GRATIA. The right part of the 4 in the date is heavy. The D in DEI touches the forehead. The right foot of the R in CAROLUS and GRATIA is weak and underdeveloped. Both planchets I saw were porous cupronickel. Found with: L12.
- 07A. Ordinal of Charles II. Stops between all the words. Curly tailed R, and the top of the U is joined. The C is lower than AROLOUS. The final I of the ordinal is high. Found with: P5. Group IV.
- 08A. Crude, with the letters made by hand, not by punches. The D is a little higher than the rest of DEI. The tops of the 8s and the 0 are open. Found with: M12.
- 08B. Large stops. The R of GRATIA touches the A. The final I of the ordinal (IIII) is lower than the others. Found with: S2.
- 10A. Bust of Charles IV, but title of Ferdinand VII. Name of Ferdinand spelt FERDND, a spelling used in the mints of

- Nueva Granada (Colombia). The letters are cut by hand, not punched in. Stop between DEI and GRATIA. Found with: P4.
- 11A. The D of DEI is distant from the other two letters; the E and I nearly touch. The stop between FERDIN and VII is closer to the V. Found with: L15.
- 12A. The two IIs in the VII for Ferdinand VII are missing their top serifs. The right foot of the R in GRATIA is nearly joined to the left foot of the first A. The top of the I of GRATIA also appears to be missing its serifs. Found with: L16.
- 14A. Name of Ferdinand VII abbreviated FERDIN. Many examples of multiple punching of the letters, notably the R of GRATIA and the second 1 in 1814. Found with: L17.
- 16A. The V is lower than the two Is in VII. The I in GRATIA is closer to the A than to the T. The I in FERDIN is closer to the D than to the N. Found with: M8.
- 17A. Charles III's ordinal, who had been dead for almost thirty years in 1817. Handcut letters. The bust has a large, round nose, and an open mouth. There is a large space between the bust and the date. The D of DEI is large. Found with: M9.
- 17B. Issued in the name of Charles III, who had been dead for nearly thirty years. The C of CAROLUS is larger than the A. The R of CAROLUS is higher than the O. The date is much closer to the C of CAROLUS than to the A of GRATIA. Wide date. The second 1 of 1817 is closer to the 8 than to the 7. Found with: S6. Group VII.
- 18A. Issued in the name of Charles III, who had been dead for thirty years. The A of CAROLUS is smaller than the other letters. The top of the U is not joined, and the tail of R is fairly straight. Found with: M14.

- 21A. Handcut letters; very crude bust. The D of DEI is high. The final I of VII is low. The stop between the first I of 1821 and the F of FERDIN is closer to the F. The E of DEI appears to touch the I. On the examples I have seen, there is a die break in the GRAT of GRATIA, starting below the base of the G, passing through the middle of the A and touching the top left bar of the T. Found with: P3.
- 21B. Wide date. The letters are made with punches. The D of DEI appears to touch the hair. GRATIA is much closer to DEI than it is to the date. The R and A of GRATIA nearly touch. The stop between FERDIN and VII is closer to the N. Found with: Z2.

Reverse Descriptions

- L1. The D of IND is thick. The X touches the base of the pillar. The stop between D and R nearly touches both letters; it is closer to D. The foot of the lion in the upper right shield touches the center oval. The R of REX is distant from the EX, and close to the pellet, which nearly touches the D of IND, which for its part is distant from IN. The S of HISPAN is closer to the I than to the P. The tail of the R in REX is straight. The Lima mintmark is expressed as a ligature MF. The inscription concludes MF. 2R.I.J. It should be distinguished from L19, which has two Xs in the reverse legend; one in REX and one after the mintmark. Found with: 77A, 97B, 97C. Group V.
- L2. REX is crammed below the base of the left pillar; one result is that the stop between IND and REX exists only as a tiny pimple, even on well struck, well preserved examples. The tail of the R in REX is curly. Found with: 89A. Group VI.
- L3. This die is distinguished from L2 because the base of the left pillar juts between RE and X. The stop between I and J (the assayers' initials) is very misshapen. A hook branching out from the curve of the R of REX indicates where R was first punched in too far; it was then repunched further to the left (or the right,

depending on your point of view) to allow space to put the E in. Found with: 89A, 98A. Group VI.

- L4. The left pillar points between the two feet of the X of REX. This die is important because it means we have a die link between a coin ostensibly from Lima, and a coin ostensibly from Mexico, which means that the coin was minted in neither of the two places, but rather a place where Lima and Mexico coins circulated commingled, namely the United States. Found with: 87A. Group III.
- L5. The inscription has an unusual reading: .HISPAN.ET.IND. REX.J.R.P.S. The upper left serif of the I of HISPAN is missing. The I of HISPAN leans distinctly to the right. Stops between all the words. A small dot is often visible on top of the final S. Found with: 87B. Group IV.
- L6. Assayers IJ. The base of the E of ET nearly touches the right pillar. The D of IND is closer to the stop than to N. The top of the E of ET is higher than the T. Often not fully struck up. Found with: 93A.
- L7. Assayers JP. The Ns of HISPAN and IND are backwards. The I nearly touches of the N of IND. The R is close to the top of the left pillar. Found with: 94A. Group VIII.
- L8. This is easy to identify by the retrograde inscription: LR.HE.XER.DNITE.NAPSIH. Found with: 81A.
- L9. The letters are unevenly spaced: HISPAN is wide. The D of IND is large, and closer to the stop than to the N. The top of the 2 is a closed loop. The *fleurs-de-lis* in the center oval lean left. The point of the base of the right column points to the stop between HISPAN and ET; the point of the base of the left column points to the right foot of the X in REX. The lion in the

upper right quadrant leans forward more than the lion in the lower left quadrant. Found with: 88B.

- L10. Assayers IJ. ET is closer to the stop than to IND; IND is closer to the stop than to ET. Handcut letters. There is ample space between the shield and IND. The D in IND is larger than the other letters. Found with: 92B.
- L11. Letters crudely cut by hand. The E of ET nearly touches the right pillar. The counterfeiter has misunderstood the R of REX as an L: “Law of Spain and the Indies” is a nice choice for a criminal to inscribe. Found with: 77C.
- L12. The D in IND is large. Small Ns in HISPAN and IND. The T of ET touches the right pillar. Found with: 04A.
- L13. Assayers PP. The I of HISPAN nearly touches the top of the right pillar. IND is crowded together so the letters nearly touch. Large stops. Found with: 92A.
- L14. Handcut letters. The stops are very large. There is a stop between ET and IND. Assayers TH, which are incorrect for Lima (they are assayers in Mexico). Found with: 95A.
- L15. The E of ET nearly touches the base of the right pillar. The point of the base of the shield points to the left foot of the N (holding the coin upside down so that IND reads correctly). Found with: 11A.
- L16. Assayers IJ. The N of IND is smaller than the N in HISPAN, and missing its top serifs. The top of the D of IND is misshapen. The E of ET is slightly lower than the T. Found with: 12A.
- L17. Large and prominent denticles. The A in HISPAN is double

punched. Assayers JP. The J of JP appears to touch the top of the left pillar. Found with: 14A.

- L18.** Assayers JP. Backwards N. It can be distinguished from L7 in that the I is closer to the T of ET than to the N of IND. The R of REX is higher than the rest of the word. The stop between REX and the mintmark, MAE, is much closer to the mintmark. Found with: 94A. Group VIII.
- L19.** Very similar to L1. On L1, the inscription concludes MF.2R.I.J.; on L19, it concludes MF.X.P.I.J. Found with: 77A. Group V.
- M1.** The I of IND is missing the serif on its upper left (or lower right, depending on how you prefer to read the legend). The D of IND is punched in backwards. No pomegranate. The E of ET is a total mess, possibly from double-punching. A meaningless T follows REX in the inscription, but this part of the inscription is usually not well struck up. Found with: 78A, 91C. Group I.
- M2.** Our diesinker has got most of the inscription right, but he has omitted the mint and the denomination. The R of REX is distant from the EX. Found with: 87A. Group III.
- M3.** The diesinker has remembered to include the mintmark, but uses a pellet above M for Mexico instead of an o. The assayers are F.F. Found with: 87A, 91A. Group III.
- M4.** This reverse resembles M2 in omitting the mint mark. It may be distinguished thus: the assayer's initial M nearly touches the ribbon in M4, it does not touch the ribbon in M2. The letter R of REX is small with a curly tail in M4, a large R with a straighter tail in M2, and in M2 the R nearly touches the pillar. Found with: 97A.
- M5.** Easily recognized by the final part of the inscription:

FMR.S.I.H. The N of HISPAN is lower than the A. Found with: 71B.

- M6.** This die, like M2 and M4, lacks the mintmark. It may be distinguished from M2 by its use of the curly tailed R, and from M4 because the M of the assayers' initials MF does not touch the ribbon; the M in M4 *nearly* touches the ribbon. Another small dot next to the dot between HISPAN.ET is diagnostic, if you are lucky enough to have an example that shows it. Found with: 98A. Group VI.
- M7.** The mintmark is HE, which indicates that the counterfeiter could not tell México and Lima apart—another argument in favor of U.S. manufacture—and the assayers' initials are TH, which exist on genuine coins of 1804 and later, which gives us a *terminus post quem*. The denomination is given as R, but there is no 2. Found with: 01A.
- M8.** Handcut letters. The Rs are joined at the bottom so they look like Bs. On the example I saw, the D of IND touches the stop. Assayers JJ. The E of REX is closer to the R than to the X. Found with: 16A.
- M9.** Handcut letters. Assayers RM. There is a backwards J right after REX. The E of ET is lower than the T. Found with: 17A.
- M10.** Assayers FM. The top part of the 2 is a closed loop. There is a die defect at the S of HISPAN, which joins the left side together. Found with: 85A.
- M11.** The small M punch for the mintmark, Mo, has been re-used for the assayers' initials, FM. The right bar of the N of HISPAN is tall. Found with: 77B.
- M12.** Assayers TH. Crude, with the letters made by hand, not by

punches. The foot of the lion on the lower left nearly touches the line of the shield, but his two front paws are distant from the line of the shield. Found with: 08A.

- M13.** Easily recognized by the assayers' initials: WF. Presumably the counterfeiter was confused by one of the Mexico varieties from 1772 or 1773 that has the assayer' initials FM inverted (Cayón 10778 and 10786). The letters are all handcut. The mintmark, Mo, is also inverted. There is a stop between ET and IND. Found with: 73A.
- M14.** The error in the inscription, HISAPN, is quite distinct. Found with: 18A.
- M15.** The misspelling HISAPAN is very distinct. The 2 of 2R looks like a backward S. Possibly México, but the mint and the assayers are not legible on the only specimen I saw. If a finer example turns up, it may end up by being re-attributed to another mint. Found with: 71C.
- P1.** The 8 HP is diagnostic. The I of HISP is tall, and closer to the H than to the S. A small scratch in the die goes from the crown to the H of HISP. The pellets next to the final A are a characteristic oval shape. Clashed dies. Found with: 79A, 88A, 01B. Group II.
- P2.** The pillars are fat, and do look like cannons. The letters are tall and thin. The top of the 2 of 2R extends nearly beyond its base to the left. The left foot of the A of HISPAN is very close to the ribbon. Assayers JR. Found with: 74A.
- P3.** No space between ET and IND. Large D in IND. Assayers PJ. The I of HISPAN is closer to the H than to the S. Large P in HISPAN. The X of REX nearly touches the left pillar. Found with: 21A.

- P4.** In this case the P stands for Popáyan, rather than Potosí. Assayers given as HJ, which are actually a Mexican combination, not one from Popáyan; but the die does have the Popáyan mintmark, and it is linked to an obverse that uses a spelling for Ferdinand (FERDND) that was used in the mints of Nueva Granada. The final J is small. The letters are cut by hand, not punched in. The castles look like rooks from a chess set, the lions like cats or rats. The pomegranate looks like a cross. Found with: 10A.
- P5.** Inscription: .HSPAN.ET.IND.RE_X.MPJ.G.P.
Easy to identify by the stops between ET and IND, the missing I in HSPAN, and the initials JGP. Corresponds most closely to a Potosí piece, although the MP resembles a MAE mintmark. Found with: 87B, 07A. Group IV.
- S1.** Inscription: .HISPA.....IND.REX.E.1.R.D.A.I.
The peculiar inscription should make this one easy to recognize. Of the three in the ANS collection, not one shows the inscription between A of HISPA and I of IND fully struck up. Found with: 87C. Group VII.
- S2.** The S of HISPAN is closer to the I than to the P. The top serifs of the H are missing. The assayers appear to be DI. Found with: 08B.
- S3.** Inscription: HISPAN ET. IND.REX E 1R. D. I.
Most recognizable by the assayers' initials DI. The period after the X of REX is placed low, rather than in the middle of the letter. The base of the left pillar points between the two lower arms of the X of REX. Found with: 71A. Group VII.
- S4.** Assayers DA. The right foot of the X of REX touches the base of the left pillar. The D of IND is larger and lower than the letters IN. Found with: 88C.

- S5.** Denomination given as 1R, as on S1 and S3. There is a J between REX and 1 R. The left foot of the X of REX is close to the base of the left pillar; the left foot of the E of ET is close to the right pillar. The right ribbon has a point at 3 o'clock, which points between the P and the A of HISPAN. Found with: 71A. Group VII.
- S6.** The denticles are long, and touch the top of the N of IND. REX is followed by a stop, and then the letter J. Punch linked with S1, S3, and S5. The A of HISPAN is lower than the P. The lion on the lower left is elevated above the ground, as if he suddenly jumped. Found with: 17B. Group VII.
- Z1.** Mint mark Z, for Zacatecas, which did not commence minting until November 1810. Assayers' initials AG, which are proper Zacatecas initials—but do not occur on genuine coins until 1813, and on genuine 2 reales, until 1814. The D is distant from the IN of IND, and lower than the N. Found with: 91B.
- Z2.** Assayers' initials RG. ETIND appears to be one word. The lions lean markedly to the left; their rear hind leg is higher than the front hind leg. The stop between HISPAN and ET is closer to the N than to the E. Found with: 21B.

Die Links

There are eight groups of dies, which die chain with each other. In addition to these eight groups, I have found 29 other die combinations which do not link with any other dies (singletons). Unless otherwise specified, all coins have the die axis twelve o'clock (or fairly close to that) and are made of brass; the brass would later be silvered when the coin had to be passed.

All die-chained groups are tentatively dated to either 1800-1810 or 1820-1840, except for Group IV, which is dated to 1807; Group VII, which is dated to the 1830s; and Group VIII, which is dated to 1850 or later.

Abbreviations of Collections:

ANS = American Numismatic Society

ES = Ed Sarrafian

JL = John Lorenzo

MKR = Mike K. Ringo

PB = Paul Bosco

Group I

78A-M1. Weights: ANS: 0000.5.11, 5.899; 0000.5.10, 5.958;
JL: 5.866 (ex-R. August)

91C-M1. Weights: MKR: 5.483

Group II

79A-P1. Weights: MKR: 5.461, 5.815, 5.340; ANS: 0000.5.13,
5.500

88A-P1. Weights: MKR: 5.686; JL: 5.652 (ex-Warren Baker); ANS:
1944.95.16, 5.652; 1944.95.17, 5.671; 0000.5.18 5.486
(holed)

01B-P1. Weights: MKR: 5.614 (copper?); JL: 4.814 (ex-MKR at C4
1996); ANS: 0000.5.31, 5.679; 0000.5.29, 5.651 (9
o'clock die axis)

Group III

87A-L4. Weights: MKR: 5.699, 5.062; ANS: 0000.5.15, 5.147

87A-M2. Weights: MKR: 5.636 (ex-NYC jeweler), 5.478 (ex-NYC
jeweler), 5.494, 5.214, 5.682, 5.306 (holed and plugged),
5.390; ANS: 0000.5.53, 5.546; 0000.5.43, 5.618

87A-M3. Weights: MKR: 5.423, 5.259, 5.169 (holed); ANS: 0000.5.16, 5.297

91A-M3. *Note: this variety often comes with blotchy discolorations in the brass planchet, apparently inherent in the rolled out brass sheets.*

Weights: MKR: 5.881 (decorated edge), 5.584, 6.078, 5.106 (cast?), 5.153, 5.495, 5.862 (ex-NYC jeweler, with blotchy brass discoloration); JL: 5.719 (ex-Vicken Yegparian); PB: 5.476, 4.992, 5.909; ANS: 0000.5.56, 5.665 (decorated edge); 0000.5.44, 5.527 (might be a cast); 0000.5.22, 5.281; 0000.5.21, 6.169; 0000.5.23, 5.204 (with brass discoloration); 1944.95.20, 6.039; 1944.95.21 5.835; 1944.95.19, 5.550

The MKR collection also has two coins, which I think may be *casts* of this variety: one weighs 5.106, the other 4.834.

Group IV

I propose a narrower date for this group than for the others: 1807. The counterfeiter clearly had access to a numeral "8" punch, but chose not to use it to make coins dated 1808; which suggests to me that he made his coins in 1807, and not in 1808.

87B-L5. Weights: ANS: 0000.999.46123, 6.144; 1944.95.11, 5.262; 1944.95.10, 5.435

87B-P5. Weights: MKR: 5.765 (ex-NYC jeweler)

07A-P5. Weights: MKR: 5.859, 6.026, 5.809 (ex-Florida); ANS: 0000.5.30, 5.776; 1944.95.33, 5.566; 0000.5.17, 5.466; Robert Blank: 5.370; Emmett McDonald: 5.221 (from a junk box in 1954; pickled in acid); Paul Bosco Auction 8/4/1997:707: 5.623

Group V

- 77A-L1. Weights: MKR: 5.805 (ex-NYC jeweler), 5.789, 5.937, 5.187, 5.864; ANS: 0000.999.46196, 5.043; 0000.999.5.8, 5.710
- 77A-L19. Weights: MKR: 5.305, 5.294
- 97B-L1. Weights: MKR: 5.275; JL: 5.075 (ex EAN 1/95:718)
- 97C-L1. Weights: MKR: 5.450

Group VI

- 89A-L2. Weights: MKR: 5.583 (ex-NYC jeweler), 5.540 (ex-Florida) 5.323 (holed); JL: 5.528 (ex-ES)
- 89A-L3. Weights: MKR: 5.694 (ex-NYC jeweler), 5.597 (ex-NYC jeweler), 5.711 (ex-NYC jeweler); ANS: 1944.95.18, 5.710; 0000.5.54, 5.429; 0000.5.55, 5.714
- 98A-L3. Weights: MKR: 5.626; Paul Bosco Auction 8/4/1997:706: 5.332
- 98A-M6. Weights: MKR: 5.150, 5.995 (1 o'clock die axis), 5.466 (ex-NYC jeweler), 5.382 (ex-Florida), 5.197; ANS: 0000.5.28, 5.944; 0000.5.59, 5.410

**Group VII: The Santiago Group
(New York Area; Early 1830s)**

All the reverses of this group use a mintmark and/or assayers' initials of the Santiago de Chile mint, and erroneously uses the denomination 1R, instead of 2R. Although not all of the coins in this group die chain with each other (yet), they are punch-linked. The coins are struck in both copper-

nickel and brass. One of the coins is dated 1817. Since some of the coins are struck in copper-nickel, this series is from the late 1820s and early 1830s. The counterfeiters used only three numeral punches: 1, 7, and 8, and re-used them again and again. One example in the ANS, 0000.5.3, has a 9 o'clock die axis, which indicates that the counterfeiters may have been using square dies. Square dies are known for counterfeiting Mexican pillar dollars. Three of the ten specimens known have provenances to the New York City area.

- 71A-S3.** Weights: MKR: 6.762 (ex-NYC jeweler); ANS: 0000.5.4, 6.716; 0000.5.3, 6.532 (9 o'clock die axis)
- 71A-S5.** Weights: MKR: 7.092 (copper-nickel)
- 87C-S1.** Weights: MKR: 5.453 (copper?), 7.100 (copper-nickel, decorated edge, ex-Paul Bosco Auction 10/25/1996:78); ANS: 1944.95.12, 7.228 (copper-nickel, decorated edge); 0000.5.40, 5.566 (copper-nickel, decorated edge); 1944.95.13, 5.951 (copper-nickel, decorated edge)
- 17B-S6.** Weights: MKR: 5.809 (ex-August, decorated edge)

Group VIII: The Chinese Group

One specimen in this group, 94A-L18, bears large size Chinese chopmarks. Rose (Rose 1987, 13-14) argues that large size chopmarks were applied in the second half of the nineteenth century. That would date this group to after 1850.

- 94A-L7.** Weights: 1944.95.23, 6.158 (probably high zinc content brass – tutenague - decorated edge)
- 94A-L18.** Weights: MKR: 6.500 (probably high zinc content brass, tutenague; holed; with Chinese chopmarks)

Singletons
(Dies Which Do Not Die Chain)

Three criteria can provide a terminus post quem for these coins: the actual date on the coin; the assayers' initials, where they are active later than the date on the obverse; and the use of copper-nickel, which provides a terminus post quem of about 1830.

71B-M5. Weights: MKR: 5.689, 5.523; JL: 5.518 (ex-Warren Baker)

71C-M15. Weights: JL: 5.009 (ex-Spink's, 1995, privately)

73A-M13. Weights: ANS: 0000.999.48094, 6.287 (11 o'clock die axis; copper)

74A-P2. Weights: ANS: 0000.5.5, 5.029 (copper)

77B-M11. Weights: ANS: 0000.5.50, 5.015 (6 o'clock die axis; copper-nickel)

77C-L11. *Struck in copper. Assayers MI only begin in 1780, which is the terminus post quem.*

Weights: MKR: 6.534; ANS: 0000.5.9, 6.704

Another example: Anton-Kesse 121.

81A-L8. Weights: ANS: 0000.5.52, 6.201, 0000.5.51, 6.262

85A-M10. *Terminus post quem: 1830, because of the use of copper-nickel.*
Weights: ANS: 1944.95.9, 5.537 (copper-nickel)

88B-L9. Weights: MKR: 4.856 (silvered copper), 5.903 (copper)

88C-S4. *Terminus post quem: 1830, because of the use of copper nickel.*
Weights: MKR: 5.964 (copper-nickel), 7.334 (6:30 die axis, copper-nickel), 5.238 (copper-nickel)

- 91B-Z1. *Terminus post quem: 1830, because of the use of copper nickel.*
Weights: MKR: 5.883 (gorgeous EF, decorated edge), 5.307, both copper-nickel; ANS: 1944.95.22, 5.403 (copper-nickel, decorated edge)
- 92A-L13. *Terminus post quem: 1795 (assayers PP were first active at Potosí in that year).*
Weights: MKR: 5.179 (11:30 die axis; copper)
- 92B-L10. Weights: MKR: 5.206
- 93A-L6. Weights: MKR: 5.865 (ex-Skalbe, copper), 5.766 (ex-Skalbe, copper); ANS: 0000.5.24, 5.721 (copper)
- 95A-L14. *Terminus post quem: 1830, because of the use of copper-nickel.*
Weights: MKR: 5.022 (copper-nickel)
- 97A-M4. Weights: MKR: 5.810, 5.298 (ex-NYC jeweler), 5.940, 5.480 (ex-NYC jeweler, 1 o'clock die axis), 5.931 (ex-Florida), 5.770, 5.732; JL: 5.106 (ex-ES 5/96), 5.193 (ex-MKR, C4 1996; neat flan clip, similar to one seen on a 1784 counterfeit halfpenny in the MKR collection), 5.466 (ex-Anton); Paul Bosco Auction 8/4/1997:705: 5.751; ANS: 0000.5.58, 5.430, 0000.5.27, 5.292, 0000.5.26, 5.224, 1995.32.2, 5.547, 0000.5.25, 5.395
- 01A-M7. *Terminus post quem: 1804 (assayers TH).*
Weights: MKR: 4.135, 4.825, 5.346, 5.074 (1 o'clock die axis), 5.628 (ex-NYC jeweler), 5.921, 5.251 (ex-MS, 9/91), 5.055; JL: 5.938 (ex-ES, holed), 5.569, 5.673 (ex-MKR), 5.511; ANS: 0000.5.32, 5.634, 1944.95.30, 5.156, 0000.5.33, 5.525, 1944.95.29, 3.652 (holed), 0000.5.34, 5.217, 1944.95.28, 5.303
- 04A-L12. *Terminus post quem: 1830.*
Weights: MKR: 4.700 (copper-nickel), 5.723 (copper-nickel)

- 08A-M12. *Terminus post quem: 1830.*
Weights: ANS: 0000.5.61, 5.542 (copper-nickel)
- 08B-S2. *Terminus post quem: 1830.*
Weights: 1944.95.34, 6.250 (copper-nickel)
- 10A-P4. Weights: MKR: 4.988 (ex-Skalbe, copper), 6.485 (ex-Gredesky, copper), 5.844 (brass); ANS: 0000.5.38, 6.700 (copper)
- 11A-L15. *Terminus post quem: 1830.*
Weights: MKR: 5.586 (copper-nickel); JL: 4.513 (holed, ex-ES 1996); ANS: 0000.5.64, 5.609 (11 o'clock die axis; copper-nickel)
- 12A-L16. *Terminus post quem: 1830.*
Weights: MKR: 5.122 (ex-Skalbe, copper-nickel, holed), 6.778 (copper-nickel, 12 o'clock die axis), 6.273 (copper-nickel); ANS: 1944.95.37 4.849 (copper-nickel)
- 14A-L17. Weights: MKR: 7.360 (ex-Skalbe, copper, reeded? edge); ANS: 1997.118.4, 7.215 (ex-Paul Bosco Auction 8/4/1997:708, copper, possibly reeded edge). Published in the ANS annual report for 1997, p. 32, figure 39.
- 16A-M8. Weights: MKR: 5.768 (ex-Skalbe, possibly silver, decorated edge)
- 17A-M9. *Terminus post quem: 1830.*
Weights: ANS: 1936.107.8, 4.918 (copper-nickel, holed)
- 18A-M14. Weights: ANS: 0000.5.37, 5.673
- 21A-P3. Weights: MKR: 6.552 (ex-Belgium, silver, holed), 6.492 (silver, decorated edge)

21B-Z2. Weights: ANS: 1996.28.35, 5.258 (six o'clock die axis), 1996.28.36, 5.189 (decorated edge)

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Obverse Dies



71A



71B



71C



73A



74A



77A



77B



77C



78A



79A



81A



85A



87A



87B



87C



88A



88B



88C



89A



91A



91B



91C



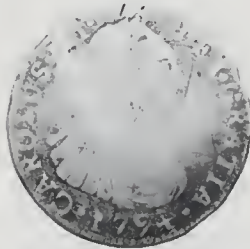
92A



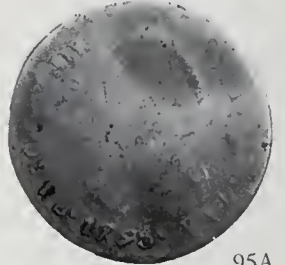
92B



93A



94A



95A



97A



97B



97C



98A



01A



01B



04A



07A



08A



08B



10A



11A



12A



14A



16A



17A



17B



18A



21A



21B



L1



L2



L3



L4



L5



L6



L7



L8



L9



L10



L11



L12



L13



L14



L15



L16



L17



L18



L19



M1



M2



M3



M4



M5



M6



M7



M8



M9



M10



M11



M12



M13



M14



M15



P1



P2



P3



P4



P5



S1



S2



S3



S4



S5



S6



Z1



Z2

**The Counterfeit Spanish Two Reales:
Canadian Blacksmiths or
North American Tokens**

John P. Lorenzo

Coinage of the Americas Conference
at the American Numismatic Society, New York

November 7, 1998

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Introduction

Counterfeit Spanish-American two reales have recently become of great interest to collectors of coins of the North American colonies. Anton and Kesse, in their work, "The Forgotten Coins of the North American Colonies," include these coins because they were both produced and circulated in the colonies (Anton and Kesse, 1992, plates AK-121 and AK-141).

These crude, bust-styled two reales pieces with reverse pillars of Hercules produced in imitation of Spanish colonial issues, occur with the busts of Charles III, Charles VIII, and Ferdinand VII. Michael Oppenheim, in his excellent catalogue of the Warren Baker Collection of Canadian Blacksmith tokens with the Frederick Taylor sale by Bowers and Merena in March, 1987, describes these issues as follows (Bowers and Merena 1987, lots 1001-1130):

There are a number of reasons for the attribution of counterfeit two reales as Canadian Blacksmiths. First, colonial Spanish pieces were very common in early 19th century Canada. Second, a very rare Blacksmith plated in "Coins of Canada", combines a State of Chihuahua copper with a copy of a Canadian colonial bouquet sou die. This acknowledged Blacksmith indicates the possibility of other Blacksmiths using colonial designs. Third, the style of the two examples of counterfeit two reales in this collection is a very crude Blacksmith style, and shows no trace or an attempt at silvering, that is, they do not seem intended to pass as two reales pieces. Fourth, both were found on separate occasions among early Canadian tokens.

J.J. Rodriguez in his book, *Catalogo de Los Reales de a Dos*, identified similarly styled two reales which he designated as imitations of pieces of two, struck in different metals, silver plated and used as buttons in certain parts of America (Rodriguez 1965, 191). All examples, however are not similar in character to the Baker pieces or to the specimens listed in Tables 1-3 below which are all Blacksmith-styled two reales. This writer contends that the coins listed in Tables 1-3 are *Americanized*, that is, their origin seems to be either Lower Canada or

the New York area. The fascinating initial observations to this writer about these counterfeits were their longevity with the same style, similar metrological properties (the two reales are generally thinner and slightly larger in diameter) and the same planchet colorations shared by both the brass two reales and the Blacksmiths, indicating a probable common planchet source.

Humberto Burzio in his book (Burzio 1958) has identified two counterfeits and calls these Blacksmith-styled two reales a 1774 bronze and a 1781 silver-plated bronze.

This paper will build further upon these very instructive insights by Anton, Kesse, Oppenheim, Burzio and Rodriguez. Specifically, the inventory of two reales in Tables 1-3 below prompts this writer to these observations:

- Two reales are known to be struck in German silver. X-Ray Fluorescence (XRF) analysis performed on the 1771 example confirmed this composition. P. T. Craddock of the British Museum communicated with the writer that German silver was not produced commercially until the 1820s at the earliest unless they were using the Chinese pai tong, which is most unlikely. German-silver composition is roughly composed of 55% copper, 30% zinc and 15% nickel. This 1771 example and Craddock's statement that German silver was unavailable for mass production until 1820 indicated one of the most dramatic backdating phenomena in North American numismatics. This 1771 piece, although produced after 1820, is dated three full reigns back.
- In light of Craddock's statement that German silver was not available until 1820, the counterfeit two reales would be contemporaneous with the Canadian Blacksmith coppers.
- The two reales struck in brass occasionally show signs of being silvered after striking. Refer to Table 1 (nos. 2, 5) and Table 2 (no. 24). The silvering may actually be German silver, since no trace of true silver was found in any of these plated specimens. More XRF analyses are required in this case.
- It is possible that the counterfeit two reales were first produced in German-silver and later struck in brass.
- XRF analysis has confirmed that all coppery specimens analyzed were toned brass pieces.

The writer will now provide an overview of the three Spanish monarchs whose coins these counterfeits imitate: Carolus III (1759-1788), Carolus IIII (1788-1808) or IV (during 1789-1791 which is defined as the *transitional period*) and Ferdinand VII (1808-1833). A few words should also be added on the definition of "Blacksmith." R.W. McLachlan, in his article "The Money of Canada from a Historical Standpoint," defined Blacksmiths as follows:

The Blacksmiths, so called from their unfinished and rough appearance, were imitations of halfpenny tokens of George II and George III, worn almost smooth, which at the time formed the only legal currency. They were impressed with a faint outline of the king's bust and a similar figure of Britannia or a harp for a reverse, without any inscription. Many varieties were struck from dies more or less worn and rusted, some of them so much so as to be beyond all recognition. In one case a worn and rusted die was employed, conjointly with the discarded die of a United States trade token, to strike an additional supply, producing a strange mule variety. This variety is currently known as Wood 29 (McLachlan 1915).

McLachlan's definition of Blacksmiths rings true for the Howland Wood Blacksmith varieties. However, when one examines any of the Blacksmith-styled counterfeit Spanish two reales there is no sign of die polishing to simulate a worn coin after its immediate striking. Nevertheless, the specimens metrologically do show very similar properties to the counterfeit Blacksmiths as cataloged by Howland Wood (Wood 1910). A comparison of the properties is seen in Table 4. The writer simply does not know of any other counterfeit series showing similar crude workmanship and metrologically similar planchet stocks than these two series (Blacksmiths and two reales).

Atkins 478: A Birmingham Connection

On several Blacksmith-styled counterfeit two reales in my collection an upside down V is in place of an A or an upside down A in place of the letter punch V exists with the vertical bar intact. One example of the former is no. 2 of Table 1, the 1771 Carolus III two reales. Atkins

may supply us an answer to these occurrences (Atkins 1892). The so-called accidental die engraving error is no accident in the opinion of this writer. To illustrate this point let us examine Atkins 478 a Birmingham, England Evasion copper in which we see an obverse designation of GEVRCV ATOETE. As indicated above we see an example of this later puncheon substitution in which the upside down A's have been substituted for the V's.

We therefore see this interchanging puncheon style of the A and V letters on only the following series based upon my observations:

- Counterfeit Blacksmith-styled two reales
- Counterfeit imitation English and Irish halfpennies of both George II and III
- Birmingham England Evasion (Atkins series) coppers

Tentative early evidence based upon these puncheon similarities noted above indicate that this was a practice employed by Birmingham diesinkers of this time. It is possible therefore that an emigrated Birmingham England die sinker(s) may be responsible for all three of these series in a major or minor capacity. The Evasive series appears to have been struck for a fairly long time. This series is followed probably by the two reales and the Canadian Blacksmiths, which seem to be struck approximately during the same 1820-1835 period, based on current XRF evidence.

The dates on counterfeits of course give us no real clue as to when they were struck. All you can say about a 1787 Blacksmith-styled two reales is that it was probably not struck before 1787.

Further research is needed on possible English die engravers who settled in Lower Canada or New York during the 1810-1830 period. Metrologically, Tables 1-3 indicate the two reales are similar only to the Canadian Blacksmiths and the two reales seem to have similarities in their method of manufacture.

Interestingly, Atkins lists the Howland Wood 33 example as an Evasion variety (Atkins 273). Some people consider this a Blacksmith while others treat it as an Evasion. The point is that there is some overlap in these two series.

Robert Willey has pointed out (Willey 1981) that not a single Blacksmith resides in the cabinets of the British Museum indicating the strong probability of their North American origin. Another argument

for their North American origin, that has been previously investigated and written about extensively, is their muling with the discarded Troy, N.Y. United States Starbuck/Peck storecards.

However, circulating contemporary counterfeits did not circulate extensively in Lower Canada prior to 1810. The dated Tiffin tokens are one of the earliest recorded contemporary counterfeit specimens. Historically, New York is one of the probable areas where reales of both genuine and of the contemporary counterfeit nature would be free to circulate and accepted by the local people.

Series I: Carolus III Two Reales- An Overview

Charles III reigned from 1759-1788. It was therefore surprising to see an example as early as the Richard August example of 1727 which is struck in German silver. All the numeral punches when they appear as 2R as with the August example in this series feature the two as swan-like in appearance possibly indicating a singular engraver and/or minting location. Metallic compositions in this series include: German silver, German silvered brass and brass. Brass was always the most common composition found within this series. This is then followed by German silver and then German-silvered brass in terms of increasing rarity. Refer to Table 4 for actual specifics on metallurgic rarity.

Preliminary studies of reverse die sharing identify different obverses with a similar reverse, indicating a single manufacturing facility.

Series II: Carolus IIIII Two Reales- An Overview

On reviewing specimens of this monarch Table 2 does not really reveal any other notable metallurgical differences that was not already observed with the Carolus III series. One interesting year was the 1801 issues. Of the six specimens seen by this writer, five show a retrograde date (i.e., reversed). Only one example of the six specimens showed the numerals not cut backwards! This was the only year in this series exhibiting this retrograde date phenomenon.

One other peculiar observation was with no. 32 of Table 2. This specimen shows a faint 8 which reads as 8R. This is probably nothing more than a crude Santiago mintmark (S). The other fascinating coin in this series is the Gary Smith coin with the reeded edge and the

Roman numeral IV instead of IIII. Richard August explained this phenomenon as during the transitional years of Carolus during 1788-1791, the Roman numeral IIII is replaced with the IV on the genuine examples. This practice also was followed with these contemporary counterfeits in this series. The ANS has the only other Roman numeral IV transitional piece.

Series III: Ferdinand VII Two Reales- An Overview

The series demonstrated more bust and letter punching crudeness than the previous two series. The series does decrease in overall quality with all of the specimens seen of this series. Cast specimens are also seen with a higher frequency in this series than the other two series. The most notable coin I have seen in this series is the Michael Ringo 1814 two reales. The coin is very different than the other Blacksmith-styled two reales in this series, but in my opinion still falls under the same grouping. The coin has English style lettering on both sides and it has the same peculiar concentric circling as seen only on certain Blacksmith varieties. The writer has felt for some time now that this was some form of grinding device the die sinker utilized after engraving the coin to simulate the diagnostic trait of Blacksmiths to look worn immediately after striking. Oddly this coin possessed these concentric circles but did not show any signs of intentional die maker's wear. These concentric circles may have been placed to also show signs of wear on this specimen and offer a further argument that these pieces were made concurrent with the Blacksmiths of Lower Canada during the 1820-1840 period.

Thornhill, Toronto, Canada

In *Mehl's Numismatic Monthly*, a Canadian collector responds to Mehl's earlier request to determine the location of the Rising Sun Tavern Blacksmith token (Wood 24). In response, this anonymous collector indicated the following (Canadian Blacksmith 1917):

You have asked me a hard question and one that has puzzled me for many years. Both Toronto and Montreal claim home of this honest and industrious blacksmith. I can only speak of the Toronto man. Some eight miles north of the

old city limits there is a town called Thornhill. One of Toronto's main business streets today is Yonge Street, and it extends as far north as Lake Simcoe - some forty miles away, passing through Thornhill, Richmond Hill and several other towns away. (Writer's note: the time of this response was January 1917.)

Yonge Street is a long succession of hills, about a mile south of Thornhill is a stretch of road known as Hog's Hollow. Right on the Hog's back on top of the hill, on the east side of the road, there was before and after 1837 a tavern, an old two-story wooden clap-borden building with large stables attached to it, and this tavern was known for many miles around as the Riseing Sun Tavern. It was destroyed by fire some time between 1855 and 1860. A few hundred feet north of it was a pottery, and close to it was a blacksmith's shop. Local tradition says this was a blacksmith who made the tokens with the reverse of the Riseing Sun Tavern were made for use of this very tavern. I have spoken to old men who have known this district from childhood and heard this story from parents and elders. One thing is certain, there was a great scarcity of copper coins during this period. Some years ago I was speaking to an old man in Toronto from Ireland, arriving therein 1837. He told me that a few days after his arrival, he picked up at Yonge Street, then a country road, a strip of copper some four inches or so long and about a full half-inch wide-the thickness of a cent today. This was divided into six pieces-roughly square, by chisel cuts-fully half way through. On showing it to a neighbor he was told that it was used as money, being worth three pence (six cents). If the purchase amounted to less than that amount, the pieces required were broken off, and readily accepted as good money at that time.

The purpose of this article was to illustrate the significance of the Tavern. In my opinion, the copper mining plantation was in close proximity to the Riseing Sun Tavern. In most colonial mining operations of any ore, a tavern was the most common place for social gatherings other

than of course the church. I strongly believe that an undocumented mining operation was in close proximity to this tavern. Additionally, I believe not only was there a blacksmith dispensing these Blacksmiths at this tavern, but probably other individuals who either mined or struck these tokens. With the enormous amount of varieties it seems to be more of a multi-individual operation than a single blacksmith. The copper Blacksmiths also display a remarkable purity, similar to the Birmingham evasive halfpence. All this seems to be a tall order for one individual even if the copper was imported from England.

I use the term plantation because it was a common term utilized to describe an organized mining operation isolated from major urban centers. A very instructive article was written by Rutsch (Rutsch 1974) on iron foundry and mining operations in colonial New Jersey. He describes the plantation settlement as follows:

The typical iron plantation in New Jersey contained the machinery for producing iron from the mine to the casting house, sheds for storing charcoal and limestone, barns for storing horses and oxen, houses and workers, a farm for the support of all, and a store which recorded wages against commodities purchased by the workers that were not produced on the plantation. Schools and churches were found on larger more enlightened, or more remote plantations. Although the ale brewing houses found in English iron settlements were not part of the American scene, much frequented taverns sprang up near each plantation.

The overall infrastructure of the plantation should not have been much different in colonial New Jersey than in Thornhill, Toronto (Lower Canada). Further research is needed into possible mining operations in the vicinity of the Riseing Sun Tavern.

R.W. McLachlan's Canadian Hoard Article

Probably the largest hoard of Canadian coppers ever found occurred at the Bank of Montreal at Quebec, where three boxes containing about 12,000 old coppers were discovered in the vaults (McLachlan 1889-1890). The bulk of the hoard was made up of Tiffin, Harp, Ship and Colonies, and rude imitations of English George II and Irish George III

halfpence, and possibly several examples of British Evasion coppers. The Wood 33 Blacksmith, Vexator and even CANIDA coppers were found in the hoard. However, not a single counterfeit Spanish reales of any denomination was reported in the hoard. McLachlan describes the hoard as being coppers which were struck and freely circulated in Lower Canada during the years of 1810-1837. What was more interesting as pointed out by McLachlan is that no outside coins other than the imitation British and Irish halfpence were discovered in the hoard (not even from Upper Canada such as the Brocks and Sloops). McLachlan then concludes that it seems very little interprovincial communication existed with Lower Canada and that these pieces did not circulate extensively. McLachlan concludes that due to a worn 1834 George Orde token within the hoard, and allowing time for importation of the dies into Canada, and the commencement of the new coinage, the deposit is no earlier than 1837. He further indicated that between the years of 1830 and 1837 the issue of these light anonymous tokens continued to increase and that they formed the bulk of the circulating specie in this area of Lower Canada. Traders often received five or ten dollars daily. The accumulations in the tills of large retailers became so cumbersome that a feeling of uneasiness arose. These retailers (or hucksters as they were known) controlled the economy and it was probably they who declared the bulk of currency of Canada illegal. When the financial troubles brought about in the United States by the suspension of the Bank of the United States extended to Canada, specie payment, such as it was, consisting of what was considered good of the coppers, with Spanish, French, and other foreign silver coins more or less worn, was suspended. This, followed by a rebellion, which broke out in the district of Montreal, made it necessary to ship the specie to Quebec. The significance of not finding a single counterfeit reales of any denomination is explainable possibly due to the singular fact that these reales were freely acceptable in circulation. You can not argue rarity since four Vexators were found within the hoard. R.C. Willey has reported viewing 50 Vexator specimens (Willey 1966)! At least six to eight times this number exist for this type of counterfeit. The writer feels these are of a Lower Canada or possibly of a Colonial New York origin. Kenneth Scott in this next section may give us another clue that favors this area.

A Kenneth Scott Reference

One interesting reference in the Kenneth Scott counterfeiting series was located. In Scott's *Counterfeiting in Colonial New York* (Scott 1953, 118), he states that in the *New York Gazette or the Weekly Post-Boy* on February 4, 1762 the paper printed a warning that counterfeit dollars of the Cobb kind, made of bell metal (i.e., brass) and silvered over had appeared in New York City and could not easily be distinguished from the genuine. *Weyman's New York Gazette* on February 8 repeated the caution of the false dollars and added that counterfeit four shillings, two shillings and one shilling milled pieces were in circulation in the city. They were of a very base metal, had the appearance of true ones, but would break at once if an attempt was made to bend them.

Although the time period is not applicable to these Blacksmith-styled two reales, the reference is interesting in terms of the counterfeiting practice of silvering brass. The same type of counterfeiting practice is seen in this two reales series with the German-silvered brass specimens (refer to Table 4). The only conclusion the writer is bringing out that this silvered brass practice did not originate in this series when attempting to counterfeit the popular Spanish reales specie. Colonial New York may be another possible minting location and circulation arena even during the 1820s as Spanish reales along with foreign gold were still acceptable.

Gilfoil's Blacksmith Coppers

Since the coinage operation of these coppers occurred some time between 1764 and 1774, the British private was more than likely striking imitation British halfpence. The dated specimens of Carolus III and Ferdinand VII simply eliminate William Gilfoil from this picture (Trudgen 1987).

English Importation?

The probability that these two reales were struck in England for use in the colonies is not a very high possibility. The quick recall of the Spanish dollars in 1797 and the insulting couplets composed upon their appearance (Mathias 1962, 26-27) suggest that the circulation of

Spanish coinage in England was resisted. This is to be contrasted with the New York area in which the reales were freely accepted and appreciated by the general population. Additionally, XRF analysis tentatively indicates these as *Americanized* coins because of the impurity of the brass alloy. Counterfeit two reales and the Canadian Blacksmiths indicate more metals in the alloy composition indicating a poorer refining method during the planchet production process. As more specimens are analyzed, more definitive our conclusions will become based on homogenous trace alloy compositions and their probable geographical origins.

In other words, trace alloy metal compositions do provide the numismatist with distinctive fingerprints and if a large enough data base is created, possible grouping of non-copper metals may be indicative of a similar minting operation and/or geographical location.

Conclusion

With contemporary counterfeits, no confirmed conclusions on when, who and where can be made with a 100% confidence level. We can make some general observations:

- The contemporary counterfeit Blacksmith-style two reales exist in three metals: brass, German silver and German silvered brass. Copper was not confirmed for any two reales, since all analyses indicated some form of a copper-zinc (brass) alloy composition. Refer to Table 4. The rarity of occurrence increases as one proceeds from brass to German-silver to German-silvered brass.
- The German-silver issues occur with the same general frequency for each of the three monarchs. It seems to be a haphazard striking of all three of these base metals, with no particular pattern.
- No die engraver or minting location was confirmed during this study. The probable mint location in the opinion of the author might be Colonial New York based on the popularity of the reales in this area during the early nineteenth century. Additionally, the occurrence of similar reeded brass eight reales circulating in the mid eighteenth century in Colonial New York does strengthen this mint identification.
- Another mint location might be Lower Canada. Since German silver was not available to the world market until 1820 these may have co-

circulated with the Canadian Blacksmiths since they are metrologically very similar. The comparison of Wood 13, a brass Blacksmith, and a brass two reales do show a similar make-up, however more cross-comparisons of Blacksmith Wood 13-18 and brass counterfeit two reales are in order before any real conclusions can be developed on a possible similar origin.

- Birmingham, England is unlikely as a source, based on the impurity of the brass planchets, the total non-occurrence of any two reales in the British Museum, the presence of around 50 in the ANS collection, and the slight collectible availability of this coin in and around the New York area today. This is of course the opposite occurrence with most George II and George III English or Irish halfpence which have been predominantly imported over the last 50 years.
- The absence of any specimen in the Montreal Bank hoard could mean one of two things: either counterfeit two reales did not circulate in Canada, or they still circulated readily at a time when the coppers which made up the Montreal Bank Hoard were rejected and set aside.



a



b



c



Examples of counterfeit 2 reales: a) Charles III, Lima, probably brass; b) Charles III, Mexico, brass; c) Charles III, Santiago, probably a German-silver alloy composition.

Table 1: Counterfeit Spanish Two Reales Listing

Pedigree	Date	Obverse Legend	Reverse Legend	Mint/		Comments
				Assayer		
1. R. August	1727	*CAROLUS*III *DEI*GRATIA*	*HISPAN*ET*IND *REX*ME*2R*F*F	ME/*F*F		SPECS: Earliest dated specimen; 29.4 mm; German-silver; a 1772?
2. JPL	1771	*CAROLUS*III *DEI*GRATIA*	*HISAPAN*ET* IND*REX*2R*P	NONE /*P		SPECS: Wear on assayer; 29.4mm; 74.1gr., A in HISPAN var.
3. JPL	1771	*CAROLUS*III *DEI*GRATIA*	*HISPAN*ET*IND ?? (WEAR)	?WEAR		SPECS: Brass; 28.1mm; 83.3gr.
4. ANS (one known)	1772	*CAROLUS*III *DEI*GRATIA*	*HISPAN*ET*IND *REX*RR*2R*V??	??*V		SPECS: Cast; 76.1gr.; 26.3 mm; not entered in Table 4 - Cast
5. ANS (one known)	1773	*CAROLUS*III *DEI*GRATIA*	*HISPAN*ET*IND *REX*2R*W*F	?/*W*F		SPECS: Copper?; 97.0gr; 29.6mm The heaviest recorded specimen
6. ANS (one known)	1774	*CAROLUS*III *DEI*GRATIA*	*HISPAN*ET*IND *REX*2R*I*R	?/*I*R		NO SPECS
7. E. Sarrafian	1775	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND R (WEAR)*X	?/*X		SPECS: w/o REX; P is doubled; no G in GRATIA; 29.4mm; 65.5gr.
8. R. August	1776 o/s 7	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *ME*2R*M*I*	ME/*M *I		SPECS: Brass; 1777/6 overdate variety
9. JPL	1776 o/s 7	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND 2R*P*X	NONE/ *P*X		SPECS: 27.5mm; 1.2mm thick; silvered brass planchet
10. Anton-Kesse 121 (Plate Coin)	1777	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND REX*2R*M*I	NONE/ *M*I		SPECS: Brass, no metrology performed on the specimen

11. R. August	1778	*CAROLUS*II *DEI*GRATIA	*HISPAN*ET*IND REX*8R*T*F*M*	T*/F*M*	SPECS: D reversed; 8R instead of 2R, 8 in date is triple punched!C II!
12. ANS	1779	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND REX**H*A*X*	?/H*A*X	SPECS: Brass, 84.8gr., 27.3mm no Reales on rev. legend
13. ANS (one known)	1780	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND (wear:??)	wear	SPECS: Cast type, 82.6gr.; not entered into Table 4
14. ANS (one known)	1781	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *REX*HE*2R*?*P	HE/?*P (wear)	SPECS: Brass, 95.7gr.; 29.6mm; Entire reverse legend is reversed
15. R. August	1782	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *REX*2R*R*G	None/ *R*G	SPECS: 27.9mm, struck in brass resembling copper
16. None Known	1783				
17. R. August	1784	*CAROLUS*III *DEI*GRATIA	*HISPAN*I* ARUM*REX	None	SPECS: German-silver appearance and possibly a deviant of this series
18. None Known	1785				
19. ANS	1786	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *REX*M*2R*F*M	M/*F*M	SPECS: struck in German-silver; 85.4gr., 29.8mm
20. E. Sarrafian	1787	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *R*X*M*F	*X*M/ *F*	SPECS: 29.4mm; 79.7gr.; Brass Without the "L" in CAROLUS
21. JPL	1787	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *REX*M*F (no R)	*M*/F	SPECS: 29.3mm; 1.04mm thick; 78.7gr., struck in brass
22. JPL (AK 141)	1788	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *REX*O*R*F	O*/F	SPECS: 27.2mm; 1.2mm thick; 84.9gr., silvered brass striking
23. Anton-Kesse 141 (Plate Coin)	1788	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *REX*HP*A*X	*HP*/ *A*X	SPECS: 28.0mm; Brass & a no reales designation

Table 2: Counterfeit Spanish Two Reales Listing
 B. Second Series: Bust Coinage of CAROLUS IIII (IV) Reign (1788-1808)

Pedigree	Date	Obverse Legend	Reverse Legend	Mint		Comments
				Assayer		
1. JPL	1789	*CAROLUS*III DEI*GRATIA*	*HISPAN*ET*IND *REX*MF*X*P*I*J	MF*/ X*P*I*J		SPECS: 28.2mm, 83.3gr., 1.14mm thick; no Reales des.; CAR III type
2. ANS	1790	*CAROLUS*IV DEI*GRATIA*	*HISPAN*ET*IND *REX*M*2R*F*M	M/*F*M		SPECS: Brass, 27.0mm; 76.4gr.; Transitional IV legend; two known
3. JPL	1791	*CAROLUS*III DEI*GRATIA*	*HISPAN*ET*IND REX*M*X*T*F	M/*X*T *F		SPECS: 29.4mm; 87.2gr.; planchet shows both brass & copper fields
4. E. Sarrafian	1791	*CAROLUS*III DEI*GRATIA*	*HISPAN*ET*IND *REX*M2R*F*F	*M/ *F*F		SPECS: 29.56mm; 100.2gr.; struck in brass
5. Gary Smith - JPL	1791	*CAROLUS*IV DEI*GRATIA*	*HISPAN*ET*IND *REX*ME*2R*I*J*	ME/I*J		SPECS: 29.5mm; one of two known of the transitional (IV)
6. M. Ringo	1792	*CAROLUS*IIII DEI*GRATIA*	*HISPAN*ET*IND REX*ME*2R*I*J*	ME/I*J		Probably struck in brass but resembling copper.
7. M. Ringo	1793	*CAROLUS*IIII DEI*GRATIA*	*HISPAN*ET*IND *REX*ME*2R*I*J	ME/I*J		Probably struck in brass but resembling copper.
8. R. August	1794	*CAROLUS*III DEI*GRATIA*	*HISPAN*ET*IND *REX*ME*2R*I*P	ME/I *P		Misattributed monarch (III); 9 in date is rotated 90 degrees to rt.
9. ANS (one known)	1795	*CAROLUS*IIII DEI*GRATIA*	*HISPAN*ET*IND *REX*2R*F*M	?/F*M*		SPECS: Cast; 84.4gr.; 26.9mm; not entered in Table 4
10. None Known	1796					
11. E. Sarrafian	1797	*CAROLUS*IIII DEI*GRATIA*	Wear *REX ME*X*I*P*J	ME/ X*I*P*J		SPECS: 28.4mm; 80.7gr.; Brass

12. JPL	1797	*CAROLUS*IIII DEI*GRATIA*	*HISPAN*ET*IND *REX*HF*2R Wear	HF/?? (Wear)	SPECS: 28.3mm; 0.12mm thick; 78.3gr.; Brass
13. R. August	1797	*CAROLUS*IIII DEI*GRATIA*	*HISPAN*ET*IND *REX*HF*2R wear	HF/??*J wear	SPECS: 29.4mm; Brass
14. R. August	1798	*CAROLUS III DEI*GRATIA*	*HISPAN*ET*IND *REX*M*F	M*F/ no assayer!	SPECS: German-silvered brass; Misattributed monarch
15. None Known	1799				
16. JPL	1800	*CAROLUS*IIII DEI*GRATIA*	*HISPAN*ET*IND *REXME*2R*1*J	ME/*1*J	SPECS: 26.4mm; 1.02mm thick; 74gr., 0's in date incomplete at K9
17. JPL	1801	*CAROLUS*IIII DEI*GRATIA*	*HISPAN*ET*IND *REX*HE*R*T*H	HE/*T *H	SPECS: 28mm; 1.36mm thick; 91gr; date almost always reversed! Brass
18. JPL	1801	*CAROLUS*IIII DEI*GRATIA*	*HISPAN*ET*IND *REX*HE*R*A*X*	HE/*A *X	SPECS: 27.1mm; 72.5gr.; the date is not reversed! Only spec. known.
19 & 20. None Known	1802 1803				
21. Baker: 1098	1804	FERDIN*VII	Wear???	Wear??	SPECS: ~28mm; 88.7gr.; struck brass resembling copper?
22 & 23. None Known	1805 1806				
24. E. Sarrafian	1807	*CAROLUS*IIII DEI*GRATIA	*HISPAN*ET*IND *REX*MP*J*G*P	MP/*J *G*P	SPECS: 92.9gr.; 28.2mm; struck in brass
25. E. Sarrafian	1808	*CAROLUS*IIII DEI*GRATIA	*HISPAN*ET*IND *REX*8*2R*F*J	No Mint *F*J	SPECS: 26.8mm; 103.5gr., german silver, an 8 in legend! (Santiago?)
26. ANS	1808	*CAROLUS*IIII DEI*GRATIA	*HIS A PN*ET IND*REX*HE*P*IR	HE/*P*1 *R	SPECS: 29.3mm; 87.5gr., blunder and spacing in HISPAN is severe!

Table 3: Counterfeit Spanish Two Reales Listing

Pedigree	Date	Obverse Legend	Reverse Legend	Mint/		Comments
				Assayer		
1 & 2 None Known	1808 1809					
3. R. August.	1810	*FERDND*VII* DEI*GRATIA	*HISPAN*ET*IND REX*P*2R*H*J*	P/*H*J*		SPECS: With a serrated border as with most Ferdin VII's observed
4. JPL	1811	*FERDIN*VII *DEI*GRATIA	*HISPAN*ET*IND wear	F (wear)		SPECS: 27.9mm; 67.9gr.; 1.04mm thick; struck in copper
5. E. Sarrafian	1811	*CAROLUS*III *DEI*GRATIA	*HISPAN*ET*IND *REX*M*8*R*I*I	M/*I*I		SPECS: CAROLUS III ! not even (III); AN 8 INSTEAD OF 2
6. ANS	1812	*FERDIN*VII *DEI*GRATIA	*HISPAN*ET*IND (Wear)	(Wear)		SPECS: 28.2mm; 86.1gr.; struck in copper??
7. None Known	1813					

8. M. Ringo	1814	*FERDIN*VII *DEI*GRATIA	*HISPAN*ET*IND REX*ME*2R*1*P	ME/*I*P	The most important 2 reales of this series. The lettering is of a small precise English style as with Rosa Americanas or any non-counterfeit English coin of the era. Additionally, the coin exhibits the same concentric circling as appearing on certain Blacksmiths such as in the brass Wood 13-18 head left Blacksmith series. The coin however is fully struck-up (?) and shows "no" signs of intentional die wear. A landmark specimen.
9. M. Ringo	1816	*FERDIN*VII *DEI*GRATIA	*HISPAN*ET*IND REX*M*2R*1*J	M/*I*J	SPECS: Struck in German-silver
10. ANS	1817	*FERDIN*VII *DEI*GRATIA	*HISPAN*ET*IND REX*ME*2R*1*P*	ME/*I*P*	SPECS: 27.3mm; 77.4gr; German-silver; ANS also has a 1817 cast specimen
11. ANS	1820	*FERDIN*VII *DEI*GRATIA	*HISPAN*ET*IND REX*2R*A*G	?/*A*G	SPECS: 69.4gr; 26.3mm; German-silver striking
12. ANS	1822	*FERDIN*VII *DEI*GRATIA	*HISPAN*ET*IND REX*2R*J*G*	?/*J*G	SPECS: 27.0mm; 107.4gr; struck in German-silver; the series in the ANS show a high tendency to be struck in German-silver.

Table 4: X-Ray Fluorescence Comparisons of the Canadian Blacksmiths, Birmingham Evasions and Two Reales Series

D. X-Ray Fluorescence Analysis (All values are reported on a percent basis)

1. The Counterfeit Two Reales Series (All Readings with a (/) denote the (obverse/reverse) readings.)

Specimen Table Ref.	1771 T1#2	1771 T1#3	1787 T1#21	1791 T2#3	1797 T2#12	1801 T2#18	1808 T2#31
<i>Metal</i>							
Au							1.86/2.13
Va				0.03/ND	ND/0.04	0.04/ND	
Zr	ND/0.09	0.10/0.12	0.1/0.1	0.13/ND		0.09/0.13	
Fe	0.19/0.27		0.21/0.26	0.21/0.26		0.28/0.23	0.3/0.4
Cu	59.9/58.8	68.5/67.7	84.6/84.4	73.5/72.5	81.2/79.5	70.7/71.9	64.3/58.9
Zn	27.1/27.3	31.4/31.9	7.36/7.00	25.1/25.7	4.54/3.93	26.71/26.2	7.24/6.55
Ni	12.4/13.13			0.13/0.16			
Sn		0.54/0.48	6.20/6.74	0.54/0.48	13.2/15.03	1.81/1.13	0.96/1.65
Bi				ND/0.49	1.07/1.33		2.21/2.51
Mn		0.03/ND					
Mo		0.13/0.16					
Pb				2.40/1.76			
Co							0.16/ND
Ag	0.40/0.38						15.3/20.8

2. The Birmingham Evasion Coppers

Metal	Atkins 416	Atkins 426	Atkins 60
Cu		99.2/93.4	99.3/91.3
Z			0.09/ND
Bi	0.83/0.55	0.61/0.55	0.46/0.54

3. The Canadian Blacksmith Coppers

Specimen	Wood 1	Wood 2	Wood 13	Wood 14	Wood 16
Metal					
Ni			0.18/ND		
Va			0.03/0.03		0.04/0.03
Cu	98.8/98.29	92.8/96.5	85.8/86.1	86.0/85.1	85.2/84.2
Zn			13.2/13.3	12.9/13.9	13.9/14.2
Sn				ND/0.6	0.6/1.11
Fe	ND/0.14		ND/0.13	0.11/ND	ND/0.12
Zr			ND/0.11	0.16/0.09	
Bi	0.5/0.44	ND/0.5	0.48/ND		

Note: Total values do not add up to 100%, because only inorganic metals are detected by X-Ray Fluorescence. Therefore, if the alloy total equals 98%, as an example, the remaining 2% is probably traces of inorganic metal oxides, sulfides and chlorides of the detected metals. The presence of organic matter (carbon-based) compounds is very unlikely to remain on any of these coins in any measurable degree. The significance of the trace elements such as bismuth (Bi) will be important in future investigations, since these trace metals act as the fingerprint for the coin possibly linking them to other coins of a similar fingerprint make-up and possibly linking them to a particular geological ore (i.e., minting location).

Table 4 (cont.): Planchet Metals and Metrology Summaries

A. Quantitative Comparisons of the Different Monarchs within the Two Reales Series for each Metal

CAROLUS III	CAROLUS IIIII	FERDINAND VII
a. Brass (11)	a. Brass (13)	a. Brass (6)
b. German-Silver (3)	b. German-silver (3)	b. German-silver (4)
c. German-silvered brass (2)	c. German-silvered brass (1)	c. German-silvered brass (0)

B. Metrology Properties of the Two Reales within Tables 1-3

Monarch	Average Wt. Brass Only	Average Diameter
CAROLUS III	82.2 gr.	28.5mm
CAROLUS IIIII	79.0 gr.	28.0 mm
FERDINAND VII	ND	27.3 mm

C. Metrology Properties of the Canadian Blacksmith Tokens

<i>Pedigree</i>	<i>Average Wt. Brass</i>	<i>Average Wt. Copper</i>	<i>Average Diameter</i>	<i>Comments</i>
Warren Baker Coll.	83.4 gr.	84.9 gr.	Not performed	None
JPL Collection	82.1 gr.	85.2 gr.	27.6 mm	Over 75 specimens & 30 different Woods
<i>Averages</i>	82.75 gr.	85.05 gr.	N/A-27.6 mm	To the best of my knowledge, no other series of coins are so similar to one another than the these two reales and the Canadian Blacksmiths in terms of their metrology. The two reales are slightly thinner (~1.12mm to 1.2mm) to the Canadian Blacksmiths based on a cross-comparison of these two series.

Table 4 : Metallurgy and Metrology Comparisons of the Canadian Blacksmiths, Evasions and the Spanish Two Reales

Observations and Comments

1. The abbreviation of elements is as follows: Au-gold, Va-vanadium, Zr-zirconium, Fe-iron, Cu- copper, Zn-zinc, Ni-nickel, Sn-tin, Bi-bismuth, Mn-manganese, Mo-molybdenum, Pb-lead, Co-cobalt and Ag-silver. Brass is a Copper/zinc alloy and German silver is a copper, zinc and nickel alloy. It has a dull silvery appearance and emits a bell sound when struck. Compared to German silver, silver has a higher pitch when the ring test is performed.
2. The counterfeit two reales do exhibit an alloy which is similar to the brass specimens of the Canadian Blacksmith brass series indicating a similar source for the planchets. Unlike the Canadian Blacksmith varieties of Wood 1 and Wood 2, no copper alloy was found within the counterfeit two reales series based on the limited analyses performed. The writer did analyze two specimens that he thought resembled copper but the XRF analysis indicated the coins to be of a brass alloy composition. Luckily, this series did contain brass specimens which could be compared to the known brass series of Canadian Blacksmiths (i.e., Woods 11-18).
3. Some of the alloy compositions were indeed remarkable: in particular, the 1808 Carolus III piece with a trace of gold (approximately 2 %!). Silver slag ore usually contains traces of gold, but this level of gold is remarkable even for silver slag and could well be a distinct fingerprint signature of this alloy. However, it is hard to imagine a counterfeiter spiking a counterfeit with this level of gold!
4. The purity of the copper in the Birmingham Evasion coppers was expected. There will be a problem on trying to differentiate *Americanized* and British George II and George III counterfeits if many have copper levels this high. The writer expects struck English import counterfeits to be around 98% copper, whereas *Americanized* issues such as Machin's Mills Coppers the copper level may be lower due to poorer refining methods. The other non-copper metals may

also be indicative of fingerprinting certain groups of copper together as further analyses are performed and data bases are cross-compared.

5. The observation of the purity of the Canadian Blacksmith varieties of Wood 1 & 2 indicate a very refined minting operation with a diesinker of much experience. The idea that a blacksmith of limited resources was involved by himself in the striking of this highly diverse series does not seem probable. Perhaps mining ore data near Thornhill, Toronto or other areas of Lower Canada will one day correlate to some degree a confirmation of this minting location.
6. High bismuth contents in copper coins (i.e., 0.1-1.2%) have been confirmed as a fingerprint for copper production in late eighteenth century southwest Britain (i.e. values indicated by the Evasions and some of the brass two reales). Roughly from 1750-1850 southwest Britain dominated the copper market (Craddock and Hook 1997; Day 1973; Day 1990; Day 1991; Wayman, King, and Craddock 1992). It seems probable that copper ingots imported from England could produce this effect of a high bismuth value which we have recently been seeing in some State Coppers such as in the New Jersey series. Analysis of ingots from shipwrecks (Craddock and Hook 1997) from the 1820s show they were using fire-refining methods that were good at removing the sulfur and iron from the metal, but the arsenic contents remained high and the bismuth even more so. Even small quantities of bismuth, as little as 0.02% would cause severe embrittlement in the copper, the workers simply lived with the problem never understanding the cause (Craddock and Hook 1997).
7. The coins in this study were not cleaned prior to their analysis by XRF. Due to the small population of the specimens analyzed and the monetary and time restraints on the availability of a XRF instrument, the coin surfaces were not prepared. However the variability of results have shown to be small even with an environmentally active metal as copper (Munro-Hay, Oddy and Cowell, 1988). Munro-Hay has shown that a lack of surface preparation does impose some variability; but these were fairly low (0.4-2.2%) on the

analysis of twelve gold coins of a gold/silver/copper alloy. Since the analysis of the coins presented in Table 4 is only a quick snapshot of the make-up of these series of coins, a larger population of course is recommended for future studies.

8. The XRF instrument works by placing the instrument's probe on the surface to be analyzed and then the surface is briefly exposed to a radioisotope source. The atoms of the elements in the material are caused to fluoresce and emit X-ray characteristics of that element. The detector then separates the refracted excitations coming from the sample into energy regions, and from a measurement of the intensity in each region, determines the metallic concentrations.
9. The 1771 dated German silver example that is defined as having an alloy composition of copper/zinc/nickel has an interesting history as detailed in Howard-White's book (Howard-White 1963). The history of German silver is valuable in determining the probable emission time period of this contemporary counterfeit group, therefore its history is worthwhile to review in detail. According to the Annual Register of 1775, one J.B. Blake of Canton sent over to England, from the mines of the Chinese province of Yunnan, a specimen of what was described as the ore paaktong. He sent the sample in the hope that efforts would be made in England to produce a metal equally white and pure, but with more ductility than that made by the Chinese.

The Swedes also heard about the white alloy and had succeeded in securing specimens. In 1776 Gustav Cronstedt's work on the classification of minerals published a treatise on the new material, from which the following was written:

Mr. Bladh, who has several times visited the East Indies, has brought this metal with him from there, wrought and mixed, as well as rough and unmixed....With the blowpipe, Mr. Bladh had only tried a little of it on coal, but enough to show that it contained nickel.

...By melting the rough metal with *hepar sulphuris*, I got two separate metals, one that was red and forgeable was real copper, and the other was greyish white, brittle and with a

fracture like that of steel. When further experiments were made, the last mentioned metal turned out to be real nickel containing a little cobalt. In this condition the rough metal comes from the mines and the country down to Canton in the form of triangular rings, with an exterior diameter of 8 or 9 inches and with a thickness of about 1 1/4 inches. Consequently, it must have been smelted from copper ore containing nickel, which I dare say is to be formed there. Some alloying experiments would certainly show in what proportion that these metals ought to be mixed in order to form a real pak-tong. My intention was to make it of Swedish nickel....

In the same year, 1776, von Engerstrom published the following analysis of the alloy: Copper (40.6%), Nickel (18.75%), Zinc (31.25%), and no figures were given for the impurity constituents, which totaled 9.4%.

A few years later a statement appeared that those who imported into Europe white copper from China or Japan were sure of a ready market and that a domestic imitation made by some ingenious manufacturer was envisaged.

In 1822, nearly 40 years later, A. Fyfe, a lecturer in Chemistry in Edinburg, examined a basin and ewer made in this white copper. Its cost in China was one-quarter of its weight in silver and according to Fyfe, when held in one hand and struck with the fingers of the other, the sound is distinctly heard at the distance of an English mile. The assay he made was Copper (40.4%), Nickel (31.6%), Zinc (25.4%) and Iron (2.6%).

That there was a ready market for this the alloy occurred to several people, for in 1823 an enterprising Birmingham manufacturer, E. Thomason, made such a material synthetically, using ingredients of this proportion: copper (40.0%), nickel (31.0%), zinc (26.0%) and iron (3.0%). In a letter which Thomson wrote in that year to the Society of Arts, he said that his product is easily cast into large things such as equestrian and other statues, columns, capitals, entablatures and pilasters. Its hardness, he added, is so great as almost to resist impressions from a violent blow of a hammer.

In 1823 Keferstein, Brandes and Muller had analyzed ores from the Henne mine at Suhl in Saxony, from which, for some 60 to 80 years previously, a white copper alloy had been made, and Frick had determined how much nickel was needed to de-color completely the copper and how much to make the metal ductile.

In the same year a technical society in Prussia (*Verein zur Beförderung des Gewerbefleisses*) offered a prize to anyone who would erect, in Prussia, a factory for making an alloy approximately to the composition determined by Fyfe, resembling silver in appearance, and saleable at a price not more than one-sixth that of silver. Apparently there were no entries for the competition, but it was at this juncture that a number of people in Germany started to manufacture commercially a locally made version of *pai-thung*.

J.R. von Gersdoff was one of the first to publish information on the composition of alloys suitable for particular uses: for example, for spoons, ladles and two-pronged forks, an alloy consisting of 25 parts nickel, 50 parts copper and 25 parts zinc was recommended; for knife- and fork-handles, candle snuffers, and sugar tongs, alloys of 22 parts nickel, 55 parts copper and 23 parts zinc were preferred; for plates and wash basins the recommended alloys were 20 parts nickel, 60 parts copper and 20 parts zinc. It was stated also that addition of 3 % of lead to alloys of the last mentioned type produced a material suitable for casting items such as candlesticks, spurs, bells and horse harness.

Somewhere between 1826 and 1830, P.N. Johnson, the founder of the business which later became Johnson, Matthey and Company, of London, visited the Erzgebirge mining district of Saxony, and seeing there for the first time the German equivalent of the *pai-thung*, he decided to embark upon its manufacture in Great Britain. Another English firm early in the field was F. and S.R. Topping of London. But the name which will always be associated with the commercial development of nickel (German) silver in England is that of Charles Askin. Living in Birmingham, Askin had become friendly with his neighbor, one Brook Evans, a woolen draper, and in 1824, he decided to pay a visit to the mining districts of Germany where he learned of German silver.

During 1833 a partnership ensued between Askin and two members of the Merry family; a plant was set up at Sherborne, Ladywood, Birmingham, and it was there that the first commercial production of ductile nickel (German) silver took place in England. Later that partnership was dissolved and Askin joined up with his old friend Brook Evans. By that time the market for the alloy was expanding and operating from George Street Parade, Birmingham, the new firm, Evans and Askin, concentrating on the production of nickel (German) silver and lost no time in establishing itself as a reliable source of supply.

By the way, during the 1820s the chief use of nickel was in the manufacture of nickel (German) silver, an industry which was established on a large scale in Berlin in 1824 and as described above carried over to England by Askin in the 1830's.

These German silvered counterfeit two reales were probably made between 1830-1840 and this period does tie-in the whole series including the brass reales being made concurrently with the Canadian Blacksmiths during the 1820-1840 period.

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Adding Insult to Injury: Altered Notes of The Southern Bank of Georgia

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Most of the papers presented at the 1998 Coinage of the Americas Conference focus on just that—coinage, although, in this case, counterfeit coinage. But we do well to remember that through most of the colonial period and the first eighty years of the independent nation, the economic basis of this country was firmly based on thin air, on paper money. It would not be until the middle of the nineteenth century that the discovery and exploitation of precious-metal deposits would be married to improved productivity by the public coiner, yielding enough American coins for most commercial needs. Until that time, we would be dependent on currency; and since the Constitution of 1787 had prohibited the states from emitting bills of credit (and had been silent on whether the new national government could do so), that left the production and distribution of most of America's circulating money to private banks.

It has been estimated that, between 1782 and 1866, some eight thousand banks and related fiscal institutions circulated their own notes. These institutions varied in fiscal plausibility, which meant that their products fluctuated against each other—and against specie, when specie was available. Regardless of solvency, the products of each institution were also liable to forgery. This threat had become apparent within twenty years of the appearance of the private bank note, and it led to a battery of anticounterfeiting deterrents. The leader in the crusade against counterfeits was Jacob Perkins, of Newburyport, Massachusetts, who had devised ways of mass-producing identical steel plates (from which identical notes could be printed, in any number desired) by 1804. He created a single basic design, distinctly homely but nearly impossible to replicate without his special processes. He confidently assumed that bankers would flock to his doors, all in pursuit of his new, identical notes. They indeed came, but not with that objective in mind. What the bankers wanted was *customized* paper money, printed from the new steel plates. And that was what they got.

Jacob Perkins went to work for Murray, Draper, Fairman & Company in 1815. There, his new processes for mass-production of steel engravings were married to the artistic excellence of his Philadelphia employers. When the technical brilliance of Asa Spencer's geometrical lathe was added to the equation, the American bank note

was poised to come of age. Perkins happily retired to London at the end of the decade. The printers got down to work. The bankers got what they wanted. And forgers got a free ride for the next half-century.

The fakery problem was composed of several elements. First, when the earliest banks were established and became going concerns, they naturally came to the attention of ambitious businessmen and public-spirited citizens alike. More banks were established: by 1810, there were dozens of note-issuers, and by 1830, hundreds. All of them would require currency. Second, as we have seen, the bankers rejected Perkins's safe but trite designs and opted for monetary individuality—which they could now obtain. When we combine these two factors with two others—a widespread illiteracy and unfamiliarity with fiscal documents of any kind, including currency, and the possibility of notes unwittingly created by genuine printers for fraudulent purposes—we begin to see the possibilities for mischief inherent in the nineteenth-century American private bank note.

The mischief could take several forms. First, there were “spurious notes”—purported issues from nonexistent banks or notes bearing designs or denominations unconnected with the fiscal institution whose products they purported to be. There were also “counterfeit notes”—which could be illicit representations of genuine notes or of spurious ones. There were “raised notes”, whose values had been augmented by those skilled with the pen or the paste pot. And there were “altered notes”, which form the subject of this paper.

In the case of the altered note, one acquired a genuine (or a spurious, or even a counterfeit) bill from a distant bank—one which had likely failed or never opened, and whose products could therefore be acquired for a few cents on the dollar. The original name of the bank and the town and state of issue were all carefully erased, and new elements were substituted for them. One could effect the switch with a pencil or a pen; by the 1850s, the work was more likely to be accomplished by typeset or intaglio printing. The crucial element was the choice of bank name and place of issue, and this was something of a minor art. You would want to choose elements which were comfortably close to where you circulated your note, which sounded vaguely familiar. But they must not be *too* close or sound *too* familiar, for your

target must have no way of checking on them. Close scrutiny must be avoided at all costs. If this meant that you took what you could get for your altered note, so be it: it was likely to be far more than what you had paid for it. As with all counterfeits, it only had to pass muster *once*. After that, it was someone else's problem.

This paper is specifically concerned with The Southern Bank of Georgia, which was established in 1856. That is virtually all we know about this institution; we are not even certain whether it was a "real" bank or a simple scam, set up to circulate as much paper as an area would accommodate prior to a hasty, nocturnal departure. The probability is that it was a genuine bank but undercapitalized, as were so many of its sisters, South and North. We know two more things about it: real or bogus, it was definitely defunct by 1859; and its notes were altered more than those of any other nineteenth-century private bank, anywhere.

We shall never know all the reasons behind this popularity, but two considerations quickly come to mind. First, runs of serial numbers suggest that the amount of notes which the bank placed or hoped to place in circulation was optimistic, to put the best face on it. Bainbridge had a population of less than a thousand in the 1850s. When I see a range of numbers hinting that rather more than fifty thousand dollars worth of currency was circulated or at least printed for circulation in this southern hamlet and its environs, I smell fraud. But a deliberate or accidental overproduction, coupled with a quick failure and an effective demonetization, would mean that those skilled at alteration would have had a wealth of raw material with which to work.

The other consideration is this: none of the design elements employed on the notes of this bank would have been terribly difficult to alter. The Southern Bank of Georgia's currency looked "right". It featured two colors, with black predominating. A second color, first red and later red-orange, was added as a "protector", to guard against alteration. But the second color was not an integral part of the design; it would not discourage a skilled forger. And each of the vignettes on each of the notes had been used before, and would be used again, on hundreds of other notes, from banks good and bad spread across the Republic; in other words, they had been chosen for their familiarity by

the original, licit issuer, and they appealed to the later, illicit one as well, and for the same reason. When we combine availability, vulnerability, and familiarity of design elements, we have, I think, an adequate explanation for the popularity of the currency of this particular bank among the criminal community.

The Southern Bank of Georgia issued six types of notes—two one-dollar bills, two twos, one five, and one ten. Designs on the one- and two-dollar bills were changed early in 1858, possibly in response to a recognized problem with alteration. Those on the fives and tens were left unchanged, perhaps because the bank went out of business before any decision on new notes could be taken. Certainly the fives and tens bearing the designs of 1856 were altered, just as were the lower members of the series. Let us examine the six types, beginning with the originals and continuing with the ingenious ways in which they were debauched, and insult added to injury.



1. Bainbridge, GA, Southern Bank of Georgia, \$1, 1858.

The design of 1856 for the dollar featured a small vignette of cotton picking at the left, another of a Native American hunter and his quarry at the center, and a portrait of a young woman at bottom-right. The bank's name was rendered thus: SOUTHERN BANK in one line, in heavy block letters, and OF GEORGIA in much smaller italics immediately beneath. A large openwork ONE in red was positioned over the denomination—but not over most of the name of the bank. This design was asking for trouble, and its request was soon honored (fig. 1).

Herewith a rogue's gallery of alterations, all reposing in the Smithsonian's Numismatic Collection. Other variants almost certainly exist, both for this note and for the other five types upon which I am reporting. In our first alteration, the name of the bank and town were erased and replaced by new, printed elements; the Southern Bank was now the "Sussex Bank" of Newton, NJ (fig. 2). This alteration was quite



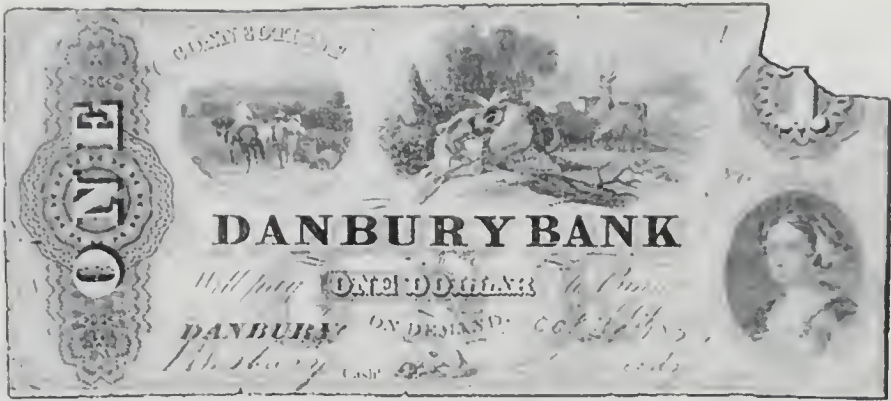
2. Newton, NJ, Sussex Bank, \$1, 1858 (altered).

deceptive and would have fooled almost anyone. The same could not be said for the purported issues from the "Merchants Bank" or the "Danbury Bank". The new printing was suspect on the former (fig. 3), and part of the red protector was erased on the latter (fig. 4).

We proceed to the first type of two-dollar bill. Here, we see, left-to-right, Native Americans overlooking a bustling scene of "civilization" as

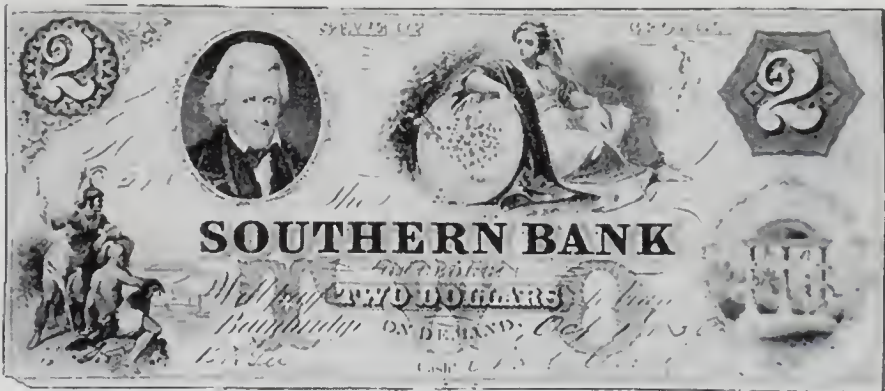


3. New Haven, CT, Merchant's Bank, \$1, 1861 (altered).



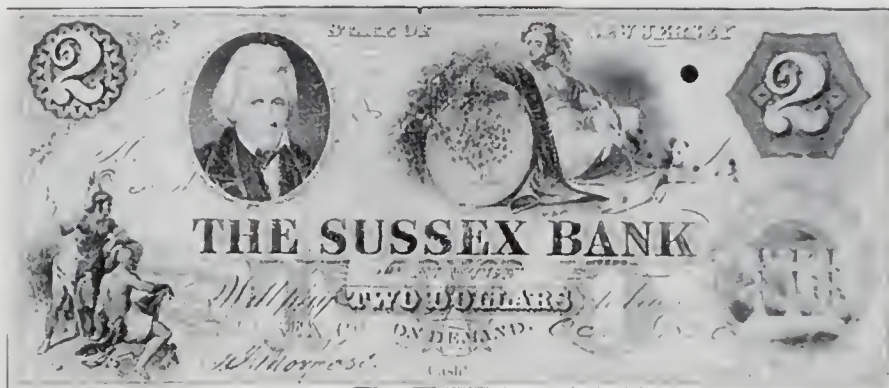
4. Danbury, CT, Danbury Bank, \$1, 1859 (altered).

defined by whites;¹ a portrait of Andrew Jackson; a seated figure of Liberty, with an oval shield displaying a cotton plant; and the state arms. A red TWO occupied the same position on the note as did the red ONE of the dollar bill—with similar consequences (fig. 5). The “Sussex Bank” is again represented—this time on a slightly less perfect product, but one likely from the same stable (fig. 6). The “Sussex Bank”

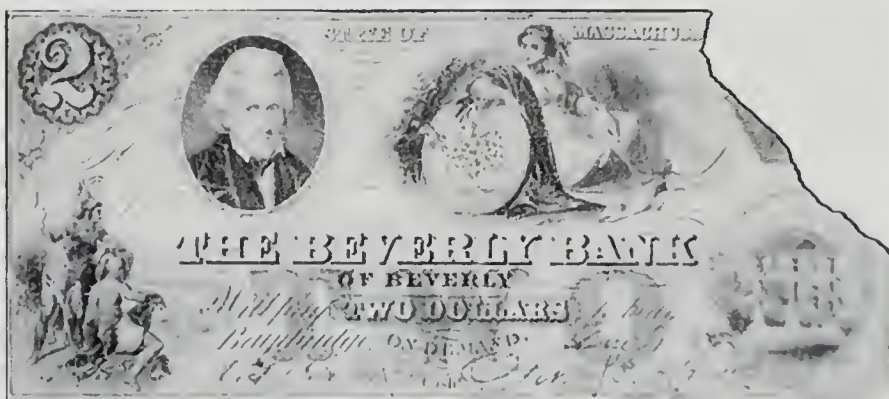


5. Bainbridge, GA, Southern Bank of Georgia, \$2, 1856.

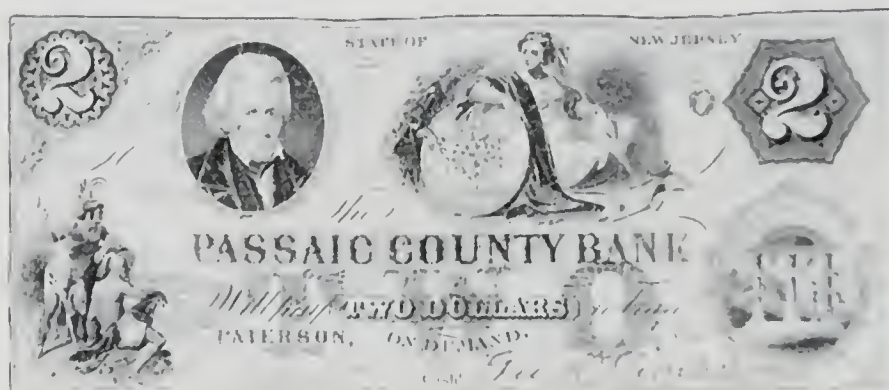
alteration was far more successful than many of its fellows, however. The “Beverly Bank” alteration was crude, the lines of new printing being off-center to one another and to the other elements of the note. (fig. 7) A “Passaic Bank” bill was cruder still (fig. 8), as was the alteration for the “Andover Bank”. The quality of work on the latter was



6. Newton, NJ, Sussex Bank, \$2, 1856 (altered).



7. Beverly, MA, Beverly Bank, \$2, 1859 (altered).



8. Paterson, NJ, Passaic County Bank, \$2, 1860 (altered).

downright inept and must have been easily detected at the time (fig. 9). But the two-dollar bill for the “Merchant’s Bank” was very fine work indeed, down to the thoughtful inclusion of a state seal at lower-right, whose depiction was mandatory on all genuine New York state notes at the time (fig. 10).

The Southern Bank of Georgia’s five- and ten-dollar bills were very similar to its ones and twos. All were printed by the same company,



9. Andover, MA, Andover Bank, \$2, 1860 (altered).



10. Albany, NY, Merchant’s Bank, \$2, 1860 (altered).

which did business as Bald, Cousland & Co. in Philadelphia and as Baldwin, Bald & Cousland in New York. The five-dollar note bore fancy medallions with V’s at either end, a genre scene of a father with

his two children in the center; the red “protector” (which is how the nineteenth century generally referred to the bar of contrasting color—something of a misnomer, in the case of this bank!) now occupied the space where the denomination was spelled out, which meant that the value of this note would have been very difficult to alter. But the forgers were more interested in the bank name and the place name, of course, and these were still very vulnerable (fig. 11).

Three alterations bear this out. Purportedly coming from the “Mechanics Bank” (fig. 12), the “Clinton Bank” (fig. 13), and the



11. Bainbridge, GA, Southern Bank of Georgia, \$5, 1858.



12. Burlington, NJ, Mechanics Bank, \$5, 1860 (altered).

“Newcastle Co. Bank” (fig. 14), it is probable that they all really came from the same place—a back-alley printery in a large Eastern city. But if these three notes were all products of the same hand, the fourth



13. Clinton, NJ, Clinton Bank, \$5, 1860 (altered).



14. Odessa, DE, Newcastle County Bank, \$5, 1862 (altered).

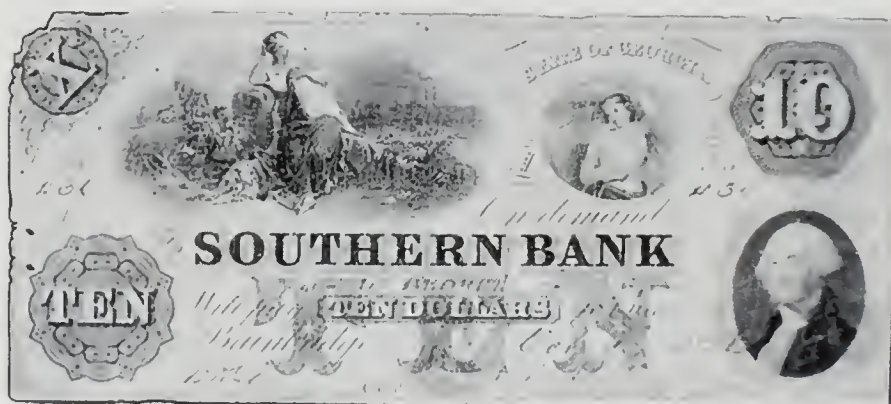
appears to be an “orphan”, an alteration unrelated to the preceding three—or to any of the others in this report (fig. 15). Note that in all four cases, the dates were altered as well as the bank and place-names—and that the Southern Bank of Georgia thus gained an unexpected new lease on life.

The Southern Bank of Georgia’s ten-dollar bill appears to have received less attention than any other denomination—at least, according to the testimony of the National Numismatic Collection. The original was a throwback to the one- and two-dollar notes, with the red protector in the same position as seen on those two lower denominations. The design featured a fancy medallion with an “X” at upper-left,



15. Fall River, MA, Pocasset Bank, \$5, 1863 (altered).

a “TEN” at lower-left, and a “10” at upper-right. A seated figure of Agriculture made up the primary vignette, with a smaller portrait of a female with grain to the right and one of George Washington at the bottom (fig. 16). We only have one alteration of this note (although others likely exist—the work would have been no more difficult than it was for the ones and twos), but it repays careful scrutiny. It purported



16. Bainbridge, GA, Southern Bank of Georgia, \$10, 1856.

to come from “Abraham Becker’s Bank”, doing business in South Worcester, NY. In place of the small oval vignette, the state seal was substituted, and the forger did a fairly neat job of it (fig. 17). He had more trouble with the erasure and replacement of the bank name, however, and he probably chose the new one and its odd placement to cover



17. South Worcester, NY, Abraham Becker's Bank, \$10, 1858 (altered).

as much of the original title as possible. But he made two mistakes: he erased part of the “E” in “TEN”—and the real name of the fiscal institution whose wares he mimicked was “*Abram* Becker’s Bank.” But he might have replied that he needed the extra letters in the name to cover his tracks.

In 1858, the Southern Bank of Georgia changed its printer and changed the designs on its one- and two-dollar bills. As mentioned, this may have been a response to alterations of the members of the earlier printing; if so, it was not particularly successful. But in any case, Danforth, Wright & Co. of New York and Philadelphia now had the contract and would retain it for the life of the operation. What would they do with it?

They would increase the use of the second color, which was now displayed on fancy medallions at upper-left and upper-right, as well as on an ornate bar with the denomination in white in the case of the dollar, and as freestanding “Barnum” lettering, spelling out the value in the case of its two-dollar counterpart. For the dollar, they would complement this treatment with a tiny but detailed scene of cattle being driven near a viaduct, over which a train was passing. That took care of the lower-left. A large central vignette of a milkmaid with cows occupied the center, while a sentimental image of a young woman appeared at lower-right (fig. 18). All of these vignettes were “stock”: they appeared on a number of other notes, and they were an accurate reflection of the view of women held by male bankers and businessmen of the period.²



18. Bainbridge, GA, Southern Bank of Georgia, \$1, 1858.

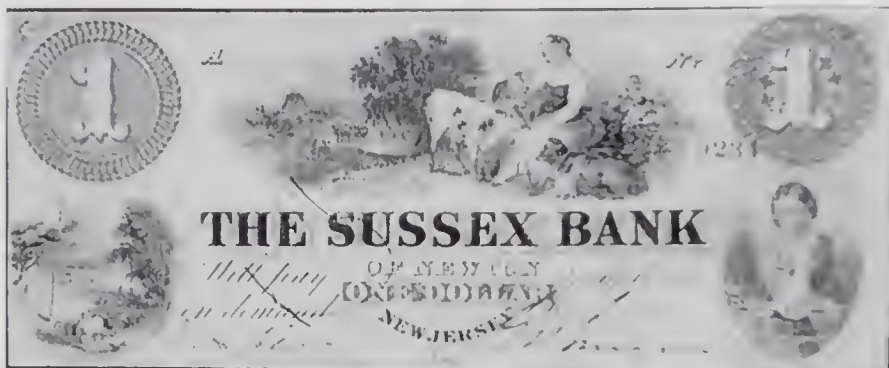
For the companion two-dollar bill, the bankers chose and the printers supplied a plowing scene in a circular frame at lower-left, a harvesting scene for the main vignette, and two cherubs, representing Commerce and Agriculture, for the lower-right image (fig. 19). For both denominations, the date was now engraved directly on the plate, and hence on the note: presumably, this would discourage activity in one aspect of alteration. Or would it?

The forgers responded to the new challenges with efforts of varying plausibility. Their most successful attempts may be found on yet another



19. Bainbridge, GA, Southern Bank of Georgia, \$2, 1858.

er note from the “Sussex Bank” (fig. 20) and one from the “Bank of Orleans” (fig. 21). Both alterations left the original date as it was. The crooks responsible for the “Bank of Brighton” bill altered the date by erasing the last two digits and applying two new ones by hand (fig. 22).



20. Newton, NJ, Sussex Bank, \$1, 1858 (altered).



21. Irasburgh, VT, Bank of Orleans, \$1, 1858 (altered).



22. Brighton, MA, Bank of Brighton, \$1, 1861 (altered).

This note was denounced; perhaps its unmasking was due to the misplacement of the new town name, which was poorly aligned with the rest of the printing. Those who created the “Highland Bank” (fig. 23) and “Farmers Bank” (fig. 24) notes had considerable difficulties with the fancy color bar, which in each case had to be partially obliterated in order to make room for the new name of the town. The “Farmers Bank” was a particularly poor effort, and it too was exposed and condemned.



23. Hudson City, NJ, Highland Bank, \$1, 1858 (altered).

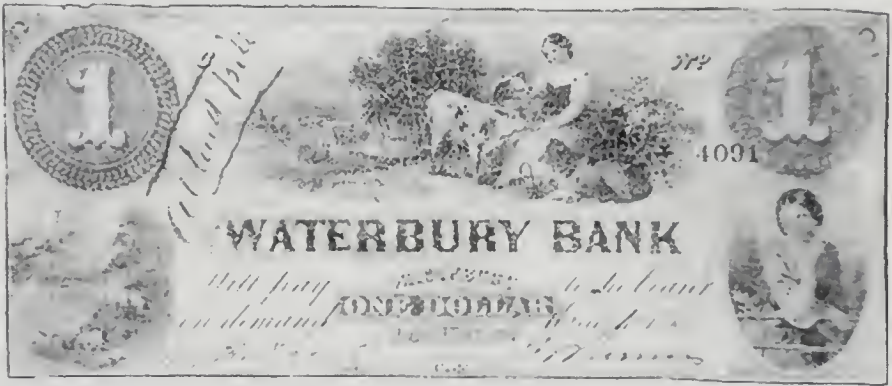


24. Mount Holly, NJ, Farmers Bank, \$1, 1858 (altered).

The people responsible for the “Brighton Market Bank” (fig. 25) and the “Waterbury Bank” (fig. 26) alterations adopted another approach to the problem of the color bar, positioning their black printing well



25. Brighton, MA. Brighton Market Bank, \$1, 1861 (altered).



26. Waterbury, CT. Waterbury Bank, \$1, 1858 (altered).



27. Jersey City, NJ. Bank of Jersey City, \$1, 1858 (altered).

beneath and away from it. The purveyors of the “Bank of Jersey City” dollar attempted the same thing, but with far less success (fig. 27). Yet this note escaped detection, while the two proceeding were turned in.

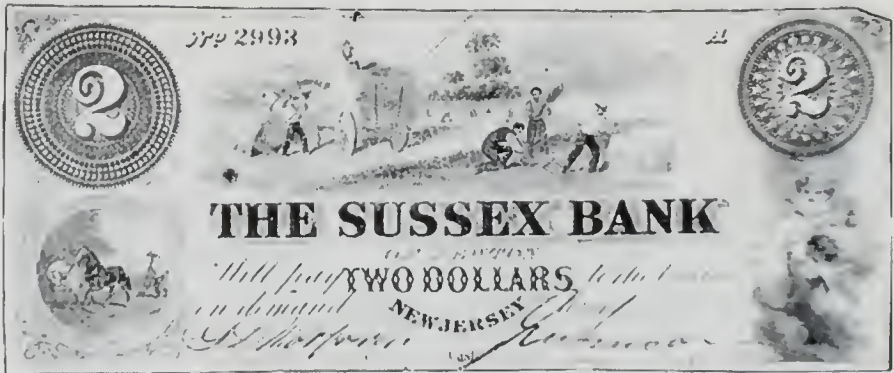
The bill from the “Beverly Bank” is in a class by itself: the forger changed the name of the bank, but left the name of the town unaltered



28. Beverly, MA, Beverly Bank, \$1, 1858 (altered).

(fig. 28). Perhaps he felt he had worked hard enough for a dollar!

The two-dollar bill with the design of 1858 lacked some of the protection against alteration found on the one; felons responded accord-



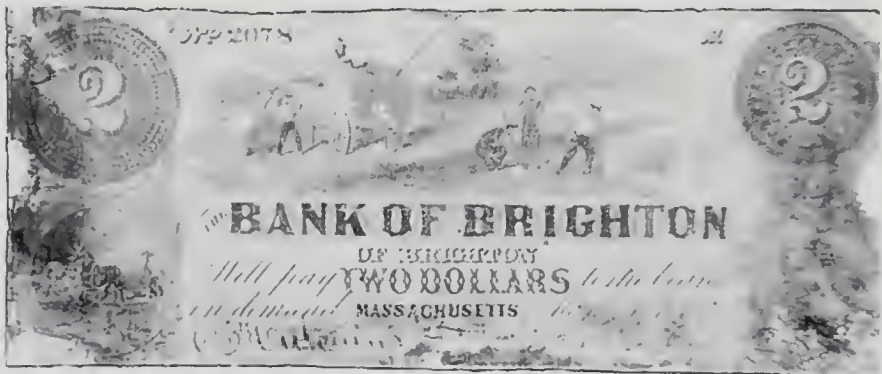
29. Newton, NJ, Sussex bank, \$2, 1858 (altered).

ingly. Those responsible for the “Sussex Bank” (fig. 29) and “Western Bank” (fig. 30) alterations left the engraved date as it was; the “Western Bank” note must have been very deceptive, for the workmanship was



30. Philadelphia, PA, Western Bank, \$2, 1858 (altered).

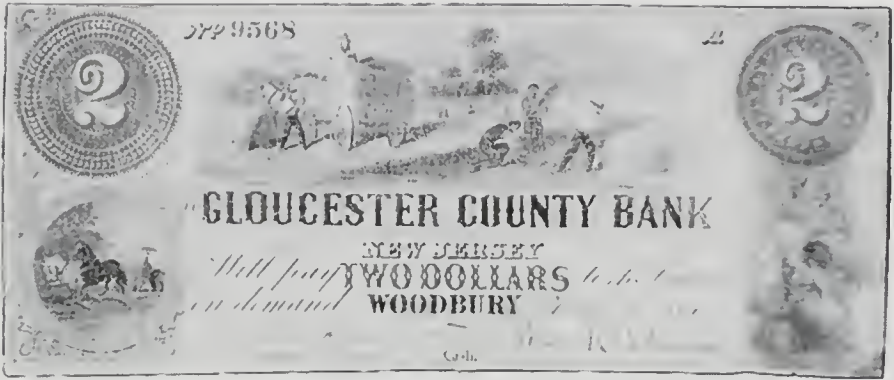
excellent. For the “Bank of Brighton” note (fig. 31), the forger altered the date by erasing the “58” and replacing it with a “60”, inked in by hand; the same party may have been responsible for the “Bank of Brighton” dollar bill, seen earlier. In any case, the replacing of half a date by hand-written numbers would have occasioned no concern at the time: partly handwritten dates were currently more common on private bank notes than complete, plate-printed ones. The “Gloucester



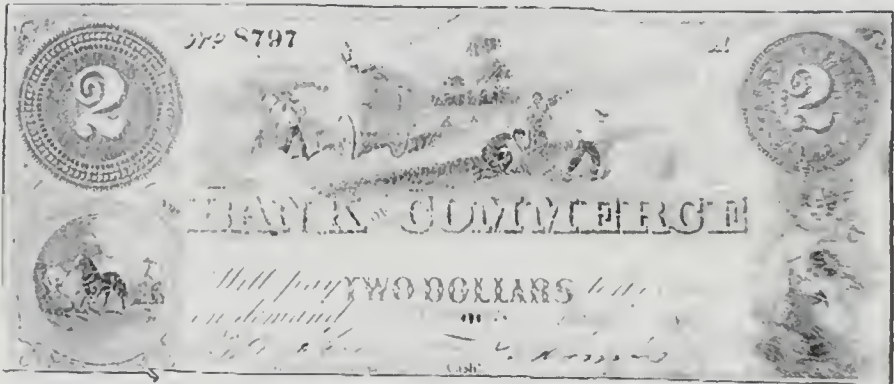
31. Brighton, MA, Bank of Brighton, \$2, 1860 (altered).

County Bank” bill bore an 1861 date, created in the same way; this note, too, would have been deceptive (fig. 32).

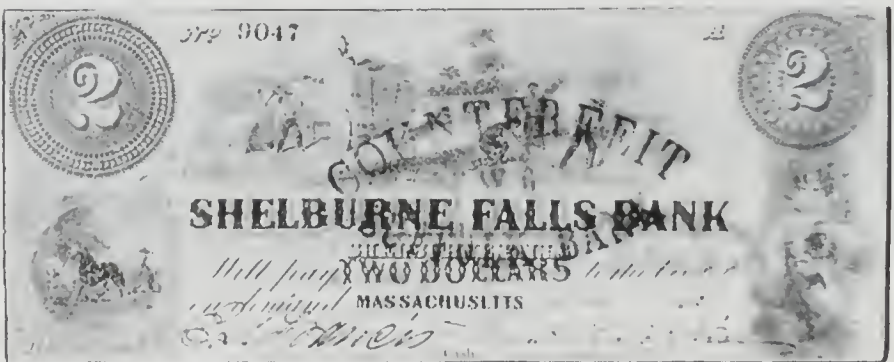
The same remark would *not* apply to notes from the “Bank of Commerce” (fig. 33) and the “Shelburne Falls Bank” (fig. 34). The erasure on the former was fairly obvious, while the poor alignment on the



32. Woodbury, NJ, Gloucester County Bank, \$2, 1861 (altered).

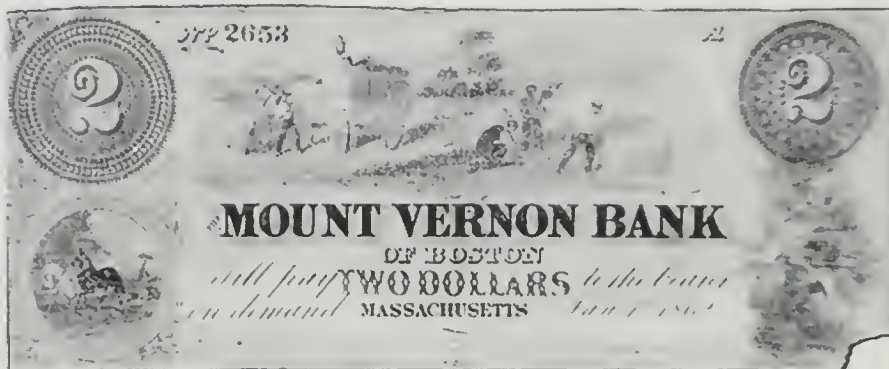


33. Baltimore, MD, Bank of Commerce, \$2, 1862 (altered).



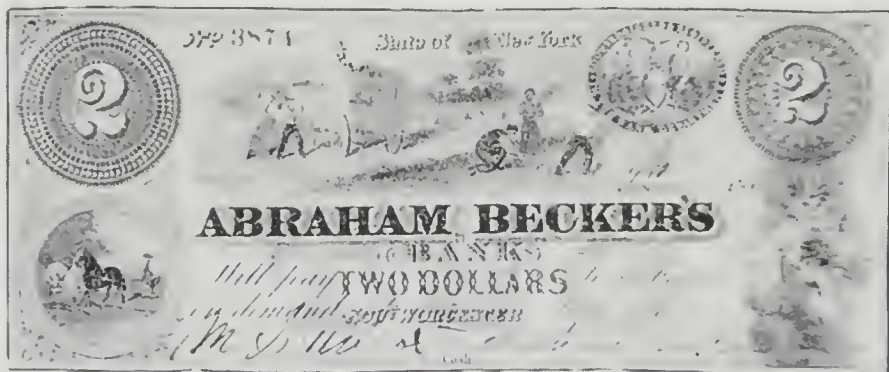
34. Shelburne Falls, MA, Shelburne Falls Bank, \$2, 1862 (altered).

latter would have also inspired suspicion. This positioning problem also distinguished the two-dollar bill of the “Mount Vernon Bank”; but we must applaud the neat substitution of one engraved date for another in the case of this note (fig. 35).



35. Boston, MA, Mount Vernon Bank, \$2, 1862 (altered).

But the award for enterprise must surely go to the party or parties responsible for another note on “Abraham Becker’s Bank”. Here, a *third* color has been added to the other two, while a New York State seal has been squeezed in at the top margin. But the forger ran out of room for the new town name, and his abbreviation of “SOUH” for “SOUTH” was infelicitous, to say the least. He also misspelled the name of the banker—twice (fig. 36).



36. South Worcester, NY, Abraham Becker’s Bank, \$2, 1858 (altered)

It is almost certain that other altered notes exist on this bank; and there must be many alterations on issues of other institutions which

remain unknown at this time. But we do well to remember that what amuses us today would have meant minor or major economic annoyance to those who handled such notes a century and a third ago.

By the time of the final alterations on notes from the defunct Southern Bank of Georgia, the days of the private banking system itself were numbered. New, harsher political and economic demands would shortly create a new, national paper currency, one which stressed consistency over individuality. The work of the nineteenth-century forger was rendered more difficult if not impossible—but the largesse for the twentieth-century scholar and collector was diminished.

Endnotes

¹ The identity of the Native American as onlooker rather than participant is a constantly recurring theme on obsolete currency and will be treated more fully in my forthcoming book on nineteenth-century numismatic imagery, *Pictures from a Distant Country*.

² For more of this sort of depiction, see my article "Surviving Images, Forgotten Peoples: Native Americans, Women, and African Americans on United States Obsolete Banknotes," in Virginia Hewitt, ed., *The Banker's Art: Studies in Paper Money*, (London: British Museum Press, 1995): 118-131.

Nineteenth-Century Counterfeit Detection Devices

Emmett McDonald

Coinage of the Americas Conference
at the American Numismatic Society, New York

November 7, 1998

© The American Numismatic Society 2000

Nineteenth-century counterfeit detection devices are basically scales which will weigh a coin against a fixed standard with *no* weights needed. In addition they usually have gauges that will measure the thickness and diameter of the coin. The reason for this is one could make a counterfeit of a base metal that will weigh correctly *but* in order to do this the coin will be oversized due to the lower specific gravity of base metals compared to silver or gold. For a coin to pass all *three* tests—weight, diameter, and thickness—it must be made of a precious metal.

These detectors will of course also guard against clipped underweight genuine coins.

Weighing coins using fixed weights on a balance scale dates from antiquity. This was also done in nineteenth-century America but to a very limited extent. Coin weights for U.S. coins are rare.

Examples of counterfeit detectors exist from Byzantine times (since ca. A.D. 1000). They were made in Europe for many years before the American Revolution. The single most common counterfeit detector is the English sovereign rocker—first made shortly after the introduction of the gold sovereign in 1817.

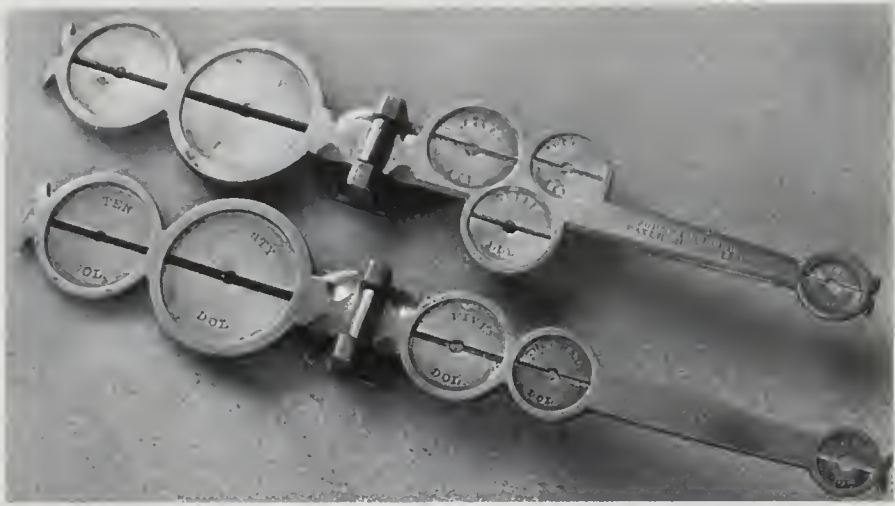
A Dutch patent was issued in 1829 for a rocker-style weighing device very similar to many of the devices discussed here. Obviously the “inventors” of these devices did not discover something new. In the U.S. it may have been new; but on a world wide basis this is old stuff.

United States patents were issued for many of the devices we will discuss. A. George Mallis has made an extensive search for patents on these devices and published his finds in the May 1974 and July 1980 *Numismatist*. In some cases they are easy to find; in others very difficult. Eric P. Newman presented a paper at the 1990 convention of the American Numismatic Association which covered many pieces. After 32 years of searching, there are some of these that I still do not own today. But there are two devices that you will see which are *not* in Eric Newman’s video presentation.

There are not many publications in this field. Gerard M.M. Houben’s *The Weighing of Money*, published in 1982 in Zwolle in the Netherlands lists many U.S. devices, including one in the ANS collection of which neither I nor Eric Newman owns examples.¹

This paper will be a survey of the field, based on my collection to

date. Each device is pictured and further described to indicate details of operation and workmanship.



John Allender, U.S. Patent no. 13840, November 27, 1855.

All brass construction.

Type 1. Marked: J. ALLENDER, PATENT PENDING

U.S. 1, 2 ½, 5, 10 and 20 dollars can be checked. After the release of the \$3 coin in 1854, a bushing for the Type 1 device was made which allows the \$3 coin to be checked in the \$5 pan.

Type 2. Marked: JOHN ALLENDER PATENT NOV. 27, 1855.

U.S. 1, 2 ½, 3, 5, 10 and 20 dollars can be checked.

Thickness and diameter gauges are in the center of the pans. A brass counterweight (often missing) is necessary to operate this device when weighing the \$10 and \$20 coins. It is inserted in the pan for the \$1 coin. The pan for the \$1 coin has a step design for the small size (1849-1854) and large size (1854-1889) varieties. The coin is laid flat in the appropriate pan. If it is the correct weight, the device will tip and touch the table.

A photocopy of the U.S. patent issued to John Allender on November 27, 1855 is reproduced on the following pages.

UNITED STATES PATENT OFFICE.

JOHN ALLENDER, OF NEW LONDON, CONNECTICUT.

BALANCE FOR DETECTING SPURIOUS COIN.

Specification of Letters Patent No. 13,840, dated November 27, 1855.

To all whom it may concern:

Be it known that I, JOHN ALLENDER, of New London, in the county of New London and State of Connecticut, have invented
 5 a new and useful Apparatus for Proving Genuine and Detecting Spurious Coin; and I do hereby declare that the same is described and represented in the following specification and drawings.

10 To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation, referring to the drawings in which the same letters indicate like parts in each of the
 15 figures.

Figure 1, is a plan. Fig. 2, a section of Fig. 1, cut through the center. Fig. 3, a plan and section of the weight.

20 The nature of my invention consists in a lever of a proper size and weight, with a fulcrum a proper distance from its center, which lever is provided with cavities in each arm of a proper size to receive the genuine coin arranged at such distances each side of
 25 the fulcrum as to weigh the smaller coins upon the lighter arm without additional weight, and the heavy coins two or more on the heavy arm with one weight, in one position, on the lighter arm.

30 In the accompanying drawings A is the base of a stand provided with two pillars B B which are perforated to receive the pivots *h h* of the weighing lever C, which may be made in the form represented or
 35 such other form as may be desirable, the short arm D being made of sufficient weight to weigh a five dollar gold piece if it is placed in the cavity or countersink E which is made just large enough to receive the
 40 genuine coin, or the three dollar gold piece in the cavity F, or the two and a half dollar gold piece in the cavity G, or the one dollar gold piece in the cavity H, all of which cavities are in the lighter arm I. These cavities are all made just large enough to receive
 45 the genuine coin and it is weighed without additional weight on the heavier arm. The

weight J is made in the form represented and provided with a projection K fitted to the cavity H, and when placed in said cavity the lever C will weigh a ten dollar gold piece in the cavity L or a twenty dollar gold piece in the cavity M, each of which cavities are made just large enough to receive the genuine gold coins of the denomination named, and both of them are in the
 55 short and heavy arm of the lever C. There is a slot directly across the center of each of the cavities in which the coin is weighed just large enough to let the genuine coin pass through freely by its own weight so as to prove the coin by its size as well as its weight.

This apparatus can be made and sold cheaper than any other that will perform
 65 the same service with the same facility, and will be found a perfect protection to prove genuine and detect spurious coins which are either larger or lighter than the genuine.

I am aware that balances for proving coin have been made with two levers hung upon one fulcrum so arranged as to weigh
 70 all the coins upon one side of the said fulcrum, and when the larger coins were weighed the lever in which the small ones are weighed is turned to the opposite side of the fulcrum. Therefore I make no claim to instruments constructed with more than
 75 one lever and to weigh upon one side of the fulcrum only, but

80 What I do claim as my invention and desire to secure by Letters Patent, is—

A single lever of such a size and weight and provided with cavities or countersinks arranged at such distances each side of the
 85 fulcrum, as to weigh the smaller coins upon the lightest arm, without additional weight, and the larger coins two or more on the heaviest arm with one weight, in one position on the lighter arm.

JOHN ALLENDER.

Witnesses:

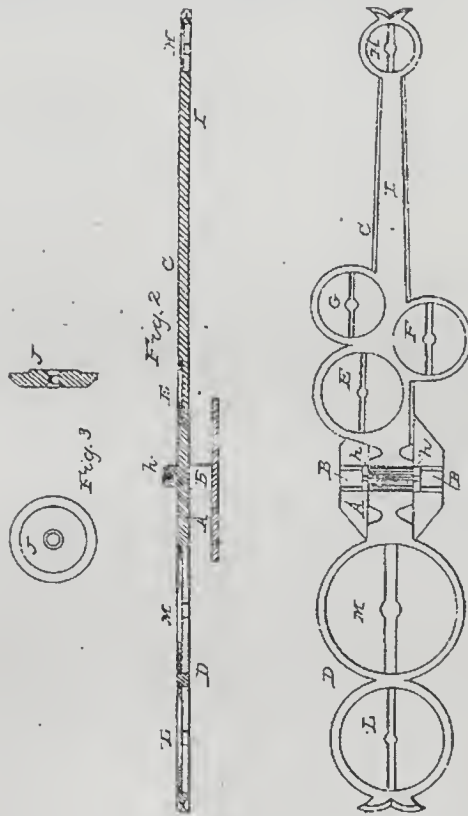
C. PRINCE,
G. C. STILLMAN.

J. ALLENDER.

Coin Tester.

No. 13,840.

Patented Nov. 27, 1855.





H. Maranville First type. U.S. Patent no. 16930, January 13, 1857.

All brass construction. Telescope slide controls the counterweight for the coin which rests on an oval pan. Only the coin diameters are marked for checking; thicknesses not given. Four classes of coins can be weighed:

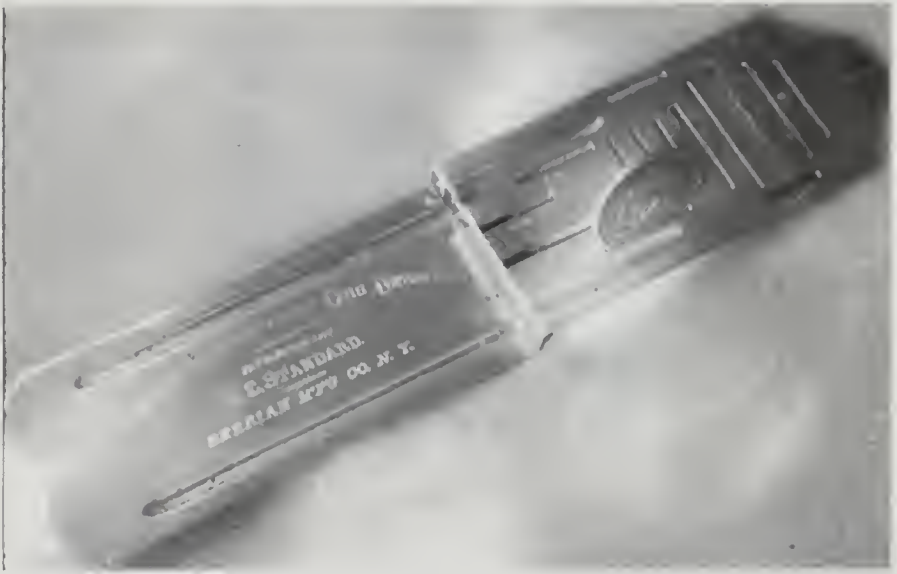
Foreign silver. England 1 shilling, France 2 franc and France 5 franc.

Foreign gold. France 20 franc and England 20 shillings (sovereign).

U.S. silver. 5, 10, 25, 50 cents, and 1 dollar.

U.S. gold. 1, 2 ½, 5, 10 and 20 dollars.

Stamped on the reverse of the device is MADE BY C. E. STAPLES, Worcester, Mass. H. MARANVILLE'S PATENT JAN. 12, 1857, CLINTON, O.



J. A. Thompson U.S. Patent no. 187936, Feb. 27, 1877.

Single piece of nickel plated brass construction.

Stamped on left arm: GOLD AND SILVER COUNTERFEIT COIN DETECTOR. PAT'D FEB. 27, 1877. U.S. STANDARD. BERRIAN M'F'G CO. N. Y.

U.S. gold 2 ½, 3, 5, 10, and 20 dollars; U.S. silver 25, 50 and 1 dollar can be checked. Horizontal slots are nests to weigh the coin. Vertical slots are thickness and diameter gauges. When a proper weight coin is inserted into its appropriate slot, the device will tip on the "Z" shaped bend with the right side hitting the table.



J. W. Sutton. U.S. Patent no. 188982 Mar. 27, 1877.

Single piece of nickel plated brass construction.

Type 1 checks U.S. 50, 25, and 10 cents.

Type 2 checks U.S. 1 dollar, 50 and 25 cents.

Stamped on face: PAT'D IMP'D JULY-1-79

A fulcrum is created by inserting a pen knife or string through the appropriate pie-shaped hole. A coin is then inserted in the appropriate edge slot and if it is the correct weight, it will balance. The edge slots are also thickness gauges. The diameter is checked on the concentric rings on the face. This device was unpublished as of the conference date.



Kronenberg U.S. Patent no. 195 451 Sept. 25, 1877.

Cast iron box with brass top and a moveable brass slide.

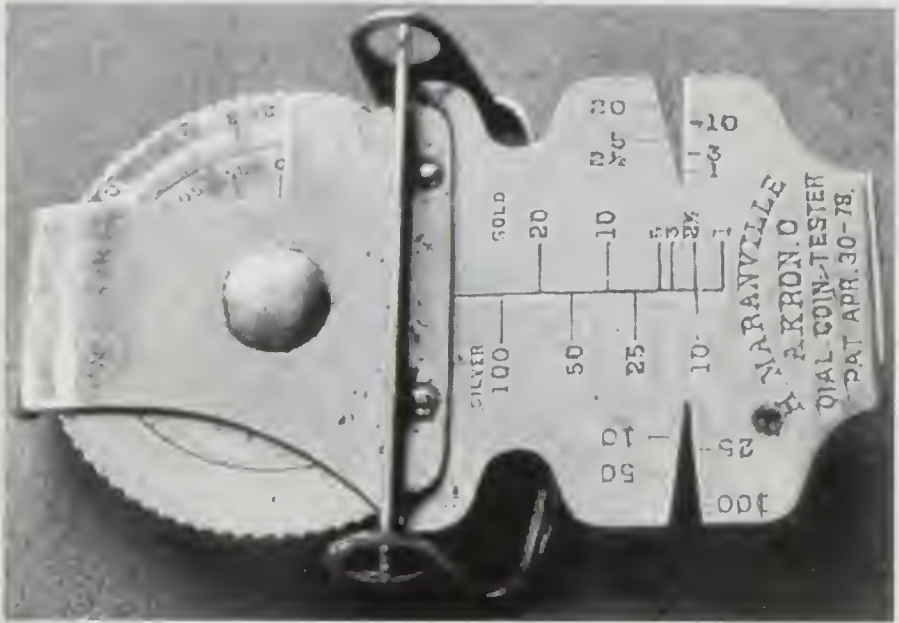
Two types are known:

Type 1: coin is checked on its edge.

Type 2: coin is checked on its back. Stamped on Type 2 face: PAT
APP'D FOR COIN DETECTOR

U.S. 50 and 25 cents can be checked.

When the appropriate coin is laid in the proper slot its diameter is checked and if its weight is correct the bottom will drop as a slide and the coin will slide through the device and come out of the lower right hand slot. The two notches on the top are thickness gauges.



H. Maranville Second type U.S. Patent no. 203,057, April 30, 1878.
Nickel-plated brass construction.

Stamped on face: H. MARANVILLE AKRON, O. DIAL COIN
TESTER PAT APR 30-78

The coin is placed flat against the end stop on the right side. Its diameter is checked on the appropriate marks. Then the dial is turned so that the proper denomination shows at the vertical opening. If the coin is the proper weight the whole device will balance on the fulcrum. The thickness of the coin is checked in the V shaped slots on the edges.
U.S. silver 10, 25, 50 and 1 dollar; gold 1, 2 ½, 3, 5, 10 and 20 dollar coins can be checked.

A photocopy of the U.S. patent issued to H. Maranville, April 30, 1878 is reproduced on the following pages.

UNITED STATES PATENT OFFICE.

HARVEY MARANVILLE, OF AKRON, OHIO, ASSIGNOR TO HIMSELF AND SAMUEL D. STEWART, OF SAME PLACE.

IMPROVEMENT IN POSTAL-SCALE AND COUNTERFEIT-COIN DETECTOR.

Specification forming part of Letters Patent No. 203,057, dated April 20, 1878; application filed March 7, 1878.

To all whom it may concern:

Be it known that I, HARVEY MARANVILLE, of Akron, in the county of Summit and State of Ohio, have invented a new and useful improvement in scales, of which the following is a specification:

Figure 1 is a plan view of my improved scales. Fig. 2 is a longitudinal vertical section.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide scales for testing coin and weighing small articles, more especially coin and mail matter; and it consists in a beam having upon one end a graduated rotating disk, which carries the counterpoise, and upon the other end a scale for measuring the diameter and thickness of coin, and a pivoted platform for receiving the coin or packages to be weighed.

Referring to the drawing, A A are standards projecting perpendicularly from the base B, and C is a beam attached to a cross-bar, D, the edges of which are V-shaped and have a bearing in apertures in the standards A.

A disk, E, is pivoted to the beam C, and carries on its under surface a weight, *b*. The beam is bent or offset to permit of turning the disk, and the upper face of the disk is provided with three sets of graduations—one set for gold, one for silver, and one for mail matter.

The outer circle, *c*, on the disk is graduated for gold, the first graduation being for one dollar, the second for two and one-half dollars, the third for five dollars, the fourth for ten dollars, the fifth for twenty dollars, and so on. The second circle, *c*¹, is graduated for silver, the first graduation being for five cents, the second for ten cents, and so on. The third and inner graduation, *c*², represents weights corresponding to certain rates of postage, the first or zero graduation representing a package having a weight requiring one three-cent stamp, the second graduation representing a weight that requires two three-cent stamps, the third three three-cent stamps, and so on.

An arm, *d*, is attached to the beam C, and extends over the upper face of the disk E, and

serves as an index in adjusting the disk. Upon the opposite side of the cross-bar D there is a plate, F, which is provided with two lips, *e*, *f*, against which to place the coin in measuring the diameter. The lip *e* is riveted to the bar D, and the lip *f* is at right angles to it.

Upon the face of the plate F there are two sets of graduations—one set, *g*, for silver coin, and the other set, *h*, for gold coin. The graduations for silver coin range from five cents to one dollar, and graduations for gold coin range from one to twenty dollars.

In the ridges of the plate F, opposite the lip *f*, two V-shaped notches, *i*, *j*, are formed. The notch *i*, which is for the measurement of the thickness of silver coin, is graduated for five, ten, twenty-five, fifty cents, and one dollar. The notch *j* is graduated for the measurement of the thickness of gold coin, the graduations being for coins ranging from one to twenty or fifty dollars.

The end of the beam C projects upward through a notch in the outer edge of the plate F, and to it is riveted a bar, *k*, whose upper edge is V-shaped. A stirrup, *l*, having apertures for receiving the ends of the bar *k*, is supported by the said bar, and has attached to it, below the pivot, a box, *m*, for containing shot or sand for adjusting the scale and for keeping the stirrup in a vertical position. A disk, *n*, is attached to the upper end of the stirrup, for receiving coin or other articles to be weighed.

When it is desired to weigh an article, the disk E is turned until the proper graduation appears at the indicating bar *d*, when the weight *b* will be in the proper position to counterbalance the article. Coin is measured as to thickness by the V-shaped notches *i*, *j*, and its diameter is measured upon the scales *g*, *h* by placing them against the lip *f*.

A block, *G*, is placed under the beam C, and in it there are two screws, *o*, one each side of the bar D, for limiting the motion of the beam.

The advantages claimed for my improved scale are that it is convenient, simple, and accurate, and, as all of the parts are connected together, none of them can become lost.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In scales, the beam C, having an upwardly-convex middle bend that supports on a pivot the disk E, and concavities on each side that allow the passage of a weight, *b*, as set forth.

2. The combination of the graduated disk E and plates F, supported on beam C, the former having weight *b*, and the latter a stirrup, as and for the purpose specified.

HARVEY MARANVILLE.

Witnesses:
GEO. G. ALLEN,
G. S. SCOTT.

H. MARANVILLE.
 Postal-Scale and Counterfeit-Coin Detector.
 No. 203,057. Patented April 30, 1878.

Fig 1

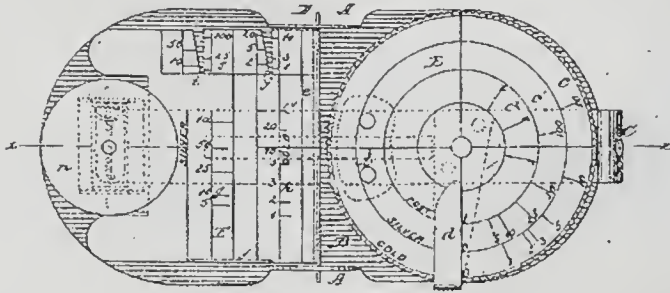
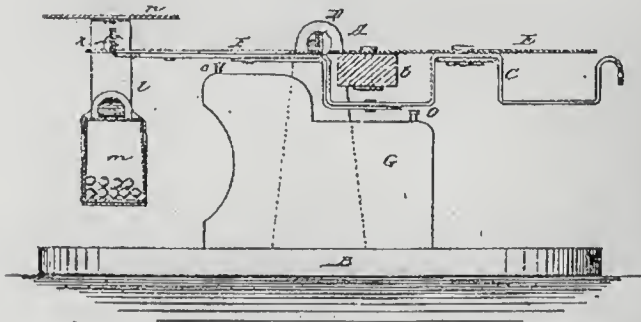


Fig 2.



WITNESSES:
Francis McDonald.
C. Dequick

INVENTOR:
H. Maranville
 BY *Emmett McDonald*

ATTORNEYS.



Rocker ca. 1870s.

Cast iron base and counterweight, brass pans.

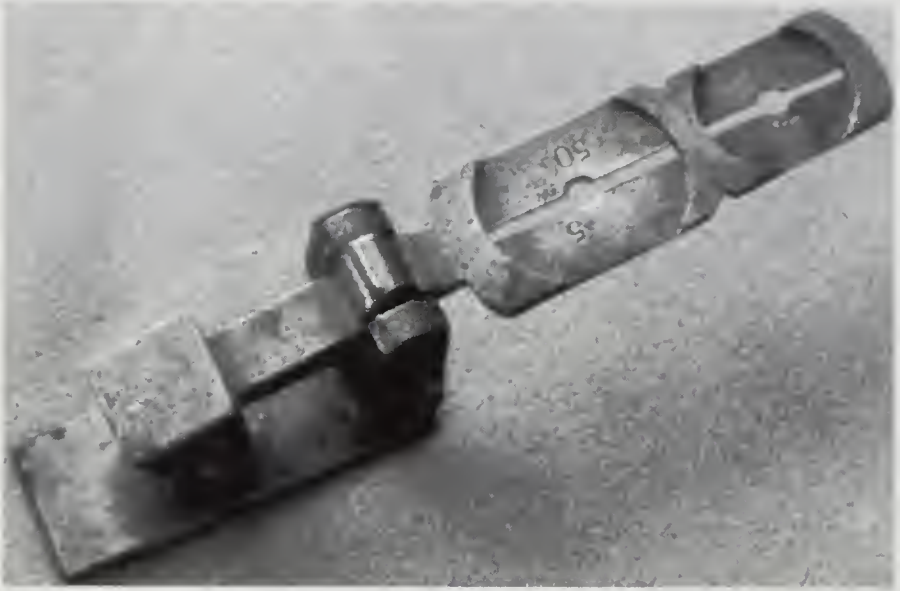
U.S. 50 and 25 cents may be checked. Thickness and diameter gauges are in the center of the pans. The coin is laid flat in the appropriate pan. If it is the correct weight, the device will dip to the right and touch the table.



Rocker ca. 1870s.

All brass construction.

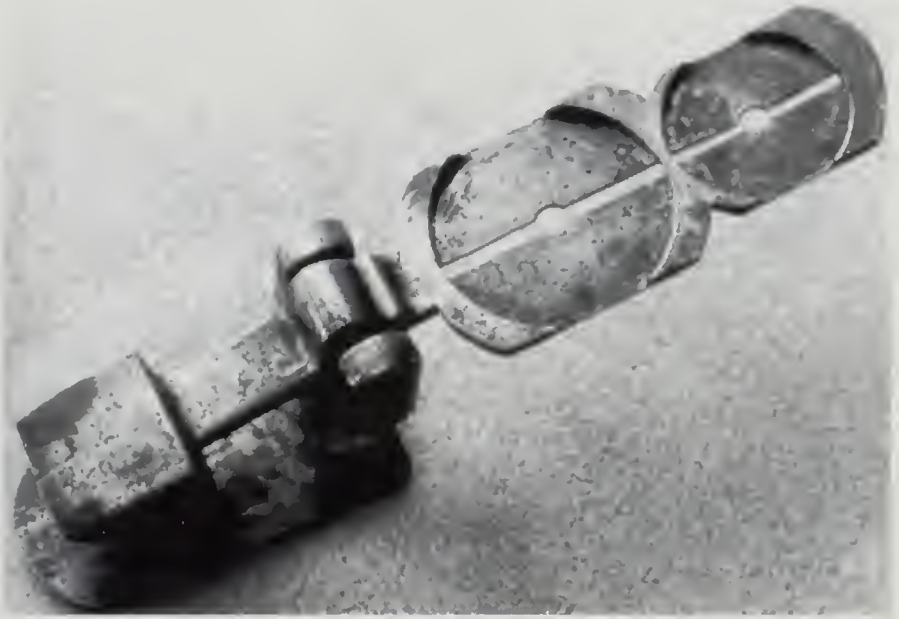
U.S. 50 and 25 cents may be checked. The vertical coin holding slots will measure the thickness only. If the coin is the correct weight, the device will tip to the right and touch the table. This device was unpublished as of the date of the conference.



Rocker ca. 1870s.

All brass construction, sheet iron end plates on fulcrum. Square end on base.

U.S. 50 and 25 cents may be checked. Thickness and diameter gauges are in the center of the pans. The coin is laid flat in the appropriate pan. If it is the correct weight, the device will tip to the right and touch the table.



Rocker ca. 1870s.

All brass construction, brass end plates on fulcrum. Round end on base. U.S. 50 and 25 cents may be checked. Thickness and diameter gauges are in the center of the pans. The coin is laid flat in the appropriate pan. If it is the correct weight, the device will tip to the right and touch the table.

Scales by J. A. Thompson and William Harrison. U.S. Design patent D-12795 Feb. 28, 1882.



First Type: Stamped J.T. MCNALLY—INVENTOR.

Nickel-plated brass beam, cast iron “A” frame, mounts on wood base. U.S. silver 20, 50 cents and 1 dollar ; gold 1, 2 ½, 3, 5, 10 and 20 dollars may be checked. The coin is placed in the appropriate slot which will measure its thickness and diameter. If it is the correct weight, the device will tip and touch the table. In order to weigh the gold dollar a special counterweight must be inserted in the hole at the end of the device.



Second Type: Stamped FAIRBANKS & CO.

Brass beam, cast iron base.

Coins checked and operation similar to first type.



Third Type: Stamped THE FAIRBANKS INFALLIBLE SCALE CO., BALTIMORE, MD, USA.

Nickel-plated brass beam cast iron base.

Coins checked and operation similar to first type. This device is mounted in a custom-made oak wood sample box with a printed label, giving details of the operation and background of the device.

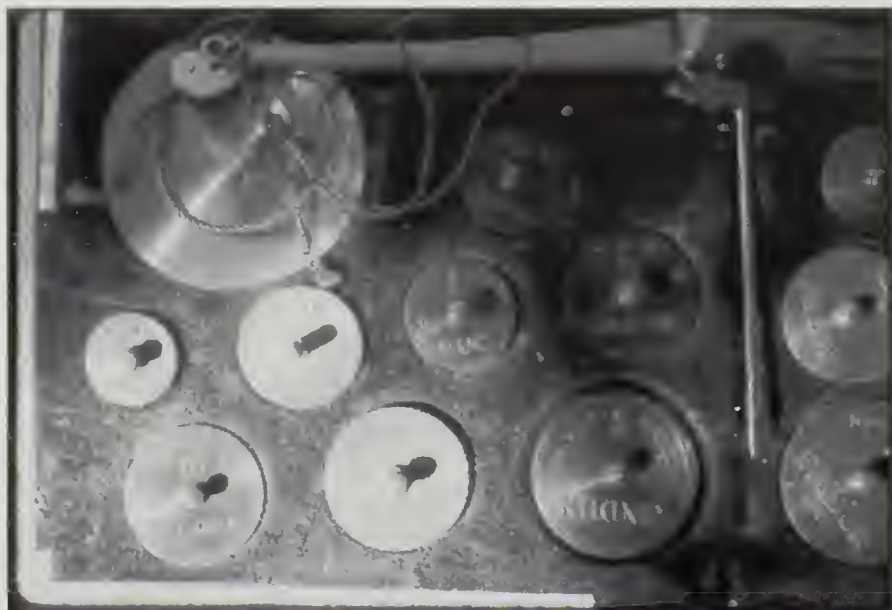


Rocker ca. 1850s

Stamped K & G. HOWARD PHILA.

All brass construction.

U.S. gold 5, 2 ½, and 1 dollar (small type 1849-1854) may be checked. Thickness and diameter gauges are in the center of the pans. If the coin is laid flat in the appropriate pan and it is the correct weight, the device will tip and touch the table (ANS 0000.999.49940).



Boxed Set of German Coin Weights Made in Berlin ca. 1880.

A weight for a U.S. 1 dollar gold is included along with weights for 10 and 20 marks gold dated 1871. Individual weights made to be used on a balance scale for U.S. coins are very rare, whether of U.S. or foreign manufacture.



Individual Brass Weight for U.S. 5 dollars

Made to the old tenor-weight standard of 1795-1834. The only other information on this piece is in the March 1933 *Numismatist*, where similar pieces are described. It is unknown if this is of U.S. or foreign manufacture.

Endnote

¹ Subsequent to the date of the conference, Eric P. Newman and A. George Mallis published their excellent reference manual, *U.S. Coin Scales and Mechanical Counterfeit Coin Detectors*, which appeared in the spring of 1999. It includes copies of the U.S. patents and extensive information available nowhere else. Much not previously published background information on many of these devices is included. It has become the standard reference for this series.

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**Appendix 1:
A Counterfeiter's Arrest Proves the
Circulation of Massachusetts Silver
Shillings as Late as 1784**

Eric P. Newman

Coinage of the Americas Conference
at the American Numismatic Society, New York

November 7, 1998

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To establish a date when counterfeit coins were being made for circulation proves that genuine pieces of such coin were then in common circulation. Evidence has recently come to light confirming that Massachusetts silver shillings dated 1652 were circulating extensively in New England in 1784, at least 100 years after their last original production. A counterfeiter with good business judgment would not undertake to produce counterfeits of genuine coins if the genuine coins were not in common circulation.

In the *New York Journal* dated May 13, 1784, p. 3, published by Elizabeth Holt (widow of John Holt who was the printer of the Colony of New York paper money dated September 2, 1775 and State of New York paper money dated March 27, 1781) is the following report:

The public will beware of counterfeit D O L L A R S, dated 1782. They appear to be well made, and a person who is not cautious would be apt to receive them for good. The composition is supposed to be chiefly copper and antimony—they are very brittle, and on ringing them the sound is shriller than that of good dollars. The marks by which they may be known are as follows; the C in CAROLUS appears to be rather larger than the other letters in the word, and the U is a little lower than the L before it; on the other side of the counterfeit dollars of that date, the words ET. IND. appear like one word thus ETIND. And in the word REX. the X is apparently lower than the RE.

A young fellow by the name of Queen, was lately detected at Sturbridge, with eight of those dollars about him, and a number of utensils for counterfeiting New-England shilling pieces, etc.

It would be of great public utility, if people in general, would be more cautious about how they receive money; and upon detecting counterfeit money, endeavor to trace where it came from, that those pests of society, who employ their time in this infamous business, may be brought to the punishment which their crimes merit.

While the primary emphasis in this news report relates to the counterfeit 1782 Spanish American 8 reales pieces, known as Spanish dol-

lars in the United States, the reference to "counterfeiting of New-England shilling pieces" is most important. New England shilling pieces can only mean Massachusetts silver shillings dated 1652. The counterfeiter was caught in Sturbridge, Massachusetts, with "utensils" to counterfeit Massachusetts silver shillings. The word "utensils" when used in connection with base metal counterfeiting of silver coins indicates tools, instruments or vessels but when identifiable as containing a coin design they must include dies, molds, or patterns for sand molding.

It is not indicated what type of Massachusetts shilling is involved, whether it is a NE type (1652), a Willow Tree type (1653-1660), an Oak Tree type (1660-1667), a large planchet Pine Tree type (1667-1674), or a small planchet Pine Tree type (1675-1682).

The probability is that it was a small planchet type, but that determination does not lessen the impact. The small planchet speculation is based upon the publication in many American coin chart manuals during the 1845-1857 period of illustrations of the small planchet Pine Tree shilling type valued at 16 cents and no other Massachusetts types.

In 1784, and in the periods of economic stability before then, the money of account shilling of New England was valued at 6 shillings to the Spanish dollar. At the same time the money of account shilling of New York was only valued at 8 shillings to the Spanish dollar and the money of account shilling of the mid-Atlantic states was valued at 7 shillings 6 pence to the Spanish dollar. These valuations made the Massachusetts silver shillings dated 1652 a convenient coin for commercial transactions in New England, but a very inconvenient coin for use in nearby states to the south. Thus the location of the counterfeiter in Sturbridge, Massachusetts, fits into the New-England area scenario where Massachusetts silver coins would normally be preferred for circulation if available. They would be preferred over Spanish-American 2 reales, 1 real, or ½ real coins, which did not fit well into the New England money of account system in small transactions.

Another important matter in the report concerning eighteenth-century counterfeiting in America is the description of the material used to counterfeit silver coinage: "the composition is supposed to be chiefly copper and antimony." The desired percentage of each such metal in

the melt mixture has to produce a silvery color, a weight close to the genuine coin, a good resemblance, sufficient strength and a ringing sound. Copper and antimony when properly mixed have an unusual advantage in having a substantially lower melting point than copper, enabling casting to be more easily done. While the melting point of pure copper is 1100 degrees Fahrenheit, the eutectic of a blend of 32% by weight of antimony reduces the melting point to 645 degrees Fahrenheit. There is a second eutectic of a mixture of 77% by weight of antimony with copper which reduces the melting point to 528 degrees Fahrenheit; thus the counterfeiter has many choices to make in balancing color, weight, appearances, brittleness and sound.

The report in stating "on ringing them the sound is shriller than that of good dollars" indicates that a common but often unreliable test to see whether a coin was genuine or counterfeit was to spin it on a table top or counter top. This century old practice is still used today, along with balancing the coin on your finger and tapping it to sense a vibration. Biting a coin or other methods to test its brittleness is not commented upon in the report.

The above comments as to counterfeiting refer only to counterfeits made to circulate along with genuine pieces and not in any way to forgeries, reproductions or fantasies made to sell to or to deceive collectors or other numismatists (many of these are listed in Newman 1959).

It is refreshing to have such a small news report furnish a plethora of historical information.

Acknowledgements

The assistance of Mike Ringo, Peter Gaspar, and John Kleeberg in the preparation of this article is sincerely appreciated.

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**Appendix 2:
Flowing Hair and Draped Bust
Counterfeit Half Dollars in the ANS
Collection**

John M. Kleeberg

Coinage of the Americas Conference
at the American Numismatic Society, New York

November 7, 1998

© The American Numismatic Society 2000

Counterfeit capped bust half dollars have been ably catalogued by Keith Davignon. Less well known, however, are counterfeit flowing hair and draped bust half dollars, although they have been discussed several times before (Ford 1950; Taxay 1963, 151-153; Breen 1988, 200). Taxay says that a piece was also mentioned by Woodward, but I have been unable to trace this reference. Sometimes collectors whose hope overcomes their skepticism publish these flowing hair counterfeits as new varieties (A U.S. Half Dollar of 178-? 1916; Lovi 1962). Judd's Appendix D, "False Pieces," lists the 1787 and 1878 counterfeits; another one listed, "1877 false piece, half dollar, brass," might be by the same maker, since the number is an anagram of 1787 and 1878 (Judd and Kosoff 1982, 267, 279). A catalogue of those in the ANS collection follows. The flowing hair dollars are clearly all by the same maker—the style is unmistakable, and if enough examples turn up, they will probably die chain with each other. So far, three obverse dies and two reverse dies have been identified:

- Obverse die 1.** Date 1787. 8 stars on the left, 6 stars on the right.
- Obverse die 2.** Date 1787(?). 8 stars on the left, 7 stars on the right. The point of the eighth star touches a denticle.
- Obverse die 3.** Date 1878. 7 stars on the left, 8 stars on the right.
- Reverse die A.** The dexter wing of the eagle protrudes only a little beyond the wreath. The left foot of the M of AMERICA is very close to a leaf.
- Reverse die B.** The dexter wing of the eagle protrudes much more beyond the wreath. The D of UNITED is distant from the E.

No example of obverse die 2 is known in the ANS collection; I have identified it from an illustration in the *Numismatist* for April 1916 (fig. 1), which shows 2-B. At that point the coin was owned by E. E. Shepardson of Somerville, Massachusetts.

Two of the ANS pieces were published by John Ford in the *Coin Collector's Journal* for November 1950. In this article, Ford published a 1787 piece owned by Oscar Schilke of Beacon Falls, Connecticut (also published in Taxay 1963, 152). Its dies are also 1-A. Schilke first displayed this at the New York Numismatic Club meeting of June 9, 1950



Fig. 1

(New York Numismatic Club 1950). Schilke obtained it from an elderly man who claimed it had been in his family for many years. The coin came wrapped in a piece of paper, with nearly illegible handwriting, which Ford read as follows:

Limpsten [?] Wednesday, May 19th 1813 - this day rec'd
of John Cram of Unity, one half dollar piece - of the United
States Coin dated 1787 - and inclosed the same within this
paper - Francis Chase & Chs Way present at the time -

Attest - Abner Chase

The Schilke coin also has two scratches in the left field which look like initials - IC or JC, which would fit nicely with John Cram.

Ford presumed that Limpsten and Unity were towns in New England. There is no town named "Limpsten" in the gazetteers. There are, however, two towns named Unity: one in Maine and a smaller one in New Hampshire. The 1810 census for Maine shows an Abner Chase living in Lemington, in Washington County. The correct reading for "Limpsten" must be "Lemington."

Abner Chase was aged 26-44 in 1810. He was living with a free white female aged 26-44, presumably his wife; and two free white males aged 1-9, two free white females aged 1-9, and one each aged 10-15 and 16-25, presumably their children (1810 Census, 681).

The index to the 1810 census for Maine shows a Francis Chase living at Portland, Cumberland County; five listings for John Cram, in Gardiner, Bernick, Parsonsford and Sanford; and no listing for a Charles Way. None of these names fit. The 1810 Census only listed heads of families, so it probably does not list men other than Abner Chase. Our "John Cram," who passed a counterfeit half dollar, proba-

bly gave a false name anyway.

The evidence of the paper signed by Abner Chase is convincing. It shows that 1787 counterfeit brass half dollars were circulating in Maine in 1813. This fits in very nicely with my dates for the brass counterfeit 2 reales.

Taxay's argument (Taxay 1963, 153) that because these counterfeits are not listed in Riddell they are more likely to be fakes of the late nineteenth century than circulating counterfeits, is not convincing. We know from Davignon that there were many, many circulating counterfeits that Riddell missed. Riddell listed 37 varieties; Davignon expanded the number to 188. The flowing hair counterfeits have many characteristics that are more suited to counterfeits than fakes made to fool collectors: they are in base metals; they show severe wear; they are often scratched up, in an attempt to pierce the silvering.

The die axis of all these coins is the correct 6 o'clock. All except for the 1806 cast counterfeit are silvered brass. All except the 1806 cast have edges lettered and decorated with a passable imitation of FIFTY CENTS OR HALF A DOLLAR.

Catalogue



1947.125.6, 1787, 13.315 g. Dies 1-A.

Gift of Milferd H. Bolender, 1947.



1942.3.14, 1787, 14.347 g. Dies 1-A. Gift of Wayte Raymond, January 1942.



1947.125.5, 1878, 13.385 g. Dies 3-B. Gift of Milferd H. Bolender, October 1947.

Published in (Ford 1950, 112).



1989.99.265, 1878, 11.213 g. Dies 3-B. Gift of R. Byron White, July 1989.



1896.30.1, 1809, 12.764 g. Gift of Édouard Frossard, June 11, 1896. An impossible date. 9 and 6 are easy to punch in upside down. Many of the impossible dates created by counterfeiters (e.g. the 1969 evasive halfpenny in the Ringo collection) involve 9 and 6 punches. Published in (Ford 1950, 112).

Research by Walter Breen shows that a brass half dollar of 1809 has appeared twice before at auctions. These auctions have no plates, but this is probably the ANS piece. I suggest the following pedigree for this coin:

J. Colvin Randall-Ebenezer Locke Mason, 10/28-29/1868:819 (realized 7 cents)-William Fewsmith-Ebenezer Locke Mason, 10/4-7/1870:2435 (realized 10 cents)-Ebenezer Locke Mason-Édouard Frossard, 6/11/1896-American Numismatic Society.



0000.999.52756, Cast counterfeit in copper of 1806 half dollar, Overton 120, 9.649 g. Provenance unknown. Edge: smooth.

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