While it may not have required an enormous leap of the imagination for a man who had been involved in button manufacturing for much of his business life to contemplate the mass production of coins, the use of steam power for this purpose, which Matthew Boulton had evidently discussed with James Watt as early as 1774, was unprecedented.

Boulton was nearly fifty-eight years old when, in 1786, he received his first coinage commission from the East India Company for a copper issue for Sumatra. Of very simple design, these coins were struck at the East India Company’s premises in London, with presses built by the Eagle Foundry of Birmingham, on flans prepared at Soho. Although not employing steam power, and not even requiring the services of an engraver, this coinage, which was supervised, albeit reluctantly, by John Scales, Boulton’s partner in the button business, was an important stepping-stone to his much deeper involvement in coinage technology.

In December 1786, accompanied by James Watt, Boulton travelled to France, primarily on steam engine business. In Paris the partners met Jean-Pierre Droz, a Swiss engraver and technician, and Boulton became enormously impressed by Droz’s mechanical and engraving skills, so evident in his pattern six livres of Louis XVI, familiarly known as the écu de Calonne, a handsome piece, with its SIT NOMEN DOMINI BENEDICTUM lettered edge applied at the moment of striking by means of a six-segmented collar.

A good deal of Boulton’s time in 1787 was spent on coinage matters, corresponding at great length with Droz, who came to Soho for most of September and returned there on a more permanent basis the next year. Innumerable experiments were undertaken in an effort to perfect the application of the motive power of steam to coinage production, experiments which Boulton participated in with the active collaboration of James Lawson,
John Southern, William Murdoch, James Watt, Droz, and others. In February 1788 Boulton could write to his son, Matt, 'I am building a Mint and new Manufacture for it in my Farm Yard behind the Menagery at Soho...'.

Thousands of pounds were invested in additional experiments, in the training of staff, and on the installation of machinery and equipment necessary for the many stages of the minting process, including a greatly enhanced capacity for rolling copper into sheets of the precise thicknesses required for coinage. Some at least of the cutting-out and coining presses were not constructed at Soho, however, but at the Eagle Foundry and at John Wilkinson's Bersham Foundry. In this respect Boulton and his aides were acting as consulting, rather than as manufacturing engineers, the same role that Boulton and Watt played in the construction of steam engines until the opening of their own Soho Foundry in 1796.

Boulton made intense efforts to obtain a contract from the British government to strike a copper coinage. He stressed the beneficial, humanitarian aspects involved, in that a public miserably inconvenienced and cheated by counterfeit, underweight coinage would be provided with well-made, full-weight pieces, the very excellence of which would prove too difficult successfully to counterfeit, thus dissuading would-be counterfeiters from even trying.

Actually, there were even stronger personal reasons for Boulton's efforts to acquire a government coinage contract. The Soho Mint, having cost so much to construct, now required substantial orders to keep properly employed, due to its great production potential. Also, a large copper coinage would provide an excellent use for the ore being produced by the Cornish copper mines, which was bringing extremely low prices in the late 1780s. Boulton and Watt had supplied steam engines to many of these mines, and had subsequently acquired shares in a number of them in lieu of a portion of their steam-engine premiums. Thus, Boulton had a very clear interest in the financial health of the Cornish mines.

Furthermore, Boulton had spent his entire business life in various partnerships, first with his father, subsequently with John Fothergill in the Soho Manufactory, after Fothergill's death in 1782 with John Scales in the button business, and, of course, as half of the famed Boulton and Watt engine partnership, to name just some of his business liaisons. It therefore seems only reasonable that he should crave the personal satisfaction to be derived from a successful major enterprise which was entirely his own. It might be noted that there are numerous references in the numismatic literature to Boulton and Watt's Soho Mint. As Boulton took pains to point out on a number of occasions, he had no partner in the coinage business.

Having failed, for various reasons, to persuade the British government to grant him the coinage contract he so urgently needed, and having managed to keep his fledgling mint only sporadically employed in 1789 by striking private merchants' tokens, Boulton, who had obtained a patent in July of 1790 for the application of steam power to coinage production, was forced to look elsewhere for business.

The great changes transforming revolutionary France included the prospect of radical

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5 The most detailed evidence concerning the participants in the early coinage experiments stems from a meeting held at Soho House after Boulton's death. This took place on 7 January 1810, and was attended by a number of Boulton's most prominent former associates. BRL, various documents in Soho Manufactory Letter Box.


7 BRL, Soho M. Boulton Journal 1785-1794, 96 (Anthony Robinson account). 147 (John Wilkinson account).

8 The best description of Boulton's numerous business ventures may be found in the little-known but very authoritative master's thesis of J. E. Cule, 'The Financial History of Matthew Boulton 1759-1800' (University of Birmingham, 1935).
overhaul of the French mint and coinage systems, much attention having already been
given to this by the National Constituent Assembly. Frustrated in his English efforts,
and intimately familiar with European trade from Boulton and Fothergill’s many years in the
export business, it was perhaps only natural that in January 1791 Boulton should turn his
attention to France.

Accustomed to thinking in terms of large-scale business ventures, Boulton conceived his
plans for France in characteristically bold fashion. He was prepared to strike an entirely
new French coinage at his Soho Mint, thereby replacing the no less than seventeen mints
currently operating in France; if this was not agreeable to French sensibilities, as he feared
it might not be, he was ready to ship his minting equipment across the Channel, and
construct a complete steam-powered rolling and coining mill in Paris. In conjunction with
either of these proposals he was willing to purchase the recently confiscated French church
bells in their entirety, refine them for the copper they contained, and utilize this copper to
strike a new French coinage.

To facilitate his plans Boulton, on 3 January 1791, requested an old friend and business
acquaintance, John Motteux, one-time chairman of the British East India Company, a man
who had extensive connections in France, to send a letter to Paris incorporating these
proposals. This initial approach resulted, a short while later, in correspondence with the
Monneron Frères. Who were the Monnerons? Originally from Annonay in the Ardèche
department of south-eastern France, they were a large and successful family, numbering
thirteen brothers and sisters in 1788. Some of the brothers had particularly distinguished
themselves. Claude-Ange, known as Monneron the elder, was for many years a colonial
administrator in Pondichéry, and had held important positions in France as well.
Jean-Louis had spent twenty-five years in the East Indies, and had made a fortune as agent
for the French East India Company at the Cape of Good Hope. Pierre-Antoine had also
become wealthy in the East Indies, and in 1791 established a large tobacco processing plant
at Asnières, outside Paris. More importantly, Claude, Louis, and Pierre were all deputies
to the National Constituent Assembly, the only trio of brothers to enjoy this distinction.

Further to facilitate his plans for France Boulton appointed as his agent Dr Francis
Swediaur, a German chemist, botanist, and physician, with whom he had probably become
acquainted through the distinguished Dr William Withering of Birmingham, like
Boulton a member of the Lunar Society. On 7 February 1791 Dr Swediaur was empowered
by Boulton to act on his behalf in monetary matters in France, and on 12 February he left
London in the Diligence, bound for Paris. When he arrived, Dr Swediaur, who was quite
familiar with Paris and Parisian personalities from at least two previous visits, immediately began to get in touch with people who might be able to advance Boulton’s schemes.
Among these were members of the National Assembly’s coinage committee, the most
prominent of whom was Mirabeau. Gabriel de Cussy, president of the committee, a former
provincial mint director and a strong proponent of reform of the French mint system, was
also contacted, as were the Minister of Public Contributions, Waldec de Lessart, and the
Monnerons, principally Pierre and a younger brother, Augustin.

Boulton and Swediaur carried on an extensive correspondence for the next six months.
The most sensitive portions of Swediaur’s letters were written in an invisible ink, which

\[\text{9 Matthew Boulton, Soho, to John Motteux, London. BRL, Monneron Letter Box.}\]
\[\text{10 Bouchary, Les Monnaı\'eurs d’Argent à Paris à la fin du XVIIIe siècle, tome III (Paris, 1943), 181-247. This interesting and exceedingly well researched work contains a very important chapter on the Monnerons which has been totally ignored by numismatic writers.}\]
\[\text{11 Dr Swediaur, London, to Matthew Boulton, Soho, 12 February 1791. BRL, Swediaur Letter Box.}\]
\[\text{13 Some twenty-five letters written by Boulton to Swediaur, and approximately forty from Swediaur to Boul-
ton, survive from the period February to August 1791. BRL, Swediaur Letter Box.}\]
Boulton, much to Swediaur’s annoyance, did not realize for quite some time. In the event, despite the doctor’s intensive efforts in many directions, he was unable to bring any of Boulton’s proposals to fruition. However, the extreme shortage of minor coins which France was experiencing at this time, and Swediaur’s obvious familiarity with the numerous private token issues which had been struck under similar circumstances in England, resulted in his proposing to the Monnerons, that is, to the two brothers directly involved, Pierre and Augustin, that they issue in their own name a series of copper tokens to be struck at Soho. They readily agreed to this.

Boulton had recently lost the services of two engravers. Rambert Dumarest, tiring of England, had gone back to Paris, and Droz, with whom Boulton’s relationship had deteriorated into bitter and costly litigation, had also returned to Paris, to participate in the design and die-sinking competitions for the new constitutional coinage. Consequently, during the summer of 1791, Dr Swediaur hired a young and promising Parisian engraver, Noël-Alexandre Ponthon, who accompanied him back to Soho. They arrived on 8 August, which was, coincidentally, the day on which Boulton threw a great party at the Manufactory to celebrate the twenty-first birthday of his son, Matthew Robinson.

It was agreed by Boulton and the Monnerons that they would issue three denominations of copper tokens – five sols, two sols, and a half sol. Only the first two materialized. The initial pieces struck must have been essays for the two sols (pl. 30, 1), high relief examples weighing from twenty to twenty-four to the French pound, with Boulton’s initials – M.B. – appearing prominently on the obverse to the right of the seated figure of Liberty. The obverse was engraved by Ponthon, possibly based on a wax model by George Parbury.

Correspondence between Paris and Soho resulted in the striking for circulation of a lower relief two sols token without Boulton’s initials (pl. 30, 2), and of a lighter weight, twenty-seven to the French pound. The first shipment of these was invoiced to the Monnerons on 3 November 1791.

Five sols tokens dated 1791 were prepared a little later (pl. 30, 3 and 4). There are two major reverse varieties, the one with legend beginning at 11 o’clock almost certainly being the earlier. The central, oval design of the obverse depicts the Fête de la Fédération, which took place on the Champ-de-Mars, 14 July, 1790, and is an adaptation of Augustin Dupré’s highly popular medal which was worn at the festivities (pl. 30, 5), Dupré’s die having been purchased by the Monnerons for this purpose. Small quantities of the five sols tokens were first invoiced on 10 December, and were taken back to Paris by Pierre Monneron, who was returning there after visiting Boulton for nearly a week at Soho to plan the details of their token and medal issues.

Even before any tokens (other than essays) had been sent to France, on 10 October 1791 the Monnerons had written letters to Boulton and to Dr Swediaur describing a plan for a separate issue of tokens to be sent to another brother, Janvier, a prosperous merchant in Port Louis on the French island colony of Isle de France, in the Indian Ocean. The details of this proposed colonial token coinage are somewhat sparse, because the Monnerons’ intentions seem to have been stated more clearly in the letter to Dr Swediaur, and this, unlike most of their correspondence with Boulton, has not survived. It is evident, however, that tokens of five sols and of ten sols were planned, the former to be the size and weight of...
the two sols struck for metropolitan France, the latter presumably to be the size and weight of the five sols.

As none of the standard works or major auction or fixed price catalogues devoted to the Revolution have described any tokens for Isle de France, it might have been reasonably concluded that these proposals for a colonial token issue never went beyond the talking stage. However, this is not so. Essays were actually prepared, and illustrated here are two varieties of the five sols token intended for Janvier Monneron (pl. 30, 6 and 7). Two different obverse types were paired with a reverse which was struck from a badly broken die. The nature of these die-breaks indicates, I believe, that the flaws occurred during the annealing process, rather than in striking. I am fairly confident that a ten sols token was also prepared, presumably using the Fête de la Fédération obverse of the regular issue five sols token, combined with a reverse similar to that of the Isle de France five sols essays. To date, no example of such a ten sols has ever been described in the literature, nor, to the best of my knowledge is such a piece known. However, perhaps some day a specimen will appear.

In December 1791 new dies were prepared for the five sols token, dated 1792 and the Year III of Liberty (pl. 31, 8). These dies were evidently employed prior to 1792, as Boulton’s letter of 26 December 1791 to the Monnerons states, ‘I intend to strike off tomorrow some dozen of gilt, some of silver and some bronzed, from the 5 Sols dies . . .’. The Soho Mint Coinage Day Book for 1791 reveals that twenty-four silver and thirty-six gilt copper specimens of the five sols were sent to Paris via Dr Swediaur a few days later, and the evidence of surviving examples proves that these were the 1792, L’AN III types. It should be emphasized that the majority of the extremely rare silver specimens of various Monneron tokens and medals are original strikings, intended for sale and/or presentation purposes by the Monnerons.19

On 11 January 1792 Dr Swediaur, writing from Calais on his return journey to Paris, informed Boulton that the National Assembly had just decreed that the fourth year of Liberty should commence as from the beginning of 1792. He therefore requested a change in the dating of the tokens from L’AN III to L’AN IV (pl. 31, 9). This was quickly done, and as a result the 1792, Year III type was struck for circulation for a very brief time; consequently, it is the scarcest major variety of the regular issue five sols token. In contrast, some seventy tons of the Year IV variety were eventually produced.

The initial distribution of tokens in Paris was enthusiastically received. The Monnerons wrote to a French correspondent on 18 January 1792 that they had just distributed 10,000 livres worth, that an immense crowd had forced them to give out an additional 1,600 livres they had intended to hold aside, and that a unit of horsemen was required to maintain order.20 Dr Swediaur, writing to Boulton the next day, reported, ‘The demand for out current medals is beyond what you can imagine, the people are so eager for them & the crowd was so great that we were for some days past afraid they would storm the house, especially as we were so far from being able to satisfy the thousandth part of the demand’.21

It should be realized that almost from the beginning of his association with the Monnerons Boulton, who was understandably proud of his mint, claimed that it could produce two tons of copper coin per day, or twelve tons per week. However, this was not achieved for many months. The five sols tokens, larger and heavier than anything that had previously been struck at Soho, required a great striking force which caused all manner of

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19 The only documented evidence located to date of restriking in silver of Monneron tokens and medals has been found in BRL, Mint and Coinage Day Book 1820 to, 15-16. An invoice of 20 October 1823 to S. S. Edkins shows that two each Serment du Roi and 2 Sols liberté, and one each Lafayette and Rousseau in silver were supplied to him. It is assumed that these were not ‘old stock’.

20 Monneron Frères, Paris, to Hercouët at Deshais, Saint-Malo. In a register (untitled) of Monneron letters from 2 January to 30 March 1792. Archives de Seine.

production problems. Unfortunately, Boulton was in London on parliamentary business for much of the first three months of 1792, when these problems were at their worst and when increased production was urgently needed by the Monnerons.

Numerous letters written to him by his son, Matt, and by his key employees, James Lawson and John Southern, attest to the difficulties. Typical is this excerpt from Southern’s letter of 30 January 1792: ‘The last week has been chiefly taken up in repairing little accidents, which were as unforeseen as they were provoking. Chains breaking – air pump arms & pulleys heating & flying to pieces – in short almost every trifling though hindering accident has happened that might have been expected of an entire new machine. The force is so great . . . that the parts have failed partly from that cause – and again others from causes not to be discovered’. Chains and air pump arms were not the only things that suffered. Boulton wrote to the Monnerons on 15 February 1792: ‘The great force which I find necessary to strike the 5 sous pieces has broke, bent, & deranged most of the parts about the press . . . But this is not the only misfortune, for this day one of the great bars or balances of the press broke & with the great weight that is fixed upon the end of it, fell down & has very much hurt one of my best workmen & I fear hath broke his arm . . .’

Further problems were caused by the increasing scarcity and cost of copper, the consequences primarily of the tactics of Thomas Williams, the famed ‘Copper King’, or in Boulton’s phrase, ‘the great Monopolist’, who at this time controlled the output of both Cornwall and Anglesey.22 Combined with changes in the exchange rates unfavourable to the livre, this resulted in frequent requests from the Monnerons to decrease the weight of their tokens.

On 30 March 1792 the Monneron Frères suspended payment. Various reasons for their bankruptcy were suggested by the French newspapers, and by Pierre Monneron himself in two last letters to Boulton.23 Without detailing all of their problems, suffice it to say that the Monnerons had far too many irons in the fire (a practice that had almost proved Boulton’s undoing at times). It was feared that Pierre Monneron would commit suicide as a result of the bankruptcy, and a Paris newspaper, Feuille du jour, in its 5 April issue, actually reported that, after bidding farewell to a young Indian servant and entrusting a packet of letters to him, he threw himself into the Seine, his body being recovered a few days later at Neuilly. This proved incorrect; Pierre’s instinct for self preservation evidently prevailed, as he left France, bound for the East Indies, where he no doubt hoped to recoup his fortunes. He left behind a young wife and three small children, and his brother Augustin, who had to deal with creditors and attempt to carry on the token and medal business.

Augustin did manage to continue, and in May a lighter weight five sols weighing nearly twenty to the French pound, and with a new reverse and edge inscription, was struck (pl. 31, 10).24 Some twenty-two tons of this type were shipped in June, yet it is quite scarce today. Probably the increasing objection of the French government in the persons of its successive ministers of Public Contributions, Tarbé and Claviere, to privately issued circulating tokens, combined with their lighter weight and somewhat smaller size, prevented very many from actually entering circulation; indeed, it seems likely that the bulk were melted down.

In July of 1792 a new, lighter weight two sols token was prepared (pl. 31, 11). The majority of these weighed thirty to the French pound, but some were even lighter, at thirty-four to the pound. Nearly forty-five tons were shipped, 2–31 July,25 the first time that

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22 For a detailed picture of the copper trade at this time see J. R. Harris, The Copper King, A Biography of Thomas Williams of Llanidan (Liverpool, 1964), pp. 88–107.
24 Edge inscriptions have been almost completely omitted from this article due to space limitations. The majority are illustrated in M. Hennin, Histoire Numismatique de la Révolution Française (Paris, 1826).
25 BRL, B Coinage Invoices from 18th Febr unto 1792, 9-13. This is one of two booklets of invoices to the Monnerons. Booklet A has unfortunately not survived.
the Soho Mint was able to attain the two ton per day production level that Boulton had been claiming for so long.

The last Monneron token struck at Soho that was actually shipped to France was a five sols piece, of heavier weight than the 'new reverse' type, depicting a kneeling Hercules bending, but not breaking, a fasces across his knee (pl. 31, 12). Once again, considerations of time had dictated the purchase of an existing die from Dupré, one engraved by him some years earlier, and intended as a jeton of Les Six Corps des Marchands (pl. 31, 13). 26

A final piece of the period, closely linked to the Monneron series, but bearing no mention of an issuer, is the well-known Pyramid/Hercules token (pl. 31, 14). Events in France, culminating in the storming of the Tuileries on 10 August 1792, and the subsequent imprisonment of the royal family, effectively paralyzed commercial affairs there. On 3 September the National Assembly put a stop to private tokens by totally prohibiting their importation and issue. The Pyramid/Hercules piece, the obverse of which probably originated in a rough pencil sketch by Boulton (pl. 32, 15), was not struck in its final form until January 1793 (although dated 1792), 27 and its lack of a denomination or mention of an issuer, combined with its edge reading, LA CONFIANCE AUGMENTE LA VALEUR, seem to have been an attempt to suggest a circulating token without too obviously being one. In the event, it was never sent to France. Examples occur frequently today because an unknown, but substantial number were struck on bronzed copper flans and included in specimen sets of Soho tokens and medals, which were probably initially distributed in February 1793. Indeed, the set presented to the collector Sara Banks by Boulton on 11 July of that year may still be seen in the trays of the British Museum. 28

Brief mention must be made of the Hercules one sol (pl. 32, 16) and two sols (pl. 32, 17) tokens, which frequently appear on the market, and which seem to bring such healthy (or should I say unhealthy) prices whenever they are offered. Their fabric, that is, the appearance and workmanship of these pieces is definitely not Soho. A fairly exhaustive search of the nineteenth-century numismatic literature has enabled me to trace them back only as far as 1861. From this as well as other evidence, I suggest that, although dated 1792, they were struck privately in the 1850s, probably in England. There may well be a connection between the Soho Mint auction sale of April 1850, 29 in which lot 266 consisted of forty-two dies and puncheons of the French Revolution, and the appearance of these pieces somewhat later.

The medals struck at the Soho Mint for the Monnerons, of which the principal types are the Serment du Roi (pl. 32, 18), the Rousseau (pl. 32, 19), and the Lafayette (pl. 32, 20), form a most interesting series in their own right, and ideally their description should have been interwoven with that of the tokens, but limitations of space prevent this.

This paper has briefly examined, really only skimmed the surface of, Matthew Boulton's French ventures of 1791 and 1792, particularly his association with the Monneron Frères of Paris. For more than a year, from the beginning of August 1791 until the end of August 1792, the Soho Mint was chiefly occupied with the production of some 183 tons of tokens of varying types and denominations (as well as medals) for the Monnerons. 30 Furthermore,
the many accidents and breakdowns which occurred during their production, and the consequent painstaking repairs and improvements which were effected, resulted in a mint which was much more technically proficient, and ready for even larger undertakings.

While a great deal of original documentation concerning Matthew Boulton and the Monnerons is preserved in Birmingham, and to a lesser extent in Paris, it has been almost completely overlooked by English and French scholars, with two notable exceptions. This neglect of material which contains so much of interest to students, numismatic and otherwise, of both the Industrial Revolution and the French Revolution seems quite inexplicable.

KEY TO THE PLATES

PLATE 30

1. Two sols token, 1791, essay in high relief with M.B. on obverse.
2. Two sols token, 1791, issue for circulation.
3. Five sols token, 1791, reverse legend beginning at 11 o'clock.
4. Five sols token, 1791, reverse legend beginning at 7 o'clock.
5. Fête de la Fédération medal by Dupré, 1790.
6. Five sols token, essay for Isle de France, 1792; high relief obverse dated L'AN III.
7. Five sols token, essay for Isle de France, 1792; obverse dated L'AN IV.

PLATE 31

8. Five sols token, 1792, L'AN III (silver).
9. Five sols token, 1792, L'AN IV.
10. Five sols token, 1792, 'new reverse'.
11. Two sols token, 1792.
12. Five sols token, 1792, Hercules type.
13. Obverse (or reverse) of an intended jeton for Les Six Corps des Marchands by Dupré.

PLATE 32

15. Pencil sketch by Matthew Boulton of a proposed pyramid design.
16. Apocryphal one sol token, '1792'.
17. Apocryphal two sols token, '1792'.
18. Serment du Roi medal, obverse by Dupré.
19. Rousseau medal, obverse by Dumarest.
20. Lafayette medal, obverse by Dumarest.

With the exception of no. 8 the illustrated tokens and medals are copper examples (no. 5 being gilt before striking), and all are in the author's collection. The Boulton drawing is illustrated by courtesy of the Matthew Boulton Trust, and is in the Birmingham Reference Library.

31 J. E. Cule and Jean Bouchary, whose very valuable works have been referred to above. Of course, excellent articles have been written by, among others, Graham Pollard and Brian Gould on other aspects of Matthew Boulton's early coin and medal ventures.
PLATE 30

MARGOLIS: BOULTON'S FRENCH VENTURES (1)