## **Prinsep's Contract Coinage**

See Wodak E, (1958), SNC vol LXVI, pp. 36-39 & 61-63. For a similar discussion of this subject, not discovered until after I wrote this!

# **Summary**

In 1780, an entrepreneur named John Prinsep discovered copper mines in Bihar and applied for permission to begin mining copper. Soon afterwards he had the idea that he could use the copper to produce a new copper coinage for the Bengal Presidency. The authorities in Calcutta granted the necessary permission for him to mine the copper and produce the coinage, which he began to do in 1781. His minting process was entirely new to India in that he introduced machinery including laminating or rolling machines and fly-presses. The authorities in London did not agree that Prinsep (or anyone else for that matter) should have been allowed these mining and coining rights and instructed Calcutta to end the contract. However the terms of the contract allowed Prinsep the right of an extension for an extra 27 years following the successful completion of the first three years. London's instructions arrived 12 days too late to cancel the contract, and Prinsep asked for it to be extended for the extra 27 years. Eventually the dispute was settled with Prinsep agreeing to stop his coinage, and receiving a large sum of money to compensate him for all his costs. Following this, Prinsep offered to work as mint master at Calcutta for no salary, and produce a silver and gold coinage for the EIC using his machinery, but despite the quality of the gold and silver patterns that he produced, his offer was rejected.

### **Detailed Discussion**

# Copper Mining and the Proposal for a Copper Coinage

In many parts of Bengal, in the 1780s, most small-value transactions were conducted with cowrie shells, mainly imported from the Maldive islands, and only a relatively small amount of copper coin was in circulation, and then only in certain locations.

On 28<sup>th</sup> March 1780 John Prinsep addressed a letter to the Calcutta Council stating that he had discovered copper in the areas of Rohtas and Monghyr and asking for permission to establish mines at these sites and extract the copper to produce a copper coinage for Bengal 1:

I think it my duty to inform the Honble Board that I have discovered some veins of copper ore the quality of which appears particularly calculated by its fineness and malleability for the purpose of coinage.

I therefore most humbly hope you will be pleased to grant me the exclusive right of working mines in the districts where this ore has been met with on paying the zamindar, or other, a sum equivalent to the rents which the lands now yield to their possessor, and engaging with Government to deliver the whole produce of pure copper in coin at the rate of fifty two sicca rupees the maund of eighty sicca weight, of such dimensions and impression as the Honble Board shall be pleased to direct.

Prinsep's partner, Cunningham, stated that Prinsep had discovered these mines following his recognition of lumps of copper ore (copperas) that he spotted in the Calcutta bazaar and then traced back to their source at Rohtas and Monghyr 2:

In tracing some Bengal made copperas, met with in the common Bazar at Calcutta, to the place where it was made, Mr John Prinsep discovered some viens of copper ore, both at Rotas Gur, not far from Patna, and at Monghyr.

On the 4th April 1780, the Calcutta Council agreed to Prinsep's proposal 3:

...The Board having fully and maturely considered Mr Prinsep's proposals are of opinion that, as it opens the prospect of a new and valuable article of commerce and revenue to the Company and further tends greatly to facilitate the introduction and use of a copper coin, which has long been an object of this Board, it merits their encouragement and acceptance. But as it may possibly affect the imports of copper from England, the Board are of opinion that the grant ought to be made with such a reservation of the pleasure of the Court of Directors as may enable them to prevent its becoming hurtful to the Company

The conditions attached to this were as follows:

That Mr Prinsep shall engage and be bound to satisfy the Zamindar, Talookdar or other proprietor of the districts in which the mines mentioned in his proposal are situated, for his interest or property in the collections upon such lands as shall be necessary for working the mines, by annual payments of a full ascertained equivalent for the same, to be adjusted upon the present bundabast by the Collector of the districts and that the Board shall not undertake either for themselves or the East India Company to answer or make good any claim whatever, which the Zamindar, Talookdar or other proprietor of the ground in question may make on Mr Prinsep for the value or property of the same.

That Mr Prinsep shall engage to deliver to the Provincial Chief and Council of Patna for the use of the Honble Company, all the copper worked and produced from the mines, or so much of it as shall be required,

refined to the purity of the best Japan copper, and coined into pice or coins of ten annas sicca weight, and in such form and with such impression as the Governor General and Council shall direct, for which he shall be paid in ready money from the treasury there for each delivery at the rate of 52 sicca rupees for each pucca maund or for each maund of eighty sicca weight to the seer in weight or for five thousand one hundred twenty pice in tale.

That Mr Prinsep shall further engage to transport to Patna all the copper manufactured by him exceeding the demand for coinage, and produce the same to the Collector of the Government customs there who shall levy a duty upon it of fourteen sicca rupees for every pucca maund, after which the contractor shall be permitted and be allowed Dustucks or necessary passports for the same.

That Mr Prinsep shall engage on pain of forfeiting the grants, that he will not pass in coinage, nor sell or dispose of in any way, nor suffer to be past in coinage, used or disposed of, any copper of whatever kind, until it shall have been delivered at Patna in one or other of the two modes above prescribed.

That if the coins delivered by Mr Prinsep shall prove on trial to be inferior to the best Japan copper they shall be forfeited to the use of the Company.

And lastly that the grant shall be made for the first term of three years from the first day of Bysaak or ninth of April next, and for the further conditional term of twenty seven years subject to the following exceptions and conditions...

One important point to note from the extract above is that the initial term of the contract was for three years, from 9<sup>th</sup> April 1780, and once this had passed satisfactorily, a further term of 27 years was agreed.

Another important observation is that the contract stated that the copper coinage would be composed of 'pice or coins of ten annas sicca weight'. However, by September 1780 the requirement for one denomination had been increased to four denominations: Madosie, Falus, Neem Falus and Pau Falus (or half, quarter, eighth & sixteenth anna) 4:

I have made an estimate of the expense and wastage in striking coin of the following sizes and proportions of each agreeable to the instructions given me Viz

Mado Sie of 20 anas sicca weight [i.e.20 sixteenths of a rupee weight]

Faloos of 10 ditto
Neem faloos of 5 ditto
Pau Faloos of 2½ ditto

By 13th December 1780, specimen coins had been struck and the designs approved 5:

...It is hoped the Honble Court of Directors will signify their approbation (if it shall appear to merrit it) of the plan adopted by the Governor General & Supreme Council & by the first conveyance confirm the arrangements already entered into with Mr Prinsep, the nature of which, Mr Cunningham, his partner in business is furnished with, as well as specimens of the coin which had been approved of by the Supreme Council before he came away from Calcutta on the 13<sup>th</sup> December 1780.

All four denominations were of the same design and differed only in size and weight (see Cat. No. 3.13-3.29). By 8<sup>th</sup> February 1781, Prinsep was in a position to present four pieces of copper (presumably blanks) to the Calcutta Board intended to demonstrate that he could produce copper of the required standard 6. It is not clear if these pieces of metal were blanks for the four different denominations or all the same size. He asked that three of the four should be marked in some way to indicate that they were satisfactory so that the new coinage could begin. The fourth piece was to be held by Government to ensure that the new coins were produced to the same standard. The blanks were sent to the Calcutta mint master for assay but on the 22<sup>nd</sup> February 1781 the mint master reported that the blanks were inferior in quality to copper from Japan and they were returned to Prinsep without any stamp on them 7.



Prinsep's copper coins

In addition to this problem and although Prinsep had discovered and was working the copper mines, it had become clear to him that there would not be enough copper from these mines alone, to produce the coinage. Another issue that was obviously worrying Prinsep was that mining copper in India might reduce the import of copper from England, a matter that would have been of some concern to the authorities of the East India Company. He seems to have addressed all these problems by mixing copper from his mines with that imported from abroad, mainly from England, to produce the coinage 8.

In virtue of your grant of the mines in Monghyer and Rotas for the purpose of supplying these provinces with a copper coinage under the [control] of Government, I have opened three very promising veins of ore under and near the hills of Rotas Gurr, from whence in time I have a fair prospect of supplying a considerable quantity of that metal. But as the process of working it is extremely tedious and the many difficulties I lay under in collecting proper people and materials, will render it impossible to furnish more than two thousand maunds per annum for the four years next to come, a quantity very insufficient even for replacing the currency now circulating in Behar alone, much less for establishing a sufficient and fixed copper coin so greatly wanted throughout your dominions, and as many inconveniences must arise from a scanty or partial circulation without calling in the old pice.

For these reasons I must humbly beg leave to suggest a mode whereby the public convenience seems happily to coincide with the advantage to the Honble Company both in its revenue and commercial departments.

From the best information I have been able to obtain, there cannot be less than from twenty five thousand to thirty five thousand maunds of copper pice now current and which must be replaced, and these whole pice or taccas, double pice.

These therefore when called in demand the same weight of the same sized coin but as it is intended to accommodate the public with half and quarter pices, the amount of the latter which you shall judge necessary must be added. As must also, I imagine, a quantity at least equal to both, which will be most readily accepted by those districts where pice have not been lately used, and by the Metropolis itself.

This view of the object opens so sure and important a source of revenue for Government, and beneficial an increase of the imports from Great Britain, that the interest of any individual, if it did clash can never be suffered to interfere. I hope in the present case, and by the following expedient to avoid any circumstance.

The Company's imports to Bengal of sheet and Japan copper which are nearly of equal fineness have been upon an average of four years: 11,106.20 maunds. The estimated produce of the mines in Rotas is 2000 maunds per annum; making together 13,106.20 maunds.

There cannot be a doubt of circulating this quantity in pice for many years to come...

...If I receive an equal quantity of the Company's copper in the four ensuing years, to that of the four last past, at the medium price of the latter deducting the discount, and by melting it down with my own bring the whole to your prescribed standard, I shall be able to furnish it coined within a reasonable time afterwards, at the rate of sixty sicca rupees the maund of 80 sicca weight to the seer, which if issued to the public at the intended rate brings in a net revenue to Government of sicca rupees ten lack forty eight thousand five hundred and twenty.

If my deductions are drawn from just premises, the Board may safely apply for double this annual quantity of copper, which I shall be able to coin at the same rates, without attending to the indents of the Commercial Department or lessening their demand. On the contrary the visible call for this metal in coin will naturally raise the price of what can be spared annually for sale, and that delivered me before it is coined as much as for the four years past.

The rising price of the other kinds of copper likewise, which I take to be a natural consequence of this measure, offers an expedient for calling in the old pice at an easy rate to Government, and without any hardship upon the subject, by receiving it in payment of revenues and at such price as shall only subject the Company to the charge of melting it again into its pristine form of battery copper and reselling it upon the spot where delivered in. It seems not at all improbable, that this metal may rise again above the price at which it now passes as money, and then an order prohibiting its continuing lawful tender, except to Government, and that at a few rupees less that the busar rates, would throw it into the tradesmen's use without any charge at all.

I shall be most happy if these [rights] prove in any respect of use to the publick and am ready with the greatest submission and respect to obey any orders you shall be pleased to give for contributing to that salutary purpose

The Board replied in October 1780 agreeing to Prinsep's proposal 9:

The Honble the Governor General and Council having received a letter which you have addressed under date the 1<sup>st</sup> ultimo have directed me to inform you in reply to it that agreeing generally to the proposals submitted to them therein, they have desired the Board of Trade to comply with all indents that you may make until the 9<sup>th</sup> April 1784 for sheet and Japan copper imported here on account of the Company from Europe at the medium price at which the same has been sold at for these four last years deducting the discount.

The quantity of sheet and Japan copper which you so receive is to be mixed and melted down with the quantity procured from the mines granted you in Monghyr and Rotas and the whole brought to the standard prescribed in the Board's orders and resolutions of the 4<sup>th</sup> of April last. They agree to pay you for the coin so composed at the rate of sixty sicca rupees to the maund of 80 sicca weight to the seer, but in all other instances and respects you are subject to the same conditions as those stipulated in the resolution above quoted.

On 30th April 1781, the Calcutta Board wrote to London explaining what they had done 10:

You were informed by our letter addressed to you from the Revenue Department, of proposals made to us by Mr John Prinsep for working mines of copper, and for the manufacture of that metal, as well as of our acceptance of his offer under certain restrictions and limitations explained to you in an annexed copy of our

resolutions. The subject falling more properly within the lines of business in this department, we have transferred our proceedings in it from our revenue to our public consultations, with an exception of our letter from Mr Prinsep purposely considered in our secret records, and now continue to transmit you an account of such further resolution as we have passed relative to a copper coinage.

Mr Prinsep having proposed to us an augmentation of the copper coinage by a mixture of a certain proportion of sheet and Japan copper composing part of the imports from Europe, with the copper produced from the mines at Rohtas and Monghyr; having also suggested, for reasons given, that the quantity of copper to be obtained from these mines only would be very insufficient even for replacing the currency now circulating in Behar, much less for establishing a copper coin so much wanted throughout the provinces; and evincing to us that an important source of revenue to Government might be opened by such an augmentation, we agreed to his proposals, for an account of which we beg leave to refer you to our secret consultations of the 18<sup>th</sup> of September. We must at the same time beg leave to observe to you that it does not appear to us very probable that the original design is likely to answer to any degree, but we believe that in its improved state it will be attended with much public utility. What sum it may add to the general currency will be a proportional saving in the specie which would otherwise be lost to the province in exchange for Cowries, and it will assist the disposal of a capital article of your imports.

It being a question of what mode of payment should be made by Mr Prinsep for the copper supplied to him by the Board of Trade, enquiry was made of the Board of Trade on this subject and they acquainted us with their intention to debit us for the amount of copper delivered to Mr Prinsep and to receive from him such payment as he might tender on this account bringing the same to our credit.

We have authorised the establishment of mints for the copper coinage at Pulta and Patna and we have approved of standards prepared by our Mint Master for the coin itself.

At the request of Mr Prinsep we transmit you 40 specimens of the new copper coin of the sizes inscription and standard ordered by us that they may receive a Tower Assay, and we send at the same time one of the standards cast by the Mint Master in consequence of our orders.

From this letter, and many of the other entries in the records cited herein, it is clear that Prinsep was given permission to establish mints at Pulta, which may have been near Rohtas, although Pridmore states that it was at Fulta, SSW of Calcutta (possibly copying Wodak 11), and Patna. Pulta was undoubtedly the main mint and it is not clear if the mint in Patna was ever used. The Patna mint is referred to in the document in which Prinsep eventually agreed to stop the copper coinage 12, so presumably it was used at some time.

In September 1781, Mr Cunningham, Prinsep's partner, arranged to see the Chairman of the East India Company in London with the intention of convincing him of the value of the copper mining and production of a copper coinage, that they were planning 13:

Encouraged by the polite reception I met with from you when I had the honor of attending you in the India House, and by the assurances of Mr Shakespear of your willingness to attend to any business I might wish to lay before you previous to my publickly addressing the Honble Court, I flatter myself you will pardon the liberty I take in preparing this to leave at your house in case I should not be so fortunate as to find you at home, and the nature and importance of the concerns of my partners & self are engaged in with the Honble Company will likewise I hope plead my excuse for requesting the favour of an appointment to a conference with you.

Having learnt that the captains this year are allowed to carry out copper to India, and the long detention of the homeward bound ships having prevented you from knowing that mines of that valuable metal are discovered in Bengal, I think it a duty incumbent on me as a partner of Mr Prinsep's, come home to transact the business of our house with the Honble Court themselves (before the next fleet sails) to acquaint them of this important discovery, as well as with the establishment of a copper coinage thro' the three provinces. The enclosed paper will give you some insight into the nature of it, and I shall be happy to have the honor of your advice about it as well as to point out to you how far the Company are engaged in it...

Meanwhile, in Bengal, the coinage was starting: On the 17<sup>th</sup> September 1781 Prinsep wrote to the Calcutta Board 14:

A small quantity of the new copper money being now ready, I purpose with the Boards permission to make an immediate dispatch of it to the treasury, and therefore am to request the proper orders may be given for its acceptance, and for payment of the amount at the contract rate with such charges as may be levied at the custom house in consequence of some late regulations in that department to which I can be no way considered as liable, under my engagements with the Honble Company.

And orders were issued to the necessary departments to be ready for the new coins:

Resolved that the sub-treasurer be directed to receive from Mr Prinsep from time to time such new copper coin as may be tendered by him at the treasury paying him for the same at the rate stipulated in Mr Prinsep's contract with the Honble Company.

Ordered that directions be given to the commissioner of the customs to pass the new copper coin to be sent by Mr Prinsep from Pultah on account of the Company free of all duties.

Wodak gives an extract from a Contemporary newspaper, Hickey's Bengal Gazette, April 29<sup>th</sup> 1780, commenting on the new coins 15:

We are informed that a copper coinage is now on the carpet...it will be of greatest utility to the public and will abolish the trade of cowries, which for a long time has formed so extensive a field for deception and fraud. A greviance (sic) the poor has long groan'd under...

By 24<sup>th</sup> September 1781 sufficient coins had been produced for an announcement of the new copper coinage 16:

Resolved that the following proclamation be translated into the Persian, Bengal & Armenian languages and made public throughout the provinces.

#### Advertisement

## Fort William, 24th September 1781

The Honble the Governor General and Council having thought proper to establish a copper coinage, and copper coins by their order having been struck of the denomination, value, weight and with the inscriptions described in the annexed table, they hereby authorise them to be circulated throughout the provinces under their Government at the rate of eighty siccas rupees for the maund of eighty sicca weight, at which rate they will be issued from the treasuries and other public offices. And as it is their intention to make the circulation of the copper coin general throughout all the districts, they hereby order and direct all Collectors of the revenues and other persons entrusted with the receipt of public money to receive the same when tendered in the proportion of ten rupees in every thousand to be weighed when paid in sums exceeding half a maund in weight, and to be issued again in like manner and at the above rate in all public payments. And in order to establish it as a necessary division of a sicca rupee, and a convenient medium between silver and cowries in the purchase of the common necessaries of life, the Governor General and Council direct that the copper coin be received and paid according to the relative value fixed in the annexed table of copper to cowries without any discount or batta whatever, which however is not to influence or affect the bazar price of cowries.

Table showing the Denominations, Value, Weight, as also the Inscriptions of the Copper Coin struck by Order of the Honble the Governor General and Council, the Circulation of which they hereby authorise throughout the Provinces under this Government

Denomination	Relative Value to a Sicca Rupee	Relative Value to Cowries	Weight
Madosie	6 Pice sicca each.	Equal to 160	20 annas sicca weight
	2 equal to an anna sicca and 32	cowries	each or 2560 in the maund
	to a sicca rupee		of 80 sicca weight
Faloos	3 Pice sicca each.	Equal to 80	10 annas sicca weight
	4 equal to an anna sicca & 64 to	cowries	each or 5120 in the maund
	a Sa Rupee		of 80 sicca weight
Neem Faloos	1½ pice sicca each.	Equal to 40	5 annas sicca weight or
	8 equal to an anna sicca & 128	cowries	10,240 in the maund of 80
	to a sicca rupee		sicca weight
Pau Faloos	¾ Pice sicca each.	20 cowries	2⅓ annas sicca weight
	16 equal to an anna sicca and		each or 20,400 in the
	256 to a sicca Rupee		maund of 80 sicca weight

N.B. anna can be used to mean  $1/16^{th}$ , e.g.  $1/16^{th}$  sicca (rupee) weighs 0.7275g. 20 annas sicca = 14.55g

Cunningham's approach to the Board in London (see above) obviously was not very effective because in January 1782, the Board in London wrote to Calcutta telling them that they should have allowed Prinsep neither the right to mine the copper, nor to produce a copper coinage 17:

As your proceedings relative to copper mines and coinage are but lately received we shall not by the present conveyance, enter upon that minute investigation of the subject which its importance deserves; but we do not hesitate a moment to declare that the contracts entered into with Mr Prinsep are highly prejudicial to our interests.

If it were proper under any circumstances to open mines in Bengal it must be on account of the Company alone, as the authority necessary for that purpose and the consequences must be too important to render it prudent to invest in any individual or number of individuals with such authority.

In regards to coinage by an individual it is also utterly improper. The Company are, and ought to be, accountable, so far as can be the case, for the purity and propriety of the coin of Bengal. Their responsibility cannot be transferred, and consequently their authority must not, on any account whatever, be delegated.

We observe in the original agreement with Mr Prinsep a power of annuling or suspending the same at the expiration of three years is reserved to us. We therefore direct that you forthwith give him notice of our determination in no event to continue the contract beyond the term of three years, and require Mr Prinsep immediately to surrender the grants or contracts for mining and coinage; and we do hereby positively direct

that from the receipt of this letter no individual, whatever, shall be suffered to open or work any copper mine or interfere in any manner with the copper coinage.

Of course, it took a considerable time for letters to be transferred from London to Calcutta or vice-versa, so even by April 1782, Calcutta was unaware of London's antipathy to the scheme and sent another letter reporting on the progress made 18:

You have been informed of the agreement which had been entered into with Mr John Prinsep for coining and establishing a copper currency throughout these provinces. The coin was received accordingly from his mint and issued in all payments made from thence in proportion of one per cent; but difficulties occurring in circulating it by this mode, we gave orders not to receive any more from the mint than could be actually passed without coercion or constraint. Mr Prinsep having worked up a large quantity, complained us of the hardship of being obliged to maintain his establishment of a mint, which had been formed at a considerable expense, and of being left with a great property in copper coin which remained dead upon his hands without any return, and offered, at the same time, to effect the circulation of it himself, upon commission of it should be left entirely to him; as the plan which he proposed to us was the most likely to succeed and as the attainment of the revenue expected from this object depended entirely on its being carried into effect we agreed to his proposal, and have allowed him an increase in his commission, equal to 8 rupees per maund, so that the Company are now to pay Mr Prinsep sixty-eight rupees for every maund of copper currency which he shall circulate at eighty rupees, under the present checks and regulations established over the mint, he accounting quarterly to Government for the difference between the two rates.

but some time after this, Calcutta wrote to London that they had informed Mr Prinsep of London's decision to cancel the contract 19:

We have notified Mr Prinsep your pleasure concerning the resumption of the grant made to him for working the copper mines in the district of Rotas, also for the abolition of his contract for a copper coinage, and required the surrender of the deeds from him.

It was not to be as easy as that. In October 1783 Calcutta informed London that the three year period during which they could cancel the contract, had elapsed. Prinsep, however, was willing to negotiate a settlement 20:

We had the honor to inform you, by the Surprize, of the notification given to Mr Prinsep of your orders, and requiring his surrender of the grant which he possessed of copper mines in Rotas and of the copper mint. For his reply we beg leave to refer you to our records. It appears that the term during which the Company retained the right of annulling his grant was elapsed, and that the deed was consequently irrevocable; he was nevertheless willing to submit his situation to the consideration and justice of the Board, and begged to be allowed to coin the balance of his copper on hand, and to be granted orders to the Chiefs of Patna and Bogglipore to receive his coin, lying in balance at those places, for the Company's account. We complied with this last request but forbid his stamping any more coin, and ordered him to deliver up his dyes to the Sub Treasurer. And to prevent his suffering a loss by any copper which he might have remaining uncoined we allowed him to return it as he received it into the Company's stores.

In December 1784, the Calcutta Board summarised the efforts they had made to get out of the contract 21:

On receipt of your orders of 25th January 1782 we immediately called upon Mr Prinsep to surrender his grant of the mines at Rotas and Monghyr and priviledge for coining of copper, and directed him to deliver up the dyes and every implement of coinage in his possession. But the time within which a reservation had been made in the deed of your repeal of this grant having expired by a lapse of twelve days (though receipt of your orders on this head full sufficient to provide against accidental delays) Mr Prinsep required a confirmation of the grant, in consequence, to its full extent of twenty seven years; but in submission to your commands he declared his readiness to pay implicit obedience to them on being indemnified for losses and expenses he alleged having unavoidably incurred in working the mines and bringing the coinage to perfection. We cannot in this place deny him the justice to admit that his mint has greatly exceeded our expectations, and has no doubt been of service since the scarcity of bullion has been so great as to occasion the most alarming impediments in the general and necessary currency of this country. We had established a practice of issuing one per cent in copper money, which is now observed in all payments, and we have reason to think that the regulations and restriction to which this work was subject would have rendered it, in the course of time, an establishment of great utility and advantage to the Company, and would doubtless have obtained a preference over cowries in exchange for the necessaries of life among the lower classes of people, not to speak of the benefits that would have accrued to the British nation when taken in a political view by the employment of so much copper, as the original plan of coining the copper from the mines of this country was set aside, and none but Europe copper admitted, besides reserving the quantity of specie that was annually exported to the Maldives for cowries to these provinces.

The indemnity claimed by Mr Prinsep amounted to so large a sum that however inclined we might be to reward his merit we did not deem ourselves authorized to comply with his demands, and upon declaring a resolution of ultimately trying his claims in Chancery we resolved to take the advice of our Advocate General, and being frustrated with his opinion we again demanded the surrender of the grant etc. etc, but Mr Prinsep

representing in the strongest terms the ruin that would inevitably be his fate without some compensation for merely the losses which he sustained. Estimating them, by accounts delivered in upon honor which he offered to vouch by the most solemn affidavit, at current rupees 165,389-13-6, and praying at the same time that he might be allowed to prove them before any persons we would appoint to arbitrate his demands, we considered his proposal so fair and equitable that upon his agreeing to restrict the amount to the above sum we consented to refer them to the decision of Messrs Croftes, Alexander and Paxton, as men of judgement and abilities equal to the task, and characters superior to the power of influence or impartiality.

This matter has in consequence been referred to these gentlemen whose award is to be delivered in on the 31st of this month, and shall be notified to you by the first ship that sails after that period.

One interesting point in the above extract and in some of the earlier extracts, is the reference to the means by which the authorities had tried to get the copper coins into circulation by establishing the practice of giving 1% of payments (presumably from the treasury) in copper money.

In January 1785, they were finally able to inform London that the matter had been settled 22:

In our letter by the Surprize, paragraph 71, you were advised of us having referred to arbitration Mr Princep's claims to an indemnification of losses sustained in working the mines of Rotas and Monghyr, and establishing his mint for copper coinage as a compensation for the surrender of his grant in conformity to your orders. Messrs Croftes, Alexander and Paxton, the gentlemen chosen by us and approved by Mr Prinsep to adjust this affair, delivered in their award on the day fixed (the 31st December last), and Mr Prinsep in compliance therewith gave up his grant and all the instruments for coinage. The grant has been cancelled in due form and an order on the Treasury was issued to Mr Prinsep for the indemnity awarded, viz., current rupees 165,389, the full amount to which he had been required to restrict his demand on our acquiescing in the reference he solicited. In our consultations noted in the margin the several papers alluded to on this subject are recorded, together with Mr Prinsep's final release under the approbation of the Advocate General.

This series of interactions between London and Calcutta make it quite clear that the reason for Prinsep stopping the copper coinage was London's emphatic opposition to it and not, as Pridmore states, the fact that the coins were unpopular.

## **Gold and Silver Patterns**

As part of the agreement to stop the coinage, Prinsep was to hand over all the equipment of his mint(s) and this equipment is itemised in the records (see <u>Appendix</u> at the end of this chapter) 23. One of the items included was:

A Tower Mint flatting press for flatting the blank pieces of gold and silver compleat with 3 extra boxes and bolts

Whether this entry means that the machinery was actually imported from England, or merely built to plans emanating from there, is not clear. A later extract implies that the workmen employed by Prinsep actually built the equipment (see below), in which case he had probably obtained plans from which they could construct the machines.

In any case, although Prinsep was contracted to produce copper coins, this activity seems to have led him to consider the silver and gold coinage as well, and this was confirmed by his next actions.

In January 1785, the Calcutta mint master, Mr James Paxton, resigned 24. Like the entrepreneur he was, Prinsep seized on this as an opportunity to convince the Calcutta Board of his latest idea, to produce a new silver and gold coinage for Bengal. To this end he presented the Board with complete sets of silver and gold patterns, and proposed that he might become temporary mint master at Calcutta 25:

I am proposed in compliance with the award given the 31st ultimo to surrender the tools and implements of the Pultah mint and in order to demonstrate that the expense of labor, invention and money laid out upon it has not been uselessly employed, I hope to be excused the liberty of presenting the Honble Board, two complete setts of gold, silver and copper coin of the Bengal standard and impression, but which I hope will appear to have been executed in a manner superior to any money of the Moghul Empire. These proofs have been struck with the tools of the Pultah mint, which wants very little, being complete.

The plea of professional knowledge and experience must ever, I apprehend, continue to introduce men of particular qualifications to several departments of this Government, out of the common line of service. It has been hitherto urged with effect in too many instances to need enumerating particular ones.

I wish to be allowed this plea in my present application to your Honble Board, for the temporary succession to your Mint Master when he shall resign. I have already urged it in an address to the Honble Court of Directors, which is now before them for deliberation and [...] rather press the point at this period, because a report prevails of Mr Paxton's intending shortly to proceed to Europe, your acquiescence would afford me the honor of completing a work which I cannot doubt you will consider of very great importance to your Government, a perfect coinage.

...I am ready to give up any claim to salary or emolument until I shall be confirmed from home, or you shall be convinced of the utility of the undertaking and its amply repaying the Company in time what has been expended upon it.

I shall esteem it a favor if you will be pleased to direct a copy of this address a number in your next packet, and a sett of the coins to be dispatched by an early ship to the Honble the Court of Directors.

I ought to observe that besides those accompanying this letter, only four other impressions are taken, a sett for each member of Government and one for myself. The dyes are carefully locked up and will be delivered with the implements when required.

As requested, the gold and silver patterns were sent to London, but Prinsep's offer to become the temporary mint master was rejected and Paxton was replaced in February by Mr Herbert Harris 26. Harris went up to Pulta in April to arrange transfer of the equipment to Calcutta but did not succeed in doing this. However, he did acquire a set of silver coins that he thought might serve as patterns for the gold and silver coinages of Bengal 27. Presumably these were the same type as those given to the Board and sent to England. Perhaps they were Prinsep's own set. Harris urged the Board to consider the benefits of producing coins like this at the Calcutta mint, and replacing the existing poorly produced coins:

In obedience to your commands signified to me by your secretary, I proceeded up to Pultah for the purpose of receiving the copper coinage machines from Mr Princep, but was obliged to postpone taking charge of them until I could return to bring them away, as the locking them up in a confined room might greatly injure the finer parts of them.

I have now the honor to inclose for your inspection a set of silver coins that were struck with these machines, and humbly submit to your consideration the making use of them in the Calcutta mint for the gold and silver coinage. The benefit that will result to the Honble Company, and to merchants and others, I shall in part enummerate.

- 1<sup>st</sup>, the advantage of having a beautiful milled coin that cannot be counterfeited by the natives. The present one is so very imperfect that it requires but little art or ingenuity to imitate it, as is heavily experienced from the number of bad rupees in circulation.
- 2<sup>nd</sup>, it will effectually prevent the farmers and others employed in the collections from taking a batta on the rupees of different years, which is frequently practiced, and also exactions under pretence of the money being base.
- 3<sup>rd</sup>, The great benefit that will accrue to the army, merchants and indeed every native and individual in these provinces from being able to receive and pay their own money without an intermediate agent or shroff.
- 4<sup>th</sup>, the expenses of the mint may be reduced to the establishment of 1773, and all the little petty frauds now practiced by the workmen effectually prevented.

To carry this new coinage into execution, nothing more will be necessary than an order of Government for their being received at the rate and value of other siccas, and they will be brought so imperceptibly into use that the shroffs, who are the only interested people to promote an opposition, will, I am almost certain, be ready to forward the circulation of them.

As the divisions of the rupee in halves, quarters and two annas pieces, take a considerable time and labour in making, I humbly conceive a difference in the fineness should be made in proportion to the expense of the coinage, and if they were struck rather larger than the samples now delivered, they would be still of greater utility.

The Board asked the Committee of Revenue to consider the proposals:

Ordered that the Mint Master do cause the Pulta mint, and every material and instrument of coinage at that place, to be removed to the Presidency, and that the Committee of Revenue be desired to give their opinions on the advantage and use of establishing this coinage in the manner proposed.

But the Committee of Revenue was not certain about the use of the patterns for the coinage 28:

We have been honored with your commands of the  $20^{th}$  ultimo, through your secretary, requiring our opinion on the advantages which may attend the general use of certain coins as recommended by the Mint Master, and of the propriety of any difference of fineness being allowed on the smaller coins.

On a supposition that it is intended to make the new coin equal in fineness and in weight to the sicca rupee already in circulation (which however is not stated in the Mint Master's description of it) it is no doubt well calculated to prevent some of the prevailing abuses and to correct some of the defects of the present currency. It would equally check the frauds now practiced at the mint and the greater evil to which the existing coinage is open, of being easily debased and counterfeited. Neither are we aware, in counterbalance to these advantages of Mr Harris' plan, of any peculiar objections that might be urged against its adoption. We do not, indeed, understand how the introduction of this new coin will, as is said by the Mint Master, be effectual to prevent the farmers and others employed in the collections, from taking as heretofore a batta on the rupees of different years since the impression which it bears both in respect of the date and otherwise, is we observe, in nothing different from that of the old rupee, and consequently will afford the same plea and opportunity for continuing the exaction of batta. We are equally at a loss to pronounce upon the expediency of diminishing the fineness of the smaller coins, in proportion to the greater difficulty and expense of making them. It is not that the reasoning of Mr Harris may not be solid and conclusive, but we are not enough masters of this intricate

and abstruse subject, to speak with any confidence of the effects of this measure. We trust we shall meet the indulgence of the Honble Board in submitting the question to their superior judgement.

This was passed on to the mint master, asking for more information:

Ordered that a copy of this letter and the committee's letter of 10<sup>th</sup> March last, be sent to the Mint Master, with a request that he will give a fuller explanation, and particularly that he will report to the Board how the introduction of the new coin will prevent the farmers and others from taking as heretofore, a batta on the rupee of different years, and estimate the expense that would be incurred by the adoption of his plan.

It was not until April 1786 that Harris finally got around to explaining his views of the silver patterns that he had acquired at Pulta 29:

I have been honored with your commands under date 24<sup>th</sup> ultimo. It is with concern that I have not sufficiently expressed my meaning respecting the proposed coin when I assert "it will in future prevent the farmers and others from taking a batta on the rupees of different years and also exactions under pretence of the money being base".

The meaning I intended to convey respects the proposed coin not the old, for the sample of the sicca I had the honor to lay before you was marked with the English year 1784. The preserving the date in English for each succeeding year would always determine the wear of the specie and by making no alteration in the Bengal year the natives would have no plea to demand a batta.

The records remain silent on why this proposal for a new machine-made silver coinage was rejected. It may be, however, that this sowed the seed that eventually developed into the new coinage (see next chapter), but this does not appear to have been openly acknowledged. Since Harris was instrumental in producing the new coinage from 1790 onwards, he, at least, must have been influenced by these coins of Prinsep.

Given the fact that these pattern coins of Prinsep were dated 1784, Pridmore's assumption that these were the coins he numbers as Pr. 346-350 in his Bengal catalogue seems correct 30, since they have the date 1784 on the edge. Only the silver coins are known and they consist of a double rupee (23.5g), a single rupee (11.66g), a half, a quarter (2.99g) and an eighth. They have the usual obverse & reverse inscription and the two larger denominations have an edge that reads: UNITED \* EAST \* INDIA \* COMPANY \* 1784 \*



Prinsep's pattern silver coins. Rupee (3.2) & quarter rupee (3.4) (actual size)

## **Closure of the Pulta Mint**

In the meantime, Prinsep had kept paying the workmen at Pulta to maintain the equipment, and when asked why he had done this he replied in November 1785 31:

In reply to your requisition of the 20<sup>th</sup> ultimo for information by what authority I disbursed the sum of sicca rupees 2587.1.6 to the workmen of the late Pultah mint, I have the honor to inform the Board that this establishment was originally fixed during the working of the copper coinage and is composed of people completely masters of the business.

When the late Mint Master [presumably Paxton] came hither to receive the tools and implements he found them so numerous and bulky that he [could] not find room for them in the [taraxal]. He therefore proposed bearing them under locks at Pultah till the Board should determine whether or not to adopt this mode of coinage.

I remarked that if left without proper and constant attention to their being kept clean many of the nicer and more expensive tools must be inevitably spoiled in a short time.

And moreover that when they should be worked it would be absolutely necessary the people who had constructed them should be taken into employ as they alone understood the business and could put many of the tools together again after they were dismounted for removal to Fort William. That they were all under covenants to me but if the native workmen were once suffered to disperse or take service in Calcutta that it would be difficult to collect them again even at higher wages.

I proposed therefore to retain them all at the Company's expense until the issue of your determination and as the Mint Master could not of himself warrant or make the monthly disbursements without an order for so doing, I agreed to pay it myself trusting to his statement of the circumstances at a proper time to the Board for my reimbursement.

The new Mint Master was informed of and approved these measures. To him I beg leave to refer the Honble Board and I hope there will appear no impropriety in my once again enclosing the bill, which I submit entirely to your pleasure.

Because the expenditure had not been authorised, the Board refused to pay Prinsep's bill, despite both mint masters having agreed to his proposal to keep on the establishment. The Calcutta mint master was asked to report whether so many people were really necessary:

In answer to your letter of the 20<sup>th</sup> ultimo acquainting me that the Honble the Governor General and Council desire to be informed whether the Pultah establishment is absolutely necessary for keeping clean and in proper order the machines and implements for coinage, I should say they might be kept clean at a less expense but as I considered the object of keeping this establishment was the having persons who had been used to work with them and who on their removal to Calcutta would be able to put them up again and supply any parts that may have been hurt or damaged on the removal, I made no objection to the establishment when Mr Prinsep informed me of it, and was glad to find I should be able to get the people who had been so long employed and whose knowledge of the business would render easy the introduction of the proposed new coinage.

## The Board replied to this:

Ordered that the Mint Master be called upon to report the lowest possible establishment necessary for keeping such parts of the tools and implements for coinage as are wanted clean and in constant repair and that he be informed that the remainder should be sent to the arsenal to be kept clean by the people employed there.

The mint master informed the Calcutta Board of the number of people that he needed to look after the machinery, and was told that he could keep this number from the original establishment of Prinsep's mint 32:

I have this instant received your letter of the 3<sup>rd</sup> and beg you will acquaint the Honble the Governor General and Council that the pay of the foreman and his apprentice amounting to sicca rupees 220 per month would be sufficient for keeping the tools and implements for coinage in order, as all the underpeople that are necessary could be supplied from the mint, and I have not the least doubt but that the yearly amount of wages paid to this person, who has been bred up in the Tower, will be saved in the refining business when any quantity of either gold or silver is sent in on the Company's account.

Thus, by 1786, Prinsep had not only constructed the first mechanised mint in India and actually produced a copper coinage for Bengal, but had also produced patterns for a silver and gold coinage. The Company had acquired the machinery and all the people with the skills to run a mechanised mint, but short-sightedly decided to release most of the people, although they kept the machinery. None of this had done anything to address the problems of *batta* on the silver coinage, or indeed any of the other problems such as clipping, drilling or counterfeiting of the gold and silver coins, and the authorities were to take a little longer to realise that they could use Prinsep's methods to help solve these. Of course, Prinsep received no recognition for his pioneering work, and the introduction of machinery into the official mints was to be left to others, although several of his workmen played important roles.

#### Copper Patterns

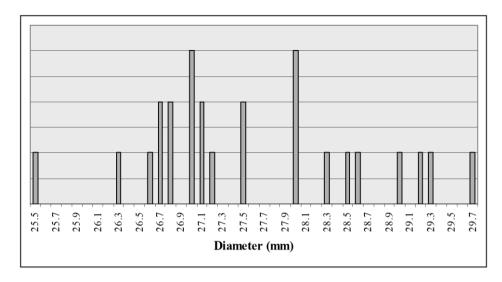
There are several copper patterns known at present. The first is dated 1194 and shows the mint name Murshidabad (see Cat. No. 3.6). This was presumably an early pattern, shown to the Calcutta Council and rejected in favour of the eventual currency type. There is then a series of patterns dated 1195, ranging in denomination from half annas to sixteenth annas with various differences visible, including one with an experimental edge (see Cat. Nos. 3.7 to 33.12).

#### **Currency Coins**

Pridmore states 33:

There are a large number of die varieties and two distinct issues. First series struck on large thin flans, second series on small thick flans. This appears to have been due to different size cutting tools used in preparing the blanks. It is not intentional. All denominations occur in the two styles. The proofs are perfectly round and beautifully struck. They appear to have been specimens submitted by Prinsep to Government in November 1780.

A study of a group of these coins reveals a continuous range of diameters, and it is unlikely that Pridmore was correct in his belief that there were two distinct issues, one with a large diameter and one with a smaller diameter. The bar chart below, showing the diameters of the half anna (25 coins), illustrates this. There are some large and some small coins but these appear to be at the extremes of the distribution curve:



# Appendix – Prinsep's machinery at his Pultah mint subsequently handed over to the EIC

#### Sheer Room

- 5 Gaughes and steel scribers for marking the sheets of copper into slips
- 4 pairs of extra large sheers with strong wood frames and stands compleat, for cutting the sheet copper into slips

A pair of smaller ditto with wood frame and stand

#### Mill Room

A large cutting and flatting machine for cutting the sheet copper into slips and flatting it to its proper thickness compleat with four extra cutting tools and two extra brass cogwheels for ditto, and screw wrenches A small flatting mill for flatting the slips to their proper size with screw wrenches, keys etc compleat

## **Cutting Room**

4 boards with 12 steel scribers and 12 rulers for marking the diameters of the pice on the slips of copper as guide to the cutting machine

A single cutting machine for cutting the blank pice compleat with 6 extra dabs and bolsters

A double cutting machine for cutting out the blank pice compleat with 12 extra dabs and bolsters, 2 standing trays, 2 troughs to the blank, 2 stools & wrenches etc

A double horizontal machine for cutting the pau faloos pice compleat with 12 extra dabs and bolsters, tray stools etc

An extra strong double cutting machine for cutting the blank madoosie pice compleat with 12 extra cutting arbors and bolsters, trays, stools, wrenches etc

A double cutting machine compleat with 12 extra dabs and bolsters, tray, tools, etc

A Tower Mint cutting press compleat with extra dabs and bolsters

A Tower Mint flatting press for flatting the blank pieces of gold and silver compleat with 3 extra boxes and bolts

A table with seals, weights compleat for weighing out the blanks to the softners to clean them

A pair of small scales for weighing of single pice

A pair of ditto for ditto in seers

A pair of larger with a triangle compleat

4 large wooden trays for carrying pice in

2 extra flywheels and crank handles for the cutting machines

#### Softners Rooms

- 2 Furnaces for anealing the pice compleat with the following articles: 2 iron peels, 4 pairs of large tongs, 20 square iron pairs for holding the pice, 2 rakes, 2 pokers
- 3 troughs for holding the liquid for cleaning the pice with 2 large and 8 small tubs for [putting] the pice in
- 2 barrels mounted on strong stands with iron [spindell gudgeons] and handles compleat with draining tubs

A pair of scales for weighing back the pice to the stamp room

2 long store chests to keep pice in, with good lock and keys

28 iron moulds for cutting the slips of copper

#### Stamping Room

19 stamping presses compleat for striking the impression on the money with 2 hammers and 3 pairs of new dyes each, hammer, wrenches and every tool for setting the dyes

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A hammer mill for stamping the pice with dyes compleat

A Tower fashioned press with wooden body compleat with dyes for striking pice

#### Treasure Room

1 store chest with strong lock and key for containing the finished money

3 open store chests

1 pair of scales with triangle compleat with 10 ledden weights w.g 38 [Sr] 15 [cht]

#### Filing Room

A large turning lathe compleat for turning iron, brass, steel etc

24 steel turning tools with wood handles for iron turning

24 ditto ditto with ditto for brass turning

A strong collar and mandrell laith compleat with 12 steel turning tools for turning iron

12 ditto ditto for turning brass

6 ditto ditto for turning wood

4 brass checks

1 iron ditto

6 wood ditto for ditto

A wheel and frame compleat for turning both laiths

2 small pulleys, iron and copper with screws compleat

1 wood ditto with iron screws

6 wood ditto plain

A small grindstone with a wheel draught and table compleat, for grinding the turning tools

A small foot laith for turning wood compleat with 12 turning tools

A Bengally laith for turning wood compleat

A small portable forge compleat with bellows, stake, 2 hammers, 2 pairs of tongs, 1 rake and shovel

9 vices with benches compleat

2 small stakes

A pair of strong iron stocks with 20 pairs of dies and 24 taps, steel with tap wrenches, screw keys compleat

6 large steel boarers for boaring the cutting machine

4 small ditto for making the cutting machine

2 braces for ditto

4 screw plates with taps compleat for cutting small screws, saws and frames, sawing iron

12 hammers of different sorts

2 hand vices

8 old rubber files

A drill bow breast plate and 12 drills compleat

2 oil stoves [and] wood lamp

100 files of different sorts with wooden handles compleat

200 new files of different sorts

3 pair of compasses and a pair callibies [calipers?]

#### Smiths Shop

5 forges with anvils, sledge and hand hammers, iron tongs, shovels, rakes, chizels, set hammers, punches, coal troughs and water tubs compleat

1 large forge with large bellows, anvil and crane compleat, for forging large iron work.

1 large brick iron and 2 small stakes

1 beam drill with 2 braces

12 steel drills for drilling large holes in iron compleat with a vise and bench

2 strong vises for bending hot iron

1 grindstone and trough compleat

12 files with handles

6 hand chizels and 6 punches

## Moulds

Wooden moulds of several machines in the Pultah mint

Wooden [suket] and pigs of cast iron for the anvils of the stamping presses

A bell and wood stand to let the people go from work

[Callasey chaprass]

Pass ticket brass

### Tools used for the Bengally method of Coining

150 hammers for forging the pice

9 pairs of tongs for holding the copper to be cut

- 500 small chizels for cutting the copper
- 10 gauges for flatting the blank pieces
- 25 pairs of tongs for heating the blank pieces in the fire
- 10 small pinchers for holding blanks to hammer round the edge
- 4 moulds for cutting pice in
- 67 pairs of small scales with wooden boxes
- 1 large box for holding the above tools

#### Carpenters Tools

- A large saw
- 1 frame ditto
- 1 dovetail ditto
- 1 Bengally ditto
- 1 iron cramp for framing woodwork
- 4 large augurs
- 1 adze
- 1 round A[dze?]
- 1 Bengally ditto
- 1 large hatchet
- 1 small ditto
- 6 drills and stocks for wood
- 3 board firmers and 2 large gauges new
- 4 [Newmort] chizels
- 4 ditto firmer and 3 small gauges new
- 3 small firmers new
- 5 large leather bits
- 4 smaller ditto
- 6 new centre bits of sorts
- 4 large gauges and handles
- 6 mortice chizels of sorts
- 3 large ditto
- 2 large firmers with handles
- 6 small ditto of sorts
- 5 rasps of sorts with handles
- 7 files with handles
- 4 old plains
- 2 pairs of compasses
- 4 wood squares
- 1 pair of pinchers
- 3 hammers of sorts

# A list of mint tools lost on board the ships Duke of Athol & Kingston and replaced in ship Earl Cornwallis

- A cutting press compleat with extra dabs and bolsters
- A flatting press compleat with 3 extra boxes and bolts
- 2 flatting mills compleat with spindells gundgions etc
- 2 large bodies in cast iron of 2 fly presses unfinished
- 2 chests of extra files
- 500 [Wt] of dye steel

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- 12 Bengal Consultations. IOL P/3/9, 3 January 1785, p. 60. Letter from Croftes, Alexander & Paxton (arbitrators of Prinseps claims) to Calcutta, dated 31<sup>st</sup> December 1784.
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- 21 Saletore BA (Ed) (1959), Fort William-India House Correspondence, Vol IX (1782-85), National Archives of India, p. 511-512. From Bengal to Court, dated 10<sup>th</sup> December 1784.
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- 24 Bengal Public Consultations. IOL P/3/10, 28th January 1785, p. 675.
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- 32 Bengal Public Consultations. IOL P/3/15, 16<sup>th</sup> November 1785, p. 149. Letter from Herbert Harris, mint master, to Calcutta, dated 8<sup>th</sup> November 1785.
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