Holograph drafts of MINT00611 (/catalogue/record/MINT00611) (Mint 19/2/305) with further details on processes for testing copper.

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To the most Honourable the Earl of Oxford & Earl Mortimer Lord High Treasurer of great Britain

May it please your Lordship

1 I humbly beg leave to lay before your Lordship before your Lordship that the Master & Worker of her Majestys Mint is not obliged to receive all the gold & silver brought into her Majestys Mint to be coyned. If any gold be imported which is not tough, he returns it back to be toughned at the Importers charge tho it be standard. If the gold or silver imported be uneavenly mixed or be too coarse, he returns it to be remelted or refined at the Importers charge. And by parity of reason he should not be obliged to receive all sorts of copper to be coined. If it be too coarse or too hard or want malleability or be ill coloured or otherwise faulty, he should be at liberty to return it back to the owner to be made fit for the Mint at the owners charge; Otherwise it will be exceedingly difficult & almost impracticable to coin the money of good malleable copper

2 There is an assay of copper by refining a small parcel & thence recconing what will be the wast & charges in refining a Tunn of such copper, & setting a value upon it accordingly. And such an Assay is useful in buying coarse copper to be refined, but is of no use in buying fine copper. The price of fine copper depends upon the malleability, & two parcels of copper which by such an assay are equally fine may differ very much in <303v> their malleability, & by consequence in their price. There may be a **{**penny**}** a pound difference in their price.

3. All coarse copper is hard & brittle & in refining it begins to be called fine copper when it begins to be soft & malleable. They that refine it frequently take out of the mass in fusion with an iron spoon a little parcel & hammer it when red hot. And so soon as it hammers **{**into**}** a think plate without cracking, they hammered into a square rod of a convenient thickness & bend it when cold & breaking of a piece **{illeg}** the grain & colour where it breaks & by the malleability grain & colour judge of its fineness, & accordingly set the price. The malleability is the chief Test, the grain colour are further indications of the goodness of the Copper. And when they find the Copper sufficiently malleable to beare hammering & rolling into vessels & plates they

value it at about $11\frac{1}{4}^{d}$ or $11\frac{1}{2}^{d}$ per pound weight averdupois, & call it fine copper. And of such copper hammered & rolled the Swedes make their money. Some are so skilful in refining copper that they make it still more malleable so as to fit it into be drawn into wire, & then the wire-drawer gives two or three shillings a pound for it accordingly as he finds it less or more ductile & fit to be drawn into wire. And some observe that in making of brass the finest or most malleable & ductile copper takes up most of the Lapis calaminaris & thence conclude that the finest copper may be assayed by observing how much of the Lapis it dr**{**an**}**ks up. ut this way of assaying is troublesome & not yet in use, nor exact enough to be trusted in a Mint by reason of the different goodness of the Lapis. The malleability & ductility of fine copper is that which sets a price upon it & therefore is the truest Assay

Copper refined to that degree & in that manner as to be malleable without cracking when red hot is the & the fittest material for all sorts of copper vessels & for copper money. The Swedish copper money is of this standard; And if the English copper money be of the same standard a pound weight will be worth about $11\frac{1}{4}$ or $11\frac{1}{2}$ at the Warehouses, & if it be made much more malleable the Wire drawer will 2 or 3 shillings a pound for it because of its fitness for his use. Tis the ductility that makes it useful & the usefullness that sets a price upon it, & the tryal by hammering & bending hot & cold that determins the ductility. Copper in not malleable till it begins to be fine. In refining copper the Refiner takes out an iron spoonful from time to time and tries it by the hammer & the bending & by the grain & colour in breaking untill by those signs he finds the copper to be fully fine & ready to vitrify. And then he lades it out into iron **{**pawns**}**. This is <294r> the trial in refining copper & by consequence the proper trial of fine copper fit to be coyned into copper money.

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To the most Honourable the Earl of Oxford & Earl Mortimer Lord High Treasurer of great Britain.

May it please your Lordship

I humbly beg leave to lay before your Lordship that the Master & Worker of her Majestys Mint is not obliged to receive all the gold & silver brought into her Majestys Mint to be coyned. If any gold be brought in which is not tough, he returns it back to be toughned at the Importers charge tho it be standard. If any gold or silver be not eavenly mixed he returns it back to be remelted at the Importers charge. If it be not neare to standard he returns it back to be refined at the Importers charge. And to judge whether it be fit to be received or returned back is left to his discretion. And by parity of reason he should not be obliged to receive all sorts of copper to be coyned. If it be not fine or not tough & malleable or ill coloured or otherwise faulty, he should be at liberty to return it back to be made fit for the Mint at the Importers charge. Otherwise it will be difficult to coyn the money of good malleable copper, without allowing for the charge loss & hazzards of such an undertaking.

There is an assay of copper by refining a small parcel & thence recconing what will be the wast charges & trouble in refining a Tunn of such copper. And such an Assay is usefull in buying coarse copper to be refined, but is of little or no use in buying fine copper. The price of fine copper depends upon the malleability & two parcels of copper equally fine may differ very much in their malleability, & by consequence in their price. Copper refined to that degree & in that manner as to be malleable without cracking when red hot is the fittest material for manufacturing into all sorts of copper vessels & by consequence for money. The Swedish copper money is of this standard. And such copper is usually valued at about $11\frac{1}{2}^{d}$ per pound weight. And if it be made still more soft & malleable the wiredrawer may value it at 2 or 3^{s} per pound weight because of its fitness for his use. Tis the ductility that makes it usefull & the usefulness that sets a price upon it & the triall by hammering & bending hot & cold that determins the ductility. This is the assay by which the Refiners of copper know when their copper is fully fine & ready to vitrify & by consequence the proper assay for receiving fine copper into the Mint. For it determins the fineness & the malleability at once, no coarse copper being malleable.

By the estimates of Workmen the charges of repairing & fitting up the houses in the Irish Mint for a coynage of Copper will amount to about 146^{li} . And the putting up a furnace in the melting house with all things answerable for making an experiment in casting will cost about 32^{li} more. And a small parcel of copper <313r> for making an experiment may cost about 20^{li} more. If your Lordship please to impress 200^{li} to me for this service upon account, it may be repaid out of the copper coynage. All which &c

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