# MS 3147/3/490 SPECIAL SUBJECTS & CORRESPONDENTS CALCUTTA MINT 1821–1823

Letters and papers relating to the Calcutta Mint, from 1821 to 1823. The mint was established by the East India Company, and was occasionally referred to as the "Bengal Mint." Boulton Watt & Co. supplied the steam engines, and they also made some of the mint machinery under their name for Matthew Robinson Boulton. Much of the bundle concerns estimates put in by Maudslay Sons & Field and their competition with Boulton Watt & Co. There are also memoranda and papers concerning the men who went out to build and run the mint.

This large bundle was badly disrupted. At some point some of the estimates were removed and placed in a separate bundle (old reference B&W Box 13/7), and the correspondence and remaining papers were re-arranged into alphabetical order and numbered as B&W Box 13/6. The two bundles have been re-combined and placed in chronological order, which is almost certainly the way Boulton Watt & Co. kept them.

- 1a. Letter. M. R. Boulton (Soho) to James Watt Jr. (London). 1 Jan. 1821.
  Enclosing (b) and (c) below.
  Docketed "Application made by the East India Company for mints for Calcutta and Bombay.
  Encloses reply to Mr. Thompson of the East India House. Proposes they should be executed by the firm of BW&Co."
  - **b.** Transcript of letter (press copy). Joseph Thompson (East India House) to Boulton Watt & Co. [Soho]. 27 Dec. 1820.
  - c. Draft of letter. Boulton Watt & Co. (Soho) to Joseph Thompson (East India House). 2 Jan. 1821.

In M. R. Boulton's hand.

Docketed "Requesting farther explanations relative to the mints for Calcutta and Bombay."

- **2.** Letter. John Rennie [Stamford St., London] to James Watt Jr. (Norfolk Hotel). 2 Jan. 1821. *Docketed "The Bengal Mint in progress. Wishes me to meet Lt. Forbes."*
- **3.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton [Soho]. 3 Jan. 1821. 4 sheets. *The docket is on a separate wrapper.*

Docketed "Accepting his proposal of having the India mints undertaken in the name of our firm. Mr. Rennie's conferences with Mr. Thompson and Lieut. Forbes and intended interview with the East India chairman. His opinion of the engines required for the different operations. Answer to be sent respecting list of prices of engines."

- **4.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 5 Jan. 1821. Docketed "Thinks the power of the engines proposed by Mr. Rennie for the India Mint rather in excess. Approves of Mr. Rennie's seeing the Chairman. Application made by Mr. Thompson in 1806 and estimate then given."
- 5. Transcript of letter. Joseph Thompson (East India House) to Boulton Watt & Co. [Soho]. 5 Jan. 1821.

Mis-dated by the transcriber as 1820.

Docketed "Correction of the weight of the pieces of coin, as given in his former letter. To consult with Mr. Rennie respecting the rolling mill. Size of slips into which the silver is to be rolled. Apparatus for shaking and marking, and cranes etc. of melting house and refinery to be

prepared in London. Estimates wanted from us of engines, coining apparatus and cutting out apparatus. To have duplicates of the engines for rolling and triturating. Mr. Forbes unwell, but will come to Soho, or communicate with us in London."

6. Memorandum. Specification of the Articles to be furnished by Boulton Watt & Co. to the Honourable the East India Company for the Calcutta Mint. — Jan. 1821.
In James Watt Jr. 's hand.
Docketed "First sketch of a specification of the articles proposed to be furnished by Boulton

7. Letter. John Rennie (Stamford St., London) to James Watt Jr. (Norfolk Hotel, London). 5 Jan. 1821.

Docketed "Introducing Lt. Forbes and requesting me to appoint a day for meeting him to dinner."

- **8.** Transcript of letter. James Watt Jr. (London) to M. R. Boulton (Soho). 7 Jan. 1821. Docketed "Conference with Lt. Forbes on the India mints. Farther explanation from Mr. Rennie as to the power required. Copy of his letter to Mr. Thompson in 1808 wanted. About the time that should be asked to complete the machinery."
- **9.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 8 Jan. 1821. Docketed "With heads of estimates for engines and machinery of the Calcutta Mint. Thinks the milling and shaking machinery should be furnished from Soho. Will write tomorrow with estimates for Bombay Mint."
- **10.** Memorandum. Estimates of Engines & Coining Apparatus for East India Mints. Soho, 8 Jan. 1821. 2 sheets.

In M. R. Boulton's hand.

Watt & Co. for the Calcutta Mint."

Docketed "Estimates of engines and machinery for the Calcutta Mint."

- 11. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 9 Jan. 1821. 2 sheets. Docketed "Revised estimates of the power and cost of engines for the Calcutta Mint. Time for executing the machinery. Caution requisite."
- **12.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 9 Jan. 1821. 4 sheets. *The docket is on a separate wrapper.*Docketed "Conference with Mr. Forbes and Mr. Thompson at the India House. Mr. Rennie's

conference with the Chairman of the East India Co."

**13.** Transcript of letter. Joseph Thompson (East India House) to Boulton Watt & Co. [London]. 10 Jan. 1821.

Docketed "The Calcutta Mint to be prepared for coining copper, as well as silver."

- **14.** Letters (press copies). Press copies of two letters, as follows:
  - (i) James Watt Jr. (London) to M. R. Boulton (Soho). 10 Jan. 1821. 4 sheets.
  - (ii) James Watt Jr. (London) to M. R. Boulton (Soho). 11 Jan. 1821. 3 sheets. *The docket is on a separate wrapper*.

Docketed "Enclosing letter from Mr. Thompson advising that the Calcutta Mint is to be prepared for coining copper also. Remarks upon the power required for the rolling mill. Wish Mr. Murdock to assist at experiments with the indicator. Conference with Mr. George Rennie respecting the quantities rolled at the Royal Mint. Remarks on the load of the cutting out and coining engines at the Royal Mint. Application from the East India Co. for a steam boat from Macao to Canton."

- **15.** Memorandum. George Rennie's Memorandum of work done by the cutting out engine at the Royal Mint. 11 Jan. 1821.
- **16.** Letter. M. R. Boulton (Soho) to James Watt Jr. [13 London St.]. 11 Jan. 1821. Docketed "Has appointed a conference with Messrs. Murdock and Creighton on the subject of the power for the Calcutta Mint. Engaged in the investigation of a proposed robbery at the Manufactory."
- 17. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 12 Jan. 1821. 2 sheets. Docketed "Statement of the work done at the Soho rolling mill and deduction of power required for the Calcutta one. Supposed causes of the defective performance of the Royal Mint. Thinks 24 horse power ample for the cutting out engine. Recommends the triturating engine to be used for extra purposes. Hydraulic ram may be set to work."
- **18.** Transcript of letter. James Watt Jr. [London] to George Rennie (Royal Mint). 12 Jan. 1821. Docketed "Enquiry respecting particulars of rolling done at the Royal Mint."
- 19a. Letter. George Rennie (Mint) to James Watt Jr. ("Fenchurch St."). 12 Jan. 1821.

  Enclosing (b) below. Mis-dated by Rennie as 1820.

  Docketed "Statement of the weight of silver which is rolled in the ordinary performance of the Royal Mint rolling mill."
  - **b.** Memorandum. Weight of silver bars rolled into fillets. 12 Jan. 1821.
- 20. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 13 Jan. 1821.
  On the same sheet:
  Transcript of letter. Joseph Thompson (East India House) to M. R. Boulton. 12 Jan. 1821.
  Docketed "Copy of letter from Mr. Thompson requesting medal of his father for the Chairman etc. Letter to him, promising them in a few days. Wishes me to present them."
- 21. Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Soho]. 14 Jan. 1821. Docketed "Mr. George Rennie and Mr. John Walker's report of the performance of the Royal Mint rolling mill. Deduction of the power required for the Calcutta Mint. Recommend trying an experiment of rolling silver at the Soho Mill."
- **22.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 15 Jan. 1821. Docketed "Is prevented by business and by an attack of lumbago from leaving home before Friday. Mr. Murdock is preparing the indicator and will set off for Town tomorrow."
- **23.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 16 Jan. 1821. Docketed "Thinks the cold rolling at the Mint may account for the power used. Agrees to the power of 72 horses for the rolling mill. Revised estimate of a 36 horse rolling engine. Rule for estimates of of copper boilers. Mr. Murdock to set out this evening."
- **24.** Letter. George Rennie (Mint) to James Watt Jr. [London]. 16 Jan. 1821. Docketed "Statement of the greatest performances of the Royal Mint in 1816—1817. Ditto total work done from July 1816 to March 1817. Deduction of the average work done in the rolling mill."
- **25.** Letter (press copy). Boulton Watt & Co. (London) to Joseph Thompson [East India House]. 17 Jan. 1821. 4 sheets. *The docket is on a separate wrapper.* Docketed "With estimates for the Calcutta Mint."

- **26a.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 17 Jan. 1821. 4 sheets. Kept with (b) below. The docket is on a separate wrapper.

  Docketed "Have sent copy of letter from George Rennie dated 16<sup>th</sup> inst. Query whether two 40 horse engines would not be preferable for the rolling mill. Send outline of proposed estimates of engines. Want illustrations of Mr. Creighton's rule for copper boilers. Remarks on the power of the proposed coining engine. Have forwarded his letter to Mr. Thompson and wish to decline presenting the medals of his father."
  - **b.** Memorandum (press copy). Estimates for five engines two for the rolling mill, one for cutting out, one for coining and one for triturating.
- 27. Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 18 Jan. 1821. 3 sheets. The docket is on a separate wrapper.

  Docketed "Remarks on Mr. George Rennie's statement of the 16<sup>th</sup> inst. of the quantities rolled hot and cold at the Royal Mint. Mr. Murdock to make experiments Gone to launch of Post Office No. 1. Mr. Rennie's remarks on the power of cutting out engine. Cold water pump of enlarged size to be included in estimates. Query about condenser and air pump. Think the size of the copper boilers admits of reduction."
- 28. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 19 Jan. 1821. 2 sheets. Docketed "His calculations of the power for the Calcutta Mint founded on the supposition of 8 hours of uninterrupted work. Revision of Mr. Creighton's rule for estimating copper boilers. Extra cost of 40 horse engine for rolling mill. To wait the result of Mr. Murdock's indicator experiments. Is relieved from his complaint and will come to Town."
- 29. Memorandum. Estimates of Steam Engines for the Calcutta Mint. 24 Jan. 1821. *In James Watt Jr.'s hand.*Docketed "Estimates of Steam Engines with enlarged & duplicate boilers etc. etc. and Machinery for the Calcutta Mint."
- **30a.** Memorandum. Estimates for Calcutta Mint. London, 24 Jan. 1821. *In James Watt Jr.'s hand. Kept with (b) below.* Docketed "General Estimate of Engines & Mint Machinery for the Calcutta Mint."
  - **b.** Memorandum. List of engines and boilers for the Calcutta Mint. *Not dated. In William Creighton's hand. Earlier version of the above?*
- **31.** Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Tew]. 29 Jan. 1821. *Docketed "Delivery of estimates of Calcutta Mint etc. etc."*
- **32.** Memorandum. Mr. Rennie's Comparative View of his Estimates & those of Maudslay for the Rolling Mill etc. of the Calcutta Mint. Jan. 1821.
- 33. Transcript of memorandum. Copy of Henry Maudslay's Estimates of Apparatus for the Silver Melting House, the Drawbenches, the Coing Presses and the Cutting-out Presses for the Calcutta Mint. Lambeth, 1 Feb. 1821.
- **34.** Transcript of memorandum. Total of the Estimates for the intended Mint at Calcutta, including the Packing & Delivery at the Company's wharf, Thames St. Henry Maudslay (Lambeth), 1 Feb. 1821.
- **35.** Transcript of memorandum. Mr. Thomson's comparative view of the joint estimates of Boulton Watt & Co. and Messrs. Rennie and of those of Mr. Maudslay. Feb. 1821.

- **36.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Tew). 3 Feb. 1821. 3 sheets. *The docket is on a separate wrapper.*Docketed "Maudslay's estimate for the Mint machinery, exclusive of engines, delivered in. Thompson intends recommending him to the Committee of Correspondence."
- **37.** Letter. M. R. Boulton (Great Tew) to James Watt Jr. (13 London St.). 4 Feb. 1821. Docketed "Returns the estimates for the Calcutta and Bombay Mints. Remarks on the difference of Maudslay's estimates. Proposes being in Town immediately."
- **38.** Letter. George A. Robinson (East India House) to James Watt Jr. [London]. 7 Feb. 1821. Docketed "Chairman of the Honourable East India Co. Appointing Tuesday to visit His Majesty's Mint."
- **39.** Transcript of letter. James Watt Jr. (13 London St.) to George A. Robinson [East India House]. 7 Feb. 1821.

  Docketed "Agreeing to attend him and the Deputy Chairman at the Royal Mint on Tuesday."
- **40.** Letter. Chairman & Deputy Chairman of the East India Co. (East India House) to James Watt Jr. [London]. 14 Feb. 1821.

  Docketed "Invitation to dine with the Directors on the 21st."
- **41.** Memorandum. Comparative View of Messrs. Boulton Watt & Co.'s & of Mr. Maudslay's Estimates of Machinery for the Calcutta Mint. 27 Feb. 1821.
- **42.** Memorandum. Estimate of Articles included in Boulton Watt & Co.'s Estimates of Mint Machinery & not included in that of Mr. Maudslay. 27 Feb. 1821.
- 43. Draft of letter. Boulton Watt & Co. (13 London St.) to Sir George A. Robinson (London). 1 Mar. 1821.
  In James Watt Jr. 's hand. On the same sheet:
  Memorandum. Specification of Articles proposed to be furnished by Boulton Watt & Co. to the Honourable the East India Company for the Calcutta Mint.
  Docketed "Sketch of letter to the Chairman of the India House. Not sent."
- **44.** Memorandum. General View of the Estimates delivered in by Boulton Watt & Co. & Mr. Rennie and those delivered in by Mr. Maudslay. 1 Mar. 1821.

  Docketed "Mr. Forbes' general view of the estimates of Boulton Watt & Rennie and Mr. Maudslay for the Calcutta Mint."
- **45.** Memorandum. Comparative view of the Cost of Boilers for the Engines for the Calcutta Mint. 1 Mar. 1821.
- **46.** Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Great Tew]. 2 Mar. 1821. Docketed "Comparative statements of our estimates delivered at the India House. The business not to be brought on before next Wednesday."
- 47. Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Great Tew]. 3 Mar. 1821.

- **48.** Letter. M. R. Boulton (Great Tew) to James Watt Jr. (13 London St.). 4 Mar. 1821. Docketed "Wants some explanations of the general comparative estimate of mint machinery etc. Concurs in opinion that we had better defer any explanation of the error in our estimate of copper boilers. Wrote to him in answer to this on the 7 and again on the 9 Mar. to inform him that the East India Company had determined to give us the order."
- **49.** Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Soho]. 11 Mar. 1821. Docketed "Farther particulars of the meeting of the Committee of Correspondence and their resolutions relative to the Calcutta Mint. Offer to sell stock to accommodate the London House."
- **50.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 12 Mar. 1821. Docketed "Upon the conclusion of the Committee of Correspondence relative to the Calcutta Mint. About Lt. Forbes and Mr. Rennie's visit to Soho. Our own hands likely to do the fitting. Has given directions about the sale of stock."
- **51.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton [Soho]. 12 Mar. 1821. 5 sheets.

The docket is on a separate wrapper.

Docketed "Complimentary visit to the Chairman of the East India Company and conference with him upon our proceedings with the Calcutta Mint. Mr. Forbes' communication of his conversation relative to the St. Helena and Bombay copper coinages."

**52.** Letter. John Rennie [Stamford St., London] to James Watt Jr. (Norfolk Hotel, London). 12 Mar. 1821.

Docketed as 13 Mar.

Docketed "Is obliged to go with Lord Melville to Sheerness and cannot accompany us to Soho."

**53.** Transcript of letter. James Watt Jr. (London) to M. R. Boulton (Soho). 14 Mar. 1821. *On the same sheet:* 

Sketch. Design for the St. Helena halfpence.

Docketed "Conference with the Chairman of East India Co. about the St. Helena coinage. Mr. Rennie has communicated his plans to Mr. Forbes who will set out with me for Soho tomorrow."

- **54.** Letter. William N. Forbes (34 Hart St., Bloomsbury, London) to James Watt Jr. (Norfolk Hotel, London). 15 Mar. 1821.
- 55. Letter. John Rennie (London) to James Watt Jr. (Soho). 17 Mar. 1821. Docketed "Expected to have heard from Lt. Forbes as to the orders from the India Co. Asks if any alterations have been made in the plans of the Calcutta Mint. Lord Melville will be glad to witness the performance of the Post Office steam vessels. Has applied to him about Lt. Forbes' brother."
- **56.** Transcript of letter. M. R. Boulton (Soho) to George A. Robinson (London). 19 Mar. 1821. Docketed "To the Chairman of the East India Co. With specimens of East India coin and explanations relative to the St. Helena halfpenny."
- 57. Letter (press copy). James Watt Jr. (Soho) to John Rennie (London). 19 Mar. 1821. 4 sheets. The docket is on a separate wrapper.

  Docketed "Advising his coming to Soho, to assist in completing the plan of the Calcutta Mint."

- 58. Transcripts. Transcripts of two letters on the same sheet, as follows: Peter Auber (East India House) to William N. Forbes [Soho]. 16 Mar. 1821. William N. Forbes (Soho) to Boulton Watt & Co. (Soho). 20 Mar. 1821. Docketed "Lieutenant Forbes. Transmits copy of a letter to him from the Committee of Correspondence of the East India Company."
- **59.** Letter. John Rennie (London) to James Watt Jr. (Soho). 21 Mar. 1821.

  Docketed "The Chairman of the East India Co. confirms his instructions to Lt. Forbes. Mr. Innes' character of Thompson. Will come to Soho to assist in forming the plan of the Calcutta Mint."
- **60.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 27 Mar. 1821. 2 sheets.

The docket is on a separate wrapper.

Docketed "Interview with the Chairman of the East India Co. on the return of Mr. Rennie and myself to Town. Remarks relative to sundry parts of the fitting up of engines not included in our contracts."

- 61. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 30 Mar. 1821.

  Docketed "Iron platforms etc. not wanted for the Calcutta engines. James Haden arrived at Soho and willing to go to India. Remarks about the terms on which he should be engaged.

  Wishes to know the terms on which Hugh Thompson went out."
- **62a.** Letter (press copy). Boulton Watt & Co. (Soho) to George A. Robinson [London]. 2 Apr. 1821.

Kept with (b) below. In James Watt Jr.'s hand. The docket is on a separate wrapper. Docketed "Copy of letter to the Chairman of the East India Co. With specification of the materials included in our estimate for the Calcutta Mint."

- **b.** Memorandum (press copy). Specification of the Steam Engines and Machinery for the Calcutta Mint included in Messrs. Boulton Watt & Co.'s Report of 27 Jan. 1821. 2 Apr. 1821. 2 sheets.
- 63. Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 4 Apr. 1821. 6 sheets. The docket is on a separate wrapper.

  Docketed "The plan of the Calcutta Mint brought by Lt. Forbes approved of by the Chairman and the Committee of Correspondence. Enclose copy of my letter to the Chairman with specification of materials included in our estimate. Remarks about the parts not included in our or Rennie's estimates. Statement of transaction relative to the Canton steam boat. Propose that William Bennett should come to Town to superintend the erection of the engines for some of the steam boats."
- **64.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton [Soho]. 6 Apr. 1821. 2 sheets. The docket is on a separate wrapper.

  Docketed "Urge his coming to Town to settle about the number and wages of the men to go to India."
- **65.** Transcript of letter. Peter Auber (East India House) to Boulton & Watt [Soho]. 7 Apr. 1821. Docketed "Order for the machinery of the Calcutta Mint. To communicate with Mr. Maudslay about the melting houses etc."
- **66.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 25 Apr. 1821. Docketed "Has not heard from the India House relative to Maudslay. Hopes to have the die for the St. Helena halfpenny completed in a few days."

- **67.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 26 Apr. 1821. 2 sheets.
- 68a. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 2 May 1821.

  Enclosing (b) below.

  Docketed "Remarks upon Mr. Auber's letter respecting the parts of the machinery of the Calcutta Mint to be executed by Maudslay."
  - **b.** Transcript of letter. Peter Auber (East India House) to Boulton & Watt [Soho]. 1 May 1821. Docketed "With copy of letter from Mr. Auber respecting the parts of the Mint to be executed by Maudslay."
- **69.** Transcript of letter. James Watt Jr. (34 Hart St., Bloomsbury, London) to M. R. Boulton [Soho]. 3 May 1821.

  Docketed "Upon the answer to be given to Mr. Auber's letter respecting Maudslay."
- **70.** Transcript of letter. M. R. Boulton (Soho) to Peter Auber [East India House]. 3 May 1821. *In James Watt Jr.'s hand.* Docketed "Advising that the dies are ready for commencing the St. Helena coinage."
- 71. Letter. M. R. Boulton (Soho) to James Watt Jr. [London]. 3 May 1821.

  Docketed "Has got the die finished for the St. Helena halfpenny. Wishes me to invite the Chairman and Deputy Chairman. An answer wanted respecting the workmen to be engaged to go to Calcutta."
- 72a. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 6 May 1821.

  Enclosing (b) below.

  Docketed "Encloses proposed letter to Mr. Auber respecting parts of apparatus to be executed by Maudslay. My expenses on Caledonia account to be charged in London. Suggestions with respect to Mr. Stonebridge's salary and engagement. Copper melting house and furnaces supposed to be included in Lt. Forbes' estimate of buildings."
  - **b.** Draft of letter. Boulton Watt & Co. (Soho) to Peter Auber [East India House]. 4 May 1821. *In M. R. Boulton's hand.*
- 73. Letter (press copy). Boulton Watt & Co. (Soho) to Peter Auber [East India House]. 4 May 1821.

  The docket is on a separate wrapper.

  Docketed "In answer to his respecting Maudslay and stating that it will be necessary for us to have plans and specification of his machinery."
- 74. Transcript of letter. Peter Auber (East India House) to Boulton & Watt (Soho). 9 May 1821. Docketed "The Committee of Correspondence desire we will request from Maudslay plans and specifications of the parts he is to furnish. Instructions have been given to Capt. Hawkins to proceed to Soho to witness the St. Helena coinage."
- 75. Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 9 May 1821. 4 sheets. The docket is on a separate wrapper.

  Docketed "Deliver his letters of 3<sup>rd</sup> and 4<sup>th</sup> to Mr. Auber, and particulars of conference with him respecting Maudslay's part of the apparatus for the Calcutta Mint. Excursion to the Nore and Sheerness with the Lightning and Meteor."

**76.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 10 May 1821. 4 sheets.

The docket is on a separate wrapper.

Docketed "Conference with the Chairman and Deputy Chairman on the subject of their coming to Soho to witness the St. Helena coinage. Second letter from Mr. Auber respecting Maudslay and sentiments of the Chairs upon it."

- 77. Letter. M. R. Boulton (Soho) to James Watt Jr. [London]. 14 May 1821. Docketed "Will send letters to Mr. Auber and Mr. Maudslay tomorrow."
- **78.** Transcript of letter. Boulton Watt & Co. (Soho) to Henry Maudslay (London). 14 May 1821. *In James Watt Jr.'s hand.*

Docketed "Sending extract from Mr. Auber's letter and requesting explanation and specifications of the articles to be furnished by him to the Calcutta Mint."

**79.** Transcript of letter. Boulton Watt & Co. (Soho) to Peter Auber [East India House]. 14 May 1821.

In James Watt Jr.'s hand.

Docketed "Stating that we have written to Maudslay for explanations etc."

**80.** Letter. M. R. Boulton (Soho) to John Mosley (13 London St.). 15 May 1821. Forwarded to James Watt Jr. at the Norfolk Hotel. Docketed "With letters to Mr. Auber and Mr. Maudslay."

**81.** Transcript of letter. Henry Maudslay per W. Collins (Lambeth) to Boulton Watt & Co. [Soho]. 17 May 1821.

Docketed "Will send an answer in 8 or 10 days."

**82.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 21 May 1821. 3 sheets.

The docket is on a separate wrapper.

Docketed "Application made by one of the Hacketts for work. Several of our men about to engage themselves to work the steamers."

- 83. Letter. M. R. Boulton (Soho) to James Watt Jr. (London). 31 May 1821.

  Docketed "St. Helena coinage nearly completed. Correspondence with Maudslay relative to the melting department machinery etc. Letters to him and to Mr. Auber. Has declined Hackett's offer of services. Has written to Mr. Turner respecting General Cuppage's enquiries about cuirasses. Lt. Forbes going into Wales. Enquires concerning the Post Office packets. Remarks on Taylor's Smoke Bill having passed the Lords."
- 84. Letter. M. R. Boulton (Soho) to James Watt Jr. (London). 4 Jun. 1821.

  Docketed "The St. Helena coinage completed. Capt. Hawkins returning to Town. Proposes bringing on the Bombay coinage. Desirous of being introduced to Mr. Rennie. Has made arrangements for getting a supply of copper sheets at 11½ per lb. Mr. Creighton has made out sizes for Dover packet boat but waits Mr. Murdock's return."
- **85.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Great Tew). 14 Jun. 1821. 3 sheets.

The docket is on a separate wrapper.

Docketed "Receipt of his letter by Capt. Hawkins and conference of the latter with Mr. Thompson respecting the Bombay Mint. Have introduced him to Mr. Rennie and Mr. George Rennie. Have settled particulars of engines and vessels for the Dover packets and Navy tug. Gala Day of the City of Edinburgh steamer. Holyhead packets doing well."

- **86.** Letter. William N. Forbes [London] to James Watt Jr. [London]. 14 Aug. 1821. Not dated date taken from the docket. Docketed "Fresh intrigues going on at the India House."
- 87. Letters (press copies). Press copies of two letters, as follows:
  (i) James Watt Jr. (London) to M. R. Boulton [Great Tew]. 14 Aug. 1821. 3 sheets.
  (ii) James Watt Jr. (London) to M. R. Boulton [Great Tew]. 15 Aug. 1821. 3 sheets.
  The docket is on a separate wrapper.
  Docketed "The correspondence of the Calcutta Mint again transferred to Thompson at the India House. Letter from Lt. Forbes stating particulars of what has passed. The King embarked on board the Lightning at Holyhead. Expresses his satisfaction and orders the name to be changed to the Royal George the 4<sup>th</sup>. Request him to get the rolls for the corner copper
- **88.** Letter. M. R. Boulton (Great Tew) to James Watt Jr. (13 London St.). 17 Aug. 1821. Docketed "Upon the King's voyage in the Lightning. On the way to the sea coast with his family. Will come to Town to confer with Lt. Forbes if we think it necessary."
- 89. Letter. William N. Forbes [London] to James Watt Jr. (13 London St.). 19 Aug. 1821. Not dated date taken from the docket.

  Docketed "Thinks it not necessary that Mr. Boulton should come to Town at present. Expects to learn something on Monday of proceedings at the India House."
- 90. Letter. John Rennie (Stamford St., London) to James Watt Jr. (Norfolk Hotel, London). 25 Aug. 1821.
  Docketed "Lt. Forbes and Capt. Hawkins have called on him to desire the estimates of the Bombay Mint to be sent in."
- **91.** Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Muddiford]. 27 Aug. 1821. Docketed "Capt. Hawkins' interview with Mr. Robinson respecting the Bombay Mint. Advise inviting him and Mr. Forbes to shoot at Tew. Addition for copper boilers deficient in his estimate of the 40 horse engine. Will act for him in the affair of the 3<sup>rd</sup> vessel for the London and Edinburgh trade."
- **92.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 17 Nov. 1821. 2 sheets. Docketed "George Rennie has been to fetch his sisters. He is undetermined about retaining his situation at the Mint. Returns T. Livesey's letter with remarks. Sends copy of Maudslay's estimate and specification of articles for the Calcutta Mint with remarks."
- **93a.** Transcript of memorandum. Estimates & Specifications by Mr. Maudslay of articles to be furnished for the Calcutta Mint. Circa 19 Nov. 1821. *Kept with (b) below.* 
  - **b.** Copy of the above, but without the prices filled in.
- 94. Letter. George Rennie (Stamford St., London) to James Watt Jr. (Norfolk Hotel, London). 20 Nov. 1821.
  Docketed "Introducing Mr. Morris as a draughtsman."
- **95.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 21 Nov. 1821. 3 sheets.

The docket is on a separate wrapper.

hurried on."

Docketed "Mr. Morris recommended as a draughtsman by Mr. Rennie, and conversation with him relative to salary etc."

**96.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton [Soho]. 27 Nov. 1821. 2 sheets.

The docket is on a separate wrapper.

Docketed "Farther account of Mr. Morris. Mr. Mushet to look over Mr. Maudslay's specification. James Watt returned with the crank wheel fractured."

**97a.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 1 Dec. 1821. *Kept with (b) and (c) below.* 

Docketed "Enclosing letter to Mr. Forbes with remarks on Maudslay's specification of articles for the Calcutta Mint. Mr. Murdock confined to his bed and annoyed by the breakages of the steamers. Encloses letter from Mr. Judd relative to Taylor's debts. Upon the violence of the late gales. Will leave correspondence in order for Mr. Creighton."

- **b, c.** Two notes about dimensions of hatchways of ships for India.
- **98.** Letters (press copies). Press copies of letters, as follows:
  - (i) James Watt Jr. (London) to M. R. Boulton (Soho). 8 Dec. 1821. 2 sheets.
  - (ii) Transcripts of letters. Transcripts of two letters on the same sheet, as follows: Henry Maudslay (Lambeth) to William N. Forbes [London]. 27 Nov. 1821.

William N. Forbes [London] to Henry Maudslay [Lambeth]. Not dated.

- (iii) James Watt Jr. (London) to M. R. Boulton (Soho). 10 Dec. 1821. 2 sheets.
- (iv) William N. Forbes (13 London St.) to M. R. Boulton (Soho). 10 Dec. 1821. 3 sheets. *The docket is on a separate wrapper*.

Docketed "Conference with Mr. Mushet relative to Maudslay's specification. List of sundry articles not yet specified. Copy of letter from Mr. Forbes with answer to Mr. Boulton's remarks on Maudslay's specification."

- **99.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 16 Dec. 1821. Docketed "Thinks we are not called upon to give specification of stoves and articles required for working the Calcutta Mint. Encloses letter to Mr. Forbes with farther explanations."
- 100. Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 17 Dec. 1821.
- **101.** Letter. M. R. Boulton (Soho) to James Watt Jr. [London]. 18 Dec. 1821. Docketed "Enclosing letter to Mr. Forbes with farther remarks upon the subject of the stoves for working the Calcutta Mint, and an enumeration of what may be wanted."
- 102. Transcript of letter. James Watt Jr. (London) to M. R. Boulton (Soho). 19 Dec. 1821. Docketed "Mr. Forbes will defer entering upon the specification of the stoves for the Calcutta Mint. Leaves the drawing up of the report on Maudslay's specification to him. Propose leaving Town. Forbes' doubts about the annealing furnaces of rolling mill being included in any of the estimates."
- **103.** Memorandum. Estimate of a Pump for Calcutta Mint. Circa 1821/1822. *In M. R. Boulton's hand.*
- 104. Transcript of letter. James Watt Jr. (Soho) to William N. Forbes (London). 31 Dec. 1821. Docketed "Acquaint him that we have declined Mr. Morris' assistance and propose to finish the Mint drawings ourselves. Ask his opinion about Mr. Park. Invite him to return here to complete his Mint education."

**105.** Letter. William N. Forbes (30 Gloucester St., London) to James Watt Jr. (Soho). "Saturday Evening" [5 Jan. 1822].

Docketed as 3 Jan.

Docketed "Satisfactory conference with Mr. Pattison. He is desirous of having something done about the Bombay Mint. Thompson admits that the annealing furnaces were not in Mr. Rennie's estimate."

**106.** Letter. John Mosley (London) to Boulton Watt & Co. (Soho). 10 Oct. 1822. *On the same sheet:* 

Letter. Joseph Thompson (East India House) to Boulton Watt & Co. (13 London St.). 10 Oct. 1822

Draft of letter. Boulton Watt & Co. to John Allan Gilmour.

Titled "Form of Order upon the Treasurer."

Docketed "Note from Mr. Thompson advising that the East India Co. have issued their warrant for £15,000 on account of the Calcutta Mint machinery. Form of letter to be written to their treasurer.

- **107.** Letter. Peter Auber (East India House) to Boulton Watt & Co. [Soho]. 11 Oct. 1822. *Docketed "The Court of Directors have issued their warrant for the payment of £15,000."*
- **108.** Letter. John Mosley (London) to Boulton Watt & Co. [Soho]. 12 Oct. 1822. Docketed "The Treasurer of the East India Company insists upon having the order upon a stamp."
- **109a.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 11 Dec. 1822. *Enclosing (b) below.*

Docketed "Wishes me to settle with John Walker the plan of working the lathes etc. of the Calcutta Mint. Encloses correspondence with him and plans. Is about writing an answer to Mr. Auber on the subject of the Bombay Mint."

- **b.** Transcript of letter. John Walker (London) to Boulton Watt & Co. [Soho]. 2 Dec. 1822.
- **110.** Account. Boulton Watt & Co. debtors to M. R. Boulton for the Calcutta Mint. 11 Apr. 1823. 12 pages.

The pages appear to have been removed from a volume, and are docketed "M. R. Boulton. Calcutta Mint Machinery." The account does not include a steam engine.

- 111. Transcript of letter. Boulton Watt & Co. (Soho) to William N. Forbes [London]. 18 Apr. 1823. Docketed "Accompanying the revised memorandum of agreement with the men for the Calcutta Mint. Think they should not be sent out at present. Someone to advise them as to the stores to be laid in."
- **112.** Memorandum. Conditions & Particulars for the agreements with the following Mechanists & Workmen going out for the erection and working of the Machinery of a Mint at Calcutta. 18 Apr. 1823.

Docketed "Memorandum of agreements proposed between the Honourable the East India Co. and the mechanists to be sent out with the Calcutta Mint."

113. Letter. William N. Forbes [London] to James Watt Jr. [London]. 25 Apr. 1823.

Not dated – date taken from the docket.

Docketed "Has seen Mr. Turner. Mr. Boulton objects to our men going out to Calcutta at

present. Mr. Morrice of the Shipping Office makes enquiries about arranging their passages."

- 114. Letter. M. R. Boulton (London) to James Watt Jr. (Soho). 9 May 1823. 2 sheets. Docketed "Conferences with the late and present Chairmen of the East India Co. relative to Mr. Forbes. Wishes Capt. Hawkins to come to Town. Application made to Mr. Robinson by a Mr. Young the patron of Maudslay. Mr. John Kennedy has visited Perkins and is now on his return to Manchester. Men for the Calcutta Mint to go with the Potton in 4 to 5 days. Wishes them to be sent to Town immediately."
- 115. Letter. M. R. Boulton (London) to James Watt Jr. (Aston Hall). 15 May 1823.

  Docketed "Stratford's agreement drawn up as originally proposed. Gregory Wilkinson to visit his friends before he embarks. Potton to sail with the goods and men on Saturday. State of Mr. Forbes' business. Wigram relents. Astel against him. Forbes preparing a remontrance. Proposed interview with Mr. Money. Has learnt nothing more about Young. Has given Maudslay his order through Capt. Hawkins."
- 116a. Letter. M. R. Boulton (Great Tew) to James Watt Jr. [Soho]. 15 Jun. 1823. Kept with (b) below, Docketed "Letter from Mr. Forbes stating his embarkation for India and the terms of his salary etc. His signed and forwarded to Mosley the power of attorney to receive the balance due from the East India Company."
  - **b.** Transcript of extract of letter. William N. Forbes [London] to M. R. Boulton [Great Tew]. 14 Jun. 1823.

# MS 3147/3/491 SPECIAL SUBJECTS & CORRESPONDENTS THE CARRON COMPANY - PAPERS CONCERNING WATER 1776

#### INTRODUCTION

Letters and papers relating to the Carron iron works, near Stirling in Scotland, from 1776. The works was established by John Roebuck and others, and began producing iron in 1760. Much of the machinery was designed by John Smeaton. In 1766 Robert Mackell and Watt erected an atmospheric engine at the works. In 1776 the owners of the works sought to improve the water supply. One of the options suggested by John Smeaton was installing a new engine of Watt's design. Watt was consulted, and instead of suggesting a brand new engine, he recommended altering the existing engine and pumps and carrying out other improvements such as enlarging various pools. He did however recommend buying a new engine if the works ever expanded.

- 1. Transcript of letter. John Smeaton (—) to the Carron Company (—). 7 May 1776. Proposals for a new engine. How they might improve their existing engine. Only wind power will be cheaper than an engine. Has heard that James Watt's engine uses less coal, but "it must be more complicated and difficult to keep in order". They can judge whether the savings are worthwhile, but thinks Watt's engine "in reality very ingenious".
- 2. Transcript of letter. John Smeaton (Hexham) to the Carron Company (—). 29 May 1776. The possibility of using water from Fannyside Loch for their four furnaces without an engine. Calculations re the amount of water they could get from the loch. Doubts it would work. They must consider the rent and charges of making and maintaining a reservoir against the cost of a steam engine.

- 3. Notes. Dimensions of the Carron engine and engine house. 19 Jun. 1776. *Details of the existing engine sent to Watt by the company.*
- **4.** Letter. Charles Gascoigne "for the Carron Co. and self" (Carron) to James Watt (Glasgow). 5 Jul. 1776.

Details of their water supply from the dam head at Larbert, and their furnace machinery. In dry weather they have to rely on the river, a reservoir at Dunipace and their existing engine, which do not supply enough water. They either have to use Fannyside Loch or buy a new engine.

- 5. Draft of letter. James Watt (—) to the Carron Company. 30 Aug. 1776. 2 sheets. Docketed "First Copy Letter JW to Carron Comp". His calculations concerning their water supply. His proposals for altering the pumps and making improvements to the existing engine. They should consider buying a second engine if the works expands. Other improvements they can make to the supply enlarging the pools, raising the head of water etc. Will send the air gauge when it is ready.
- **6.** Letter. Charles Gascoigne (Carron) to James Watt (Birmingham). 4 Nov. 1776. The company's general meeting approves of Watt's proposals to improve their water supply. Can he send them an air gauge, and tell them whether the new clack for large pumps is a success.
- 7. Calculations. Not dated.

  Docketed "Carron papers concerning water." This sheet was used as a wrapper.

  Watt's calculations on the amount of water to be supplied to each furnace, the size of the existing engine and pumps etc.

### MS 3147/3/492 SPECIAL SUBJECTS & CORRESPONDENTS THOMAS COBB / COBB PAIN & JUDD 1796—1798

#### INTRODUCTION

Letters from Thomas Cobb and Cobb Paine & Judd from 1796 to 1798. Cobb Pain & Judd, paper mill owners of Banbury, for whom Thomas Cobb corresponded, purchased the engine belonging to John Brockliss at the nearby Sulgrave Mill in 1797. They also purchased copying machines from James Watt & Co. They sold the engine in Oct. 1798 to a Mr. William Clark of Lambeth who planned to erect it for Randall & Co., starch makers, also of Lambeth. This transaction was disapproved of by Boulton & Watt as it lead to uncertainty over premium payments. Cobb Pain & Judd withdrew from the sale and the engine was later sold to Hodgson & Co. Thomas Cobb was also a partner in Cobb Wheatly & Cobb, who enquired about Matthew Boulton's coinage on 12 Aug. 1797.

- 1. Bundle wrapper.

  Marked "Cobb Paine & Judd 1796 7 8."
- Memorandum. Notes on letters between Thomas Cobb and Boulton & Watt. 11 Oct. 1796—12 Aug. 1798.
   Marked "Letters to and from Cobb Pain & Judd 1796, 1797 & 8."

**3.** Transcripts. Transcripts of 8 letters on 2 sheets, as follows:

Extract. James Watt & Co. (Soho) to Cobb Pain & Judd. 11 Oct. 1796.

Boulton & Watt (Soho) to Thomas Cobb. 2 May 1797.

M. R. Boulton (Soho) to Thomas Cobb. Not dated.

Boulton & Watt (Soho) to Thomas Cobb. 17 Jun. 1797.

Extract. M. R. Boulton [Soho] to Thomas Cobb. 15 Aug. 1797.

James Watt Jr. for Boulton & Watt (Soho) to Cobb Pain & Judd. 24 Oct. 1798.

Boulton & Watt (Soho) to Cobb Pain & Judd. 8 Nov. 1798.

Boulton & Watt (Soho) to Cobb Pain & Judd. 20 Nov. 1798.

Transcripts sent to James Watt Jr. in London.

Docketed "Copy of our letters to Cobb Pain & Judd in 1796, 1797 & 1798."

**4.** Letter. Thomas Cobb (Banbury) to Boulton & Watt (Soho). 25 Apr. 1797. *On the same sheet:* 

Letter. Boulton & Watt (Soho) to John Brockliss (Sulgrave Mills, near Banbury). 20 Apr. 1797

Docketed "Treaty with Brockliss for his engine."

5. Letter. Thomas Cobb (84 Gracechurch [?] St., London) to Boulton & Watt (Soho). 4 May 1797.

Docketed "Brockliss' engine."

- **6.** Letter. Thomas Cobb (Banbury) to Boulton & Watt (Soho). 24 May 1797. *Docketed "Indecision about purchase of Brockliss" engine."*
- 7. Letter. Thomas Cobb (Banbury) to Boulton & Watt (Soho). 8 Jun. 1797. Docketed "State of his treaty with Brockliss for the engine."
- 8. Letter. Thomas Cobb (Banbury) to Boulton & Watt (Soho). 22 Jul. 1797. Docketed as 25 Jul. On the same sheet: Letter. Cobb Pain & Judd (Banbury) to James Watt & Co. (Soho). 22 Jul. 1797. Docketed "Declining purchase of Cobb's [i.e. Brockliss'] engine."
- **9.** Letter. Cobb Wheatly & Cobb (Banbury) to Matthew Boulton (Soho). 12 Aug. 1797. *Docketed "Coinage. Copying paper. Purchase of Brockliss" engine."*
- **10.** Letter. Cobb Pain & Judd (Banbury) to Boulton & Watt (Soho). 19 Oct. 1798. Docketed "Have sold their engine to Mr. Clark of Lambeth."
- **11.** Letter. Cobb Pain & Judd (Banbury) to Boulton & Watt (Soho). 30 Oct. 1798. *Docketed "Apology and supplication."*
- **12.** Letter. Cobb Pain & Judd (Banbury) to Boulton & Watt (Soho). 12 Nov. 1798. *Docketed "Explaining their transaction with Mr. Clark."*
- **13.** Letter. Thomas Cobb (Banbury) to Boulton & Watt (13 London St.). 30 Nov. 1798. *Docketed "Desiring us to settle with Clark and offering to make good the deficiency."*
- **14.** Draft of note. James Watt Jr. [London] to Mr. Hodgson (Battersea). Dec. 1798. *In Watt Jr. 's hand.*
- **15.** Letter. Thomas Cobb (Banbury) to Boulton & Watt [Soho]. 14 Dec. 1798. Docketed "Wishes his account with Boulton & Watt to be settled with James Watt & Co."

## MS 3147/3/493 SPECIAL SUBJECTS & CORRESPONDENTS J. & G. DAVIES 1846—1848

#### INTRODUCTION

Letters from Jonah & George Davies of the Albion Foundry, Tipton, from 1846 to 1848. Boulton Watt & Co. sub-contracted the manufacture of various parts to J. & G. Davies, including blowing cylinders, vacuum pumps and pipes. However in 1848 the two firms came into dispute over the Davies' account, and the Davies threatened legal action.

- 1. Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 1 Jun. 1846. Docketed "Acknowledge the receipt of drawing and order for 4 72 inch vacuum pumps and pistons."
- 2. Letter. J. & G. Davies (Soho Foundry) to Boulton Watt & Co. Drawing Office (Soho). 5 Aug. 1846.
  Docketed "Consider the piece of Hamburg air vessel which has broken to have failed from defect in the casting."
- 3. Letter. J. & G. Davies (Albion & Limerick Foundries) to Boulton Watt & Co. (Soho). 12 Oct. 1846.

  Docketed "Acknowledge our order for 108 inch blowing cylinder. Ask for an addition to the price on account of risk. Will inform us when the third vacuum pump is finished."
- **4.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho Foundry). 10 Nov. 1846.

  Docketed "The 3<sup>rd</sup> 72 inch pump is finished and the 4<sup>th</sup> is on the boring rod. Copy to Soho Foundry 11 Nov."
- 5. Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho Foundry). 20 Nov. 1846.

  Docketed "Send sketch of 9 feet blowing cylinder as they propose to make it. Ask our approval of it. Want 21/- for it and the 80 inch pumps and 22/- for the piston rings."
- 6. Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 15 Dec. 1846.

  Docketed "The fourth 72 inch vacuum pump will be ready to be taken away on Thursday.

  Have received amended drawing of the 80 inch vacuum pumps are of the opinion they ought to have 20/- per ton extra for those and the 108 inch cylinder."
- 7. Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho Foundry). 12 Apr. 1847.

  Docketed "Acknowledge receipt of £246.8.0. Wish to draw upon us for amount of 80 inch blowing cylinder and 108 inch piston. Extract to Soho Foundry."
- **8.** Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho Foundry). 19 Apr. 1847.

  Docketed "The 80 inch vacuum pump is finished and may be sent for. The 108 inch piston will be finished in a day or two. The 2<sup>nd</sup> 80 inch pump is on the bar."

- 9. Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho Foundry). 21 May 1847.

  Docketed "Ask for payment of £271.19.10, the amount charged for 80 inch pumps and 108 inch piston."
- **10.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. [Soho]. 7 Jul. 1847. Docketed "Are progressing with the 108 inch blowing apparatus. Have finished 4 80 inch vacuum pumps."
- 11. Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 13 Jul. 1847.

  Docketed "Can undertake 24 and 26 inch pipes, but wish to know the number required, to regulate their price for them. Answered."
- **12.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 15 Jul. 1847. Docketed "Their prices for the pipes required for Hamburg Water Works will be 12/- and 14/-per cwt and the time 5 weeks."
- 13. Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 11 Aug. 1847.

  Docketed "Wish us to send for the 3 80 inch vacuum pumps as they impede the putting together of the 108 inch blowing apparatus. Copy to Soho Foundry."
- **14.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 13 Aug. 1847. Docketed "Cannot fix a precise time for the completion of the 108 inch cylinder etc. Will use every exertion and give us notice when it may be inspected."
- **15.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 16 Aug. 1847. Docketed "The bottom for the 108 inch blowing cylinder has turned out a waste. They cannot therefore mention a specific time for the completion of it."
- **16.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 22 Sep. 1847. Docketed "Will have the 108 inch blowing cylinder etc. finished by the 30<sup>th</sup> instant. The 6<sup>th</sup> 80 inch pump will be cast tomorrow."
- 17. Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 6 Oct. 1847. Docketed "The 108 inch blowing apparatus is completed and wish someone to inspect it previous to its being taken to pieces for delivery."
- **18.** Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 23 Oct. 1847.

  Docketed "Have sent to Soho Foundry the gland etc. for 108 inch blowing cylinder. Wait for our instructions about forwarding the cylinder. Answered."
- **19.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 1 Nov. 1847. Docketed "They cannot get the 108 inch blowing cylinder conveyed to Silverdale for 1/- per ton per mile."
- 20. Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 23 Nov. 1847.
  Docketed "Have completed the 80 inch vacuum pumps and solicit further orders."

- **21a.** Printed account sheet. Boulton Watt & Co. debtors to Jonah & George Davies. "Christmas" 1847.
  - Kept with (b) below.
  - **b.** Printed account sheet. Boulton Watt & Co. debtors to Jonah & George Davies. "Christmas" 1847.
    - Almost identical to (a) above.
- **22.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 17 Feb. 1848. Docketed "Ask if they may proceed with the 80 inch pistons. Would be glad to make the covers for us."
- 23. Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 28 Mar. 1848.

  Docketed "Will thank us to send for the last 80 inch vacuum pump on Thursday next. Ask if they may proceed with the 6 80 inch pistons declined."
- **24.** Account. J. & G. Davies' account with Boulton Watt & Co., Soho Foundry. 18 Apr. 1848. *In John Thomas' hand.*
- **25.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 15 May 1848. Docketed "Ask for payment of their account. Have not made any charge for the patterns which were intended to be used for the 80 inch pistons."
- **26.** Letter. John Thomas (Soho Foundry) to Gilbert Hamilton (Drawing Office, Soho). 26 May 1848. Docketed "Respecting J. & G. Davies' account."
- 27. Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 20 Jun. 1848.
  Docketed "Ask for payment of their account."
- **28.** Letter. J. & G. Davies per Jonah Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 3 Aug. 1848.

  Docketed "Ask for payment of their account."
- **29.** Account. J. & G. Davies' account with Boulton Watt & Co. Soho Foundry, 18 Aug. 1848. *Drawn up by John Thomas and sent to Henry Wollaston Blake at Soho*.
- **30.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 28 Aug. 1848. Docketed "Respecting their overcharge in rating the cylinders they have made for us at the rough weight instead of finished weights."
- **31.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 28 Nov. 1848. *Docketed "Proposals for the settlement of their account."*
- **32.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 23 Jan. 1849. Docketed "Reply to our letter of the 10<sup>th</sup> inst. respecting their claim upon the cylinders made for us."
- **33.** Letter. J. & G. Davies (Albion Foundry, Tipton) to Boulton Watt & Co. (Soho). 19 Dec. 1849. Docketed "Threaten us with law proceedings to obtain payment of their claim of £222.5.0."

## MS 3147/3/494 SPECIAL SUBJECTS & CORRESPONDENTS THE FALMOUTH WATER COMPANY, JAMAICA 1799—1805

#### INTRODUCTION

Letters and papers relating to the Falmouth Water Company, Jamaica, from 1799 to 1805. The Falmouth Water Company was formed in 1799 to improve water supply to Falmouth, Jamaica's second port, by drawing water from the nearby Martha Brae River. The Committee of Directors consisted of the Chairman James Lawson (not to be confused with the Boulton & Watt engine erector of the same name), James Galloway, Thomas Munro, William James Stevenson and J. L. Winn. Lawson made an initial enquiry about a Boulton & Watt "patent engine" in October 1799, but James Watt Junior replied on 15 March 1800 suggesting that Boulton & Watt's patent hydraulic ram, invented by Aimé Argand, would suit their purpose (see 3/95, Boulton Watt & Co. Letter Book 1800, folio 11 for a copy of this letter). The company duly ordered a ram and piping, and sent bills to the value of £2500. Their engineer Charles O'Connor visited Soho in Nov. 1800 to sort out the details. In 1800 an Act of the Jamaican Parliament was passed regulating and setting out the authority of the company. In May 1801 Lawson became President of the company, and William James Stevenson took over the chair. The Treasurer was Charles Campbell, the Secretary James Blair. The company was now concerned that they had had no letter or acknowledgement from Boulton Watt & Co.; it appears that the letter written from Soho on 15 Dec. 1800 did not reach Falmouth, or was never sent. The Company therefore appointed London merchants James Stewart and Robert Sheddon & Sons as attorneys, to find out what Boulton Watt & Co. had done and recover the money if necessary.

The problem appears to have been merely one of communication, and once correspondence was established between Boulton Watt & Co. and James Stewart, the company was reassured. In Dec. 1801 an erector called William Clarke was sent out with the apparatus. However Clarke proved incompetent and set the ram up where it lacked a fall of water to power it. Dismissing Clarke, the Company constructed a dam to provide a head of water, and by Sep. 1803 the ram was working, albeit with various parts prone to breakdown. It seems to have been the policy of the committee to send two or sometimes three copies of their letters, to ensure that communications did reach England. Therefore several letters in the bundle are duplicates.

For drawings of the ram see Portfolio 5/1109.

- 1a. Letter. James Lawson (Falmouth) to Matthew Boulton (Soho). 29 Oct. 1799. Enclosing (b) below. Situation of Falmouth with respect to water supply. Formation and financing of the water company. Is Boulton & Watt's apparatus applicable. Encloses details of the requirements and asks for an estimate. This might stimulate demand for their patent engine to be applied to sugar and rum manufacture.
  - **b.** Memorandum by James Lawson.

    Details of the pipes, land etc. and asking for various details of costs.
- 2. An Act to constitute certain persons therein described, A Corporation or Body Politic for supplying the Town of Falmouth, in the Parish of Trelawny, and the Inhabitants thereof, and the Shipping in the Harbour of the said Town, with good and wholesome water. 1800. 9 pages.

- 3. Letter. James Lawson (Falmouth) to Boulton & Watt [Soho]. 18 Jul. 1800. Formation of the company as a corporation. The committee is now responsible for correspondence with Boulton & Watt.
- **4.** Letter. James Lawson (Falmouth) to Boulton & Watt [Soho]. 19 Jul. 1800. *This letter is identical to the letter above and is marked "copy"*.
- 5. Letter. The Committee of Directors (Falmouth) to Boulton & Watt (Soho). 19 Jul. 1800. 2 sheets.

Ordering the hydraulic ram and any further advice and instructions. Will send a diagram showing the course of the river. Their chosen site for the ram. An erector must be sent out. Several estate owners are awaiting the outcome of this, as they hope to replace cattle- and windmills with rams. If necessary they can procure an act of the Jamaican legislature to secure Boulton Watt & Co.'s exclusive patent rights. Arrangements for shipping the materials and for payment.

**6.** Letter. The Committee of Directors (Falmouth) to Boulton & Watt [Soho]. 19 Jul. 1800. 2 sheets.

This letter is identical to the letter above, but in a different hand.

- 7. Letter. James Lawson [Falmouth] to Boulton & Watt (Soho). 1800. Introducing Charles O'Connor. Can Boulton & Watt give him any necessary particulars of the Falmouth order.
- **8.** Letter. James Lawson (Falmouth) to Boulton & Watt (Soho). 11 Oct. 1800. *Enclosing bills of exchange for £2500. Details of the bills.*
- 9a. Letter. James Lawson (Falmouth) to Boulton & Watt (Soho). 11 Oct. 1800. Enclosing (b) – (h) below. Docketed as 25 Nov.

  This letter is identical to the letter above. The docket notes that it enclosed "seconds of bills then sent".

**b-g.** 6 bills of exchange.

- **h.** Bill of shipping of 12 hogsheads of muscovado sugar.
- **10a.** Letter. John Mosley for Charlotte Matthews (London) to Boulton Watt & Co. [Soho]. 12 Dec. 1800

Enclosing (b) below.

Acknowledging receipt of a bill and honouring of a draft. Enclosing a protest by Samuel Muller that the house of Robert Sheddon & Sons has not accepted John Galloway's bill of exchange from Falmouth.

- **b.** Protest of bill. 11 Dec. 1800.
- **11a.** Transcript of letter. Boulton Watt & Co. (Soho) to The Committee of Directors (Falmouth). 15 Dec. 1800. 2 sheets.

*Kept with (b) below.* 

Have received communication from Charles O'Connor and the bills. Refusal of John Galloway's bill. Alterations to and details of the plans for the ram. Enclosing a cross-section showing heights. Distribution of the order for pipes to other foundries. Rise in the price of cast iron and therefore the charge to Falmouth. Problem of sending an erector. Do not anticipate rival producers of the ram, so do not require an act protecting their patent. In most situations a steam engine would be more suitable. Expect the steam engine will replace wind and cattle power, and have heard of previous attempts to introduce it in Jamaica.

- **b.** Sketch. Cross-section of heights and levels for the ram.
- **12.** Memorandum. Trial Estimate for charge of Ram & Pipes for Falmouth Water Works. Soho. 2 Feb. 1801.
- **13.** Memorandum. Statement of the Cost of the Ram & Pipes for Falmouth Water Works. Not dated (circa Feb. 1801).
- **14.** Letter. James Lawson (Falmouth) to Boulton Watt & Co. (Soho). 13 Feb. 1801. Surprised that they have had no acknowledgement from Boulton Watt & Co. of the receipt of the bills. The stockholders are getting impatient.
- **15.** Letter. James Lawson (Falmouth) to Boulton Watt & Co. (Soho). 12 Feb. 1801. *This letter is identical to the letter above but in a different hand and marked "copy".*
- 16a. Transcript of letter. William James Stevenson (Falmouth) to James Stewart, Robert, George and Robert Seddons (London). 15 May 1801.
  Kept with (b) below.
  Details of the Falmouth Company and their correspondence with Boulton Watt & Co. and payment of £2500. No word has been received from Boulton Watt & Co. acknowledging the bills or informing them of progress with the work. Giving Stewart and the Seddons power of attorney to recover the money if necessary details of their instructions.
  - **b.** Memorandum. Bills remitted by the Falmouth Company. Undated. *In James Pearson's hand*.
- 17. Letter. James Stewart (London) to Boulton Watt & Co. (Soho). 7 Aug. 1801. Has been appointed by the Falmouth Co. to ship their pipes – what progress has been made, and what money has been paid by the company.
- **18.** Letter. James Stewart (Powick, near Worcester) to Boulton Watt & Co. (Soho). 18 Aug. 1801. Has been empowered as attorney by the Falmouth Company to direct their business in England. Has been informed that the pipes have been forwarded to Bristol. Requests information on progress with the Falmouth work.
- 19. Memorandum. Statement of Sundry Particulars relative to the Falmouth Water Works. 21 Aug. 1801.In M. R. Boulton's hand.
- **20.** Letter. James Stewart (Cheltenham) to Boulton Watt & Co. (Soho). 5 Sep. 1801. *Has sent Boulton Watt & Co. a copy of his power of attorney from the Falmouth Company.*
- 21. Letter. James Stewart (Ibbotson's Hotel, London) to Boulton Watt & Co. (Soho). 31 Oct. 1801.
   Glad to hear Boulton Watt & Co. have found a man to go to Jamaica. Has a vessel sailing in three weeks. If any of Boulton Watt & Co. are coming to London, would like to meet them.
- **22.** Letter. James Stewart (56 Harley St., London) to Boulton Watt & Co. (Soho). 30 Nov. 1801. *Arrangements for paying the erector. Millwrights are in demand in Jamaica.*

**23a.** Memorandum. List of Materials for the Hydraulic Ram & Pipes of the Falmouth Water Works. Dec. 1801.

Enclosing (b) below.

Docketed "a copy of this list taken by William Clarke 2 Dec. 1801." Enclosed in this is a further memorandum on where the parts were made and the charges, as follows:

- **b.** Memorandum. "The Ram & Pipes for Falmouth Water Works are contracted for under two agreements & the articles belonging to each, ought to have been entered separately, as under..." Dec. 1801.
- **24.** Letter. Charles Campbell, Treasurer (Falmouth) to Boulton Watt & Co. [Soho]. 12 Oct. 1802. Sending three bills of exchange, total £675.12.1. Can Boulton Watt & Co. send a statement of the account.
- **25a.** Letter. Charles Campbell (Falmouth) to Boulton Watt & Co. (Soho). 12 Oct. 1802. *Enclosing (b) (d) below.*This letter is identical to the letter above and is docketed "duplicate with seconds of exchange".
  - **b-d.** 3 bills of exchange.
- **26.** Letter. Charles Campbell (Falmouth) to Boulton Watt & Co. (Soho). 16 Nov. 1802. *Annexing a third copy of his letter of 12 Oct. Enclosing a bill of exchange for £500.*
- 27a. Letter. Charles Campbell (Falmouth) to Boulton Watt & Co. (Soho). 16 Nov. 1802. Enclosing (b) below.

This letter is identical to the letter above, excepting the transcript of the letter of 12 Oct. It is docketed "Inclosing  $2^{nd}$  of exchange for £500."

- **b.** Bill of exchange.
- **28a.** Letter. James Lawson (Falmouth) to Boulton Watt & Co. (Soho). 4 Sep. 1803. 2 sheets. *Enclosing (b) below.*

Details of the erection of the hydraulic ram. Blunders of William Clarke – his choice of an inappropriate site. Failure of the ram to work. Clarke's poor character. Strong opposition to the ram. Construction of a dam to provide the ram with a suitable head of water – it is now working well. Details of the ram, pipes and reservoirs. Replacement of various parts of the ram. Can Boulton Watt & Co. send further instructions on how to run it.

- **b.** Cutting from the *Jamaica M[ail?]* describing the ram.
- **29a.** Letter. James Lawson, James Galloway and John Mitchell (Falmouth) to Boulton Watt & Co. (Soho). 26 Mar. 1804.

Enclosing (b) below.

Ordering new working gear. Can Boulton Watt & Co. send a statement of their account.

- **b.** Memorandum. List of the parts required.
- **30.** Letter. James Lawson (Falmouth) to Boulton Watt & Co. (Soho). 22 Jul. 1804. *Problems with operating and repairing the ram caused by William Clarke's re-siting of it.* Details of broken parts and repairs. Will send more details of the spare working gear they need if necessary. Details of Falmouth and its harbour.

- **31.** Letter. James Blair (Falmouth) to Boulton Watt & Co. (Soho). 2 Oct. 1804. *Ordering spare leathers for doors and ascending valves.*
- **32.** Letter. Charles Campbell (Falmouth) to Boulton Watt & Co. (Soho). 27 Aug. 1805. *Enclosing a bill of exchange for £109.18.8. The valve leathers have not arrived.*

### MS 3147/3/495 SPECIAL SUBJECTS & CORRESPONDENTS RICHARD FOTHERGILL, TREDEGAR AND SIRHOWY IRON WORKS 1801—1806

#### INTRODUCTION

Letters from Richard Fothergill, iron merchant, of South Wales, from 1801 to 1806. Fothergill, along with Samuel Homfray, had interests in the Sirhowy Iron Works near Abergevanny, and the Tredegar Iron Works. A 20 horse power engine was purchased for Sirhowy in 1799, and the letters refer to repairs being made to this engine.

However the letters are generally concerned with the engines for Tredegar, a blowing engine with a forty inch cylinder purchased in 1801, and a crank engine which was originally intended to power either a forge or a rolling mill. The firm originally ordered a 45 horse power engine, but changed their order to a 56 horse engine circa January 1803. The engine was not erected until 1806, as the firm initially refused to take it, threatening to erect a Trevithick engine instead. The engine lay at Gloucester until May 1805, then it was moved to Newport, but attempts to sell it came to nothing. Richard Fothergill wrote on 25 May 1805 saying that they proposed to put up the engine if a customer could not be found, and by Nov. the engine house was under construction.

For drawings of the engines see Portfolios 5/327b, 5/685, 5/698.

- Letter. Richard Fothergill for Samuel Homfray & Co. (Sirhowy) to Boulton & Watt (Soho). 30 May 1801.
   Docketed "Orders cast iron beam for Tredegar. Boilers to be 15 feet. Wishes our man to repair his engine."
- 2. Letter. Richard Fothergill for Samuel Homfray & Co. (Sirhowy) to Boulton & Watt (Soho). 5 Jul. 1802.

  Docketed "Request to have a man for the erection of Tredegar engine."
- 3. Letter. Richard Fothergill (Sirhowy) to Boulton & Watt (Soho). 1 Nov. 1802. Docketed "Ill health of Mr. Homfray who is gone to Bath. Perseveres in requesting that Brunton may finish the blowing apparatus. Expect to be at work in Jan. 1803. Brunton has repaired the Sirhowy engine."
- **4.** Letter. Richard Fothergill (Sirhowy) to Boulton & Watt (Soho). 27 Nov. 1802. *Docketed "Urging Brunton's stay to finish their blowing apparatus."*
- 5. Letter. Richard Fothergill for Samuel Homfray & Co. (Sirhowy) to Boulton Watt & Co. (Soho). 23 Apr. 1803.

  Docketed "R. Fothergill or Tredegar Co. Remittance in payment of the Tredegar engine. Will settle with the Penydarren Co. for the iron. Desire a copy of the account of it. Difficulties in the completion of their blowing apparatus. Satisfied with the performance of the engine."

**6.** Letter. Richard Fothergill for "Samuel Homfray Self & Co." (Tredegar) to Boulton Watt & Co. (Soho). 28 May 1803.

On the same sheet:

Sketch. Proposed plan of their boiler.

Transcript of letter. Richard Fothergill for Samuel Homfray & Co. [Tredegar] to Thomas Nevitt (—). Not dated.

Docketed "Respecting the carriage of Tredegar materials and proposed situation of boiler."

7. Letter. Richard Fothergill for Samuel Homfray & Co. (Sirhowy) to Boulton Watt & Co. (Soho). 31 Dec. 1803.

On the same sheet:

Letter. Richard Fothergill for The Sirhowy Co. (Sirhowy) to Boulton & Watt (Soho). 31 Dec. 1803.

Docketed "Remits £170.2.6. Good performance of the engine at Sirhowy. Complaints of Tredegar blowing engine. Renews the request that we would take back the rolling mill engine. Wishes for copy of the invoice of it and remarks upon the cost."

**8.** Letter. Richard Fothergill for Samuel Homfray & Co. (Sirhowy) to Boulton & Watt (Soho). 25 May 1805.

Docketed "Have removed the engine to Newport. Remit £1000. Propose to erect the engine in case they do not find a customer for it."

9. Memorandum. Extracts from Correspondence relative to Tredegar Engine. 24 Jul. 1802—28 May 1805. 2 sheets.

In James Watt Jr.'s hand.

**10.** Letter. Richard Fothergill for Samuel Homfray & Co. (Sirhowy) to Boulton & Watt (Soho). 13 Nov. 1805.

Docketed "Intend now erecting their forge engine and request to have a man sent for that purpose. Complain of our man being taken from their blast engine before it was finished."

**11.** Letter. Richard Fothergill for the Tredegar Iron Co. (Sirhowy) to Boulton & Watt (Soho). 6 Apr. 1806.

Docketed "Is ready for an engine erector and wishes one to be sent without delay."

**12.** Letter. Richard Fothergill (Tredegar Works) to Boulton Watt & Co. (Soho). 28 Apr. 1806. *Docketed "Wants a man to erect their new engine."*