## INDUSTRIAL REVOLUTION: A DOCUMENTARY HISTORY: SERIES ONE, Part 15

INDUSTRIAL REVOLUTION: A DOCUMENTARY HISTORY Series One: The Boulton & Watt Archive and the Matthew Boulton Papers from Birmingham Central Library

Part 15: Boulton & Watt Correspondence and Papers

## Contents listing

PUBLISHER'S NOTE
CONTENTS OF REELS
DETAILED LISTING

#### Publisher's Note

Part 15 of this microfilm project continues our coverage of the full run of correspondence and papers in the Boulton and Watt Archive. These materials have recently been re-catalogued by the Archives of Soho Project, a major initiative funded by the Heritage Lottery Fund, Birmingham City Council and the Birmingham Assay Office Charitable Trust, to achieve a proper arrangement and listing of all the letters and papers. This work was carried out by senior project archivists Adam C Green and Tim Proctor, and project archivist Fiona Tait. It has made these important documents much more accessible to researchers. All the relevant listings compiled by the Archives of Soho Project are included in this microfilm project.

Part 15 starts with a strong series of correspondence and papers devoted to Special Subjects and important correspondents, for instance:

- Aimé Argand (Swiss physicist and chemist, responsible for improvements to the oil lamp, leading to the creation of the first scientifically constructed oil burner, known as the Argand lamp. The letters discuss these crucial advances in lighting and other inventions such as the hydraulic ram).
- Richard Arkwright (Shrewd businessman and owner of numerous textile factories which became very profitable. He took out a patent for a new Carding Machine in 1775 and built factories in Lancashire, Staffordshire and Scotland, which used the Boulton and Watt steam engine).
- Birmingham Water Works (Letters cover 1829-1830).
- The Bombay Mint (Four firms were involved in the refurbishment and refitting of the Bombay Mint. Most of the responsibility for constructing machinery and selecting personnel rested on the shoulders of Matthew Robinson Boulton. Bombay was of secondary importance to Calcutta, but in recycling machinery shipped out from Soho, the East India Company hoped to save considerable money. James Watt Jr was also very involved in the resumption of negotiations about the Indian mints in the 1820s. The Bombay Mint was ready to commence coining by the autumn of 1829).
- The Calcutta Mint (The proposal sent by Boulton, Watt & Company to Joseph Thompson at East India House in London, at the end of January 1821, offered to construct steam engines with an aggregate power of 138 horses, 12 coining and 18 cutting out presses, 9 milling and 6 shaking machines, a die multiplying press and all the requisite drawings and spare parts for a modern mint. The new mint was finally completed by August 1830. Its activities and production expanded quickly in the 1830s. William Forbes worked under a Master of the Mint, Robert Saunders, who had been given that post in April 1826, long before there was any coinage to superintend. Forbes became the Master of the Mint in January 1836).
- The Carron Company (Founded in 1759, the company began producing iron in 1760. The papers concerning water reproduced here date from 1776. Under the leadership of Charles Gascoigne the firm became responsible for supplying guns and carronades to the Navy).
- Robert Fulton (American scientist and pioneer of steam navigation).
- J D H van Liender (Secretary of the Batavian Society of Rotterdam).
- Minera Mine (Accounts, letters and papers document the history of the firm's relations with the mine from 1794 to 1813).
- The Royal Mint (Matthew Boulton and John Rennie submitted a scheme for a new Mint to the Board of Trade, which was agreed in July 1805. The new factory on Tower Hill was completed in 1811. The services of Soho were needed to make repairs after a fire caused severe damage on 31 October 1815. These letters cover discussions between Matthew Robinson Boulton, James Lawson, John and George Rennie. In April 1818, following the death of James Lawson, George Rennie was appointed to replace him as supervisor of the machinery at the Royal Mint. Matthew Robinson Boulton and James Watt Jr gave the young engineer their whole-hearted support).
- St Katherine's Dock (Letters and papers for 1826-1829. Drawings for two Boulton & Watt engines dating from 1827 can be found in Portfolio 661 see Engineering Drawings in Part 11 of this microfilm project).
- Thomas Telford (Engineer responsible for the construction of roads, canals, bridges and harbours, in 1818 he became the first president of the Institute of Civil Engineers).
- Josiah Wedgwood (Famous potter, he opened his new pottery and model village at Etruria in 1769. He was Chairman of the Chamber of Manufacturers of Great Britain and a close friend of Matthew Boulton).
- John Wilkinson (Ironmaster at Bersham, Broseley and Bradley. After numerous experiments, he finally succeeded in substituting coal for coke, and decided to join forces with his father at his foundry at Bersham. There they made cannon in the traditional fashion. This involved casting a one-piece cannon with a hole up the middle. Since the hole was cast, it often introduced imperfections into the cannon, imperfections that could have catastrophic consequences for those using it. He took the factory over from his father in 1761-1762, and around the same time established an ironworks near Ironbridge, one of the first to have a Boulton & Watt steam engine.

His most important contribution was the invention of a cannon-boring machine in 1774-1775, which was far safer and more accurate than any other in use at that time. He immediately adapted the invention for use in making cylinders for Boulton & Watt's engines, and went into partnership with them. For some twenty years they enjoyed a near-monopoly, with Boulton & Watt insisting that customers bought parts from the Wilkinson foundry. However, this profitable relationship ended when Wilkinson's younger brother, William, returned from Europe in the late 1780s. The two men fell out and William supplied Boulton & Watt with the details of pirate engines built by his brother on the side. They sued, and established the Soho works in Stoke-on-Trent to gain some independent production. Details of this dispute are covered in the letters included here.

In 1779 Wilkinson reappeared as a major shareholder in the Ironbridge, encouraging the other shareholders to make the

## INDUSTRIAL REVOLUTION: A DOCUMENTARY HISTORY: SERIES ONE, Part 15

bridge entirely from iron. In 1787 he launched the first iron barge and two years later he patented a method to make spiral grooves in cannons that would project the ball further and straighter. His obsession with iron reached its peak in the late 1790s, when he kept iron coffins at his various residences and paid to have iron windows, a pulpit and other fittings installed into a Methodist chapel in Bradley).

• William Wilkinson (Iron master and close friend of Matthew Robinson Boulton and James Watt junior. Brother of John Wilkinson, the two men were in constant conflict. Despite this, the Wilkinson industrial empire was far reaching and encompassed iron, lead, copper and brass manufacturing, mining, ships, canals, road building, cannon production, banking and agriculture).

#### Further material covers:

- Letters from schemes concerning new inventions and improvements to the Steam Engine, 1801-1829
- The final chapters in the history of the firm of Boulton & Watt, 1865-1894
- Schemes, plans, calculations, descriptions of new machines, 1769-1790
- Details of experiments on the first engine at Soho, 1773-1774, and on the Forge Engine at Soho Manufactory in 1783
- Memoranda by William Murdoch on Lord Lowther's Colleries at Whitehaven
- Steamboat Memoranda, including plans and sketches, newspaper articles and other papers, with special features on some of the more important vessels such as the Caledonia.

A paperback guide accompanies the microfilm project to provide full contents of reels information and detailed listings for Part 15.

<back

### Contents of Reels

#### **REEL 275**

#### MS 3147/3/485-538: Special Subjects and Correspondents

Typescript listings from Black Binder for MS 3147/3/485-538

3/485 Aimé Argand, the hydraulic ram, 1785-1787, 1797-1799 (23 items)

3/486 Richard Arkwright, 1777, 1785, 1789-1790 (17 items)

3/487 William Bedford, 1795-1799 (10 items)

3/488 Birmingham Water Works, 1829-1830 (28 items)

3/489 Bombay Mint, India, 1821-1824 (41 items)

#### **REEL 276**

3/490 Calcutta Mint, India, 1821-1823 (116 items)

3/491 The Carron Company - papers concerning water, 1776 (7 items)

3/492 Thomas Cobb / Cobb Pain & Judd, Banbury, 1796-1798 (15 items)

3/493 J & G Davies, Tipton, 1846-1848 (33 items)

3/494 The Falmouth Water Company, Jamaica, 1799-1805 (32 items)

3/495 Richard Fothergill, Tredegar and Sirhowy iron works, 1801-1806 (12 items)

#### **REEL 277**

3/496 Robert Fulton, C A Dale, 1794, 1803-1805, 1810, 1812, 1817 (20 items)

3/497 Gardner Manser & Co, 1789-1796 (34 items)

3/498 Gilbert Gilpin, Bersham, 1786-1794 (171 items)

#### **REEL 278**

3/499 Gregory Mine, 1779-1782, 1791-1793 (49 items)

3/500 Sir Nigel Gresley, 1770-1795, 1801 (30 items)
3/501 Thomas Handley, 1777-1788 (37 items)

3/502 Joseph Hateley, 1792 (8 items)

3/503 James Keir, letters to Matthew Boulton and James Watt, 1778-1780, 1786, 1791, 1796 (18 items)

3/504 James Keir, miscellaneous letters to James Watt, Jr, 1788-1815 (15 items)

### **REEL 279**

3/505 J D H van Liender, 1775-1794 (63 items)

3/506 J D H van Liender, 1797-1801 (47 items)

3/507 J D H van Liender, 1802-1809 (46 items)

3/508 Llanarmon and Plas Mostyn mines, 1802-1804 (18 items) 3/509 Jean Hyacinthe de Magellan, 1777-1785 (37 items)

#### **REEL 280**

3/510 Marly, French Patent, 1778-1787 (14 items)

3/511 Gilbert Meason and Wanlockhead Mine, 1778, 1781-1785 (16 items)

Minera Mine - Papers relative to the Settlement with Minera or Maesyfynnon Wen Adventurers, 1796 (8 items)

3/513 Minera Mine, Accounts, 1794-1799 (25 items)

3/514 Minera Mine, correspondence and papers, 1797-1799 (46 items)

3/515 Minera Mine, correspondence, 1801-1813 (10 items)

3/516 Perier and Motteux, 1777-1786 (38 items)

3/517 Chevalier Alvise Pisani, 1793-1794 (9 items)

3/518 Joseph Poli of Naples, 1786-1788 (11 items)

#### **REEL 281**

3/519 Jacques Ratton et Fils, 1793, 1797, 1799 (6 items)

3/520 Royal Mint (British Mint), 1805-1809 (21 items)

3/521 Royal Mint (British Mint), 1816, 1818-1820, 1826 (11 items)

3/522 St Katherine's Dock, 1826-1829 (47 items)

3/523 John Smeaton, miscellaneous letters, 1776-1784 (8 items)

3/524 Spanish Engines, 1788-1795 (127 items)

#### **REEL 282**

3/525 Thomas Telford, miscellaneous letters, 1795-1832 (50 items)

3/526 Titled and Private Gentlemen, 1777-1817 (78 items) 3/527 Matthew Wasbrough, 1778-1779 (7 items)

3/528 Josiah Wedgwood, 1781-1793 (24 items)

#### **REEL 283**

3/529 Josiah Wedgwood & Byerley, Josiah Wedgwood, Wedgwood & Sons, 1794-1828 (142 items) 3/530 West India Docks - transcripts and memoranda, 1825-1830 (7 items) 3/531 White Grit Mine and Shelvefield Gravels, 1783-1785 (35 items) 3/532 John Wilkinson, bills for engine parts, etc, 1771-1778 (36 items)

#### **REEL 284**

3/533 John Wilkinson, correspondence, 1775-1779 (92 items)
3/534 John Wilkinson, correspondence, 1780-1791 (110 items)
3/535
John Wilkinson, correspondence and papers concerning his dispute with Boulton & Watt, 1775-1796
(49 items)

#### **REEL 285**

3/536 John Wilkinson, correspondence, 1796-1797 (25 items) 3/537 William Wilkinson, 1786, 1788, 1794-1799 (84 items) 3/538 William Wilkinson, 1800-1807 (20 items)

Typescript listings from Black Binder for MS 3147/3/539-560

#### MS 3147/3/539-541: Letters from Schemes

(concerning New Inventions, Improvements to the Steam Engine etc), 1801-1829

3/539 Letters from Schemes, 1801-1810 (73 items)

#### **REEL 286**

3/540 Letters from Schemes, 1811-1820 (91 items) 3/541 Letters from Schemes, 1821-1829 (85 items)

#### **REEL 287**

#### MS 3147/3/542: Miscellaneous Letters about the history of the firm, 1865-1894

3/542 Miscellaneous letters, 1865, 1866, 1886-1894 (23 items)

MS 3147/3/543-544: Schemes, Plans & Calculations, Descriptions of new Machines

3/543 Schemes, Plans and Calculations, Descriptions of new Machines etc, 1774-1790 (25 items) 3/544 Schemes, Plans and Calculations, Descriptions of new Machines etc, 1769, 1781-1788 (29 items)

#### MS 3147/3/545-547: Experiments on Engines

3/545 Experiments on the first engine at Soho, James Watt, 1773-1774 (1 item) 3/546 Experiments on the Forge Engine at Soho Manufactory, John Buchanan, 1783 (23 items) 3/547 Experiments on Timber, Experiment with the Whirling Machine, not dated (1 item)

#### MS 3147/3/548-552: Other Memoranda and Papers

#### 3/548

"...Reports... ments Relative to... connected therewith" (Papers about Newcastle and Leeds Engines, Sugar Mills), 1790-1798 (10 items)

#### 3/549

Statements, Calculations & General Information relative to various Objects of Manufacturing & Commercial Speculation, 1785, 1801 (3 items)

Mr Murdock's Memorandums respecting Lord Lowther's Collieries at Whitehaven, 1802 (11 items) 3/551

Miscellaneous memoranda and papers, c1770-1799 (30 items)

#### 3/552

Miscellaneous memoranda and papers, c1800-1809 (14 items)

#### **REEL 288**

#### MS 3147/3/553-560: Steamboat Memoranda

3/553William Creighton's memoranda and sketches, 1815-1822 (39 items) 3/554 Memoranda about the Caledonia steam boat, 1818-1819 (7 items) 3/555 Miscellaneous memoranda, papers etc, 1816-1830 (55 items) 3/556 Miscellaneous memoranda, papers etc, 1832-1847 (20 items) 3/557 Steam boat newspaper extracts etc, 1821-1842 (22 items)

# INDUSTRIAL REVOLUTION: A DOCUMENTARY HISTORY: SERIES ONE, Part 15

3/558 Steam boat boilers, 1827-1836 (18 items) 3/559 Miscellaneous memoranda, papers etc, 1849-1863 (26 items) 3/560 Boat plans, c1814-1859 (15 items)

<back

# INDUSTRIAL REVOLUTION: A DOCUMENTARY HISTORY: SERIES ONE, Part 15

## Detailed Listing (Reels 275 through 288)

Please click on each Reel number to download a PDF detailed listing.

**REEL 275** 

**REEL 276** 

**REEL 277** 

**REEL 278** 

**REEL 279** 

REEL 280

REEL 281

REEL 282

REEL 283

REEL 284

REEL 285

**REEL 286** 

**REEL 287** 

**REEL 288** 

<back

# MS 3147/3/485 SPECIAL SUBJECTS & CORRESPONDENTS AIMÉ ARGAND, THE HYDRAULIC RAM 1785—1787: 1797—1799

#### INTRODUCTION

Letters from Aimé Argand from 1785 to 1787, and letters and papers concerning his hydraulic ram, from 1797 to 1799. Aimé Argand (1755—1803) was a Swiss physician. His first connection with Soho was over his lamp, which he patented in 1784 and which Matthew Boulton manufactured at Soho, although the patent was later declared invalid. In 1797 Argand and Montgolfier invented a "belier hydraulique", a hydraulic ram for raising water from the sea or rivers. Argand offered the invention to Boulton & Watt, and they took out a patent for it. A few rams were manufactured at Soho, most notably for the town of Falmouth on Jamaica (see 3/494, drawings in Portfolio 5/1109), while Matthew Boulton installed one in the grounds of Soho House in 1798 (drawings in Portfolio 5/1441).

The letters and papers in this bundle relate to the invention of the ram and the subsequent patent. However the bundle also contains letters from Argand dating from before the ram's invention. These letters discuss his lamp and other business matters, and may have been added to the bundle from the series of Incoming Correspondence.

- **1.** Bundle wrapper. *Marked "Letters & Papers relative to Argand's Ram."*
- 2. Letter. Aimé Argand (London) to James Watt (Harper's Hill). 15 Dec. 1785.
- 3. Letter. Aimé Argand (London) to Boulton & Watt (Birmingham). 26 Aug. 1786.
- **4.** Letter. Aimé Argand (Paris) to James Watt (Harper's Hill). 13 Sep. 1786.
- 5. Letter. Aimé Argand (Paris) to James Watt (Harper's Hill). 2 Oct. 1786.
- **6.** Letter. Aimé Argand (Paris) to Boulton & Watt (London). 22 Oct. 1786.
- 7. Letter. Aimé Argand (Paris) to Boulton & Watt (chez Monsieur Dessaint, Calais). 11 Jan. 1787.
- **8.** Letter. Aimé Argand (Paris) to James Watt (6 Green Lettice Lane). 13 Mar. 1787.
- 9. Letter (in French). Aimé Argand (Paris) to Boulton & Watt (Soho). 14 Oct. 1797. Docketed "Invention of the belier hydraulique by him and Montgolfier. His anxiety to procure a patent for it in this country. Offers it to us."
- 10. Letter. James Watt (Soho) to Ambrose Weston (38 Fenchurch St., London). 20 Nov. 1797. The letter includes a rough sketch of the ram.
  Summarised by Hazleton "Concerning the drafting out of a patent, for the hydraulic ram in conjunction with Argand."

11. Letter. J. Poole (Patent Office) to A. & J. Weston (Fenchurch St., London). 2 Dec. 1797. On the same sheet:

Transcript of affadavit of Robert Barclay of Southwark, brewer. 1790. Docketed "Barclay's petition." Concerning an invention for making punches by Francis Bailey of Philadelphia. Boulton and Watt were probably interested in this as an example of an overseas patent in Britain.

- 12. Letter. James Watt (Soho) to Ambrose Weston (38 Fenchurch St.). 4 Dec. 1797. Summarised by Hazleton "Concerning the new invention for raising water (the hydraulic ram I presume) and drawing up the patent, and whether it is desirable to have Argand's name in it. Remarks upon Trevithick and Murdock."
- 13. Letter. Boulton & Watt (Soho) to David Duval (London). 4 Dec. 1797. In James Watt's hand. Letter of introduction for Ambrose Weston as their solicitor.
- **14a-d.** 4 receipts for Matthew Boulton's expenses concerning the patent, as follows:
- **a.** Privy Seal Office. Dec. 1797. *Marked "Paid."*
- **b.** At the Solicitor General's Office etc. Dec. 1797. *Marked "Paid J. W. [J. Weston?]"*
- c. Signet Office. Dec. 1797. Marked "Paid."
- **d.** Patent Office, stamps etc. 30 Dec. 1797.
- Letter (in French). Aimé Argand (Paris) to Boulton & Watt (Soho). 29 Dec. 1797.
   Docketed as 28 Dec. The docket is on a separate wrapper.
   Docketed "Receipt of our letters of 3 and 24 Oct. Drawing and description of his model.
   Ideas of further improvements. Interview with James Watt Jr. [?] Intentions of coming to England when the road by Calais is opened."
- **16a-h.** Set of drawings of the hydraulic ram, as follows: This set of drawings was used for the preparation of the patent specification.
  - **a.** Pen & wash drawing. Fig. 1. Belier hydraulique simple, avec ses deux soupapes, vû en coupe.
- **b.** Pen & wash drawings. 2 drawings on the same sheet, as follows: Fig. 2. Plan d'un Belier hydraulique avec un Réservoir d'air.
  - Fig. 3. Coupe du Réservoir d'air.
  - c. Pen drawing. Fig. 4. Plan d'un Belier hydraulique double, pour le flux & reflux de la mer.
  - **d.** Pen & wash drawing. Fig. 5. Coupe d'un Belier hydraulique en syphon établi sur une colline où il prend l'eau pour la porter plus en haut. *With pencil alterations, and renumbered as Fig. 7.*
  - **e.** Note referring to improvements shown on the above drawing.
  - **f.** Pen & wash drawing. Fig. 6. Belier hydraulique circulaire, vû en coupe. *With pencil alterations, and renumbered as Fig. 9.*

- **g.** Pen & wash drawing. Fig. 7. Not titled. *Drawing of a ram in a river*.
- **h.** Memorandum (in French). Explanation of the above drawing. By Argand. With a sketch of valves and pipes in the ram on the same sheet.
- Draft specification. Draft of the patent specification for the hydraulic ram. Circa Dec. 1797? 20 sheets.
   In James Watt's hand. The draft has undergone considerable alteration and revision. Refers to drawings, possibly those above.
- **18.** Letter (in French). Aimé Argand (Paris) to James Watt [Soho]. 16 Jan. 1798. *Letter continued on 3 Feb. 1798.*
- 19a. Letter (in French). Aimé Argand (Versoix, near Geneva) to Boulton & Watt (Soho). 6 Jul. 1798. Enclosing (b) below.
  - Memorandum (in French) & drawing. Mémoire sur le Belier hydraulique à Veine contractée. 5 Jul. 1798.
     Signed by Argand for himself and Montgolfier, at Versoix.
- 20a. Letter. Aimé Argand (Geneva) to Boulton & Watt (Soho). 22 Feb. 1799. 2 sheets. The docket is on a separate wrapper. Enclosing (b) below.

  Docketed "Enclosing a letter from Messrs. Bordier Frères et Co. Copying machines. Wishes a couple to be sent on speculation. Has received no answer to his last letter upon the belier à veine contractée. State of his health. Description of an improvement upon Rumford's fireplaces. Wishes us to take out a patent for it. His fortune lost by the Revolution etc."
  - b. Letter. Bordier Frères (Geneva) to James Watt & Co. [Soho]. 22 Feb. 1799.On the same sheet:Letter. Aimé Argand [Geneva] to James Watt & Co. [Soho]. 22 Feb. 1779.
- 21a. Letter. A. & J. Weston (Fenchurch St., London) to Matthew Boulton (13 London St.). 17 Mar. 1799.
  Enclosing (b) below.
  - **b.** Account. Matthew Boulton for M. Argand's patent, debtor to A. & J. Weston. 1798. 2 sheets.
- 22a. Letter (in French). Aimé Argand (Geneva) to Boulton & Watt (Soho). 25 Dec. 1799. Letter sent to 13 London St., but directed inside to Boulton & Watt at Soho. Enclosing (b) below.

  Docketed "Recapitulation of the invention which he has transmitted to us. Importance of the pyro-belier. Renews his request for an advance of £1000. Wishes us to sell his scheme for improving chimnies. Improvement upon the water belier."
  - **b.** Sketches. Two sections of Argand's improved chimney, with notes on them.
- **23.** Paper model of a valve for the ram? *Made from paper and playing cards.*

# MS 3147/3/486 SPECIAL SUBJECTS & CORRESPONDENTS RICHARD ARKWRIGHT 1777: 1785: 1789—1790

#### INTRODUCTION

Letters from Richard Arkwright from 1777, 1785 and 1790. All the letters concern the engine that Boulton & Watt supplied for Arkwright's Nottingham mill except the first two. The first of these earlier letters is an enquiry about the steam engine made not long after Boulton & Watt had gone into business together. Most of the letters are written on Arkwright's behalf by his clerks.

This bundle is an artificial one. The letters were almost certainly removed from the various series of general incoming correspondence. The two early letters were placed on display in cases in the Watt Room at George Tangye's Cornwall Works, and they were probably on display in the Watt Room at Soho Foundry before that. It was decided to bring the scattered letters together into one bundle.

1. Letter. Richard Arkwright (Cromford) to Matthew Boulton (Soho). 21 Nov. 1777.

"Dear Sir.

When last I saw you at Soho you was pleas'd to say you would engage to throw up a certain quantity of water a given height with a fix'd  $q^{ty}$  of coles. The question below — shall be obliged to you to favour me with a line setting forth therein the expense of Erecting such an engine.

I am S<sup>r.</sup> your mo. H<sup>ble</sup> ser<sup>t.</sup>

Rich<sup>d.</sup> Arkwright

What is the expense of throwing up 6 ton of water pr. min. 29 ft high."

Boulton has used the sheet for calculations and a draft of his reply. Under Arkwright's letter he has written " $Q^y$ " if our Soho could not on this occasion be converted into Money. I'll come in Morn<sup>g.</sup> to you."

**2.** Letter. Richard Arkwright [Birmingham] to James Watt (Harper's Hill). "Sunday morning" [30 Jan. 1785].

Sorry he has not been able to wait on Watt. Mr. Watson will show him anything necessary at Bromsgrove. Arrangements to meet at Cromford.

3. Letter. Joseph Fletcher for Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho]. 20 Jun. 1789.

How quickly could Boulton & Watt erect an engine to work Sir Richard's mill in Nottingham.

**4.** Letter. Joseph Fletcher for Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho]. 26 Jun. 1789.

Sir Richard wants them to send a man over to discuss the proposed engine with Mr. Stretton the builder. Can they send someone as soon as possible.

5. Letter. Joseph Fletcher for Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho]. 23 Feb. 1790.

Ordering a 12 horse engine for the mill at Nottingham. Can the drawings be sent.

- 6. Letter. G. Truman for Sir Richard Arkwright (Nottingham) to Boulton & Watt (Birmingham). 12 Mar. 1790.

  Receipt of the drawings. Sir Richard wants Boulton & Watt to send all the cast parts and wants the engine to proceed "with all expedition possible." The millwright is Thomas Lowe.
- 7. Letter. G. Truman for Sir Richard Arkwright (Nottingham) to Boulton & Watt (Birmingham). 17 Mar. 1790.

  Thomas Lowe enquires the number of strokes the engine makes and when it will arrive. The height from the bottom of the well to the fly wheel shaft is 52 feet.
- Letter. Joseph Fletcher for Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho]. 5 Apr. 1790.Sir Richard agrees to the payment for the engine, but has never heard of an engine being more than eight or nine horses.
- 9. Letter. Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho]. 10 Apr. 1790. In Joseph Fletcher's hand.

  Boulton & Watt should proceed with the 12 horse engine as it is partly made, but it will be more powerful than required. Business has prevented him seeing Boulton and Watt.
- 10. Letter. G. Truman for Sir Richard Arkwright (Nottingham) to Boulton & Watt (Birmingham). 16 Apr. 1790.

  Arrival of various parts. Progress with the engine house and framing.
- 11. Letter. G. Truman for Sir Richard Arkwright (Nottingham) to Boulton & Watt (Birmingham). 29 May 1790.

  They are ready for the engine can it be sent as soon as possible.
- 12. Letter. G. Truman for Sir Richard Arkwright (Nottingham) to Boulton & Watt (Birmingham). 8 Jul. 1790.

  Can the rest of the engine and an engine erector be sent as soon as possible. Everything is ready.
- 13. Letter. Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho]. 8 Sep. 1790. In Joseph Fletcher's hand.

  Sir Richard has received the deeds. Wishes to know if Peels of Warrington pay the same for their engine.
- 14. Letter. William Gibson Jr. for Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho]. 16 Sep. 1790.

  Returning the deeds. The engine has stopped once or twice this may be the fault of the attendants. Sir Richard wants the account and may want an engine at Wirksworth.
- Letter. William Gibson for Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho].
   29 Oct. 1790.
   Has received the account for the Nottingham Mill engine. What discount do Boulton & Watt allow.
- 16. Letter. Sir Richard Arkwright (Cromford) to Boulton & Watt [Soho]. 23 Dec. 1790. The letter is unsigned, and in the hand of an amanuensis.

  Enclosing a bill of exchange. The engine at Nottingham has cost more than he expected—can Boulton & Watt make enquiries.

17. Letter. Richard Arkwright (Cromford) to James Watt [?] [Soho]. 30 Dec. 1790. In an amanuensis' hand, but signed by Arkwright.

The people who worked the Nottingham mill have been dismissed, including the son who worked the engine. He refused to train anyone elese, and may have done something to the engine. Can someone be sent to instruct a new engineman.

# MS 3147/3/487 SPECIAL SUBJECTS & CORRESPONDENTS WILLIAM BEDFORD 1795—1799

### INTRODUCTION

Letters from William Bedford, from 1795 to 1799. William Bedford was a Birmingham attorney who was regularly engaged by Boulton, Watt and the various firms at Soho. He was hired for work such as purchase of land, drawing up of apprentices' articles, etc. These letters include references to the purchase of the land for Soho Foundry in 1795 and 1796, and Boulton & Watt's dispute over the Harborne Poor Rate in 1799. The letters were found among the General Incoming Correspondence 1829—1843 and seem to have been kept as a small separate bundle.

See also 2/65, Miscellaneous Legal Papers, for a bill from Bedford for legal work from 1785 to 1786.

- 1. Letter. William Bedford (New St., Birmingham) to James Watt Jr. (Soho). 19 Aug. 1795.
- 2. Letter. William Bedford (Birmingham) to James Watt (Soho). 25 Aug. 1795.
- **3.** Letter. William Bedford (Birmingham) to James Watt (Soho). 6 Nov. 1795. *Passed to James Watt Jr.*
- **4.** Letter. William Bedford (Birmingham) to James Watt (Heathfield). 29 Feb. 1796. *Docketed "About our making and keeping the fence of Whateley's land."*
- **5.** Letter. William Bedford (New St., Birmingham) to M. R. Boulton (Soho). 31 Dec. 1798. *Docketed "Mr. Clarke in town tomorrow wishes to be called on about poor rates."*
- 6. Letter. William Bedford (Birmingham) to James Watt or Gregory Watt (Soho). 28 Mar. 1799.

  Docketed "Intention of serving Timmins with notice of appeal, but has not been able to meet with him."
- 7. Letter. William Bedford (Birmingham) to James Watt (Heathfield). 3 Jun. 1799. Docketed "On the mortgage of Thomas Wilson's property."
- **8.** Letter. William Bedford (Birmingham) to James Watt [?] [Heathfield]. 6 Jul. 1799. *Docketed "With the mortgage for Mr. Wilson and others."*
- 9. Letter. William Bedford (New St., Birmingham) to Boulton & Watt (Soho). 30 Nov. 1799. Docketed "Recommends indentures of apprenticeship for Mr. Hutton in preference to articles of agreement."
- **10.** Letter. William Bedford (New St., Birmingham) to Boulton & Watt [Soho]. 9 Dec. 1799. *Docketed "With indenture for Mr. Hutton and articles of agreement for his father."*

# MS 3147/3/488 SPECIAL SUBJECTS & CORRESPONDENTS BIRMINGHAM WATER WORKS 1829–1830

## INTRODUCTION

Letters and papers relating to the Birmingham Water Works, 1829 to 1830. The Water Works planned to employ steam power to pump water to the city. Boulton Watt & Co. were invited to provide an estimate, and the engineer William Chadwell Mylne prepared a report on the proposals drawn up by the Water Works' engineer Mr. Rofe. Many of the letters and memoranda are by William Creighton, the head of Boulton Watt & Co.'s Drawing Office.

- 1. Memorandum. Particulars of quantity of water required, and the height, from Mr. Rofe, Engineer. Calculation of size of Engines. 18 & 21 Sep. 1829.

  By William Creighton.
- 2a. Letter. Thomas Wright, Clerk (Birmingham) to James Watt Jr. (—). 11 Mar. 1830. Kept with (b) below. Docketed "The directors request a conference with Mr. Watt upon the subject of their steam engines."
  - b. Letter. Thomas Wright, Clerk (Birmingham) to James Watt Jr. (—). 12 Mar. 1830. Not summarised. [Messrs. Harding and Belles of the Water Works Co. will wait upon James Watt Jr. tomorrow.]
- 3a. Memorandum & Sketch. Sketches &c. for conference. 12 Mar. 1830.

  Kept with (b) below.

  By William Creighton and? Sketch showing levels of reservoirs, canal summit, aqueducts etc.
  - b. Calculations. Not dated [Mar. 1830?].

    In James Watt Jr.'s hand.

    Calculations for the Birmingham Water Works engine based on a previous engine for West Middlesex.
- 4. Memorandum. A Conference with a deputation of the Directors, respecting their Steam Engines. 13 Mar. 1830. 2 sheets. *James Watt Jr.'s meeting at Aston with Harding, Meredith and Belles*.
- 5. Memorandum. Birmingham Water Works pipes laying. 12 May 1830. *By William Creighton*.
- 6. Letter. William Chadwell Mylne (New River Head) to James Watt Jr. (Soho). 26 Mar. 1830.
  Docketed "Will be at Birmingham to inspect the water works on Monday. Mr. Rofe has brought the plans to him."

7. Letter. William Chadwell Mylne (New River Head) to James Watt Jr. (Soho). 28 Apr. 1830.

Docketed "After some delay has received the plans from Birmingham Water Works. Is going to give a report on it. New River bill to go before a committee on Monday."

**8.** Letter. William Chadwell Mylne (New River Head) to James Watt Jr. (Aston Hall). 1 May 1830.

On the same sheet:

Transcript of letter. William Chadwell Mylne (London) to the Company of Proprietors of the Birmingham Water Works. 1 May 1830.

Docketed "Sends a copy of report made to the Birmingham Water Works. NB the copy is on this paper."

**9a.** Letter. William Chadwell Mylne (New River Head) to James Watt Jr. (Soho). 8 May 1830. *Enclosing (b) and kept with (c) and (d) below.* 

Not summarised. [Sending his plan for dividing Birmingham into three 'delivering levels' for water supply. Thinks two 65 horse engines should do the work. What is Boulton Watt & Co.'s price for a 20 horse engine for a flour mill.]

- **b.** Map and table of Mylne's division of Birmingham into three districts.
- **c, d.** 2 sketch cross-sections of Birmingham from Bordesley to Hockley.

  These two sections are by William Creighton and were not sent by Mylne. They show the rivers Rea and Tame, St. Philip's Cathedral, proposed location of engine etc.
- Letter. William Chadwell Mylne (New River Head) to James Watt Jr. (Soho). 13 May 1830.
   Docketed "Does not see any objection to the 3 delivering levels. Mr. Rofe has called with letter from Mr. Stroud one main 22 inch resolved upon.".
- 11. Letter. William Chadwell Mylne (New River Head) to James Watt Jr. [?] "Saturday" [15 May 1830].

  Docketed "Rofe is to proceed to lay his 15 inch pipe. Proposes being here on Saturday Mr. John Kennedy approves of the engine at Broken Wharf. New River bill. Necessity for new engines proved."
- **12.** Memorandum. List of the Directors of the Birmingham Water Works. 17 May 1830.
- Memorandum. William Chadwell Mylne at Soho Birmingham Water Works. 25 May 1830.Notes and calculations on Mylne's proposals. Partly in William Creighton's hand.
- Memorandum. Birmingham Water Works. Memorandum of Engines communicated to Mr. Mylne at Soho. 22 May 1830.
  In James Watt Jr. 's hand.
- 15. Report. Copy of Report on the Birmingham Water Works. William Chadwell Mylne (London). 5 Jun. 1830. 6 sheets.

  Marked "Soho 19 Jul."

Letter. Thomas Wright, Clerk (Birmingham Water Works Office, Cherry St.) to Boulton Watt & Co. (Soho). 15 Jun. 1830.
Docketed as Birmingham Water Works. On the same sheet:
Note by William Creighton: "Information from Messrs. Wright & Rofe June 1830".
Docketed "Ask for estimates of 60 inch cylinders with 20 and 18 inch pumps."

Letter. William Creighton (Soho) to James Watt Jr. (London). 17 Jun. 1830. On the same sheet:
Copy of the estimate for 2 engines 40 horse – A. Prinzig, Bordeaux, 8 Mar. 1830.
Transcript of letter. Thomas Wright to Boulton Watt & Co. 15 Jun. 1830.
Docketed "Reduced estimate of boat engines for 2 40 horses. Birmingham Water Works apply for estimate."

- 18. Letter. William Creighton (Soho) to James Watt Jr. (London). 21 Jun. 1830.

  Docketed "Birmingham Water Works have applied for estimates in various quarters. One engine only to be erected at present. Doubts about number of air vessels and sluices.

  Answered 24 June."
- 19. Sketch. Birmingham Water Works Proposed plan of pumps &c. 28 Jun. 1830. *By William Creighton*.
- Transcript of letter. Boulton Watt & Co. (Soho) to the Directors of the Birmingham Water Works (—). 29 Jun. 1830.
  Not summarised. [The estimate cannot be fully completed in the absence of the principals. It is usual to supply a boiler. They cannot undertake the erection but usually send an experienced workman to direct and assist. If the water works assent on these two points the estimate can be prepared.]
  On the same sheet:
  Transcript of letter. Thomas Wright (Birmingham) to Boulton Watt & Co. 30 Jun. 1830.
  Not summarised [The directors assent to the two points in Boulton Watt & Co.'s letter.]
- 21. Letter. Thomas Wright, Clerk (Birmingham Water Works, Cherry St.) to Boulton Watt & Co. (—). 30 Jun. 1830.

  Docketed "Agree to terms for boilers and erection."
- 22. Letter. William Creighton (Soho) to James Watt Jr. (London). 1 Jul. 1830.

  Docketed "Estimate of strong steam boiler 30 horses for Mr. James Walker (Scott & Co.).

  Birmingham Water Works agree to boilers being included and to the erection being done as usual. Estimates to be delivered next Wednesday. About thickness of pumps and air vessels."
- **23.** Letter. William Creighton (Soho) to James Watt Jr. (London). 2 Jul. 1830. *Docketed "Estimate for Birmingham Water Works with one air vessel."*
- **24.** Letter. William Creighton (Soho) to James Watt Jr. (London). 4 Jul. 1830. *Docketed "More about the estimates of the Birmingham Water Works."*
- 25. Letter. William Creighton (Soho) to James Watt Jr. (London). 5 Jul. 1830.
  Mis-dated as 5 Jun.
  Docketed "More about the estimates of the Birmingham Water Works. Particulars of Leader & Co.'s shaft and fly wanted."

**26.** Letter. William Creighton (Soho) to James Watt Jr. (London). 11 Jul. 1830. *On the same sheet:* 

Transcript of letter. William Creighton for Boulton Watt & Co. to the Directors of the Birmingham Water Works. 6 Jul. 1830.

Transcript of letter. — (Soho) to Mr. Chalmers (—). 9 Jul.

Summary of memorandum re pipes for Aberdeen Water Works.

Docketed "Copy of letter to Birmingham Water Works with estimate. Ditto to Aberdeen Water Works about trying pipes and sending off materials. Jauberry & Co. had no estimate."

- 27. Memorandum. Rofe, Birmingham Water Works at Soho. Memorandums of what passed with him. 6 Jun. 1830.

  By William Creighton. Copy sent to Watt Jr. in London in Jul.
- **28.** Wrapper.

Marked "Mr. Creighton's letters to Mr. Watt in London June & July 1830 on the subject of the Birmingham Water Works."

# MS 3147/3/489 SPECIAL SUBJECTS & CORRESPONDENTS BOMBAY MINT 1821–1824

#### INTRODUCTION

Letters and papers about the Bombay Mint, its machinery and the steam engines supplied by Boulton Watt & Co., from 1821 to 1824. Boulton Watt & Co. also made some of the mint machinery at Soho under their name, but the rolling mill was supplied by the Rennies, and the melting and refining equipment by Maudslay Sons & Field. The mint was established by the East India Company at the same time as the Calcutta Mint. For drawings of the Bombay Mint see portfolios 5/708a—c.

- 1. Bundle label.

  Marked "Bombay Mint 1821, 1822, 1823, 1824. Mr. Watt's private papers."
- 2. Memorandum. Estimates for Bombay Mint. London, 25 Jan. 1821.
- **3.** Letter. M. R. Boulton (Soho) to James Watt Jr. (London). 9 Jan. 1821. *Docketed "Estimates of engines and machinery for the Bombay Mint."*
- **4.** Letter. M. R. Boulton (Muddiford) to James Watt Jr. (13 London St.). 26 Aug. 1821. Docketed "Estimate of a 40 horse engine with 3 iron boilers for the Bombay Mint. Agrees that the estimates should not be delivered until asked for. To apprise Mr. Robinson of the state of the affair with Maudslay. Wishes me to act for him in the affair of the third vessel for the London & Edinburgh Co."
- 5. Letter. M. R. Boulton (Muddiford) to James Watt Jr. (13 London St.). 28 Aug. 1821. Docketed "Extra cost of copper boilers for 40 horse engine, Bombay Mint. Upon Capt. Hawkins' interview with Mr. Robinson. Will repeat his invitation to Capt. Hawkins and Mr. Forbes to Tew. Answered 30 Aug."

6. Memorandum. Estimate for the Bombay Mint. 5 Jul. 1822. *In James Watt Jr.'s hand.* Docketed "General Estimate for the Bombay Mint."

7. Memorandum. Revised Estimate of Steam Engines, Coining & Cutting Out Machinery for the Bombay Mint. 5 Jul. 1822. 2 sheets.

In James Watt Jr. and M. R. Boulton's hands.

Docketed "Revised Estimate of steam engines and of the old Soho Machinery for the Bombay Mint."

- 8. Memorandum. Computation of the Articles of the Melting Houses & Refinery for the Bombay Mint, extracted from Maudslay's Estimate of the Calcutta Mint. Circa 5 Jul. 1822? *Not dated or docketed. In James Watt Jr.'s hand.*
- 9a. Memorandum. Estimate for the Bombay Mint. Soho, 6 Jul. 1822.

  In M. R. Boulton's hand. Kept with (b) below.

  Docketed "Revised General Estimate for the Bombay Mint. 7 Jul. 1822"
  - b. Memorandum. Estimate of a New Rolling Mill by the Messrs. Rennie of half the power of that for the Calcutta Mint. Circa 10 Jul. 1822?

    Watt Jr. sent the Rennies' estimate on 10 Jul. 1822 see his letter of this date.
- 10. Transcript of letter. Boulton Watt & Co. (Soho) to the Chairman, Deputy Chairman etc. of the East India Company [London]. 6 Jul. 1822.

  Docketed "With estimate of coining machinery, rolling mill etc. etc. for the Bombay Mint.

  Delivered to Capt. Hawkins the 10 Jul. See a later letter and estimate of 24 Dec. 1822 amounting to £40,016."
- 11. Memorandum. Estimate for the Bombay Mint. Soho, 6 Jul. 1822.

  Docketed "General Estimate and Specification of the machinery of the Bombay Mint, dated 6 Jul. 1822."
- Transcript of letter. Boulton Watt & Co. (Soho) to the Chairman etc. of the East India Company [London]. 6 Jul. 1822.

  In M. R. Boulton's hand. This is the same letter as the one above dated 6 Jul. Docketed "Accomanying the estimate for the Bombay Mint."
- Transcript of letter. James Watt Jr. (Norfolk Hotel) to George & John Rennie [London]. 8 Jul. 1822.
  Docketed "Appointing to call with Capt. Hawkins to confer about their estimate for the Bombay Mint."
- **14.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 9 Jul. 1822. *Docketed "Reasons for thinking a 24 horse power engine sufficient for the coining and cutting out machinery of the Bombay Mint. Extra cost of a 32 horse engine."*
- **15.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 9 Jul. 1822. Docketed "Farther explantions of the sufficiency of the power for the Bombay coining and cutting out engine."
- 16. Transcript of letter. George & John Rennie (Stamford St., London) to Boulton & Watt [Soho]. 9 Jul. 1822.

  Docketed "Containing estimate for the rolling mill, triturating mill etc. of the Bombay Mint."

17. Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 10 Jul. 1822. 3 sheets.

The docket is on a separate wrapper.

Docketed "With letter from Messrs. Rennies containing their estimate of the rolling mill etc. for the Bombay Mint. Also copies of the letter and general estimate to the Chairman of the East India Co."

**18.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 12 Jul. 1822. 2 sheets.

The docket is on a separate wrapper.

Docketed "Capt. Hawkins' interview with the Chairman and devlivery of our letter and estimate of the Bombay Mint. His conference with Mr. Money on the same subject."

**19.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 6 Aug. 1822. *On the same sheet:* 

Draft of letter. Boulton Watt & Co. (Soho) to Joseph Dart [London]. 6 Aug. 1822. Docketed "Enclosing letter to the Secretary of the East India Co. requesting an advance of money on account of the Calcutta Mint."

**20a.** Letter. M. R. Boulton (Soho) to James Watt Jr. [London]. 16 Aug. 1822. *Enclosing (b) below.* 

Docketed "Enclosing copy of two letters from the East India Company relative to the appointment of Mr. Ross as deputy to Mr. Forbes. Wishes Mr. Forbes' and my opinion upon them. Intends being at Tew on Monday."

b. Transcripts. Transcripts of two letters, as follows:

Peter Auber (Fast India House, London) to "Poulton Wett &

Peter Auber (East India House, London) to "Boulton Watt & Co. and Messrs. Rennie". 27 Jun. 1822.

Joseph Dart (East India House, London) to Boulton Watt & Co. 15 Aug. 1822.

- **21.** Letters (press copies). Press copies of two letters, as below. 2 sheets.
  - (i) James Watt Jr. (London) to M. R. Boulton [Great Tew]. 16 Aug. 1822. 3 sheets.
  - (ii) James Watt Jr. (London) to M. R. Boulton (Great Tew). 17 Aug. 1822. 4 sheets. *The docket is on a separate wrapper*.

Docketed "Capt. Hawkins and Mr. Forbes – conferences with the Chairman etc. at the India House. Thomson at work again with Maudslay's estimates of the Bombay Mint. The Deputy Chairman averse to having the old Soho machinery. Forbes' appointments not settled. Receipt of his letter with copies of those from the India House relative to Mr. Ross. Conferences with Forbes and Mr. Robinson upon that subject. The Chairman and Deputy to visit Soho with Mr. Canning. Arrival of the James Watt at Leith with the Royal Squadron."

Letter. William N. Forbes (27 Stamford St., London) to James Watt Jr. (Norfolk Hotel, London). 28 Aug. 1822.

Docketed "Sends Mr. Rennie's comparative estimate. Cannot find ours. Conference with Mr. Ross."

**23.** Letter. Capt. John Hawkins [London] to James Watt Jr. [London]. "Sunday" [17 Nov. 1822].

Docketed "About to proceed to Soho with farther estimates from Maudslay etc. of the Bombay Mint."

**24.** Transcript of letter. Peter Auber (East India House, London) to Boulton Watt & Co. [Soho]. 2 Dec. 1822.

Docketed "Capt. Hawkins' plan of the Bombay Mint is thought too extensive. Sends another plan of a mint on a smaller scale for our consideration. Wish us to send a revised estimate of the total machinery, the engines having copper boilers. Iron flooring to be used in the melting houses. The whole to be undertaken by us and executed under our responsibility. To be ready for delivery by the end Dec. 1823."

**25.** Transcript of letter. Boulton Watt & Co. (Soho) to Peter Auber [East India House, London]. 12 Dec. 1822.

Docketed "Opinion of the plan for the Bombay Mint sent from the India House, compared with that of Capt. Hawkins. Expect to be able to submit a revised estimate ina few days. Are willing to undertake the whole and to be responsible for it as in the case of the Calcutta Mint. Doubt our being able to complete the whole in less than 14 months."

Memorandum. Explanation in regard to the Estimate, to be obtained from Messrs. Rennie, to meet the observations which may be addressed to BW&Co. upon the comparative sum of it and the Moiety of that of the Calcutta Mint Estimate. 28 Feb. 1823.

In James Watt Jr.'s hand. On the same sheet:

Remarks upon the Specification of Rolling Mill machinery etc. to be furnished by Messrs.

Remarks upon the Specification of Rolling Mill machinery etc. to be furnished by Messrs Rennie.

Docketed "Mr. Boulton's remarks upon Messrs. Rennie's specification and estimate for the Bombay Mint."

- 27. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 12 Mar. 1823.

  Docketed "Cannot get a supply of copper. The rise supposed £20 per ton. Letter from Thompson at the India House enquiring if the packages were ready for inspection. Drawings of the dredging machine sent off."
- 28. Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Soho]. 17 Mar. 1823. Docketed "Have received and forwarded per coach George Rennie's revised estimate and specification of the Bombay Mint with explanation of estimate. Have also his revised estimate of Calcutta dredging machinery and propose delivering estimate of the whole to the East India Co. Am waiting for another account for the Portsmouth & Arundel Canal Company. New River Co. have not yet decided about the construction of their 66 inch engine. Fly wheel at Southwark Water Works casing with wood. Remarks on another now fitting at Foundry. Nothing more from Comptroller Admiralty satisfied with Perkins' scheme etc."
- Transcript of memorandum. Explanation required by Mr. Boulton from the Messrs. Rennie to meet the observations which may be addressed to Messrs. Boulton & Watt upon the comparative sums of it and of the Calcutta Mint estimate. 17 Mar. 1823.

  In James Watt Jr.'s hand.

  Docketed "Copy of George & John Rennie's explanation of their estimate of the Bombay Mint rolling mill etc. etc."
- **30.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 18 Mar. 1823. Docketed "Capt. Boulderson's visit to inspect the Calcutta Mint. Thompson's proceedings at the India House. Haden's illness and incapacity. Projected robbery of the premises at Soho."

- 21. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 2 Sep. 1823.
  On the same sheet:
  Transcript of letter. George Rennie (Holland St., London) to M. R. Boulton. 30 Aug. 1823.
  Transcript of letter. Boulton Watt & Co. (Soho) to George Rennie. 2 Sep. 1823.
  Docketed "Copy of correspondence with the Messrs. Rennie, who wish to turn over the execution of the annealing furnaces and tools for the Bombay Mint to Maudslay."
- **32.** Letter. M. R. Boulton (Worthing) to James Watt Jr. (Aston Hall). 23 Oct. 1823. Docketed "Upon the reply to be given to Mr. Thompson respecting the men to go with the Bombay Mint. Thinks two men may not be sufficient for the rolling mill. Going to London to get the order for the coinage expedited. Proposes seeing Mr. Barrow on the subject of the Rennies' memoir of their father. Mrs. Boulton better for sea bathing."
- 33. Memorandum. Bombay Mint List & Designation of workmen. 27 Oct. 1823. Docketed "List of workmen for the Bombay Mint with designation, wages and advances of cash."
- 34. Letter. Gilbert Hamilton (Soho) to James Watt Jr. [Aston Hall]. 13 Mar. 1824. Docketed "Encloses a letter from Capt. Hawkins stating that he has recommended to the East India Co. that one of the enginemen to the Bombay Mint should be instructed in the working of engines."
- 35. Memorandum. Charges for the Bombay Mint. Soho, 23 Mar. 1824.

  Details the amounts due to George & John Rennie, Henry Maudslay & Co., S. Walker & Co., M. R. Boulton, and Boulton Watt & Co.

  Docketed "Memorandum of charge to the India Company. Ditto of division of the amount. Ditto of cost of the steam engines from the entries in BW&Co.'s books for the year 1824."
- **36.** Letter. M. R. Boulton (Great Tew) to James Watt Jr. (13 London St.). 23 May 1824. Docketed "Messrs. Walker & Co. apply for a payment of a £1000. Wishes Teasdale & Symes to be consulted about payments to Rennies, Maudslay etc."
- 24 May 1824. Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Great Tew). 24 May 1824. 2 sheets.
  The docket is on a separate wrapper.
  Docketed "Acquainting him that I have received payment of the money for the Bombay Mint."
- 38. Letter. John Mosley (London) to James Watt Jr. [Soho]. 3 Jul. 1824. Docketed "Mr. Boulton has had some interviews with the Chairman of the India House about the sending off the Bombay Mint."
- 39. Letter. John Robinson (Soho) to James Watt (Aston Hall). 6 Sep. 1824.

  Docketed "The workmen going to erect the Bombay Mint want a farther advance of money."
- Transcripts. Two transcripts on the same sheet, as follows:
  Memorandum. Capt. Boulderson. 10 Sep. 1824.
  Letter. Sir George Robinson (73 Pall Mall, London) to M. R. Boulton. 11 Sep. 1824.
  Docketed "Memorandum of demurrage of the Florentia on account of non-arrival of part of the goods of Bombay Mint. No accounts received lately of Mr. Forbes."

41. Letter. M. R. Boulton (Tew Park) to James Watt Jr. (Aston Hall). 22 Nov. 1824. Docketed "Has received copy of Mr. Dart's letter charging us with demurrage on the machinery of the Bombay Mint. Remarks on their proceedings and sketch of letter to them. Has heard nothing farther from Mr. Weston or Mr. Sharp."

# 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.

Docksted "First sketch of a specification of the articles proposed to be furnished by Boulton."

Docketed "First sketch of a specification of the articles proposed to be furnished by Boulton Watt & Co. for the Calcutta Mint."

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.

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."
- 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."* 

### MS 3147/3/496

### SPECIAL SUBJECTS & CORRESPONDENTS ROBERT FULTON, C. A. DALE

1794; 1803—1805; 1810; 1812; 1817

### INTRODUCTION

Letters from the American steam boat pioneer Robert Fulton, from 1794, 1803 to 1805, 1810 and 1812; also two letters from Charles Augustus Dale from 1817. Fulton ordered two engines from Boulton Watt & Co. The first was ordered in 1804 and powered a boat which carried passengers between New York and Albany on the Hudson River; the second one was ordered in 1810, but Fulton died before it was delivered to him. His will appointed his wife as his executrix. She re-married and in 1817 her new husband Charles Augustus Dale came to England and enquired about the engine and any outstanding accounts.

The first letter from 1794, enquiring about a 3 or 4 horse engine for a boat, appears to have been removed from John Southern's series of incoming letters from 1788 to 1798. It is not clear when it was added to the bundle.

For drawings of Fulton's engines and boats and copies of his patents see Portfolios 5/1244a—c.

- 1. Bundle wrapper.

  Marked "Robert Fulton. C. A. Dale."
- **2.** Letter. Robert Fulton (Bridgewater Arms, Manchester) to Boulton & Watt [Soho]. 4 Nov. 1794.
- **3.** Letter. Robert Fulton (50 Rue Vaugirard, Paris) to Boulton & Watt (Birmingham). 6 Aug. 1803.
- 4. Letter. Robert Fulton (Paris) to Boulton & Watt (13 London St.). 1 Sep. 1803. Forwarded to Soho.

  Docketed "Had calculated upon additional time and expense for the construction of his engine. Wishes to know if there are any objections to his mode of placing the condenser. Desires the goods may be forwarded to New York. Requesting an answer and duplicate may be sent to Paris. Mr. Wilson to be answerable for the payment."
- Letter. Robert Fulton (50 Rue Vaugirard, Paris) to Boulton & Watt (13 London St.). 1 Sep. 1803.
  Copy of the above letter sent by Fulton on 8 Sep. Forwarded to Soho.
  Docketed "Copy of his former letter of the 1 Sep."
- 6. Letter. Robert Fulton (50 Rue Vaugirard, Paris) to Boulton Watt & Co. (13 London St.). 11 Sep. 1803.

  Forwarded to Soho.

  Docketed "Duplicate of his letter of 1 Sep. Answered by our duplicate of 24 Oct."
- 7. Letter. Robert Fulton (London) to Boulton Watt & Co. [London]. 13 Jul. 1804.

  Docketed "Encloses guarantee from Mr. Erving and from Messrs. Lees Satterthwaite & Co. Sends a sketch of alteration in some of the parts. Enquires about the effects of salt water. Wishes to have our ideas upon the boiler."

- 8. Letter. Robert Fulton (London) to Boulton Watt & Co. [Birmingham]. 20 Jul. 1804. Docketed "Steam pipe to be put on one side of the nozzle. Orders the air pump to be of brass. Conjectures that the deposition of salt will take place in the boiler, if salt water is used."
- 9. Letter. Robert Fulton (London) to Boulton Watt & Co. (Birmingham). 28 Jul. 1804.
  On the same sheet:
  Pen & wash drawings. Plan and section of Fulton's engine.
  Docketed "Approves of the plan sent with some alterations which are pointed out. Leaves Town for 6 weeks and wishes us to proceed with the execution of the materials."
- Letter. Robert Fulton (9 Bedford St., Bedford Square, London) to Boulton Watt & Co. (Birmingham). 19 Dec. 1804.
   Docketed "Requests information as to the state of his engine. Intention of coming down to see it in action. Asks if the copper boiler can be better made in London or at Soho."
- 11. Letter. Robert Fulton (9 Bedford St., Bedford Square, London) to Boulton Watt & Co. (Birmingham). 26 Dec. 1804.

  Docketed "Relinquishes the intention of inspecting the engine. Desires it to be forwarded to London and to have a drawing of it on a large scale. Also list of particulars."
- Letter. Robert Francis (9 Bedford St., Bedford Square, London) to John Woodward (13 London St.). 17 Feb. 1805.
   Docketed as Robert Fulton. Kept with (b) below.
   Docketed "Enquires about the forwarding of his engine."
  - **b.** Letter. Robert Samuel Skey [Soho Foundry] to James Lodge (Soho). 21 Feb. 1805. *R. Francis' goods have been forwarded.*
- 13. Letter. Robert Francis (London) to Boulton Watt & Co. (Birmingham). 23 Feb. 1805. Docketed as Robert Fulton. Docketed "Wishes Mr. Erving's guarantee to be returned."
- Transcripts. Transcripts of 3 letters on the same sheet, as follows:
  George W. Erving (London) to Boulton & Watt. 10 Jul. 1804.
  Lees Satterthwaite & Brassey [London] to Boulton & Watt. Not dated.
  Extract from Robert Fulton [London] to Boulton & Watt. 13 Jul. 1804.

  Titled "Copy of guarantee, the original of which was returned to Mr. Fulton 26 Feb. 1805."
- 15. Letter. Robert Fulton (New York) to Boulton & Watt (Birmingham). 15 Sep. 1810. Docketed "The engine made for him in 1804 applied to work a passage boat, and account of its performance. Orders another with a 26 inch cylinder, 4 foot stroke. Encloses bills on account."
- 16. Letter. Robert Fulton (New York) to Boulton & Watt (Birmingham). 4 Dec. 1810.

  Marked "Duplicate of a letter written Sept. 15<sup>th</sup>." Makes some alterations to that letter.

  Docketed "Remits seconds of bills. Alters the size of the cylinder to 28 inches diameter.

  Desires that the air pump and all its appurtenances may be of brass and copper. A second engine to be made, if progress has been made with the one before ordered."
- 17. Letter. Robert Fulton (New York) to Boulton & Watt (Birmingham). 10 Dec. 1810. *The address and docket are on a separate wrapper. On the same sheet:*Sketch. Plan of cylinder and air pump showing distance between them. *Docketed "Triplicate of his letter 15 Sep. 1810. With thirds of exchange for £575."*

- 18. Letter. Robert Fulton (New York) to Boulton & Watt (Birmingham). 4 Jan. 1812.

  Docketed "Has omitted writing in consequence of the non-intercourse. Valves of nozzles to be finished in the same way as the last. His patent for steam boats invaded. Wishes Mr. Watt to send a certificate of what is known to him relative to the invention of steam boats etc. etc."
- 19. Letter. Charles Augustus Dale (at Milne & Parry's, Temple, London) to Boulton Watt & Co. [London]. 10 Jul. 1817.

  Docketed "Mr. Fulton's executrix [Mrs. Dale, his wife] enquires about the engine ordered by him."
- **20.** Letter. Charles Augustus Dale [London] to James Watt Jr. [London]. 22 Jul. 1817. *Docketed "Will call for Mr. Fulton's executors' account at Soho."*

## MS 3147/3/497 SPECIAL SUBJECTS & CORRESPONDENTS GARDNER MANSER & Co. 1789—1796

### INTRODUCTION

Correspondence and papers relating to Gardner Manser & Co. and their account for their engine, from 1789 to 1796. Gardner Manser & Co. took over the King & Queen Iron Works at Rotherhithe (also called Redriff), formerly run by Folliott Scott & Co. The principal partners were Robert Gardner and William Manser, and a third partner, Robert Howard also occasionally corresponded for the firm. They continued to run Scott's old engine until they purchased a new one in 1790. The old engine was taken down in Apr. 1790. The firm fell into a dispute about payment for the engines, which was settled by Matthew Robinson Boulton in London in Apr. 1796.

The bundle was divided into two halves. The first consists of correspondence from 1789 to 1795, which was removed from the General Incoming Correspondence series of 1785 to 1795 and 1788 to 1798. The second consists of documents passed to Matthew Robinson Boulton in London for the settling of the account.

For drawings of the engines in question, see Portfolios 5/13, 5/55.

### Nos. 1-22. Correspondence, 1789—1795.

- 1. Bundle wrapper.

  Marked "Gardner Manser & Co. 1789—1796." This wrapper originally contained both halves of the bundle.
- **2.** Letter. Robert Howard (London) to Boulton & Watt (Soho). 14 Dec. 1789.
- 3. Letter. William Manser "for Robert Gardner, Self & Co." (Iron Works, Rotherhithe) to Boulton & Watt (Birmingham). 9 Jan. 1790.

  Docketed "Ordering 31 inch engine."
- 4. Letter. Robert Gardner "for Self & Co." (London) to Boulton & Watt (Birmingham). 10 Feb. 1790.

  Docketed "Names of partners and parish."

- 5. Letter. Robert Gardner "for Self, William Manser & Co." (London) to Boulton & Watt [Birmingham]. 20 Feb. 1790.

  Docketed "About agreement."
- Letter. William Manser (Iron Works, Redriff) to Boulton & Watt [Birmingham]. 18 Mar. 1790.
   Docketed "Ordering their engine materials to be stopped."
- 7. Letter. Robert Gardner "for Self & Co." (London) to Boulton & Watt (Birmingham). 2 Apr. 1790.
- **8.** Letter. Robert Gardner (London) to James Watt [Birmingham]. 4 May 1790.
- **9.** Letter. Robert Gardner (London) to James Watt (Birmingham). 12 May 1790. *Docketed "Boiler and furnaces."*
- **10.** Letter. Robert Gardner (Tower St., London) to James Watt [London]. 19 Jun. 1790. *Docketed "Offering engine beam."*
- Letter. Gardner Manser & Co. (Iron Works, Rotherhithe) to Boulton & Watt [Birmingham].
   Jul. 1790.
   Docketed "Sundries."
- **12.** Letter. William Manser "for Co. & Self" (Iron Works, Rotherhithe) to Boulton & Watt (Birmingham). 3 Feb. 1791.
- 13. Letter. William Manser (London) to Boulton & Watt [Birmingham]. 10 Mar. 1792.
- Letter. Robert Gardner "for Co. & Self" (London) to John Southern [?] [Birmingham]. 24 May 1792.Addressed to "Dear Sir" and docketed by Southern.
- Wrapper of letter. Gardner Manser & Co. [London] to Boulton & Watt (Birmingham). 28 May 1792.

  The actual letter is wanting.
- **16.** Letter. Robert Gardner "for Company & Self" (London) to Boulton & Watt [Birmingham]. 21 Jun. 1792.
- **17.** Letter. Robert Gardner (London) to Boulton & Watt [Birmingham]. 5 Oct. 1792. *Marked "Mr. B. in London."*
- **18.** Letter. Robert Gardner (London) to Boulton & Watt (Birmingham). 28 Feb. 1793. *Marked "Favoured by Mr. John Radford."*
- Letter. Boulton & Watt (Soho) to Gardner Manser & Co. (Rotherhithe). 31 Mar. 1795. On the same sheet:
  Account. Gardner Manser & Co. debtors to Boulton & Watt. 1795.
  Docketed "Left with Mr. Boulton by them at the settlement of accounts 21 Apr. 1796."
- 20. Letter. "For Co. & Self" (Rotherhithe) to Boulton & Watt [Soho]. May 1795. Sent to A. J. & G. Weston. On the same sheet:
  Account. Balance due to Boulton & Watt from Gardner Manser & Co.
  Docketed "Statement of the account."

- **21.** Letter. Robert Gardner (London) to Boulton & Watt (Birmingham). 7 Aug. 1795.
- 22. Memorandum. Working of the old engine, Sep. 1789—Apr. 1790, new engine Apr. 1791—Aug. 1793.

  Docketed "Papers left by Gardner Manser & Co., 21 Apr. 1796."

### Nos. 23-34. Papers concerning the Account, 1796.

**23.** Bundle wrapper.

Marked "Gardner Manser & Co. Letters, papers etc. The account settled by Mr. Boulton 21 Apr. 1796."

Enclosed in this wrapper were 14 documents and a letter from Watt Jr. to M. R. Boulton in London, sending them. These 14 documents were what he considered the "essential papers" for M. R. Boulton to close the account with Gardner Manser & Co. These 14 documents were numbered.

- 24. Letter. James Watt Jr. (Soho) to M. R. Boulton (London). 18 Apr. 1796.
- 25. Memorandum. Times of Working of the Steam Engines at Rotherhithe.

  Time of working of the old engine of Folliott Scott & Co. and of Gardner Manser's engine.

  [No. 1]
- **26.** Letter. William Manser "for Co. & Self" (Rotherhithe) to Boulton & Watt (Birmingham). 21 Mar. 1795. [No. 3]
- Transcripts. 3 transcripts letters on the same sheet, as follows:
  Account. Gardner Manser & Co. debtors to Boulton & Watt.
  Letter. Boulton & Watt (Soho) to Gardner Manser & Co. 16 Mar. 1795.

  [The account & letter form No. 2]
  Letter. Boulton & Watt (Soho) to Gardner Manser & Co. 16 Mar. 1795. [No. 4]
- 28. Transcripts. 4 transcripts on the same sheet, as follows: Account. Gardner Manser & Co. debtors to Boulton & Watt. Mar. 1795. Letter. Boulton & Watt (Soho) to Gardner Manser & Co. 31 Mar. 1795. [The account & letter form No. 5] Letter. Boulton & Watt (Soho) to Gardner Manser & Co. 14 Apr. 1795. [No. 6] Letter. Boulton & Watt (Soho) to Robert Gardner (London). 27 Apr. 1795. [No. 9]
- 29. Transcript of letter. Boulton & Watt (Soho) to Robert Gardner [London]. 12 Apr. 1795. [No. 7]
  This transcript has been written on the same sheet as the following:
  Letter. Erasmus Darwin (Derby) to James Watt [?] [Soho]. 13 Mar. 1795. Recommending a Dr. Scott of Edinburgh.
- 30. Letter. Robert Gardner (London) to Boulton & Watt (Birmingham). 24 Apr. 1795. [No. 8]
- Transcripts. 3 transcripts on the same sheet, as follows: [No. 10]
  Account. Balance due to Boulton & Watt from Gardner Manser & Co.
  Letter. William Manser "for Co. & Self" to Boulton & Watt. 5 May 1795.
  Letter. Robert Gardner to Boulton & Watt. May 1795.
  [All three form No. 10.]
- **32.** Letter. James Watt Jr. (Soho) to James Watt (6 Green Lettice Lane). 17 May 1795. [No. 11]

- **33.** Transcript of letter. Boulton & Watt (London) to Gardner Manser & Co. [London]. 16 Jun. 1790.
  - Docketed "Copy letter of concession to Messrs. Gardner & Co." [No. 12]
- **34.** Letter. Ambrose Weston (Fenchurch St., London) to Boulton & Watt [Soho]. 5 Jun. 1795. *Docketed "Gardner & Manser's payment of £368.18.8." [No. 13]*

[Document No. 14 sent by Watt Jr., James Pearson's statement of the account up to 6 Feb. 1796, is now missing.]

### MS 3147/3/498 SPECIAL SUBJECTS & CORRESPONDENTS GILBERT GILPIN 1786—1794

### INTRODUCTION

Letters from Gilbert Gilpin, from 1786 to 1794. Gilbert Gilpin was John Wilkinson's foreman at the Bersham works. He corresponded with Boulton & Watt about the manufacture and dispatch of engine parts that were made at Bersham. The bundle also contains letters written by two other clerks at Bersham, John Turner (letters from 1791 to 1794) and Cornelius Reynolds (letters in 1791). The majority of the letters are addressed to John Southern. Around August 1789 Southern began to docket the letters with name of the customer or the code of the engine whose parts were referred to. He also occasionally noted the date of his reply on the letters.

The bundle originally contained letters from 1788 to 1794. At some point the 1786 letters were added, having been removed from the General Incoming Correspondence series. The letters are dated as follows:

Nos. 1-8.1786

Nos. 9-28.1787

Nos. 29-40.1788

Nos. 41-67.1789

Nos. 68-82.1790

Nos. 83-125.1791

Nos. 126-149.1792

Nos. 150-162.1793

Nos. 163-171.1794

### 1786.

- 1. Letter. Gilbert Gilpin (Bersham) to James Watt (Birmingham). 16 Oct. 1786. Docketed "With Bell & Gosse and Albion Mill shafts invoices."
- **2.** Letter. Gilbert Gilpin (Bersham) to James Watt (Birmingham). 2 Nov. 1786. *Docketed "Crenver and other piston rods and brass."*
- 3. Letter. Gilbert Gilpin (Bersham) to James Watt (Birmingham). 4 Nov. 1786. On the same sheet:

Transcript of letter. W. Pike (Dublin) to Jos. Duke (—). 25 Oct. 1786. *Docketed "Shipping the brass working barrels for Poldice."* 

- **4.** Letter. Gilbert Gilpin (Bersham Iron Works) to John Southern [Birmingham]. 13 Nov. 1786.
- **5.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 15 Nov. 1786.
- **6.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 25 Nov. 1786.

On the same sheet:

Memorandum. Dimensions, progress etc. of various castings of cylinders, piston rings etc.

7. Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 9 Dec. 1786.

On the same sheet:

Memorandum. Dimensions of cylinders for Haig and BG<sup>s</sup>.

**8.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 21 Dec. 1786.

### 1787.

- **9.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 4 Jan. 1787.
- **10.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 7 Feb. 1787.

On the same sheet:

Transcript of letter. William Musgrove (Preston Pool) to Gilbert Gilpin. 5 Feb. 1787. Invoice of a 6 inch cylinder etc. for Messrs. Boulton & Watt.

- **11.** Letter. Gilbert Gilpin for John Wilkinson [Bersham] to John Southern [Birmingham]. 16 Feb. 1787.
- **12.** Letter. Gilbert Gilpin [Bersham] to John Southern [Birmingham]. 18 Feb. 1787.
- 13. Letter. Gilbert Gilpin for John Wilkinson [Bersham] to John Southern (at James Watt's, Birmingham). 28 Feb. 1787.

  Docketed "Answered 2 Mar."
- **14.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 12 Mar. 1787.
- **15.** Letter. Gilbert Gilpin for John Wilkinson [Bersham] to John Southern (at James Watt's, Birmingham). 23 Mar. 1787.

On the same sheet:

Memorandum. Dimensions of a cylinder for Wilkes.

**16.** Letter. Gilbert Gilpin (Bersham Iron Works) to John Southern (at James Watt's, Birmingham). 24 Apr. 1787.

On the same sheet:

Memorandum. Dimensions of cylinders for Calvert & Wall and Moorhouse.

**17.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 1 May 1787.

On the same sheet:

Transcript of letter. John Southern (Birmingham) to Gilbert Gilpin [Bersham]. 17 Feb. 1787.

- **18.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 8 May 1787.
- **19.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 10 May 1787.
- **20.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 12 May 1787.

On the same sheet:

List of articles ordered by Boulton & Watt for the Albion Mill.

**21.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 24 May 1787.

On the same sheet:

Dimensions of cylinder for Wheal Virgin.

- **22.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 27 May 1787.
- **23.** Letter. Gilbert Gilpin (Bersham) to John Southern (at James Watt's, Birmingham). 7 Aug. 1787.

On the same sheet:

Transcript of memorandum. Charles Hill – goods received from John Wilkinson for Gorton's of Cuckney.

- **24.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 14 Aug. 1787.
- **25.** Letter. Gilbert Gilpin [Bersham] to John Southern (at James Watt's, Birmingham). 25 Aug. 1787.
- **26.** Letter. Gilbert Gilpin (Bersham Iron Works) to John Southern [Birmingham]. 4 Sep. 1787. *Docketed "Shipping of Wheal Maid and Chacewater beam materials."*
- **27.** Letter. Gilbert Gilpin for John Wilkinson [Bersham] to John Southern [Birmingham]. 12 Nov. 1787.
- 28. Letter. Gilbert Gilpin [Bersham] to John Southern (Birmingham). 22 Nov. 1787.

1788.

- **29.** Letter. Gilbert Gilpin (Bersham) to John Southern (Birmingham). 11 Jan. 1788.
- **30.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 6 Feb. 1788.
- **31.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 28 Feb. 1788.

- 32. Letter. Gilbert Gilpin (Bersham) to John Southern (Birmingham). 7 Mar. 1788.
- **33.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 21 Mar. 1788.
- **34.** Letter. Gilbert Gilpin for John Wilkinson (Bersham Iron Works) to John Southern (Birmingham). 27 Mar. 1788.
- **35.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 27 Apr. 1788.
- 36. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 9 May 1788.
  Docketed "With Mr. Gyfford's invoice."
- 37. Letter. Gilbert Gilpin for John Wilkinson (Bersham Iron Works) to John Southern (Birmingham). 24 Jul. 1788.
- **38.** Letter. Gilbert Gilpin for John Wilkinson (Bersham Iron Works) to John Southern [Birmingham]. 13 Sep. 1788.
- **39.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 26 Jul. 1788.
- 40. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 11 Oct. 1788.
  John Rennie's address has been noted on the back. On the same sheet:
  Transcript of letter. John Cooke & Co. (Stratford, Essex) to John Wilkinson (Bersham). 9 Oct. 1788.

### 1789.

- **41.** Letter. Gilbert Gilpin for John Wilkinson [Bersham] to John Southern [Birmingham]. 24 Jan. 1789.
- **42.** Letter. Gilbert Gilpin for John Wilkinson [Bersham] to John Southern [Birmingham]. 28 Jan. 1789.
- **43.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 15 Feb. 1789.
- 44. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 28 Feb. 1789.

  On the same sheet:
  - Dimensions of a cylinder in stock at Bersham.
- **45.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 5 Mar. 1789.
- **46.** Letter. Gilbert Gilpin for John Wilkinson (Bersham Iron Works) to John Southern [Birmingham]. 10 Apr. 1789.
- 47. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 20 Apr. 1789.

48. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 4 Jun. 1789.

On the same sheet:

Invoice of a piston sent to Bradley Iron Works for the proprietors of the Bloomfield engine. 31 May 1789.

49. Letter. Gilbert Gilpin (Bersham) to John Southern [Birmingham]. 16 Jun. 1789. On the same sheet: List of gueries re. construction of engine BWM.

- **50.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 17 Jun. 1789.
- 51. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 19 Jun. 1789.
- **52.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 29 Jun. 1789.
- 53. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 2 Jul. 1789.
- 54. Letter. Gilbert Gilpin for John Wilkinson (Bersham Iron Works) to John Southern [Birmingham]. 17 Jul. 1789.
- 55. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 10 Aug. 1789.

On the same sheet:

Dimensions of a 45 inch cylinder in stock at Bersham.

Docketed "Weston. Whitbread."

**56.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 19 Aug. 1789. Docketed "Weston."

57. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 27 Aug. 1789.

On the same sheet:

Sketch. Boiler proposed for Mr. Weston.

Docketed "Weston."

Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 31 **58.** Aug. 1789.

Docketed "BWM. J. Weston."

59. Letter. Gilbert Gilpin for John Wilkinson (Bersham Iron Works) to John Southern [Birmingham]. 8 Sep. 1789. Docketed "Drinkwater. Dunkin & Stibbs, and BWM."

**60.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 10 Sep. 1789. Docketed "Dunkin & Stibbs."

61. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 24 Sep. 1789.

Docketed "Dunkin & Stibbs. BWM. Weston. Whitbread."

**62.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 16 Oct. 1789. Docketed "Weston."

**63.** Letter. Gilbert Gilpin for John Wilkinson [Bersham] to John Southern [Birmingham]. 12 Nov. 1789. Docketed "BWM."

64. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 5 Nov. 1789. Docketed "BWM, small engines and Weston."

Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 23 **65.** Nov. 1789. Docketed "Weston."

**66.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 9 Dec. 1789. Docketed "Weston."

67. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 18 Dec. 1789. Docketed "Dunkin. Whitbread. Couldery & Banister. Peel Ainsworth & Co."

1790.

Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 7 **68.** Jan. 1790. Docketed "Weston. Hawkesbury."

69. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 4 Feb. 1790. Docketed "Weston."

**70.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 8 Feb. 1790. Docketed "ABCD. ABCE. Paty."

71. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 23 Feb. 1790. Docketed "I.B. and Gardner & Co."

- 72. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 25 Feb. 1790.
- 73. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Roberts (Birmingham). 2 Mar. Docketed "Couldery. Baker & Co. Boulton."

74. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 14 May 1790.

Docketed "I.B. Gardner & Manser, and C. Gardiner."

75. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 16 Jun. 1790.

\*\*Docketed "ABCF."

76. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 1 Jul. 1790.

Docketed "Johnson & Gould."

- 77. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 9 Aug. 1790.
- **78.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 19 Aug. 1790.
- 79. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 18 Sep. 1790.

  \*\*Docketed "BWS."
- 80. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 27 Sep. 1790.

  Docketed "Johnson & Gould."
- **81.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham).4 Nov. 1790.

On the same sheet:

Invoice of BG engine, Rotterdam. Detailed list of parts supplied. *Docketed "BG invoice."* 

82. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 24 Dec. 1790.
Docketed "Butson. Ocker Hill."

### 1791.

83. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 16 Jan. 1791.

Docketed "Baker & Cooper. BWS. Butson."

**84.** Letter. John Turner for John Wilkinson (Bersham) to John Southern [Birmingham]. 25 Jan. 1791.

Docketed "BWS. IB."

**85.** Letter. John Turner for John Wilkinson (Bersham) to John Southern (Birmingham). 2 Feb. 1791.

Docketed as Gilbert Gilpin.

Docketed "BWS. Johnson & Gould."

**86.** Letter. John Turner for John Wilkinson (Bersham) to John Southern [Birmingham]. 12 Feb. 1791.

Docketed BWS. Baker & Co. Johnson & Gould."

87. Letter. John Turner for John Wilkinson (Bersham) to John Southern [Birmingham]. 15 Feb. 1791.

Docketed "Wheal Butson."

**88.** Letter. John Turner for John Wilkinson (Bersham) to John Southern (Birmingham). 22 Feb. 1791. *Docketed "Wheal Butson. BWS."* 

- **89.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 1 Mar. 1791.
- **90.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 5 Mar. 1791.
- **91.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 10 Mar. 1791.

On the same sheet:

Memorandum. State of Messrs. Boulton & Watt's orders at Bersham. *Docketed "State of engines."* 

- 92. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 6 Mar. 1791.
  Docketed "BWS. Ocker Hill."
- 93. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 14 Mar. 1791.
- 94. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 26 Mar. 1791.
  Docketed "ABCK. ABCL. ABCM. BWS."
- 95. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 31 Mar. 1791.
  Docketed "ABCK. ABCM."
- 96. Letter. Cornelius Reynolds for John Wilkinson (Broseley) to Boulton & Watt [Birmingham]. 6 Apr. 1791.

  Docketed "Thames & Severn."
- 97. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 7 Apr. 1791.
  Docketed "Ocker Hill."
- 98. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 12 Apr. 1791.
  Docketed "About Charles Gardiner's payment."
- 99. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 26 Apr. 1791.

On the same sheet:

Sketch. Boiler for BWS engine, showing how Hugh Jones proposes to cut it up to fit it on board ship.

- 100. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 29 Apr. 1791.
- 101. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 2 May 1791. Docketed "CG, CK, CM."
- 102. Letter. Cornelius Reynolds for John Wilkinson (Broseley) to John Southern [?] [Birmingham]. 10 May 1791.

  Docketed "Thames & Severn."
- 103. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 11 May 1791.
  Docketed "Thames & Severn, BWS, MDT, Bannatine, and ABCL."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 15
   May 1791.
   Docketed "ABCL. Dugald Bannatine."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 23 May 1791.Docketed "MDT. IB. Ocker Hill."
- 106. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 28 May 1791.
- **107.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 7 Jun. 1791.
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 20
   Jun. 1791.
   Docketed "Thames & Severn cylinder. Barrow Lees & Co."
- **109.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 23 Jun. 1791.
- 110. Letter. Cornelius Reynolds for John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 5 Jul. 1791.
  Docketed "Gilpin. C. Reynolds. Thames & Severn invoice."
- **111.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to William Forman [Birmingham]. 7 Jul. 1791.
- 112. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 21 Jul. 1791.
  Docketed "James Robinson cylinder top."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 4Aug. 1791.Docketed "ABCR. ABCT. MDT."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 8Aug. 1791.Docketed "For money."

- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 12Aug. 1791.Docketed "ABCN, O. P. R. T. MDT."
- 116. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 3 Sep. 1791.
  Docketed "MDT."
- 117. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 10 Sep. 1791.
- 118. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 17 Sep. 1791.
  Docketed "ABCH, I, MDT."
- 119. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 23 Sep. 1791.
  Docketed "ABCI."
- **120.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 5 Oct. 1791.
- 121. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 2Nov. 1791.Docketed "BWM. ABCZ."
- 122. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 23 Nov. 1791.
  Docketed "2 20 inch cylinders 5 feet stroke. Manor Mine. Cook's Kitchen. Royal Plate Glass Co. Atherton. Gorton & Thompson. Jesson & Co. Robinson. Peels. And 2 17½ inch cylinders."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham).Dec. 1791.Docketed "Barrow Lees. Fenton Park. ABDA. IB."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 7Dec. 1791.Docketed "A cylinder in stock. 32 inch diameter, 8 foot stroke."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 17Dec. 1791.Docketed "ABCU, V, X. ABDA, D."

### 1792.

- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 16
   Jan. 1792.
   Docketed "ABDD, DE, CW etc. Cutter holes."
- 127. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 25 Jan. 1792.

**128.** Letter. John Turner for John Wilkinson (Bersham) to John Southern (Birmingham). 3 Feb. 1792.

Docketed as Gilbert Gilpin.

Docketed "Curwen Esq. – invoice."

- **129.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 9 Feb. 1792.
- **130.** Letter. John Turner for John Wilkinson (Bersham) to John Southern (Birmingham). 20 Feb. 1792.

Docketed as Gilbert Gilpin.

Docketed "Fenton Park."

131. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 25 Feb. 1792.

Docketed "CM. Whitbread's wheels."

- 132. Letter. Gilbert Gilpin for John Wilkinson [Bersham] to John Southern [Birmingham]. 26 Mar. 1792.
  Docketed "Salvin. Douglas. Strutt."
- 133. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 26 Apr. 1792.
  Marked "Replied 26 Apr. J. S." Docketed "Sparrow. MDT. Douglas."
- 134. Letter. John Turner for John Wilkinson (Bersham) to John Southern (Birmingham). 2 Jun. 1792.
  Docketed "Invoices. 3 boilers: ABDC Simpsons, ABDF Salvin, ABDB Sedgewick & Co."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 13Jun. 1792.Docketed "Simpsons, Salvin, Sedgwick boilers. MDT."
- **136.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 19 Jun. 1792.

On the same sheet:

Transcript of letter. Gilbert Gilpin for John Wilkinson (Bersham) to Thomas Thorn & Co. (Liverpool). 18 Jun.

Docketed "About IB pipes mistake."

- 137. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 25 Jun. 1792.
  Docketed "Bad boilers."
- 138. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 18 Aug. 1792.
  Marked "Replied 22 Aug. J. S." Docketed "Sparrow. Douglas boiler."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 27 Aug. 1792.
   Marked "Replied to both 30 Aug. J. S." Docketed "CH boiler complete."

140. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 3 Sep. 1792.
Marked "Replied 6 Sep. J. S." Docketed "BWG."

141. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 19 Sep. 1792.
Marked "Replied 25 Sep." Docketed "BWG."

142. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 28 Sep. 1792.
Marked "Replied 6 Oct. J. S." Docketed "Douglas. BWG."

143. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 6 Oct. 1792.
Docketed "Douglas. Clegg."

Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 10
 Oct. 1792.
 Marked "Replied 12 Oct. J. S." Docketed "BWG."

Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 13Oct. 1792.Docketed "To beg book of directions."

Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Soho). 3 Nov. 1792.Docketed "Duck & Potts. BWG."

147. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 23 Nov. 1792.
Docketed "Sparrow piston rod."

148. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 5 Dec. 1792.

Marked "Replied 7<sup>th</sup> J. S."

**149.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 23 Dec. 1792.

1793.

Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 12Feb. 1793.Docketed "BWM. Duck & Potts. Replied 13 Feb."

Letter. John Turner for John Wilkinson (Bersham) to John Southern (Birmingham). 25Feb. 1793.Docketed as Gilbert Gilpin.

Docketed "Lancaster Canal."

152. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 12Mar. 1793.Docketed "Lancaster Canal. Drinkwater."

153. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 26 Mar. 1793.

Docketed "United Mines 2. DV. Prices – why altered."

**154.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 17 Apr. 1793.

Docketed "Brandram. DV."

**155.** Letter. John Turner for John Wilkinson (Bersham) to John Southern [Birmingham]. 26 Apr. 1793.

Docketed as Gilbert Gilpin.

Marked "Replied 30<sup>th</sup>." Docketed "Barrow Lees."

**156.** Letter. Gilbert Gilpin for John Wilkinson (Liverpool) to John Southern (Birmingham). 13 May 1793.

Docketed "BWM or G."

**157.** Letter. John Turner for John Wilkinson (Bersham) to John Southern [Birmingham]. 20 May 1793.

Docketed as Gilbert Gilpin.

Marked "Replied 25." Docketed "Thames & Severn."

**158.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 23 Jul. 1793.

Docketed "Barrow Lees. Small cylinder, though cast, a waster."

**159.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 26 Jul. 1793.

Docketed "Lancaster Canal goods sent off."

**160.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 27 Sep. 1793.

Docketed "Salvin's."

- 161. Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 28 Nov. 1793.
- **162.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 13 Dec. 1793.

Docketed "About canal engine 2<sup>nd</sup> edit."

1794.

**163.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 4 Jan. 1794.

Mis-dated by Gilpin as 24 Jan. Marked "Replied 7 Jan."

**164.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 14 Jan. 1794.

Docketed "Brandling's goods."

**165.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 18 Jan. 1794.

- Letter. John Turner for John Wilkinson (Bersham) to John Southern [Birmingham]. 12
   Feb. 1794.
   Docketed as Gilbert Gilpin.
   Docketed "Curwen. Replied 15 Feb."
- Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 6
   Mar. 1794.
   Mis-dated by Gilpin as 1793.
- **168.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern (Birmingham). 9 Jun. 1794.
- **169.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 9 Aug. 1794.
- **170.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 2 Oct. 1794.
- **171.** Letter. Gilbert Gilpin for John Wilkinson (Bersham) to John Southern [Birmingham]. 1 Nov. 1794.

## MS 3147/3/499 SPECIAL SUBJECTS & CORRESPONDENTS GREGORY MINE 1779—1782: 1791-1793

### INTRODUCTION

Letters and papers relating to Gregory and Yatestoop mines in Derbyshire and their engines, from 1779 to 1782 and from 1791 59 1793. Gregory mine was a lead mine. The proprietors included Joseph, later Sir Joseph Banks. The mine had an atmospheric engine, but the proprietors ordered a new Boulton & Watt engine in 1779. The recommendation to get a Boulton & Watt engine came from Mayson Wright of the Hull Water Works, who wrote to Logan Henderson on 16 Mar. 1779 saying he had recommended Boulton & Watt to a friend of his, Mr. Milnes, who was involved with a Derbyshire lead mine [3/384/72, General Incoming Correspondence 1775-1785]. The mine's engineer was Francis Thompson, who had erected several atmospheric engines, while another local engineer, Thomas Southern, father of John Southern, acted as an observer for Boulton & Watt. The engine appears to have been set going circa July 1781, and seems to have been a considerable success. The old atmospheric engine was altered in 1792.

Francis Thompson, and possibly some of the Gregory proprietors, were also involved in the nearby Yatestoop mine, which also had a atmospheric engine. Comparisons were made between the Gregory Boulton & Watt engine and the Yatestoop engine. In May 1780 it was suggested that the Yatestoop engine be altered to the Watt principal but this did not happen. According to Dickinson & Jenkins Thompson erected an atmospheric engine underground at Yatestoop, the proposal for which is mentioned in this bundle.

Further letters referring to Gregory and Yatestoop mines will be found in the General Incoming Correspondence 1775-1785 series [3/370—3/384] from: William Milnes and William Milnes Jr.; Francis Thompson; Anthony Tissington about Yatestoop; Humphrey Winchester about Yatestoop. There are also letters from Milnes in the General Incoming Correspondence 1785-1795 M [3/396]. See also Dickinson & Jenkins p312 for details of Francis Thompson's career as an engine builder, and for drawings of the Gregory engine see Portfolio 5/546.

The bundle is divided as follows:

Nos. 1-42.Correspondence and Memoranda. Nos. 43-49.Undated Calculations and Indenture.

### LIST

### Nos. 1-42. Correspondence and Memoranda.

- **1.** Letter. R. B. Hodgkinson (London) to James Watt [Birmingham]. 3 May 1779. *Requests details of the cost, construction etc. of an engine.*
- 2. Letter. Francis Thompson (Ashover) to James Watt [Birmingham]. 29 May 1779. Docketed as William Milnes.

  Asks James Watt to send his proposals for the engine to William Milnes of Ashover.

**3.** Letter. Thomas Southern (Wensley) to James Watt (Birmingham). 30 Jun. 1779. *On the same sheet:* 

Transcript of letter. Thomas Southern (Wensley) to Banks Hoskinson (London). 30 Jun. 1779.

Sending James Watt a copy of his letter to Mr. Hoskinson [i.e. R. B. Hodgkinson] describing the advantages and the costs of Boulton & Watt's engine. Report on the Yatestoop engine. His son [John Southern] would like to visit James Watt and view engines.

**4a.** Letter. R. B. Hodgkinson (Overton) to Boulton & Watt [Birmingham]. 23 Aug. 1779. *Kept with (b) below.* 

The proprietors of Gregory Mine are sending a messenger to concerning the engine.

- **b.** Letter. R. B. Hodgkinson (Overton) to Boulton & Watt [Birmingham]. 24 Aug. 1779. *The proprietors intended to send their engineers to talk to Boulton & Watt but have been delayed by events.*
- 5. Letter. R. B. Hodgkinson (Overton) to Boulton & Watt [Birmingham]. 29 Aug. 1779. The proprietors wish to erect an engine and have sent their engineer bearing this letter. They hope that Boulton & Watt and their principal workman can meet them. James Watt has used the back of this letter for calculations and a sketched section of an adit.
- 6. Memorandum. Account of Gregory Mine, Derbyshire. By Francis Thompson. Sep. 1779. Notes on the Gregory Engine left at Harper's Hill by Francis Thompson. James Watt has used this memorandum for calculations and notes.
- 7a. Memorandum. Sep. 1779.

Kept with (b) below.

Various calculations by James Watt including:

- "Gregory Mine Old Engine Trial by Mr. [Logan] Henderson Sep. 4 1779."
- "Calculation of what the new Engine would amount to allowing it to be 3 times as good".
- "For the house & pump."
- "By acct. delivd. by Francis Thompson."
- "New Engine."
- **b.** Memorandum. "Experiment on Gregory Mine by Mr. Henderson." 4 Sep. 1779.
- 8. Draft agreement. "Articles proposed to the Adventurers in Gregory's Mine." 11 Sep. 1779. *In Matthew Boulton's hand.*Draft of the articles sent to R. B. Hodgkinson at Edwinsford.
- 9. Draft Agreement. "Proposals to the Adventurers in Gregory's Mine by Boulton & Watt."11 Sep. 1779.In James Watt's hand.
- 10. Letter. William Milnes (Ashover) to James Watt [Birmingham]. 18 Sep. 1779. Francis Thompson understands the drawings of the engine house. Wants further particulars "as by the inclosed papers". They are satisfied a 24 inch cylinder will be sufficient. The enclosure now wanting.
- Letter. Francis Thompson (Ashover) to James Watt (Soho). 13 Dec. 1779.
   Design and detail of the great beam.
   Docketed "This letter not being directed to Mr. Watt Engineer was sent to Mr. Watt the Silversmith, who on opening it found it was not for him and he directly returned it."

- **12.** Letter. Francis Thompson (Ashover) to James Watt (Birmingham). 23 Feb. 1780. *Progress on the work for the engine at Gregory Mine.*
- 13. Letter. Francis Thompson (Ashover) to James Watt (Birmingham). 3 Jun. 1780. Delivery of goods and drawings for the engine. Is putting the new pumps in at Yatestoop and must have a trial.
- 14. Letter. Joseph Banks (London) to James Watt (Soho). 28 Jul. 1780.

  R. B. Hodgkinson is dissatisfied that James Watt has not visited Gregory Mine. Wishes to know when he can get a copying machine.
- 15. Letter. William Milnes (Ashover) to Boulton & Watt (Soho). 29 Jul. 1780. They expected James Watt to have visited this month. The proprietors are impatient at Boulton & Watt not sending the materials.
- **16.** Memorandum. "Proposal re the premium payable from Gregory Mine Brought by J. Watt from Ashover." Aug. 1780.
- 17. Letter. William Milnes (Ashover) to James Watt (Birmingham). 4 Sep. 1780. Has received the printed list of materials. Is unhappy about the method of comparison with the Yatestoop engine. What James Watt suggests should happen to the engine if the mine fails is reasonable.
- 18. Letter. Francis Thompson (Ashover) to James Watt (Birmingham). 8 Sep. 1780. Wants drawings of the balance bob. Also needs pasteboard. Understands the drawings he has received. Apologises for the odd temper of the proprietors. Did not know about their meeting. James Watt should hold them to the agreements.
- **19.** Letter. William Milnes (Ashover) to James Watt (Birmingham). 25 Sep. 1780. *Accepting Boulton & Watt's proposal concerning the Gregory engine.*
- **20.** Letter. Francis Thompson (Ashover) to James Watt (Birmingham). 9 Oct. 1780. Would like an explanation of the copper plates. Carriers have set off to collect the goods from Wales and Soho.
- **21.** Letter. William Milnes (Ashover) to James Watt (Birmingham). 7 Oct. 1780. *About sending for the goods for Gregory mine.*
- 22. Letter. Francis Thompson (Ashover) to James Watt (Birmingham). 21 Oct. 1780. Has received the goods from Bersham. Potential problems of the gudgeon having been made too thick.
- **23.** Letter. Francis Thompson (Ashover) to James Watt (Birmingham). 3 Nov. 1780. *About pasteboard and the steam pipe.*
- **24.** Letter. Thomas Beckett (Liverpool) to Boulton & Watt (Birmingham). 3 Nov. 1780. *Details of where he has sent the piston rod for Gregory mine.*
- 25. Letter. Joseph Banks (London) to James Watt (Soho). 9 Nov. 1780.

  Problems with getting his post delivered. Agrees with James Watt's calculations of the price of the engine. James Watt has the confidence of all but one of the mine's partners. He is sending the agreement to his uncle, Mr. Hodgkinson, who is the managing partner.

- **26.** Letter. Francis Thompson (Ashover) to James Watt (Birmingham). 14 Nov. 1780. *Progress on the boiler. Hopes James Watt will send Mr. Harrison next week. Hopes to get the beam up tomorrow.*
- 27. Letter. Joseph Banks (London) to James Watt [Birmingham]. 14 Nov. 1780. He and Hodgkinson approve of the agreement. Has sent it to William Milnes for approval by the proprietors on the spot.
- **28.** Letter. William Milnes (Ashover) to James Watt (Birmingham). 2 Dec. 1780. *Is satisfied with the draft of agreement.*
- **29.** Letter. Joseph Banks (London) to Boulton & Watt (Soho). 16 Feb. 1781. Has received the agreement. Acknowledges Boulton & Watt's "candour & liberality."
- **30.** Letter. Francis Thompson (Ashover) to James Watt (Birmingham). 31 Mar. 1781. *Progress of the engine. Details of the mining operations.*
- **31.** Letter. William Milnes (Ashover) to Boulton & Watt (Soho). 7 Apr. 1781. *Has forwarded the agreement.*
- **32.** Letter. Jo. Gregory (Ashover) to Boulton & Watt (Soho). 19 May 1781. *Sending Gregory Mine's payment of £273.*
- 33. Letter. Thomas Southern (Wensley) to Boulton & Watt [Birmingham]. 10 Jul. 1781. The docket is on a separate wrapper.

  Problems of Yatestoop mine. Proposals for an underground Newcomen engine at the mine. Criticisms of the Gregory engine by Winchester, Thompson & others.
- 34. Letter. Thomas Southern (Wensley) to Matthew Boulton [Soho]. 29 Oct. 1781. Observations on Yatestoop and Gregory mines. Appointment of a new mine agent. Dissatisfaction with Mr. Winchester and the old agent.
- 35. Letter. Thomas Southern (Wensley) to Boulton & Watt [Birmingham]. 10 Dec. 1781. The docket is on a separate wrapper.

  Further disagreements among the proprietors concerning Yatestoop. The improvements the Gregory engine has brought are beginning to be applauded. His son John would be glad to work for Boulton & Watt.
- **36.** Letter. John Stratford (Gregory Mine) to John Buchanan (Soho). 24 Apr. 1782. "Mr. Hoskinson's" [i.e. R. B. Hodgkinson's] stay in Derbyshire will be short so can Matthew Boulton write to him immediately? He likes the engine.
- 37. Letter. R. B. Hodgkinson (Overton) to Boulton & Watt (Birmingham). 25 Apr. 1782. *Is pleased with the engine. Wishes the counters to be checked quarterly for drawing up the accounts.*
- **38.** Letter. R. B. Hodgkinson (London) to Boulton & Watt (Soho). 10 May 1782. *Hopes one of them will examine the counters before the middle of Jun.*.
- **39.** Memorandum & rough sketch. Memorandums concerning Gregory Mine. Aug. 1791.
- **40.** Letter. William & John Milnes (Ashover) to Boulton & Watt [Birmingham]. 19 Apr. 1792. Will consider what size the cylinder should be. The engine continues to work well.

- 41. Letter. William & John Milnes (Ashover) to Boulton & Watt. 24 Apr. 1792. Have decided on a 45" cylinder. Arrangements for its delivery. Hope that James Law will be sent. Will James Watt please order the goods immediately as "the engine cannot work long in its present state".
- **42.** Letter. John Stratford (Gregory Mine) to John Southern (Soho). 20 Mar. 1793. Have not yet proceeded with Southern's scheme. The engine continues to work well. Plans for extending the pump and mineshaft. Stratford's near accident with the engine.

### Nos. 43-49. Undated Calculations and Indenture.

- **43.** Sketch plan of the engine house and calculations. Not dated..
- 44. Memorandum. "Calculations respecting an Engine intended to be erected at Gregory Mine in Derbyshire". Not dated.

  In Matthew Boulton's hand.
- 45. Memorandum. "Calculations respecting an Engine of Boulton & Watt's construction intended to be erected at Gregory Mine." Not dated.

  In Matthew Boulton's hand.
- **46.** Memorandum. "Calculations respecting an Engine of Boulton & Watt's construction intended to be erected at Gregory Mine." Not dated. *Copy of the above item. In Zaccheus Walker's hand?*
- 47a. Indenture. Between Boulton & Watt and Banks Hodgkinson and the "proprietors, adventurers and partners in Gregory Mine". Not dated.

  Kept with (b) below.

  Printed. Various amendments have been written on scraps of paper which have then been attached to the original agreement.
  - **b.** Memorandum. Note of the addresses of Joseph Banks, William Milnes and Samuel Kirk.
- **48.** Page of calculations by James Watt based on the payment from various engines. Not dated.
- **49.** Page of calculations. Not dated. *Docketed "Gregory Mine"*.

### MS 3147/3/500 SPECIAL SUBJECTS & CORRESPONDENTS SIR NIGEL GRESLEY 1789—1795; 1801

### INTRODUCTION

Letters relating to a steam engine for Sir Nigel Bowyer Gresley, Bart., of Drakelow Hall, from 1789 to 1795 and 1801. Sir Nigel bought the engine for his colliery at Apedale in Staffordshire. It was erected by Peter Ewart. The correspondence includes letters from Ewart and from Sir Nigel's foreman, Edward Eardley, but the majority are docketed as Sir Nigel Gresley.

The bundle originally contained correspondence from 1790 to 1801. The style of the wrapper suggests that the bundle was created in the 1800s, probably from letters removed from the General Incoming Correspondence series for 1785—1795 and 1788—1798. At some point, the letters from 1790 to 1793 docketed by John Southern were replaced in the 1788—1798 series. However the two halves have again been reunited in one bundle.

See also the General Incoming Correspondence 1785—1795 E (3/389) for further letters from Edward Eardley on the construction of the engine. For drawings of the engine see Portfolio 5/48.

### LIST

- **1.** Bundle wrapper. *Marked "Sir N. B. Gresley 1790—1801."*
- 2. Memorandum & sketch of mine. Order engine for Sir N. B. Gresley. Dec. 1789.
- 3. Letter. Edward Eardley (Apedale) to Boulton & Watt (Birmingham). 5 Jan. 1790.
- **4.** Letter. Nigel Bowyer Gresley (Drakelow) to Boulton & Watt (Birmingham). 10 Jan. 1790.
- 5. Letter. Nigel Bowyer Gresley (Drakelow) to James Watt (Birmingham). 1 Feb. 1790.
- 6. Letter. Edward Eardley (Apedale) to Boulton & Watt (Birmingham). 22 Feb. 1790. On the same sheet: Sketch. Plan of Sir Nigel's premises at Apedale.
- 7. Letter. Edward Eardley (Apedale) to Boulton & Watt (Birmingham). 18 Mar. 1790.
- **8.** Letter. Edward Eardley (Apedale) to Boulton & Watt [Birmingham]. 19 May 1790.
- 9. Letter. Edward Eardley (Apedale) to Boulton & Watt [Birmingham]. 22 Jul. 1790.
- 10. Letter. Nigel Bowyer Gresley (Drakelow) to Boulton & Watt [Birmingham]. 12 Aug. 1790.
- 11. Letter. Peter Ewart (Apedale) to John Southern [Soho]. 19 Sep. 1790.
- 12. Letter. Nigel Bowyer Gresley [Drakelow] to John Southern [?] [Soho]. 23 Sep. 1790.
- 13. Letter. Peter Ewart (Apedale) to John Southern (Soho). 27 Sep. 1790.
- **14.** Letter. Peter Ewart (Apedale) to John Southern (Soho). 1 Nov. 1790.
- **15.** Letter. Peter Ewart (Apedale) to John Southern [Soho]. 15 Nov. 1790.
- Letter. Peter Ewart (Apedale) to John Southern (Soho). 26 Dec. 1790.On the same sheet:Letter. Peter Ewart (Newcastle-under-Lyme) to John Southern. 26 Dec. 1790 [?].
- 17. Letter. Peter Ewart (Apedale) to John Southern [Soho]. 2 Jan. 1791.
- **18.** Letter. Edward Eardley (Apedale) to John Southern (Soho). 17 Feb. 1791.
- **19.** Letter. Edward Eardley (Apedale) to James Pearson (Soho). 12 Jan. 1792. *Docketed "Answered 16 Jan. 1792."*

- **20.** Letter. John B. Scott (Lichfield) to Boulton & Watt [Soho]. 20 Apr. 1792. *Marked "Replied to 21 Apr. J. S."*
- **21.** Letter. Edward Eardley (Apedale) to John Southern (Soho). 26 Jul. 1793. *Docketed "Answered 29 Jul."*
- 22. Letter. Edward Eardley (Apedale) to John Southern (Soho). 26 May 1794.
- **23.** Letter. Nigel Bowyer Gresley (Drakelow) to Boulton & Watt (Soho). 20 Jul. 1794. *Docketed "Answered 25 Jul. 1794."*
- 24. Transcripts. Transcripts of 3 letters on the same sheet, as follows: John Southern for Boulton & Watt (Soho) to Edward Eardley. 8 Aug. 1793. Boulton & Watt (Soho) to Edward Eardley. 23 Jun. 1794. James Watt Jr. for Boulton & Watt (Soho) to Nigel Bowyer Gresley. 25 Jul. 1794. Docketed "Letters to Sir Nigel Gresley."
- 25. Letter. Nigel Bowyer Gresley (Drakelow) to James Watt Jr. (Soho). 29 Jul. 1794.
- **26.** Letter. Edward Eardley (Apedale) to Matthew Boulton (Soho). 3 Aug. 1794.
- Memorandum. James Law's report upon Sir N. Gresley's engine as taken down by Mr. Boulton. 179— [circa Aug. 1794.] 2 sheets.
  The docket is on a separate sheet.
  Details of the engine, performance, settling of account in 1792 etc.
- **28.** Memorandum. Sir Nigel Gresley's Engine as per James Law. Not dated [circa Aug. 1794].
- **29a.** Account. Sir Nigel Bowyer Gresley debtor to Boulton & Watt. 19 Mar. 1793—1 Jul. 1795. In James Pearson's hand. Kept with (b) below. Docketed "Statement of Sir N. B. Gresley's account to July 1795."
  - **b.** Memorandum. Remarks upon Sir Nigel Gresley's account.
- Transcripts. Transcripts of 2 letters on the same sheet, as follows: Edward Eardley (Apedale) to Boulton Watt & Co. [Soho]. 24 Feb. 1801. Boulton Watt & Co. (Soho) to Edward Eardley [Apedale]. 3 Mar. 1801.

Cont...

### MS 3147/3/501 SPECIAL SUBJECTS & CORRESPONDENTS THOMAS HANDLEY 1777—1788

#### INTRODUCTION

Letters from Thomas Handley, from 1777 to 1788. Handley was a patent attorney, based in the Rolls Building, Fetter Lane, London. He advised on and processed all of Watt's patents, namely the copying machine (1780), the rotative patent (1781), the expansive working and double acting patent (1782), the parallel motion and steam carriage (1784) and the smoke-consuming furnace (1785). He also informed Boulton & Watt of the progress of other engine patents and finds and sends rival specifications such as Robert Cameron's.

#### LIST

- **1.** Bundle wrapper. *Marked "Thomas Handley 1777—1787."*
- Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to James Watt (at Mr. Boulton's, Birmingham). 28 Oct. 1777.
  On the same sheet:
  Form of petition & affidavit for a patent.
  Docketed "Form of a petition to the Council."
- **3.** Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to James Watt [Birmingham]. 8 Nov. 1777.
- **4.** Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to James Watt (at Mr. Boulton's, Birmingham). 18 Nov. 1777.
- **5.** Letter. Thomas Handley [London] to James Watt [Birmingham]. 19 May 1780. *Docketed "With specification."*
- **6.** Letter. Thomas Handley [London] to Matthew Boulton (Soho). 31 Oct. 1781. *The sheet has been used for calculations*.
- 7. Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to Matthew Boulton [London?]. 20 Dec. 1781.
- Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to James Watt (Cusgarne).20 Dec. 1781.Docketed "Mr. Palmer's opinion of title of new patent."
- 9. Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to James Watt (Cusgarne). 25 Jan. 1782.

On the same sheet:

Form of specification of patent.

Docketed "Form of preamble to specification."

**10.** Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to James Watt (Cusgarne). 29 Jan. 1782.

On the same sheet:

Form of specification of patent [duplicate of that sent on 25 Jan.] *Docketed "Form of preamble to specification."* 

- 11. Letter. Thomas Handley [London] to James Watt (Cusgarne). 8 Feb. 1782.
- **12.** Letter. Thomas Handley [London] to Matthew Boulton (Soho). 9 Feb. 1782.
- Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to James Watt [Cusgarne].9 Feb. 1782.Docketed "With specification of rotative patent."
- 14. Letter. Thomas Handley [London] to James Watt (Cusgarne). 16 Mar. 1782.

  The sheet has been used for calculations.

  Docketed "Date of expansive patent [informing Watt the patent has passed the Great Seal]."
- **15.** Letter. Thomas Handley [London] to Matthew Boulton (Soho). 6 Jun. 1782.
- **16.** Letter. Thomas Handley [London] to James Watt [Soho]. 22 Jun. 1782.
- 17. Letter. Thomas Handley [London] to James Watt (at Mr. Boulton's, Soho). 1 Jul. 1782.
- **18.** Letter. Thomas Handley [London] to James Watt (at Mr. Boulton's, Soho). 4 Jul. 1782.
- 19. Letter. Thomas Handley [London] to Matthew Boulton (Soho). 26 Jul. 1782.
- **20.** Letter. Thomas Handley (Portsmouth) to James Watt (at Mr. Boulton's, Soho). 2 Sep. 1782.
- **21.** Letter. Thomas Handley [London] to James Watt (at Mr. Boulton's, Soho). 17 Sep. 1782. *Docketed "Receipt and sending off the Irish patent."*
- **22.** Letter. Thomas Handley [London] to James Watt (at Mr. Boulton's, Soho). 8 Oct. 1782.
- **23.** Letter. Thomas Handley (Rolls Buildings, Fetter Lane, London) to James Watt [Soho]. 14 Nov. 1782.
- **24.** Letter. Thomas Handley [London] to James Watt [Soho]. 30 Nov. 1782. *Docketed "Receipt for £48.13.6."*
- **25.** Letter. Thomas Handley [London] to James Watt (Birmingham). 29 May 1784.
- **26.** Letter. Thomas Handley [London] to James Watt (Birmingham). 15 Jun. 1784. *Docketed "Receipt for £30."*
- 27. Letter. Thomas Handley [London] to James Watt (Birmingham). 14 Aug. 1784.
- **28a.** Letter. Thomas Handley [London] to James Watt [Birmingham]. 21 Aug. 1784. *Kept with (b) below. Docketed "21 & 23 Aug."* 
  - **b.** Letter. Thomas Handley [London] to James Watt [Birmingham]. 23 Aug. 1784.

- **29.** Letter. Thomas Handley [London] to James Watt (Birmingham). 25 Aug. 1784. *Docketed "Receipt of specification."*
- **30.** Letter. Thomas Handley [London] to James Watt [Birmingham]. 7 May 1785.
- **31.** Letter. Thomas Handley [London] to James Watt (Birmingham). 17 Jun. 1785. *Docketed "Date of new furnace patent."*
- **32.** Letter. Thomas Handley [London] to James Watt (Birmingham). 30 Jun. 1785.
- 33. Letter. Thomas Handley [London] to James Watt [Birmingham]. 6 Jul. 1785.
- **34.** Letter. Thomas Handley [London] to James Watt (Birmingham). 9 Jul. 1785. *Docketed "Receipt of furnace patent."*
- Letter. Thomas Handley (12 Clement's Inn, London) to James Watt [Birmingham]. 19Mar. 1787.Not dated date taken from the docket.
- **36.** Letter. Thomas Handley (Clement's Inn, London) to James Watt [Birmingham]. 31 May 1788.
- 37. Memorandum. Draft of form of petition for a patent. Not dated.

  In James Watt's hand unclear which patent this is for, but it is one of the engine patents.

### MS 3147/3/502 SPECIAL SUBJECTS & CORRESPONDENTS JOSEPH HATELEY 1792

#### INTRODUCTION

Letters from Joseph Hateley of London from 1792. Hateley, an engineer, claimed to have invented an engine that would supercede Watt's. He offered to communicate his invention to Boulton & Watt, and said that he would offer them a share of the profits should they wish to into business with him once they had seen a model of his engine. Hateley sought a guarantee from Boulton & Watt that they would not patent his invention.

For details of Hateley's career see Dickinson & Jenkins p. 316.

#### LIST

- 1. Letter. Joseph Hateley (London) to Matthew Boulton (Soho). 2 Jul. 1792. 2 sheets.
- **2.** Letter. Joseph Hateley (London) to Matthew Boulton (Soho). 14 Jul. 1792.
- **3.** Letter. Joseph Hateley (London) to James Watt (Birmingham). 20 Jul. 1792.
- 4. Letter. Joseph Hateley (London) to Matthew Boulton (Soho). 21 Jul. 1792.

- **5.** Draft of letter. James Watt (Soho) to Joseph Hateley (London). 1 Aug. 1792. *Docketed "Draft letter to Mr. Hateley rejected by him."*
- **6.** Letter. Joseph Hateley [Birmingham] to Boulton & Watt [Soho]. 2 Aug. 1792.
- **7a.** Letter. James Watt [Heathfield] to Matthew Boulton (Soho). "Saturday" [4 Aug. 1792]. *Enclosing (b) below.*
- **b.** Draft of letter. James Watt (Soho) to Joseph Hateley (London). 2 Aug. 1792.
- 8. Memorandum. Letter proposed by J. Hateley for us to sign. Aug. 1792.

  Text of a letter saying that Boulton & Watt have no intention of taking out patents that might infringe on Hateley's invention.

# MS 3147/3/503 SPECIAL SUBJECTS & CORRESPONDENTS JAMES KEIR – LETTERS TO MATTHEW BOULTON, JAMES WATT 1778—1780; 1786; 1791; 1796

#### INTRODUCTION

Miscellaneous letters from James Keir, from 1778 to 1780, and three letters from 1786, 1791 and 1796. The letters mainly concern the copying press business, in which Keir was a partner, and engine business, as Keir acted as manager at Soho Manufactory while Boulton and Watt were away. The letters were found among the copying press papers, with the exception of the letter to Watt of 1 November 1779 which had been placed with the Partners' Correspondence.

#### LIST

#### 1778.

1. Letter. James Keir [Soho] to Matthew Boulton (Redruth). — Oct. 1778.

Docketed "Account of valves and counters." Zaccheus Walker has added a note to the sheet.

#### 1779.

- 2. Letter. James Keir (Soho) to James Watt (Chacewater). 26 Sep. 1779. Docketed as 28 Sep. Matthew Boulton has added a postscript.
- **3.** Letter. James Keir (London) to James Watt (Chacewater). 3 Oct. 1779.
- **4.** Letter. James Keir (Castle & Falcon) to Matthew Boulton [?]. 8 Oct. 1779.
- 5. Letter. James Keir (London) to Matthew Boulton (—). 9 Oct. [1779?].
- **6.** Letter. James Keir (London) to James Watt (Chacewater). 12 Oct. 1779. *On the same sheet is a draft of the patent application for the copying press.*
- 7. Letter. James Keir (London) to Matthew Boulton (Soho). 14 Oct. 1779.

8. Letter. James Keir (Soho) to James Watt (at Thomas Wilson's, Chacewater). 1 Nov. 1779.

On the same sheet:

Letter. James Watt Jr. (Winson Green) to James Watt. 1 Nov. 1779. With a label by Hazleton "James Watt Jr.'s letter to his Hon<sup>d.</sup> Papa."

Letter. James Keir (London) to Matthew Boulton (Chacewater). "Wednesday" [15 Dec. 1779].
 Date taken from the postmark. Docketed as Nov.

Letter. James Keir (Soho) to James Watt (Chacewater). 30 Dec. 1779.On the same sheet:Letter. James Keir (Soho) to Matthew Boulton (Chacewater). 30 Dec. 1779.

- 11. Letter. James Keir (Soho) to James Watt (Chacewater). 4 Jan. 1780.
- 12. Letter. James Keir (Soho) to James Watt (Chacewater). 17 Jan. 1780.
- 13. Letter. James Keir (Soho) to James Watt (Chacewater). 25 Jan. 1780.
- **14.** Letter. James Keir (Soho) to James Watt (Chacewater). 26 Jan. 1780.
- Letter. James Keir (Soho) to Matthew Boulton (Chacewater). 1 Feb. 1780.On the same sheet:Letter. James Keir (Soho) to James Watt (Chacewater). 1 Feb. 1780.

#### 1786.

**16.** Letter. James Keir (—) to James Watt (—). 23 Apr. 1786. Docketed "Receipt for draft of £17.13 sent him in return for one of his I sent to Scotland to get payment of."

#### 1791.

17. Letter. James Keir (West Bromwich) to James Watt (Handsworth). 23 Feb. 1791. Docketed "About Dr. Small's spinning."

#### 1796.

18. Letter. R. Small (—) to James Keir (Birmingham). 1 Sep. 1796.

Keir forwarded this letter to Boulton & Watt.

Docketed "Mr. Keir. Engine for Mr. Small." The sheet has been used for calculations.

#### MS 3147/3/504

## SPECIAL SUBJECTS & CORRESPONDENTS JAMES KEIR – MISCELLAENOUS LETTERS TO JAMES WATT JR. 1788—1815

#### INTRODUCTION

Miscellaneous letters from James Keir to James Watt Jr., from 1788 to 1815. The letters of 1789 and 1790 include several references to articles for Keir's *Dictonary of Chemistry*, and the later letters concern social engagements. There is also a set of papers from 1788 concering the valuation of the house that Keir was buying from Humphrey Pickering. Keir appears to have passed these papers to Watt Jr. while Watt Jr. was in Manchester, as in his letter of 3 Dec. 1789 Keir asks Watt Jr. to send him the agreement he made with Pickering.

#### LIST

#### 1788.

**1a.** Letter. William Nixon (Birmingham) to James Keir (The Grove, nearr Winson Green). 28 Mar. 1788.

Enclosing (b) below.

Docketed "Nixon's letter with statement of expenditures.

- **b.** Account. Statement of Sundry Works done for Mr. Pickering at his house at the Grove.
- Transcript of letter. James Keir (Smethwick) to Mr. Horton, Builder (Birmingham). 21 May 1788.
   Docketed "Copy of letter to Mr. Horton declining his opinion."
- 3. Transcript of letter. James Keir (Smethwick) to the Executors of the late Humphrey Pickering. 26 May 1788.
- **4.** Draft of letter. James Kier and the Executors of Humphrey Pickering to ?, builders and surveyors. 26 May 1788.

  Docketed "Letter to the Executors of H. Pickering proposing a new survey."
- **5.** Account. Executors of the late Humphrey Pickering debtors to James Keir. Not dated.

#### 1789.

- 6. Letter. James Keir (Smethwick) to James Watt Jr. (Taylor & Maxwell's, Manchester). 11 Sep. 1789.
- 7. Letter. James Keir (Smethwick) to James Watt Jr. [Manchester]. 20 Nov. 1789.
- **8.** Letter. James Keir (—) to James Watt Jr. [Manchester]. 3 Dec. 1789.
- 9. Letter. James Keir (near Birmingham) to James Watt Jr. (Taylor & Maxwell's, Manchester). 13 Dec. 1789.

#### 1790.

- **10.** Letter. James Keir (Smethwick) to James Watt Jr. (at Charles Taylor's, Manchester). 10 Feb. 1790.
- **11.** Letter. James Keir (Hill Top, West Bromwich) to James Watt Jr. (Manchester). 5 Dec. 1790.

#### 1808.

**12.** Letter. James Keir (Tividale) to James Watt Jr. (Soho). 4 Aug. 1808. *Docketed "Upon some appearancs in the quarry on the Rowley Hills."* 

#### 1810.

**13.** Letter. James Keir (Tividale) to James Watt Jr. (Handsworth). 15 Jul. 1810. *Docketed "Wishes me to dine with Mr. Greenough."* 

#### 1813.

**14.** Letter. James Keir (Hill Top) to James Watt Jr. (Handsworth). 12 Jun. 1813. *Docketed "Has declined dining out."* 

#### 1815.

**15.** Letter. James Keir (Smethwick Grove) to James Watt Jr. (Handsworth). 4 Feb. 1815. *Docketed "Is upon a visit to Mr. Moilliet and wishes me to call."* 

### MS 3147/3/505 SPECIAL SUBJECTS & CORRESPONDENTS J. D. H. VAN LIENDER 1775—1794

#### INTRODUCTION

Letters from the Dutch engineer John Daniel Huichelbos van Liender, from 1775 to 1794. Van Liender's correspondence was kept in three large bundles, this being the first. The bundle wrapper is marked as covering the years 1775 to 1795, but no letters from 1795 have been found. Van Liender addressed many of his letters in the following manner: "James Watt, at Birmingham, care of Mrs. Matthews, London". The London part of the direction is usually crossed out. These letters were received by Charlotte Matthews at 6 Green Lettice Lane in London and sent on to Birmingham.

- 1. Bundle wrapper.

  Marked "J. D. H. van Liender 1775—1795."
- **2a.** Letter. John Enslie (Rotterdam) to James Watt (Glasgow). 11 May 1775. *Enclosing (b) and (c) below.* 
  - **b.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Glasgow). 11 May 1775.
  - **c.** Sketch. Boiler of atmospheric engine ordered for Rotterdam.
- 3. Letter. J. D. H. van Liender (Rotterdam) to Matthew Boulton (Soho). 14 May 1779. *Docketed as 11 May. The sheet has been used for calculations.*
- **4.** Transcript of letter (in French). J. D. H. van Liender (Rotterdam) to Jean André de Luc [London]. 19 Dec. 1783. 2 sheets.
- Transcript of letter (in French). J. D. H. van Liender (Rotterdam) to Jean André de Luc [London]. 30 Jan. 1785. 2 sheets.
- **6.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 3 Jun. 1785. *Docketed "Explanation of proposals."*
- 7. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). Aug. 1785. The date has faded. Postmarked 31 Aug. Probably 4 Aug., as Watt refers to a letter from van Liender of that date in his letter of 4 Sep. [B&W Letter Book, 3/85, p. 209].
- **8.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 4 Oct. 1785.
- **9.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 7 Oct. 1785. *Docketed as 4 Oct.*
- **10.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 29 Nov. 1785.
- 11. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 30 Dec. 1785.
- **12.** Letter. J. D. H. van Liender (Rotterdam) to James Watt [Birmingham]. 13 Jan. 1786. *Docketed as 30 Jan.*

- 13. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 10 Mar. 1786. Docketed as 13 Mar. Docketed "Covering patent."
- 14. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 31 May 1786.
- 15. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 11 Jul. 1786.
- 16. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 21 Jul. 1786.
- 17. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 4 Aug. 1786.
- 18. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 22 Sep. 1786.
- 19. Letter, J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 15 Oct. 1786.
- Letter. J. D. H. van Liender (Rotterdam) to James Watt [Birmingham]. 17 Nov. 1786.
   On the same sheet:
   Letter. Ann Watt [Birmingham] to James Watt (Monsieur Delessert's, Rue Coghiron, Paris). 27 Nov. 1786.
- 21. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 13 Apr. 1787.
- 22. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 27 Apr. 1787.
- 23. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 22 Jun. 1787.
- **24.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 7 Sep. 1787. *Addressed to Watt as "Corresponding Member of the Batavian Society."*
- **25.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 19 Oct. 1787. *Docketed as 9 Oct.*
- **26.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (6 Green Lettice Lane, London). 2 Nov. 1787.
- Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 8 Nov. 1787. Kept with (b) below. On the same sheet:Note by Malcolm Logan on the expense of his passage to Rotterdam and back. Docketed "By Malcolm Logan."
  - **b.** Account. J. D. H. van Liender debtor to Boulton & Watt. *In James Pearson's hand. Account of expenses of Logan's journey to and time in Rotterdam.*
- **28.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 12 Feb. 1788.
- **29.** Letter. J. D. H. van Liender (London) to James Watt (Birmingham). 29 May 1788. *Docketed "About lodgings."*
- **30.** Letter. J. D. H. van Liender (London) to James Watt (Birmingham). 9 Jul. 1788. *Docketed "About giving up his lodgings."*
- **31.** Memorandum. Mydrecht. Mr. van Liender Queries for Engine near Utrecht. Jun. 1790.

- **32.** Letter. J. D. H. van Liender (Paris) to James Watt (Birmingham). 30 Aug. 1790. *Docketed "Mydrecht."*
- Letter. J. D. H. van Liender (Paris) to James Watt (Birmingham). 23 Sep. 1790. 2 sheets.
   On the first sheet:
   Transcript of letter. J. D. H. van Liender (Paris) to James Watt. 26 Jul. 1790.
   Docketed "Mydrecht."
- **34.** Letter. J. D. H. van Liender (Paris) to James Watt (Birmingham). 21 Oct. 1790. *Docketed "Mydrecht."*
- **35.** Letter. J. D. H. van Liender (Paris) to James Watt (Birmingham). 4 Nov. 1790.
- **36.** Letter. J. D. H. van Liender (Paris) to James Watt (Birmingham). 15 Nov. 1790. *Docketed "Not fully answered."*
- Letter. J. D. H. van Liender (Paris) to James Watt (Birmingham). 16 Dec. 1790. On the same sheet:Transcript of letter. J. D. H. van Liender (Paris) to James Watt. 15 Nov. 1790.
- **38.** Letter. J. D. H. van Liender (Paris) to James Watt (Birmingham). 13 Jan. 1791. 2 sheets. *Docketed as Mydrecht*.
- **39.** Letter. J. D. H. van Liender (Paris) to James Watt (Birmingham). 14 Mar. 1791.
- **40.** Letter, J. D. H. van Liender (Versailles) to James Watt (Birmingham). 16 Apr. 1791.
- **41.** Letter. J. D. H. van Liender (Versailles) to James Watt (Birmingham). 16 May 1791. *Docketed as MDT [Mydrecht]*.
- **42.** Letter. John Southern (Birmingham) to James Watt (6 Green Lettice Lane, London). 27 May 1791. *On the same sheet:*

Sketch. Plan of the Mydrecht engine.

Docketed "MDT cistern etc."

- 43. Letter. J. D. H. van Liender (Versailles) to James Watt (6 Green Lettice Lane, London). 10 Jul. 1791.

  Docketed as Mydrecht.
- 44. Letter. J. D. H. van Liender (Versailles) to James Watt (Birmingham). 28 Aug. 1791. Re-directed to Heathfield. On the same sheet: Transcript of letter. J. D. H. van Liender (Paris) to James Watt. 10 Jul. 1791.
- **45.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 18 Oct. 1791.
- **46.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Handsworth). 15 Nov. 1791.
- 47. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 12 Jun. 1792.
- **48a.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 24 Aug. 1792. *Re-directed to 6 Green Lettice Lane. Enclosing (b) below.*

- Printed circular. Programma van het Bataafasch Gentootschap der proefondervindelyke wysbegeerte te Rotterdam. 1792.
   Programme of the Batavian Society.
- 49. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 11 Oct. 1792. On the same sheet:Table of heights of water, engine house, foundations etc. of the Mydrecht engine.
- **50.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 13 Nov. 1792.
- 51. Letter. J. D. H. van Liender (Rotterdam) to James Watt [Birmingham]. 11 Dec. 1792.
- 52. Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 18 Dec. 1792. Mis-docketed as Nov. Docket covers this and the above letter of 11 Dec. Forwarded to Heathfield, then passed to James Pearson.
- 53. Letter, J. D. H. van Liender (Rotterdam) to James Watt (Birmingham), 15 Feb. 1793.
- **54.** Letter. J. D. H. van Liender (Zorg Vrij, at the Amstel, at Thamen) to James Watt (Birmingham). 13 Jun. 1793.
- 55. Letter. J. D. H. van Liender (Thamen) to James Watt (Birmingham). 8 Aug. 1793.
- **56.** Letter. J. D. H. van Liender (Thamen) to James Watt (Birmingham). 30 Sep. 1793. *Forwarded to Heathfield*.
- 57. Letter. J. D. H. van Liender (Thamen) to James Watt (Birmingham). 21 Oct. 1793. Docketed "Arrival of Smallman."
- 58. Letter. J. D. H. van Liender (Thamen) to James Watt (Birmingham). 23 Jan. 1794. Docketed as 25 Jan. Docketed "With remittance."
- **59.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 6 May 1794. Docketed "With remittance and statement of account. Performance of Mydrecht engine."
- Letter. J. D. H. van Liender (Thamen) to Boulton & Watt (Soho). 4 Sep. 1794.
  On the same sheet:
  Transcript of letter. J. D. H. van Liender (Thamen) to James Watt. 31 Jul. 1794.
  Docketed "Smallman allowed to depart. State of Smallman's account. Mydrecht engine.
  Observations on the war."
- **61.** Letter. Cornelius Stolker (Rotterdam) to Boulton & Watt (Soho). 23 Sep. 1794. *Docketed "Smallman."*
- **62.** Letter. Cornelius Stolker (Rotterdam) to Boulton & Watt (Soho). 30 Sep. 1794. *Docketed "About Smallman."*
- **63.** Letter. J. D. H. van Liender (Thamen) to James Watt (Birmingham). 2 Oct. 1794. *Docketed "Probability of Smallman being gone to America."*

### MS 3147/3/506 SPECIAL SUBJECTS & CORRESPONDENTS J. D. H. VAN LIENDER 1797—1801

#### INTRODUCTION

Letters from the Dutch engineer John Daniel Huichelbos van Liender, from 1797 to 1801. Van Liender's correspondence was kept in three large bundles, this being the second. The subjects covered include various engines for Holland, and the replacement of the wooden parts of windmills with iron ones.

- 1. Bundle wrapper.

  Marked "J. D. H. van Liender 1797—1801. 4 horse, Rotterdam. 30¾ / 6 double, Blanken.

  Iron machinery for the Niewkoop windmill."
- 2. Memorandum. Dates of Documents & Correspondence with van Liender respecting the substitution of iron in the Dutch Windmills. 1797—1801.

  Docketed ""Reference to correspondence with Mr. van Liender respecting the Windmills of Niewkoop and Zevenhofen."
- 3. Letter. J. D. H. van Liender (The Hague) to James Watt (Birmingham). 12 May 1797. Docketed "Regrets the interruption of the correspondence. Success in employment under Government. Drainage of a lake. State of the Mydrecht engine. Repairs wanted. Wish to have an estimate of a small engine."
- Letter. J. D. H. van Liender (The Hague) to James Watt (Birmingham). 17 Jul. 1797.
  On the same sheet:
  Letter. J. D. H. van Liender to James Watt Jr. 17 Jul. 1797.
  Docketed "Orders a 4 horse engine. Suggests the substitution of iron for wood in the Dutch windmills."
  - **b.** Receipt. For van Liender's payment for a new map of Warwickshire. 3 Oct. 1789. *Signed by Mr. Wood for Mr. Sharp.*
- **5.** Letter. J. D. H. van Liender (Rotterdam) to James Watt (Birmingham). 5 Nov. 1797. *Docketed "Wishes answer to his last and drawings of the engine ordered."*
- 6. Transcript of letter. Boulton & Watt (Soho) to J. D. H. van Liender (The Hague). 16 Nov. 1797.
  Docketed "Copy of B&W's letter to Mr. van Liender which they call our First Memorial."
- 7. Letter. J. D. H. van Liender (The Hague) to Boulton & Watt (Soho). 7 Jan. 1798.

  Docketed "Position and other particulars respecting his engine. Determination to employ iron mill work in their mill some queries upon that subject and promises of further information for our government."
- 8. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 24 Feb. 1798. Letter passed to John Southern. Docketed "Confirming his order for rotative shaft."

- 9. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 12 Mar. 1798.

  Docketed "Upon the mode of forwarding the materials of the little engine. Is no longer in the Commission for the drainage of Niewkoop. The consideration of that affair to be postponed."
- Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 12 Mar. 1798.
   Docketed "8 May 1798. Duplicate of 12 Mar. With Mr. Martin's advice of forwarding ours of 28th May."
- 11. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 30 Jun. 1798. Docketed "Mentions receiving 4 letters from Boulton & Watt and recapitulates their contents. The engine arrived – box not. Remits the sum due to Boulton & Watt."
- 12. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 31 Jul. 1798. Docketed "Has heard of the drawings etc. The progress of steam engines retarded by the state of things in Holland and the price of coals. Praises of the new constitution. Beneficial effects which will probably result from it."
- 13a. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 25 Dec. 1798.
  Enclosing (b) below.
  Docketed "Small engine not quite completed. Enclosing remarks upon cast iron windmills.
  Wants drawings of their construction."
  - b. Memorandum (in French). Remarques du Directeur General et des Inspecteurs du Desséchement de Nieuwkoop et Zevenhoven sur certain mémoire Anglais touchant l'usage qu'on pourrait faire du fer de fonte dans les moulins à évaiser l'eau.
- Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 18 May 1799. Enclosing (b) below. On the same sheet:
  Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 25 Dec. 1798.
  Docketed "Receipt of drawings of little engine. Difficulty of setting it to work. Answer of the Directors of the Drainage to our remarks on the substation of iron in windmills. Money advanced to Mrs. Swellingrebel and death of that lady. Progress made by the Mydrecht engine. Wants explanation of large copying machine."
  - b. Transcript of memorandum (in French). Memorandum (in French). Remarques du Directeur General et des Inspecteurs du Desséchement de Nieuwkoop et Zevenhoven sur certain mémoire Anglais touchant l'usage qu'on pourrait faire du fer de fonte dans les moulins à évaiser l'eau.
- 15. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 16 Aug. 1799.

  Docketed "Complains of having received no answer. Improvements made in pump work.

  New engines likely to be wanted. Wants one of us to meet him at Hamburg. Small engine doing pretty well."
- Memorandum. Boulton & Watt's reply to the Remarks of the Director of the Drainage of Nieuwkoop and Zevenhofen.
  Docketed "Inclosed in our letter to van Liender of 28 Oct. 1799."

- **17a.** Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 1 Feb. 1800. *Enclosing (b) below.* 
  - Docketed "Congratulates on law victory. Wishes estimates of small engines. Are satisfied with the explanations of iron parts in windmills. Has sent by some person a scantling of timber etc. wanted in a windmill. Orders a cast iron bak [trough] to send by Embden."
  - **b.** Pen & wash plan & section of the cast iron bak.
- 18a. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 18 Feb. 1800.

  Enclosing (b) below.

  Docketed "Satisfied with explanation. Order for trough. Wants engine man. New contract entered into for Nieuwkoop mills."
  - **b.** Pen & wash plan & section of the cast iron bak.
- **19.** Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 25 Mar. 1800. *Docketed "With drawing of windmills and order for iron work."*
- **20.** Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 27 Mar. 1800. *Docketed "Has sent some drawings by a vessel to London."*
- **21.** Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 25 Apr. 1800. *On the same sheet:*

Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 25 Mar. 1800.

Docketed "Order for iron machinery for new mills. Wishes further advice about the great axis. Refers to the channel by which his former letter and drawings were sent. Wishes the trough had been sent to London. Causes of failure of Mydrecht engine."

- 22a. Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 7 May 1800.

  Enclosing (b) below.

  Docketed "With duplicate of the memorial of 15 Mar. and references to his former letters."
  - **b.** Memorandum (in French). Mr. Bruning's memorial on iron windmills. 15 Mar. 1800. 2 sheets.

    Docketed "Containing the order for the iron work for one windmill."
- **23.** Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 16 May 1800. *Docketed "Wishes the trough to be sent direct to Holland."*
- **24.** Letter. J. D. H. van Liender (Hamburg) to Boulton & Watt (Soho). 7 Jul. 1800. Docketed "Agrees to the delay in furnishing the windmill castings. Has forwarded the trough from Embden. Journey to Hamburg and proposal to meet him there. Engine wanted before the end of the year."
- Letter. J. D. H. van Liender (Hamburg) to Boulton & Watt (Soho). 9 Jul. 1800.
  On the same sheet:
  Transcript of letter. J. D. H. van Liender (Hamburg) to Boulton & Watt (Soho). 7 Jul. 1800.
  Docketed "With duplicate of his letter of 7th July 1800 and drawing of Mr. Blanken's proposed engine and pumps."
- **26.** Letter. J. D. H. van Liender (Hamburg) to Boulton & Watt (Soho). 12 Aug. 1800. Docketed "Earnestly soliciting an answer to his letter of July. Agrees to the great axis of the windmill being made of iron."

- 27. Letter. J. D. H. van Liender (Hamburg) to Boulton & Watt (Soho). 19 Aug. 1800. The address and docket are on a separate wrapper.

  Docketed "Regret at our not being able to meet him at Hamburg. His motives for going thither. Advantages of Mr. Blanken's proposed construction of engine. Supposes we are going on with the engine. Account of engines erected in Germany."
- **28.** Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 9 Sep. 1800. Docketed "Description of a steam engine at Salza near Magdeburg. Account of engines made in Silesia. Return to Rotterdam. Order for new engine."
- **29.** Letter. J. D. H. van Liender (Rotterdam) to Boulton & Watt (Soho). 30 Sep. 1800. *Docketed "Remits £90 for trough. Complains of its expense. Enquiry about Cartwright."*
- **30.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 15 Oct. 1800. Docketed "Has received ours of 30 Sep. and will transmit the resolution of the Commission."
- **31.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 31 Oct. 1800. *Docketed "Order for Blanken's engine. Farther complaint of the expense of trough."*
- Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 12 Nov. 1800. On the same sheet:
  Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 31 Oct. 1800.
  Docketed "Encloses copy of his letter of 31 Oct. Not quite satisfied about the expense of trough. Inferiority of German foundries. Sends a drawing from Mr. Blanken."
- 33. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 24 Feb. 1801. Docketed "Has received our letter of 28th Nov. and drawings of the engine. Accepts our terms for a 30¾ inch cylinder. Enquiry about the trough and state of castings for Nieuwkoop drainage. New copper boiler wanted for Mydrecht."
- Memorandum. A list of Steam Engine Materials which were sent from Soho on 15 May 1801.Kept with (b) below.Docketed "List of materials for Mr. Blanken's engine."
  - b. Transcript of letter. Thomas Hutton for Boulton Watt & Co. (Soho) to Parkes & Co. [Birmingham]. 5 May 1801.On the same sheet is a list of the items being forwarded.
- 35. Memorandum. A list of materials for the Wind Mills of Nieuwkoop & Zevenhofen forwarded from Soho on 16 May 1801.
- **36.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 16 Jul. 1801. Docketed "Have received engine materials. Want pumps. Weight of windmills castings much exceeds his expectations. Prefers a copper boiler for Mydrecht engine."
- 37. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 15 Aug. 1801. Docketed "Remittance on account £200. Has received the drawings and instructions, the latter so much mutilated as to be illegible."

- Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 22 Aug. 1801.
   Enclosing (b) below. On the same sheet:
   Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 15
   Aug. 1801.
   Docketed "Enclosing duplicate bill of exchange and copy of his former letter. Busy erecting the engine. The instructions and drawings of his engine much injured in the carriage."
  - b. Bill of exchange. S. Knox £200 to Coysgarne & Lloyds on Sampson Coysgarne Lloyd (2 St. Mildred's Court, Poultry, London). Emden, 14 Aug. 1801.

    Passed by Coysgarne & Lloyd to van Liender, and by him to Boulton Watt & Co.
- **39.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 25 Aug. 1801. *Docketed "Remittance of £322.7.5."*
- **40.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 29 Aug. 1801. Docketed "Remittance of £927.14.11. Wants a cast iron pot for melting lead and information about the boiler for Mydrecht engine. 7 mills going to be erected to assist in the drainage of Mydrecht."
- **41.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 19 Sep. 1801. *Docketed "Remittance of £200. Receipt of our letter of the 31 Aug."*
- Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 24 Sep. 1801. The docket is on a separate wrapper. On the same sheet:
  Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 19 Sep. 1801.
  Docketed "Copy of his last letter of the 19th inst. Enclosing sundry duplicates of his remittances. Surprised to find we had ordered a copper boiler without further instruction. Must consult the committee before a positive order can be given for it. Defects in the present one which they have. Query if the cogs are to be made of beech. Has received particulars of the iron pumps. Wants copy of letter of 1 Jul. Contract for the new drainage mills. Approbation of our castings."
- 43. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 3 Oct. 1801. Docketed "Receipt of our letters of 31 Aug. and 10 Sep. Wants copy of our letter of 1 Jul. Meeting of the Committee of Drainage hesitates to confirm the order for the copper boiler, till they receive answers to sundry queries."
- 44. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 13 Oct. 1801. The docket is on a separate wrapper. Docketed "Has procured a lead melting pot in Holland. Complaints of the charges for the millwork freight and other items. Reflections thereon and desire to have minute explanations for the satisfaction of the commission."
- **45.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 3 Nov. 1801. *Docketed "Enclosing first of exchange for £70."*
- Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 4 Nov. 1801.
  Enclosing (b) below. On the same sheet:
  Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 3 Nov. 1801.
  Docketed "Remits £70 in a second of exchange. Intends visiting England soon."
  - **b.** Bill of exchange. U. A. Hoogmer & Co. £70 to J. D. H. van Liender on Field & Ronalds (London). 4 Sep. 1801.

47. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 12 Dec. 1801. Docketed "Has received our explanatory letter respecting the windmills. Mydrecht commissioners decline ordering the copper boiler. Wants instructions about the cogs of wheels. Wishes the weights of the cast iron machinery. Wants the prices of ship stoves."

### MS 3147/3/507 SPECIAL SUBJECTS & CORRESPONDENTS J. D. H. VAN LIENDER 1802—1809

#### INTRODUCTION

Letters from the Dutch engineer John Daniel Huichelbos van Liender, from 1802 to 1809. Van Liender's correspondence was kept in three large bundles, this being the third. The subjects covered include various engines for Holland, and payment for them, and there are also letters written during van Liender's visit to Britain in 1802.

- 1. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 2 Mar. 1802. Docketed "Reasons of the Mydrecht Commissioners for declining boiler. Consoles upon the death of Mrs. Matthews. Commissioners of Nieuwkoop & Zevenhofen satisfied with our explanations. Remits £278.2.8 on account. Advertisements of the Rose Copper Company's bills. Mr. Blanken's engine performs to satisfaction."
- 2. Letter. J. D. H. van Liender (London) to Boulton Watt & Co. (Soho). 3 Aug. 1802. Docketed "Is arrived in London and wishes to know if any of the firm are there. Intends visiting Soho."
- 3. Letter. J. D. H. van Liender (Swan Inn, High St., Birmingham) to Boulton Watt & Co. (Birmingham). 19 Aug. 1802.

  Docketed "Notice of his arrival and requesting that his letters may be sent to him."
- 4. Letter. J. D. H. van Liender (Northampton) to Boulton Watt & Co. (Birmingham). 13 Sep. 1802.

  Docketed "Preference given by him to Birmingham over Manchester. Favourable opinion of Mr. Jee. Meeting with Mr. William Chapman at Hull. Sentiments upon the commerce of Liverpool and Hull. Wishes to know the price of a goldbeater's mould. Answered by James Watt Jr."
- 5. Letter. J. D. H. van Liender (Rotterdam) to James Watt Jr. (Birmingham). 12 Oct. 1802. Docketed "Safe arrival in Holland. Receipt of sundry letters for Mr. Gregory Watt. Estimate of new pumping engine wanted."
- 6. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 2 Nov. 1802. Docketed "Supposed error in our calculations. Doubts upon some part of our statements. Suggests the application of two or more pumps."
- 7. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 17 Dec. 1802. Docketed "Orders 31½ inch pumping engine for the out-turfing of the Crimpenrewaerd. Intends applying additional machinery to the engine. Returns thanks for drawing of corn mill governor."

- **8.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 31 Dec. 1802. *On the same sheet:* 
  - Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 17 Dec. 1802.
  - Docketed "Encloses copy of his letter of 17 Dec. Confirms the order and requests to have the drawings."
- 9. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 29 Mar. 1803. Docketed "His answer has been delayed by the want of the drawings. Determines upon cross-plate and pillars. Relative height of the pump etc. Will make the well longer than drawn and give good security to the foundations."
- **10.** Letter. J. D. H. van Liender (Amsterdam) to Boulton Watt & Co. (Soho). 15 Apr. 1803. *Docketed "Application for the price of a four horse engine on behalf of Mr. H. de Heus."*
- 11. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 19 Apr. 1803. Docketed "Our drawing sent is perfectly correct with their intentions. Wishes answer about a 4 horse engine for a friend, Mr. de Heus."
- 12. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 17 May 1803. Docketed "Mr. van Heus declines ordering the small engine on account of time. Proposes to execute the wrought iron work in Holland. Enquires what is meant by a horse's power. An 8 horse engine wanted for a fulling mill near Leyden. Iron windmill not yet at work but has been turned round by hand. Mydrecht engine performs well."
- 13. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Birmingham). 6 Sep. 1803.

  Docketed "The Batavian Society has voted a silver medal to Mr. Southern. Progress made in the Crimpenrewaerd engine house. The Nieuwkoop cast iron windmill set to work and answers perfectly. Wants estimate of three others to be erected next summer."
- 14. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Birmingham). 24 Oct. 1803.
  Docketed "Proposes the Crimpenrewaerd engine materials to be shipped to Emden. Increased price of our castings an obstacle to the order being given for the mill work of a second windmill. Can procure them cheaper from the German foundries."
- **15.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Birmingham). 29 Oct. 1803.

On the same sheet:

Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Birmingham). 24 Oct. 1803.

Docketed "Duplicate of his letter of the 24th. Address for consignment of the engine at Emden."

**16.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Birmingham). 2 Mar. 1804.

Docketed "Remits £500 on account of Crimpenrewaerd engine. Wants account of shipping charges etc."

**17a.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Birmingham). 13 Mar. 1804.

*Enclosing (b)—(d) below. On the same sheet:* 

Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Birmingham). 2 Mar. 1804.

Docketed "Duplicate of his letter of 2<sup>nd</sup>. Transmits seconds of exchange of the bills before sent."

- **b.** Bill of exchange. Rudolph Bentinck £200.1.- to J. D. Grosse on Robert Snow & Co. (Temple Bar, London). Utrecht, 1 Mar. 1802. *Passed by Grosse to Christiaan Brunting, and by Brunting to van Liender.*
- c. Bill of exchange. L. Knuijse Jr. £504.14.6 to Coudere, D. & M. P. Brants on Minet & Fector (Rotterdam). Emden, 7 Apr. 1804.

  Passed by Coudere, D. & M. P. Brants to van Liender.
- **d.** Bill of exchange. Jacob. Jans. Tischer £100 to Berend Ce. De Boer on Stevin, de Stevin, ?, Hennings (Rotterdam). Nordin, 31 Jan. 1804. *Passed by de Boer to de Heer, S. H. Rieckena [?], de Waarde, and by them to ?, and then passed to van Liender.*
- 18. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 14 Apr. 1804. Docketed "Remits £504.14.6 on account of the Crimpenrewaerd engine. Will remit the balance of his private account soon. Engine arrived at Emden. Hopes to have the drawings soon as they intend immediately to go on with the erection. Mr. Boult has written satisfactorily about his lead."
- 19. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 27 Apr. 1804. Docketed "Reference to his last letter and second of the bill enclosed. Remits balance of his private account. Enquires about a 4 horse engine. Drawings of their engine arrived safe."
- 20. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Birmingham). 25 Mar. 1805.

  Brought by van Heukelom. Docketed by William Cheshire.

  Docketed "Animadversions upon the state of public affairs. Receipt of our letter of the 18 Apr. 1804. Hopes that his of 27th same month with the seconds of bills of exchange had been received. The engine for the Crimpenrewaerd finished and gives much satisfaction. Observations of Mr. Duyster thereon. Laments the fatal consequences of the war his friends' intention of erecting an engine at Amsterdam suspended in consequence of it. The iron machinery for the windmill answers perfectly. Others similar making at Amsterdam. The bearer of this letter the son of his friend Mr. van Heukelom recommends him to our notice."
- **21.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 25 Mar. 1805. *Docketed "Introducing van Heukelom."*
- 22. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 7 Jul. 1806. Docketed "Particulars of the situation of an engine proposed to be erected upon the Katwyk & Rhine Canal. Has sent a drawing of the situation etc. Also a memorial upon the Crimpenrewaerd engine by Mr. Blanken Jr. Recommends weighting the outer end of the beam. Desires to have our terms for the execution of the engine and a drawing of the house. Enquires the price of a cast iron cross for a windmill."

- 23. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 11 Aug. 1806. Docketed "Refers to and recapitulates the contents of his letter of the 7 Jul. Recommends the house of Coysgarne & Lloyds to supply us with old iron."
- **24.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 29 Sep. 1806. Docketed "Order for the engine for the Katwyk & Rhine Canal. Will adhere to the plans and directions sent them. Wishes our advice about a debt to him by Mr. John Blunt of Liverpool."
- Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 8 Oct. 1806.
  On the same sheet:
  Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 29
  Sep. 1806.
  Docketed "Duplicate of his letter of 29 Sep. with order for the Katwyk & Rhine engine."
- 26. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 19 Mar. 1807. Docketed "Expects soon to hear of the Katwyk & Rhine engine having been completed. Wishes our opinion about the mode of sending it over. Wants estimate of a 12 horse engine. Imperial foundries erected at Liege with 8 steam engines."
- 27. Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 19 Mar. 1807.
  Docketed "Duplicate."
- 28. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 19 May 1807. Docketed "Can readily obtain the permission of his government to import the Katwyk & Rhine engine. Decrees respecting English manufactories not strictly observed. Wish to have the engine at work this summer. Orders a 14 horse engine and requests drawings. Reflections upon the foundry at Liege and the progress making abroad in manufactures."
- Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 2 Jun. 1807. On the same sheet:
  Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 19 May 1807.
  Docketed "Duplicate of his letter of 19 May. Has obtained the King of Holland's permission to import the Katwyk & Rhine engine, and a vessel will be sent for it to Hull."
- **30.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 6 Jun. 1807. Docketed "Name of the vessel and Captain now at Hull, who are to take over the Katwyk & Rhine engine. Enquires about the payment of the account owing to him by Boult & Co. of Liverpool."
- **31.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 12 Jun. 1807. Docketed "Misunderstanding of our former letter, as to the time of the engine being ready for Katwyk & Rhine. Urges its completion etc."
- 32. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 17 Jun. 1807. Docketed "Surprised at the interruption in proceeding with the Katwyk & Rhine engine. Will endeavour to send a vessel to Sunderland to take in part of her cargo of coals. Determines on Plan No. 1 for the position of the 14 horse engine for his friend."

**33.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 30 Jun. 1807. *On the same sheet:* 

Transcripts of 3 letters, as follows:

- J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 6 Jun. 1807.
- J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 12 Jun. 1807.
- J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 27 Jun. 1807. Docketed "Duplicates of his letters of 6, 12 and 27 Jun."
- 24. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 29 Aug. 1807. Docketed "Arrival of the Katwyk & Rhine materials and satisfaction given by them to the Directors. Mr. J. Duyster does not fully understand the hot water pump apparatus. Receipt of drawings of 14 horse engine and progress made with the house. Will charter a vessel to take the boiler whole. Desires to have 2 dozen of best black lead pencils. Remits bills for £1270."
- 35a. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 2 Sep. 1807. Enclosing (b)—(d) below. On the same sheet:
  Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 29 Aug. 1807.
  Docketed "Encloses duplicate of his letter of 29 Aug. Sends seconds and thirds of the bills then remitted. Will engage a vessel to take the 14 horse engine upon learning that it is ready."
  - b. Bill of exchange. Hendrik van Curervaart [?] £220 to his own order on John Witton Sr. (Hull). Hamburg, 24 Aug. 1807.

    Marked "First accepted at Messrs. Jos. Peel & Co., London." Passed by Curervaart to Van Liender.
  - c. Bill of exchange. Hendrik van Curervaart [?] £250 to his own order on John Witton Sr. (Hull). Hamburg, 24 Aug. 1807.

    Marked "First accepted at Messrs. Jos. Peel & Co., London." Passed by Curervaart to Van Liender.
  - **d.** Bill of exchange. Gt. van Diilken for ? Say & Co. £800 to J. D. H. van Liender on John Kirwan & Sons (London). Rotterdam, 28 Aug. 1807.
- **36.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 3 Sep. 1807. Docketed "Receipt of our letter and account. Has engaged a Papenburger vessel to bring over the 14 horse engine."
- **37a.** Letter. R. Mees & Sons (Rotterdam) to Boulton Watt & Co. (Soho). 8 Sep. 1807. *Enclosing (b) below.* Docketed "Remit 2<sup>nd</sup> of exchange for £250 on account of Mr. J. D. H. van Liender."
  - b. Bill of exchange. W. Cullen Sr. for W. Cullen & Co. £250 to P. S. Nortier on Minet & Fector (London). Flushing, 8 Sep. 1807.
    Passed to Boulton Watt & Co. by Nortier on van Liender's order.
- 38. Transcript of letter. R. Mees & Sons (Rotterdam) to Boulton Watt & Co. (Soho). 8 Sep. 1807.
  Marked "Duplicate." Docketed "Remit £250 on account of Mr. van Liender."
- 39. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 25 Nov. 1807. Docketed "Receipt of sundry of our letters. Difficulty of epistolary intercourse and of making remittances. Cannot at present procure a passport for the 14 horse engine.

Remarks upon the system of the English Ministry and the progress making in manufactures on the Continent. Description of the Imperial foundry at Liege. Progress made in the Katwyk & Rhine Canal. Much pleased with the engine, which will be started next month. Mr. Duyster understands the hot water pump, but wants explanation of what he calls the steam fountain."

- **40.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 22 Dec. 1807. *On the same sheet:* 
  - Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 25 Nov. 1807.
  - Docketed "Duplicate of his letter of 25 Nov. Complains much of Mr. Cankrien's having forwarded the 14 horse engine during the prohibition and at an enormous freight. Difficulty of preventing the ship and cargo from being confiscated and consequences likely to ensue. Receipt of sundry of our letters."
- 41. Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 7 Jan. 1808. Docketed "Will send a remittance for the 14 horse engine, as soon as he can with safety. Has obtained the King's order for the release of the Friendship and her cargo. Complains of the high freight and want of insurances. Wants explanation of the throttle valve of the Katwyk & Rhine engine."
- **42.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 18 Jan. 1807. *On the same sheet:* 
  - Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 7 Jan. 1808.
  - Docketed "Remits bill for £220. The landing of Mr. Cankrien's cargo of coals refused. Progress made in the Katwyk & Rhine undertaking."
- **43.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 31 May 1808. *Docketed "Remittance of £25."*
- **44.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 1 Nov. 1808. Docketed "Has not received an acknowledgement of remittances transmitted to us. Favourable report of the Katwyk engine."
- **45.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 12 Apr. 1809. *Docketed "Remits £300."*
- **46.** Letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 4 May 1809. *On the same sheet:* 
  - Transcript of letter. J. D. H. van Liender (Rotterdam) to Boulton Watt & Co. (Soho). 12 Apr. 1809.
  - Docketed "Enclosing a bill of exchange for £217.11 and seconds for £300 remitted 12 Apr. last."

# MS 3147/3/508 SPECIAL SUBJECTS & CORRESPONDENTS LLANARMON AND PLAS MOSTYN MINES 1802—1809

#### INTRODUCTION

Letters about steam engines for Llanarmon lead mine and Plas Mostyn colliery, Denbighshire, Wales, from 1802 to 1804. Both mines were owned by William Wilkinson, younger brother of John Wilkinson. Several of the letters are from Wilkinson's mine agent and partner Robert Burton.

For drawings of the engines see Portfolios 5/582, 5/593.

- 1. Letter. William Wilkinson (Plasgrono) to Boulton & Watt Jr. (Soho). 7 Mar. 1802. Requesting an estimate for an engine for a lead mine he and Robert Burton are planning to establish at Llanarmon.
- 2. Letter. Robert Burton (Minera) to James Watt Jr. (Birmingham). 10 May 1802. He and Wilkinson are to have the mine, therefore they wish to have the estimate. He proposes that it will be deeper than mentioned by Wilkinson.
- 3. Letter. Robert Burton (Minera) to Boulton Watt & Co. (Soho). 17 May 1802.

  Orders an engine of the first size mentioned for £715. Asks where he can get the remainder of the plain pipes.
- **4.** Letter. Robert Burton (Minera) to Boulton Watt & Co. [Soho]. 27 May 1802. Water for the engine is to be delivered at surface level. Will build the engine house with stone. Requests dimensions of the beam.
- **5.** Letter. Robert Burton (Minera) to Boulton Watt & Co. (Soho). 25 Sep. 1802. *The engine house is complete. When will the engine be ready?*
- 6. Letter. William Wilkinson (Plasgrono) to Boulton Watt & Co. (Soho). 4 Oct. 1802. Directions for forwarding the goods. Will want another engine for a coal mine[Plas Mostyn] in the Spring. Failure of the attempt to cast a copper table at Bersham. Does James Watt Jr. still require a "waiter" for the counting house?
- 7. Letter. William Wilkinson (Plasgrono) to James Watt Jr. (Soho). 10 Oct. 1802.

  Reflections upon James Watt and Gregory Watt's trip to France. Details of Thomas Miller, whom he recommends for the storekeeper's job. Failure of an attempt to cast a copper table at Bersham.
- 8. Letter. Robert Burton (Minera) to Boulton Watt & Co. (Soho). 13 Nov. 1802.

  Docketed as 13 Dec.

  Sends £700 on account of the Llanarmon engine. Wishes a man to be sent within 3 weeks to erect the engine and examine the Caemynydd West End engine.
- 9. Letter. Robert Burton (Minera) to Boulton Watt & Co. (Soho). 27 Feb. 1803. Pearson will begin to examine the Caemynydd engine tomorrow. He has almost finished the Llanarmon engine.

- 10. Letter. William Wilkinson (Plasgrono) to Boulton Watt & Co. (Soho). 5 Jun. 1803. Sends a bill for payment of Thomas Pearson's time and for money he owes to James Watt Jr. Favourable report of the engine details of its performance. Will want another engine for his coal workings. Gives particulars of situation and wishes to have drawings of the engine house.
- Letter. William Wilkinson (Plasgrono) to James Watt Jr. (Soho). 11 Jun. 1803.
  On the same sheet:
  Letter. William Wilkinson (Plasgrono) to Boulton Watt & Co. [Soho]. 11 Jun. 1803.
  Developments at Bersham. Thoughts on the case against Matthew Murray of Leeds. Mr. Lloyd's raising of 100 men at Minera for artillery. Returns his rectified draft. Will send particulars of the locale of the coal mine in a few days.
- **12.** Letter. Robert Burton (Minera) to Boulton Watt & Co. [Soho]. 13 Aug. 1803. *Sending their own plan for the Plas Mostyn engine house.*
- 13. Letter. William Wilkinson (Flookborough) to James Watt Jr. (Lees Esq., Salford). 13 Aug. 1803.

  Hopes to get the Plas Mostyn engine house up this Autumn. Hopes to visit Soho. Is about to return home. Mr. Stockdale of Cark requires a new engine for his mill. Can James Watt Jr. go to advise them on a new one.
- **14.** Letter. William Wilkinson (Minera) to Boulton Watt & Co. (Soho). 25 Aug. 1803. Will adopt Boulton Watt & Co. 's plans for the engine house. Hopes he and Burton will be able to visit Soho. His plans for supplying water to the engine.
- **15.** Letter. William Wilkinson (Minera) to Boulton Watt & Co. (Soho). 29 Aug. 1803. *Details of the size of the pumps at Plas Mostyn. Can Boulton Watt & Co. send all the details of a suitable engine?*
- 16. Letter. Robert Burton (Minera) to Boulton Watt & Co. (Soho). 8 Sep. 1803. Confirming the order for the Plas Mostyn engine 36 inch, 8ft. stroke with an iron beam, parallel motion and 3 working barrels.
- 17. Letter. William Wilkinson & Robert Burton (Minera) to Boulton Watt & Co. (Soho). 13 Mar. 1804.Some of the materials have arrived. Everything is ready for an engine erector.
- 18. Letter. William Wilkinson (Plasgrono) to Boulton Watt & Co. (Soho). 16 June 1804. They have started the Plas Mostyn engine and it works well, but a few articles are deficient. Pearson is repairing the Llanarmon engine and will return to repair the Plas Mostyn one. Sends £1360 for the Plas Mostyn engine. Problems with the Bersham engineers repairing the Caemynydd West End engine.

# MS 3147/3/509 SPECIAL SUBJECTS & CORRESPONDENTS JEAN HYACINTHE DE MAGELLAN 1777—1785

#### INTRODUCTION

Letters from Jean Hyacinthe de Magellan, Portuguese scientist, from 1777 to 1785. The bundle includes letters about Magellan's book on latent heat and accounts for books bought by Magellan for the Lunar Society and James Watt.

- 1. Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to Matthew Boulton [Soho]. 8 Dec. 1777.
- **2.** Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to James Watt (Soho). 30 Jan. 1778.
- 3. Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to Matthew Boulton [Soho]. 28 Feb. 1778.
- 4. Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to Matthew Boulton (Soho).3 Mar. 1778.The outside of the letter is directed to Boulton & Watt.
- **5.** Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to James Watt (Birmingham). 12 Mar. 1778.
- **6.** Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to James Watt (Soho). 21 Mar. 1778.
- 7. Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to Matthew Boulton (Soho). 17 Apr. 1778.
- 8. Memorandum (in French). Article de la lettre de Mr. d'Heronville à Mr. du Magellan datée le 17 Mai 78; sur l'affaire de Messrs. Boulton & Watt. 17 May 1778. Sent by Magellan to Boulton & Watt circa 22 May 1778.
- 9. Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to Matthew Boulton (Soho). 21 Jul. 1778.
- **10.** Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to Matthew Boulton (Redruth). 16 Oct. 1778.
- **11.** Letter. J. de Magellan (London) to James Watt (Soho). 13 Jan. 1779. *The outside of the letter is directed to Boulton & Watt.*
- 12. Letter. J. de Magellan (London) to James Watt [Soho]. 21 Jan. 1779.
- **13.** Letter. J. de Magellan (London) to James Watt [Soho]. 29 Apr. 1779. *Docketed "Recommending 3 Portuguese noblemen."*

- **14.** Letter. J. de Magellan (12 Nevill's Court, Fetter Lane, London) to James Watt (Birmingham). 22 Feb. 1780.
- **15.** Letter. J. de Magellan (London) to James Watt (Birmingham). 7 Mar. 1780. Docketed as 8 Mar. Docketed "Latent heat."
- **16.** Letter. J. de Magellan (London) to James Watt [Birmingham]. 17 Mar. 1780.
- 17. Letter. J. de Magellan (London) to James Watt (Birmingham). 27 Mar. 1780.
- **18.** Letter. J. de Magellan (London) to James Watt [Birmingham]. 22 Apr. 1780.
- **19.** Letter. J. de Magellan (London) to James Watt (Birmingham). 8 Aug. 1780.
- **20.** Letter. J. de Magellan (London) to James Watt (Birmingham). 16 Sep. 1780.
- 21. Letter. J. de Magellan (London) to James Watt (Soho). 6 Oct. 1780.

  With 2 small squares of gauze enclosed in the letter.

  Docketed "With caoutchouc varnish and acceptance of our terms about copying machines."
- **22.** Letter. J. de Magellan (London) to James Watt (Birmingham). 31 Oct. 1780.
- 23. Letter. J. de Magellan (London) to James Watt (Birmingham). 20 Dec. 1780.
- **24.** Letter. J. de Magellan (London) to James Watt (Birmingham). 13 Jan. 1781. *With wrapper docketed "Mr. Magellan 31 Dec. 1780 & 13 Jan. 1781."*
- 25. Letter. J. de Magellan (London) to James Watt & Co. (Birmingham). 20 Sep. 1782.
- **26.** Letter. J. de Magellan (London) to James Watt (Birmingham). 5 Oct. 1782.
- 27. Letter. J. de Magellan (London) to James Watt & Co. (Birmingham). 12 Oct. 1782.
- **28.** Letter. J. de Magellan (London) to James Watt (Birmingham). 8 Mar. 1783. *Docketed "With* Rozier's Journal."
- 29. Letter. J. de Magellan (London) to Matthew Boulton or James Watt (Birmingham). 11 Mar. 1783.

  Docketed "Concerning Monsieur Genet."
- **30.** Letter. J. de Magellan (London) to James Watt (Birmingham). 22 Dec. 1783.
- **31.** Letter. J. de Magellan (London) to James Watt (Birmingham). 24 Feb. 1784.
- **32.** Letter. J. de Magellan (London) to James Watt (—). 23 Mar. 1784. *Docketed as 30 Mar*.
- 33. Letter. J. de Magellan (London) to Boulton & Watt (Birmingham). 15 Jun. 1784.
- **34.** Letter. J. de Magellan (London) to James Watt (Birmingham). 3 Sep. 1784. *Docketed "With his account. Settled with him in Oct. 1784."*

- 35a. Memorandum. Books bought of Mr. Magellan by the Lunar Society. Jan. 1783—1784. Kept with (b) – (f) below. Docketed "Mr. Magellan's accounts 1784." Used as a wrapper for the items below.
  - **b.** Memorandum. Lunar Society bought of Mr. Magellan. Mar. 1783—Feb. 1784. *In James Watt's hand.*
  - **c.** Account. James Watt debtor to James Watt & Co. for books bought from Mr. Magellan. Mar. 1784.
  - **d.** Account. Mr. Magellan in account with James Watt & Co. 9 Oct. 1782, 1784, 4 Sep. 1784.
  - e. Memorandum. Mr. James Watt with Mr. Magellan. *Books bought by Watt on 7 Mar. 1783, 4 and 9 Sep. 1784.*
  - f. Account. Mr. Watt debtor [to Mr. Magellan].

    Docketed "Mr. Magellan's account paid Oct. 1785 £3.2.2."
- 36. Memorandum. Books bought from Mr. Magellan. Mar. 1784 & 1785.

  In James Watt's hand.

  Docketed "Account of books bought from Mr. Magellan for myself paid."
- **37.** Memorandum. Calculations re a steam engine.

### MS 3147/3/510 SPECIAL SUBJECTS & CORRESPONDENTS MARLY, FRENCH PATENT 1778—1787

#### INTRODUCTION

Papers and letters relating to the "Machine of Marly" and the French patent, from 1778 to circa 1786. The Machine of Marly was a large hydraulic engine used to supply Versailles with water from the Seine. Boulton and Watt were invited to Paris to view the antiquated machine and to advise on a possible replacement. They went to Paris in November 1786, remaining there until 10 January 1787. While there they petitioned the King to grant them Letters Patent confirming their earlier exclusive licence or "Arrêt de Conseil." The Arrêt had been granted in April 1778 while Boulton and Watt were in negotiation with the Comte d'Heronville, through Jean Hyacinthe de Magellan, for a drainage engine for the Dunkirk area. The Arrêt specified that a trial had to be made of the engine, but the Dunkirk engine was never built. Joseph Jary obtained a further decree saying that the trial could be made on the engine he ordered for coal mines near Nantes, and this became the first Boulton & Watt engine in France. However, the terms of the Arrêt were broken by Jacques Constantin Perier, who, following his purchase of an engine for supplying Paris with water, set up his own manufactory, and failed to pay Boulton & Watt. Boulton & Watt did not propose to take action against Perier, but by getting the Arrêt confirmed they sought to secure an exclusive licence in France for subsequent improvements to the rotative engine.

On returning to England they wrote letters and a report about the Machine of Marly, or "Machine Pont Notre Dame".

**1.** Bundle wrapper.

Marked "Papers relative to Marli [sic] & French Patent."

#### Marly.

- 2. Transcript of letter (in French). D'Angiviller (Versailles) to Matthew Boulton [?] [Soho]. 13 Feb. 1786.

  Docketed "Copy of Monsieur D'Angaviller upon Marly Water Works."
- 3. Calculations. Not dated. *In Watt's hand. Marked "Marly."*
- **4.** Calculations. Not dated.

On the same sheet:

Draft of letter. Boulton & Watt [Paris] to the Duke of Dorset, "His Britannic Majesty's Ambassador" (Paris). Not dated.

- **5.** Calculations. Marly Water Works. Not dated. *In Matthew Boulton's hand.*
- **6a.** Transcript of letter (in French). Boulton & Watt (—) to the Abbé de Calonne (—). Jan. 1787.

*Kept with (b) below.* 

Docketed "Copy letter to Mr. de Calonne on our leaving Paris, 1787."

**b.** Translation of the above letter.

7. Draft of letter (in French). Boulton & Watt (Birmingham) to Le Baron de Bretueil [Paris]. 24 May 1787.

In James Watt's hand.

**8a.** Trancript of letter. Boulton & Watt (Birmingham) to Le Baron de Bretueil [Paris]. 24 May 1787.

*Kept with* (b) - (d) *below.* 

Docketed "Memoire and letter to Mr. Le Baron de Breteuil."

- **b.** Translation of the above letter in French.
- **c.** Draft of the above letter. *In James Watt's hand.*
- d. Memorandum. "Memoire sur le Perfectionment de la Machine Pont Notre Dame par Boulton & Watt." May 1787. 6 sheets.

  In James Watt's hand. The text of the memoire is in English.

#### Arrêt de Conseil and French Patent.

- 9. Memorandum (in French). Extrait des Registres du Conseil d'État. 14 Apr. 1778. Docketed "Original copy of the Arret de Conseil."
- Memorandum (in French). Memoire des Demandes que Monsieur Magellan est prié de faire à Monsieur Boulton.
  Questions put by Le Comte d'Heronville, concerning the exclusive privilege for the engine in France.
- 11. Memorandum (in French). Observations du Comte d'Heronville pour les Sieurs Boulton & Watt.

  Concerning the exclusive privilege for the engine in France.
- 12. Memorandum (in French). Petition and specification for confirmation and extension of the Arret de Conseil. 2 sheets.

  Description of progress of the engine, erection of engines in France etc.
- 13. Memorandum. Draft of petition for extension of the Arret de Conseil.
- **14.** Calculations & notes. Relative to the Water Works at Paris. *In Matthew Boulton's hand.*

#### MS 3147/3/511

## SPECIAL SUBJECTS & CORRESPONDENTS GILBERT MEASON AND WANLOCKHEAD MINE 1778: 1781—1785

#### INTRODUCTION

Letters from Gilbert Meason from 1778 and 1781 to 1785. Gilbert Meason was one of the proprietors of Wanlockhead Mine in Dumfries. Boulton & Watt sold two engines to the mine, one which was erected in 1779, and a replacement engine which was erected in 1785 to 1786.

For drawings of the engines see Portfolios 5/558, 5/649a.

- 1. Letter. Gilbert Meason (Edinburgh) to Boulton & Watt (Birmingham). 23 Jun. 1778. Docketed "Covering article."
- 2. Memorandum. Account of Water in Wanlockhead Mine, about the year 1778. "Facts communicated by Mr. Meason" concerning the "Black Engine" and the "Little Engine.".
- 3a. Memorandum. Notes on the history of the Wanlockhead engine and the agreement with the proprietors from 1775 to Nov. 1780. 2 sheets. *Kept with (b) below.* 
  - **b.** Part of a draft of a letter to the Wanlockhead proprietors. Not dated.
- 3. Transcript of letter. Gilbert Meason (Edinburgh) to Boulton & Watt [Birmingham]. 18 Dec. 1781.
- 4. Memorandum. Engine near Leadhills. 1782.

  Docketed "Account of the Wanlockhead engine 1782" and "Robert Cameron."

  With a draft of a letter mainly in shorthand on the reverse.
- 5. Letter. Gilbert Meason (Edinburgh) to Boulton & Watt (Birmingham). 16 Apr. 1782.
- **6.** Letter. Gilbert Meason (Edinburgh) to Boulton & Watt (Birmingham). 1 Jun. 1782.
- **8a.** Letter. Samuel Garbett (Edinburgh) to Matthew Boulton [Soho]. 25 Jul. 1782. *Enclosing (b)—(f) below. Docketed "With papers relative to Mr. Meason's engine."*
- b. Transcript of letter. Samuel Garbett [Edinburgh] to Gilbert Meason [Edinburgh]. 23 Jul. 1782.
  Marked "No. 1."
- c. Letter. Gilbert Meason (St. Andrew's Square, Edinburgh) to Samuel Garbett [Edinburgh]. "Tuesday afternoon" [23 Jul. 1782]. *Marked "No. 2."*

**d.** Transcript of letter. Samuel Garbett [Edinburgh] to Gilbert Meason [Edinburgh]. 24 Jul. 1782.

On the same sheet:

Memorandum. Notes by Garbett about his conversation with Meason. 24 Jul. 1782. *Marked "No. 3 and No. 4."* 

- e. Transcript of memorandum. Agreement between Samuel Garbett on behalf of Boulton & Watt and Gilbert Meason on behalf of Ronald Craufurd & Co. re the Wanlockhead engine. 25 Jul. 1782.

  Marked "No. 5."
- **f.** Letter. Gilbert Meason (Edinburgh) to Samuel Garbett [Edinburgh]. 25 Jul. 1782. *Marked "No. 6."*
- **9.** Letter. Gilbert Meason (Edinburgh) to Boulton & Watt (Birmingham). 2 Aug. 1782. *Docketed "About the agreement and about the water corroding the piston rod."*
- **10.** Letter. Gilbert Meason (Edinburgh) to Boulton & Watt (Birmingham). 7 Sep. 1782. *Docketed "About the injection water."*
- 11. Letter. Gilbert Meason (Edinburgh) to Boulton & Watt (Birmingham). 21 Jul. 1783.
- **12.** Letter. Gilbert Meason (Wanlockhead) to James Watt [Birmingham]. 1 Oct. 1783. *Docketed "Order for copying press."*
- 13. Letter. Gilbert Meason (Edinburgh) to Boulton & Watt (Birmingham). 27 Nov. 1784.
- **14.** Letter. Gilbert Meason (Edinburgh) to Boulton & Watt (Birmingham). 8 Jan. 1785. *Mis-docketed as 1784*.
- 15. Memorandum. Copy of Mr. Smeaton's proposal to Mr. Meason. 9 May 1785.

  In James Watt's hand. Dated at Gray's Inn.

  Copy of a proposal by John Smeaton for an atmospheric engine of his construction. This may be a copy made in 1785 of a much earlier proposal by Smeaton.
- **16.** Memorandum. Dimensions of the present engine and query. May 1785. *Marked by Watt "Answers to Mr. Meason when at Birmingham May 1785."*

#### MS 3147/3/512

# SPECIAL SUBJECTS & CORRESPONDENTS MINERA MINE – PAPERS RELATIVE TO THE SETTLEMENT WITH MINERA OR MAESYFYNNON WEN ADVENTURERS 1796

#### INTRODUCTION

Papers relating to the settlement with the adventurers in Minera Mine, from 1796. Boulton & Watt were first approached about an engine for Minera in Denbighshire by Joseph Duke of Chester in 1783 (3/373/15, General Correspondence 1775—1785). They eventually supplied two engines to the Maesyfynnon Wen Company, a lead mining concern whose proprietors included Robert Burton, John and William Wilkinson, and Thomas Jones, the Wilkinsons' nephew. The company worked two

mines at Minera. The first was on the Maesyfynnon Wen estate, which was owned by Robert Burton, and the company leased the right to work the mine from him. The right to work the second mine, Caemuneth West, was leased from a Mr. Topping. Robert Burton acted as mine agent (or manager).

At some point the company ran into difficulty, and the mine may have stopped. A meeting was held on 4 Aug. 1795 at which it was resolved to carry on the works "with activity and that the two fire engines be immediately set to work." A new set of books was begun and Robert Burton was appointed (or possibly re-appointed) as agent. Boulton & Watt were in dispute with the mine for payment of premiums on the engines – by 2 April 1796 they were owed £1236. At a meeting on 2 July 1796 a further meeting was called for 1 August, to settle their demands. Robert Burton was ordered to obtain a copy of their claims. It was also resolved that no ore was to be delivered to anybody until Burton had settled all claims upon the mine including royalties, rents and workmen's wages. At the meeting of 1 August it was duly resolved that Boulton & Watt's claims were indeed just and that John Wilkinson should settle them. Wilkinson paid them on 6 Aug. and the future premium for the two engines was settled at £283.

This small bundle of papers relating to the 1796 dispute was found among the General Correspondence 1795—1798. For papers relating to further disputes at Minera, see 3/513 to 3/515. Also several of the letters from John Wilkinson from 1796 to 1797 (3/536) refer to the dispute. For drawings of the engines, see Portfolio 5/552.

- **1.** Wrapper.
  - Marked "Papers relative to the Settlement with Minera or Maesyfynnon Wen Advrs. 6 Aug. 1796."

On the back of the wrapper is a note about how much the mine owed Boulton & Watt and when they were paid.

- 2. Memorandum. Resolution &c. of Maesyfynnon Wen Adventurers.

  Contains an extract from the Maesyfynnon Wen Articles of Partnership, 9 Dec. 1783;

  Resolution of the Adventurers, 4 Aug. 1795; Report of a meeting 2 Jul. 1796.
- 3. Letter. Robert Burton (Minera) to Boulton & Watt (Birmingham). 8 Jul. 1796.

  Announcing a meeting of the Maesyfynnon Wen Mine Co. to settle the engine dues and other matters. Requesting their attendance. Can they send him a copy of their demands.
- Letter. Robert Burton (Minera) to William Wilkinson (London). 18 Jul. 1796.
   On the same sheet:
   Account of coal consumed by the engine from 1786 to 1796.

   Cannot answer all of Boulton & Watt's queries about the engine. Hopes William Wilkinson can answer their points.
- 5. Letter. Robert Burton (Minera) to Boulton & Watt (Birmingham). 19 Jul. 1796. Cannot answer all their questions about the working of the engine. William Wilkinson will call on them. Cannot do coal consumption experiments on the Maesyfynnon Wen engine, but can do an experiment on the Caemuneth engine.
- 7. Memorandum. Resolution of Part of the Adventurers in Minera to refer settlement of Account with Boulton & Watt to Mr. John Wilkinson. 1 Aug. 1796.
- 7. Memorandum. Resolution of Part of the Adventurers in Minera. 1 Aug. 1796.

  Different resolution to the above. This resolution states that Boulton & Watt's demands are just and should be paid.
- 8. Calculations. Sheet of calculations re. the premium and coal consumption of the Minera (Maesyfynnon Wen) engine. Not dated.

# MS 3147/3/513 SPECIAL SUBJECTS & CORRESPONDENTS MINERA MINE – ACCOUNTS 1794—1799

#### INTRODUCTION

Sheets of accounts relating to Minera Mine. Denbighshire, from 1794 to 1799. Late in 1796, Robert Burton was replaced as agent of the Minera lead mines by one William Jones. While Jones was agent the concern began to show a loss. A dispute began among the proprietors, with Burton and his supporters beginning a Chancery action against the John and William Wilkinson, Thomas Jones and others, alleging that they had tried to ruin the mine. William Wilkinson, although a defendant against Burton's action, had doubts about his brother's conduct which he frequently confided to Boulton & Watt. Boulton & Watt were interested parties because of the premiums on the two engines that had been erected on the mines, and they had close links with the Wilkinsons. In February 1797 Chancery ordered that Boulton & Watt should appoint a new mine agent, and yhey chose one John Jones of Coedŷglyn. The two sides continued to argue over various issues, including who had the right to remove ore from the site, and John Jones' refusal to restart the engines in Spring 1798. William Wilkinson was now concerned about his brother's undue influence over John Jones, and the conduct of the underground agent, William Jones (not the same man who had been mine agent) was also called into question. The mine was thus virtually at a standstill. William Wilkinson again asked Boulton & Watt for their intervention, claiming that John Jones would only act on his brother's orders, and repeating his assertion that his brother was trying to ruin the mine.

In May 1799 James Watt Jr. and James Lawson made a report on the mine and reviewed the accounts, making various recommendations including restarting the engines and appointing a skilled underground agent. At a meeting on 1 July 1799, John Jones resigned and William Wilkinson supported Burton's move to become mine agent again. John Wilkinson, Thomas Jones and their supporters protested at this. Boulton & Watt were by now urging that the mine be stopped completely while differences were settled, while John Wilkinson was risking being found in contempt of the Chancery Court, as he had not yet produced the mine's books, despite an order to do so. Subsequent events are unclear, as documents between July 1799 and January 1801 are wanting, but the mine passed to the control of William Wilkinson and Robert Burton.

The items in this bundle are accounts of the expenses of working the mine, such as wages, stores, administrative costs, costs of the mine's Boulton & Watt engines etc. James Watt Jr. had these drawn up retrospectively when he looked into the mine's finances during May 1799. Most are quarterly accounts titled "Expense of carrying on the Works at Maesyfynnon Wen &c." and have been docketed as "Methodised Statement of Minera Account."

For papers relating to this dispute, see the next bundle, 3/514, which includes a copy of Watt Jr.'s report. Also many of William Wilkinson's letters from 1794 to 1799 (3/537) cover this dispute. For papers relating to an earlier dispute over the engine premiums, see 3/512, and for later correspondence, see 3/515. For drawings of the engines, see Portfolio 5/552. See also 3/415/83 for a letter from Thomas Lovett declining the manager's post, and see also 3/413/33 and 34 for a transcript of Matthew Boulton and James Watt's letter appointing John Jones as manager on 1 March 1797 and a letter from Jones about a new boiler, 11 May 1797

- 1. Michaelmas 1794 to Lady Day 1795.
- **2.** Lady Day to Midsummer 1795.

- 3. Midsummer to Michealmas, Michaelmas to Christmas 1795. 2 sheets.
- **4.** Christmas 1795 to Lady Day 1796.
- **5.** Lady Day to Midsummer 1796.
- **6.** Midsummer to Michaelmas 1796.
- 7. Christmas 1796 to Lady Day 1797.

  Docketed "Agent Mr. William Jones & for the latter part of the time Mr. John Jones of Coedŷglyn."
- 9. Account. "Disbursements at Maesyfynnon Wen and Mr. Topping's Mine Works in Minera". Christmas 1796 to Lady Day 1797.

  Docketed "Mr. Jones of Coedŷglyn's Statement of the disbursements made by himself & others at Maesyfynnon Wen." Very similar in content to No. 7 above.
- **9.** Lady Day to Midsummer 1797. *This follows on from No. 7 above.*
- **10.** Midsummer to Michaelmas 1797.
- **11.** Michaelmas to Christmas 1797.
- **12.** Christmas 1797 to Lady Day 1798.
- 13. Lady Day to Midsummer 1798.
- **14.** Account. "General Account. Mr. Jones of Coedŷglyn's Statement of the Account of Maesyfynnon Co." Lady Day 1797 to Misummer 1798. *Double entry account.*
- **15.** Midsummer to Michaelmas 1798. *This follows on from No. 13 above.*
- 16. Account. "Disbursements at Maesyfynnon Wen and Mr. Topping's Mine Works in Minera". Midsummer to Michaelmas 1798.

  Docketed "Mr. Jones of Coedŷglyn's Statement of the disbursements made by himself & others at Maesyfynnon Wen."
- 17. Account. "Mr. Jones of Coedŷglyn's Statement of the Maesyfynnon Wen Account". Midsummer to Michaelmas 1798.

  Double entry account similar in style to No. 14 above.
- **18.** Michaelmas to Christmas 1798. *This follows on from No. 15 above.*
- 19. Account. "Disbursements at Maesyfynnon Wen and Mr. Topping's Mine Works in Minera". Michaelmas to Christmas 1798.

  Docketed "Mr. Jones of Coedŷglyn's Statement of disbursements at Maesyfynnon Wen."

  Follows on from No. 16 above.
- **20.** Account. "Maesyfynnon Wen Mr. Jones of Coedŷglyn's Statement of the sums expensed in making trials and driving levels upon the respective properties of Mr. Topping and Mr. Burton." Midsummer 1797 to Christmas 1798.

- 21. Abbreviature of the Methodised Statements of the different Quarterly Accounts. Michaelmas 1794 to Christmas 1798. *Docketed "No. 2"*.
- Account. General View of the Expenditure & supposed Profit & Loss of Maesyfynnon Wen. 1790 to 1799.

  \*\*Docketed "Table I."
- 23. Abbreviature of the Methodised Statements of the different Quarterly Accounts. Michaelmas 1794 to Christmas 1798.

  \*\*Docketed "Table II". Identical to No. 21 above.
- **24.** General View of the Expenditure & supposed Profit & Loss of Maesyfynnon Wen. 1790 to 1799.
- Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 1 July 1799.On the same sheet:Memorandum of resolutions made at a meeting of the Adventurers of Minera Mine, 1 July 1799.

Transcript of letter. Gervas & Thomas Ward (Macclesfield) to William Wilkinson (Court). 29 June. 1799.

# MS 3147/3/514 SPECIAL SUBJECTS & CORRESPONDENTS MINERA MINE – LETTERS AND PAPERS 1797—1799

#### INTRODUCTION

Papers relating to the disputes at Minera Mine, Denbighshire, from 1797 to 1799. For an account of this dispute, see the introduction to the previous bundle, 3/513. This bundle includes correspondence, memoranda and transcripts of the Chancery Orders prepared by A., J. & G. Weston, Boulton & Watt's solicitors in London, who were acting for Robert Burton and his supporters. It also includes James Lawson's sketch plan of the mines, and James Watt Jr.'s report.

For accounts that Watt Jr. had drawn up for his report, see 3/513. For papers relating to an earlier dispute over the engine premiums, see 3/512, and for later correspondence, see 3/515. For drawings of the engines, see Portfolio 5/552.

- **1.** Memorandum. List of persons proposed by J. Wilkinson as proper to be managers of Maesyfynnon Mine. Not dated.
- 2. Order in Chancery (transcript) empowering Boulton & Watt to appoint a new mine manager. 26 Jan. 1797.
- 3. Letter. John Wilkinson (Bradley) to Boulton & Watt (Soho). 3 Feb. 1797.

  Docketed "Agrees with the Chancery order. Proposes Mr. Lovett to manage Minera Mine."
- 4. Order in Chancery (transcript) confirming the previous Order concerning the appointment of a new mine manager. 9 Feb. 1797.

- 5. Letter. A., J. & G. Weston (Fenchurch Street, London) to Boulton & Watt (Soho). 13 Feb. 1797.

  The enclosures mentioned in this letter are Nos. 2 and 4 above. Docketed "With the Orders of the Court of Chancery for us to appoint a Manager of Maesyfynnon Wen."
- 6. Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 17 Feb. 1797.

  Docketed "Wishing B & W to send over some person to inspect the proceedings upon the mine and to put a stop to the innovations."
- 7. Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 20 Feb. 1797.

  Docketed "Proposes John Jones of Coedŷglyn a manager of Minera. Has no objection to Mr. Duke or to William Jones of Pen-y-Bont."
- **8.** Letter. F. Williams (Adelphi, London) to Boulton & Watt (Soho). 20 Feb. 1797. Docketed "Recommends Mr. Edwards near Holywell as a manager of the Mesyfynnon Mine."
- 9. Letter. John Wilkinson (Bradley) to Boulton & Watt (Soho). 20 Feb. 1797.

  Docketed "Declines meeting B & W at Minera Mine. Wishes them to call upon him at Bradley as he wishes to converse with them."
- 10. Letter. John Wilkinson (Bradley) to Boulton & Watt (Soho). 23 Feb. 1797.

  Docketed "Agrees to suspend the dressing of the ores. Approves of Mr. Jones of Coedŷglyn as manager and proposes also a Mr. Kirk."
- 11. Memorandum. Proposals for what should be recommended for the General Direction of Maesyfynnon Wen Mine. By William Wilkinson. 25 Feb. 1797. Details of what the Manager's duties should be.
- Transcript of letter. J. Campbell (Line Inn) to A., J. & G. Weston (London). 8 Mar. 1797.
  On the same sheet:
  Transcript of letter. James Watt (Soho) to A., J. & G. Weston (London). 1 Mar. 1797.
  Docketed "Opinion on the nomination of Mr. Jones and other particulars relative to Minera Mine."
- **13.** Memorandum. The appointment and duties of John Jones. By Thomas Jones. 1 Mar. 1797
- **14.** Letter. A., J. & G. Weston (London) to James Watt (Heathfield). 11 Mar. 1797. *Docketed "On Mr. Campbell's opinion on Minera business."*
- 15. Letter. A., J. & G. Weston (London) to Boulton & Watt (—). 22 Mar. 1797. Docketed "With deed of appointement of Mr. Jones. Entry of his salary &c. to be made in the books. Mr. Jones to be served with order of the Chancellor."
- **16.** Transcript of Order in Chancery. Ordering the defendants not to remove ore from the mine and to allow access to the books. 22 Mar. 1797.
- 17. Draft of Statement in Chancery by Boulton & Watt that they have appointed John Jones. 22 Mar. 1797. 3 sheets.
- **18.** Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 12 Mar. 1798. *Docketed "Complaints of Mr. Jones of Coedŷglyn's administration of the Minera affairs."*

- **19.** Letter. John Jones (Coedŷglyn) to Boulton & Watt (Soho). 15 May 1798. *Docketed "About the Minera premium."*
- **20.** Letter. A., J. & G. Weston (London) to Boulton & Watt (Soho). 22 May 1798. Docketed "Enclosing the Order of Chancery appointing us to give directions and advice to Mr. Jones in the management of Maesyfynnon. Recites the conversation which passed when obtained."
- **21.** Letter. John Jones (Coedŷglyn) to Boulton & Watt (Soho). 2 Jun. 1798. Docketed "Requesting advice and instructions upon certain points in the settlement of his accounts and management of the mine."
- 22. Letter. Thomas Jones "for self and other partners" (Brymbo) to John Jones (Coedŷglyn). 2 Jun. 1798.

  Docketed "Alledges that the obstructions to the settlement of the accounts proceed from R. Burton and others. Enclosing copy of the Lord Chancellor's order respecting the removal of the ores with his comments thereon to prove it is no longer in force."
- 23. Letter. Robert Burton (Minera) to Boulton & Watt (Soho). 11 Jun. 1798. 2 sheets. Docketed "Sentiments upon the queries stated by Mr. Jones and transmitted by us for their consideration and opinion."
- 24. Letter. John Wilkinson "for self and rest of the Plaintiffs" (Brymbo) to Boulton & Watt (Soho). 14 Jun. 1798.

  Forwarded to James Watt at Heathfield.

  Docketed "Sentiments upon the queries of Mr. Jones transmitted by us for their consideration."
- **26.** Letter. Robert Burton (Minera) to Boulton & Watt (Soho). 30 Jun. 1798. Docketed "Anxious to have B & W's sentiments on the matter referred to them. Suspicions of the integrity of William Jones, underground agent at Minera."
- 26a. Letter. John Jones (Coedŷglyn) to Boulton & Watt (Soho). 7 Jul. 1798.
  Enclosing (b) below.
  Docketed "Allegations of William Wilkinson and Mr. Burton against the character of William Jones, underground agent at Minera. State of the accounts of the mine. William Wilkinson's refusal to pay costs."
  - **b.** Letter. William Wilkinson (Court) to John Jones (Coedŷglyn). 6 Jul. 1798.
- 27. Transcript of Orders of the Mine Proprietors. 25 Sep. 1798.

  Orders to John Jones concerning the accounts, the division of ore, and the dismissal of William Jones.
- 28. Letter. John Jones (Coedŷglyn) to Boulton & Watt (Soho). 28 Sep. 1798.

  Docketed as 27 Sep.

  Docketed "Enclosing bill for £165 for premium of Minera since under his management."
- 29. Memorandum. Coals used at the steam engines of Maesyfynnon Wen &c. mine works in 1797 & 1798.

  In James Watt Jr. 's hand.
- **30.** Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 17 Mar. 1799. Docketed "New boiler not set up. Mr. Jones intends to consult Mr. John Wilkinson before he takes any steps. Improper underground agent."

- **31.** Transcript of Order in Chancery that the Manager shall act according to Boulton & Watt's directions. 24 Mar. 1798.
- Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 17 Apr. 1798.
  On the same sheet:
  Transcript of letter. John Jones (Coedŷglyn) to William Wilkinson. 25 Mar. 1799.
  Transcript of letter. William Wilkinson to John Jones. 27 Mar. 1799.
  Docketed "Copy of his letter to Mr. Jones upon the measures to be pursued at Minera. His sentiments upon the propriety of setting the engines to work or stopping the concern.
  Wishes J. Watt Jr. to be sent to inspect the premises."
- 33. Letter. John Jones (Coedŷglyn) to Boulton & Watt (Soho). 2 Apr. 1799.

  Docketed "On the propriety of working Minera mine. Wishes for Boulton & Watt's advice."
- **34.** Letter. John Jones (Coedŷglyn) to Boulton & Watt (Soho). 18 Apr. 1799. Docketed "Variance of opinion among adventurers as to setting engines to work. Wants instructions."
- **35.** Letter. John Jones (Coedŷglyn) to Boulton & Watt (Soho). 8 May 1799.
- **36.** Plan. Sketch plan of the lead mine belonging to the Maesyfynnon Wen Co. 23 May 1799. *Drawn by James Lawson for James Watt Jr.'s report.*
- 37. Memorandum. John Jones (Coedŷglyn). 27 May 1799. *Details of the ground, shafts etc. at Maesyfynnon.*
- **38.** Transcript of report. James Watt Jr.'s Report to Boulton & Watt upon Maesyfynnon Mine. 1 Jun. 1799. 2 sheets.

  Arranged under three heads: "I<sup>st</sup> a short general description of the nature & workings of the mine, 2<sup>nd</sup> the state of the mine under Mr. Jones of Coedŷglyn's management, & 3<sup>rd</sup> the measures proper to be adopted in future."
- **39.** Letter. James Weston (London) to James Watt Jr. (Soho). 12 Jun. 1799. *Docketed "Advice respecting Maesyfynnon Mine."*
- **40.** Letter. Boulton & Watt (Soho) to The Adventurers in Maesyfynnon Wen & Caemuneth Mines. 20 Jun. 1799. 2 sheets. *The docket is on a separate wrapper. In James Watt's hand.*
- **41.** Memorandum. Minutes for Thomas Jones to explain respecting the Mine to Boulton & Watt. 24 Jun. 1799.
- **42.** Letter. John Wilkinson (London) to Boulton & Watt (Soho). 24 Jun. 1799. *Docketed "Observations on B & W's letter to Minera adventurers."*
- **43.** Letter. James Weston (London) to James Watt (Heathfield). 1 Jul. 1799. *Docketed "On proceedings at Minera."*

- **44.** Letter. Thomas Jones (Brymbo) to Boulton & Watt (Soho). 9 Jul. 1799. *On the same sheet:* 
  - Transcripts of resolutions made at the meeting of the proprietors on 1 Jul. 1799. Docketed "Resolutions of part of Minera adventurers on the 1<sup>st</sup> July. Sentiments upon Mr. Burton's appointment and management. Wants a revisal of our report. Correction of Mr. John Wilkinson's former letter."
- **45.** Letter. James Weston (London) to James Watt (Soho). 6 Jul. 1799. *Docketed "Minera business and Mr. Gough's lawsuit."*
- **46.** Letter. Thomas Jones (Brymbo) to Boulton & Watt (Soho). 10 Jul. 1799. *Docketed "Wants explanation of the "bad advisers" alluded to in the report."*

# MS 3147/3/515 SPECIAL SUBJECTS & CORRESPONDENTS MINERA MINE – CORRESPONDENCE 1801—1813

#### INTRODUCTION

Correspondence relating to Minera Mine, Denbighshire, from 1801 to 1813. Events between July 1799 and January 1801 are unclear, as documents from between those dates are wanting. The mine passed to William Wilkinson and Robert Burton, and Burton was able to report the production of good quality ore in January 1801. Burton and William Wilkinson became partners together in other mining concerns, including the Llanarmon lead mine and Plas Mostyn colliery (3/508). The mines at Minera supplied Boulton Watt & Co. with lead into the 1810s.

For papers relating to the disputes at the mine from 1795 to 1799, see 3/512 to 3/514. For drawings of the engines, see Portfolio 5/552.

- 1. Letter. Robert Burton (Minera) to James Watt Jr. (Soho). 2 Jan. 1801.

  Docketed "Success of the mine. Wants to sell their old 50 inch cylinder. Present of game."
- 2. Account. Abstract of Robert Burton's accounts for Maesyfynnon Wen & Caemynydd West End mines. 26 Aug. 1799—30 Jun. 1801.
- 3. Letter. Robert Burton (Minera) to Boulton Watt & Co. (Soho). 7 Dec. 1802. Docketed "Wishes to know if the engine at Caemynydd be over-loaded. Waits the Llanarmon pump barrels etc."
- **4.** Letter. William Wilkinson (—) to Boulton & Watt (Soho). 29 Nov. 1803. *Docketed "Wishes to have copy of our account with Minera Mine."*
- 5. Letter. William Wilkinson (—) to James Watt (Soho). 6 Dec. 1803.

  Docketed "Approves of the Minera account sent him. Agreement made for the settlement of part of the contested account. John Wilkinson fined for contempt and detail of the proceedings against him. Wants an account of our charge for travelling expenses against Minera. Is appointed executor to Mr. Parkinson."

- **6.** Letter. William Wilkinson (Plasgrono) to Boulton & Watt (Soho). 16 Jun. 1804. *Docketed "Remits £259.8.4 being the balance due from the Maesyfynnon Wen adventurers."*
- 7. Letter. William Wilkinson (Minera) to Boulton Watt & Co. (Soho). 4 June 1805.

  Docketed "Unexpected increase of water at Nantypalma. Enquires what sized pump he may substitute."
- **8.** Letter. Robert Burton "for W. Wilkinson & self" (Minera) to Boulton Watt & Co. (Soho). 9 Feb. 1807. *Docketed "Receipt of a remittance."*
- **9.** Letter. Robert Burton (Minera) to Boulton Watt & Co. (Soho). 20 Nov. 1810. *Docketed "Receipt of bill for lead."*
- **10.** Letter. Robert Burton (Minera) to Boulton Watt & Co. [Soho]. 19 Jan. 1813. *Docketed "Receipt of bill for lead."*

# MS 3147/3/516 SPECIAL SUBJECTS & CORRESPONDENTS PERIER AND MOTTEUX 1777—1786

### INTRODUCTION

Letters and papers relating to Jacques Constantin Perier's purchase of engines for supplying Paris with water, from 1777 to 1786. Perier was awarded an exclusive privilege or "Arrêt" in 1777 for supplying Paris with water from the Seine. He formed a company, Perier Frères et Compagnie, to exploit this privilege, and he came to England to buy an atmospheric engine. John Wilkinson told him about Watt's engines, and Perier resolved to use them. Shipping was arranged by the London merchant house of John Motteux & Co. Perier agreed with Boulton & Watt that they would licence to Perier Frères et Cie. as many 63 inch engines "as shall be necessary for the purpose of raising water for the supply of the said City of Paris but for no other use or purpose whatsoever" in return for a payment of 24,000 livres or 20 shares in the company. One engine was built, and the correspondence makes it clear that a second engine was intended. On 27 Feb. 1780 Watt wrote to John Wilkinson "We never had any orders for Mr. Perier's second engine but I have got the nozzles in hand and shall get it ready with all speed" [in 3/81, Boulton & Watt Letter Book 1778-80.] However only one engine is referred to in the List of Engines made at Soho.

In the meantime Boulton & Watt were granted their own Arrêt for the exclusive sale of engines in France. The Arrêt had been granted in April 1778 while Boulton and Watt were in negotiation with the Comte d'Heronville, through Jean Hyacinthe de Magellan, for a drainage engine for the Dunkirk area. The Arrêt specified that a trial had to be made of the engine, but the Dunkirk engine was never built. Joseph Jary obtained a further decree saying that the trial could be made on the engine he ordered for coal mines near Nantes, and this became the first Boulton & Watt engine in France.

The terms of Boulton & Watt's Arrêt were broken by Perier, who set up his own manufactory. Moreover Perier failed to pay Boulton & Watt, and they took action through various contacts in France to secure payment. When Boulton and Watt visited Paris in 1786, they petitioned the King to confirm their Arrêt, but they did not propose to take action against Perier.

See also 3/379/43-59, General Correspondence 1775—1785, M, for correspondence from J. Motteux & Co. about shipping, Perier's debt, and his purchase of various copying machines. See 3/510 for papers relating to the "Machine of Marly" and Boulton & Watt's Arrêt, and see Portfolio 5/1070 for drawings of the engine.

- 1. Memorandum (in French). Perier's Arrêt. 1777.

  Transcript of Jacques Constantin Perier's Arrêt de Conseil for raising water from the Seine and supplying it to Paris.
- **2.** Letter. Sir William Chambers (London) to Matthew Boulton (Soho). 7 Apr. 1777. *Docketed "With Perrier."*
- 3. Letter (in French). Jacques Constantin Perier (London) to Matthew Boulton (Redruth). 24 Nov. 1778.

  Would like to meet Matthew Boulton to discuss business. Is charged by his company with buying two steam engines for raising water from the Seine. Has business with John Wilkinson.
- **4.** Memorandum. Calculation of the number of Shares due to us in Mr. Perier's scheme. Jan. 1779. *In James Watt's hand.*
- 5. Memorandum. Translation Mr. Perier's of the 7<sup>th</sup> Jan. 1779.

  Perier's proposals for Boulton & Watt's profit on the steam engines.

  [On the inside of this sheet are two fragmentary paragraphs describing what appears to be a hand-writing copying machine, including a comparison between James Watt's and one made by Dr. Darwin. There is also a note about Fenton & Chacewater Co.'s London copper warehouse. Note that this memorandum is not a translation of No. 5 below which is also dated 7 Jan.]
- **6.** Memorandum (in French). Mr. Perier's last proposition. 7 Jan. 1779. *Perier's proposals for Boulton & Watt's profit on the steam engines.*
- 7. Memorandum. Original of the last proposition made by us to Mr. Perier. 7 Jan. 1779. 3 sheets.

  Boulton & Watt's proposals about the steam engines and the calculation of their profits.

  [The proposals are set out in 4 sections. The fourth section is separate on the third sheet and appears to have been added later, as it also contains the following note to a Mr.

  Muller: "Please add the contents of the other side to the paper sent you some hours ago, & let the whole be sent as fast as possible to Mr. Boulton at Soho."]
- 8. Letter (draft). Boulton & Watt (—) to the Comte d'Heronville (—). 9 Jan. 1779. 3 sheets. Outlining their discussions with Perier and their various proposals about paying for the engines, Boulton & Watt's profit etc.
- 9. Memorandum (partly in French). Calculations & other papers relative to Mr. Perier's Proposals. 10 Jan. 1779. 4 sheets.

  Calculations involving the size of engine, amount of water, coal etc.
- 10. Transcript of letter. Boulton & Watt (—) to Jacques Constantin Perier (—). 9 Jan. 1779. In James Watt's hand.

  Cannot accept his terms. If he would lay Boulton & Watt's terms before his company they would see they are favourable. They would be no delay as they could transfer engines that are currently being built to him.

- 11. Memorandum. Calculations concerning Mr. Perier. Jan. 1779.

  In James Watt's hand.,

  Calculations on the size and performance of the engine, coal consumption etc.
- 12. Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham). 10 Mar. 1779.

  Perier has returned to Paris. Approving the arrangements between him & Boulton & Watt. Hope the parts will be made quickly. Arrangements for shipping the parts. Payment arrangements. Are impatient for the drawings can they be sent through John Motteux of London.
- Letter (in French). Jacques Constantin Perier (Paris) to Matthew Boulton (Soho). 28 Mar. 1779.
   Need the drawings progress with the site for the engines. His proposals to Mr. Kerr. Has obtained passports for importing the engine parts.
- 14. Letter. Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham). 2 May 1779. Have received the first drawings. Note that Boulton & Watt want to be paid with money rather than shares in the company. Payment arrangements. John Wilkinson has informed them that one engine is complete shipping arrangements, protection against privateers. They have asked John Motteux & Co. to advise on this. They cannot ship Jary's engine on their vessels. When will their pipes be shipped.
- 15. Letter (in French). Jacques Constantin Perier (Paris) to Boulton & Watt (Birmingham). 3 May 1779.

  Boulton & Watt promised to procure steel [?] for him. Can they arrange for John Wilkinson to order cast iron for him. They have not replied to his proposals concerning Mr. Kerr.
- 16. Letter. J. Motteux & Co. to Boulton & Fothergill (Birmingham). 11 May 1779. Enclosing two letters from Paris [Nos. 13 & 14 above]. Terms of insurance for English ships against capture by French or American privateers. Think Boulton & Watt can go ahead on these terms.
- 17. Account. Perier Frères et Cie. in Account with Boulton & Watt. Circa 1780.

  In James Pearson's hand.

  To "sundry materials in 1779 & 1780"; by "a draft drawn by Mr. Boulton in favour of John Motteux Esq. & Co."
- **18.** Transcript of letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham). 30 May 1779.
- **19.** Letter. J. Motteux & Co. (London) to Boulton & Watt (Birmingham). 3 Jun. 1779. *Docketed "With passports."*
- 20. Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham). 24 Jun. 1779.
  Have heard from J. Motteux & Co. about shipping the engines. Thanking John Wilkinson for his care in sending the parts. Arrangements for the voyage of the brigantine Severn. Arrangements for paying John Wilkinson.
- 21. Letter. J. Motteux & Co. (London) to James Watt (Birmingham). 23 Jul. 1779. The addresses of the houses at Le Havre and Rouen, where the Captains address themselves. Matthew Boulton has not yet obtained an export licence from the Secretary of State's office.

**22.** Letter. J. Motteux & Co. (London) to Boulton & Watt (Soho). 2 Aug. 1779. *On the same sheet:* 

Transcript of letter (in French). Perier Frères et Cie. (Paris) to J. Motteux & Co. 19 Jul. 1779.

Sending a copy of a letter from Perier Frères et Cie.

They want the first cargo – Motteux & Co. have written explaining the delay. Need the first shipment. Concerns about the delay. The whole business depends on them getting the engine parts soon.

**23.** Letter. J. Motteux & Co. (London) to Boulton & Watt (Soho). 19 Aug. 1779. *On the same sheet:* 

Transcript of letter (in French). Perier Frères et Cie. (Paris) to J. Motteux & Co. 2 Aug. 1779.

Sending a copy of a letter from Perier Frères et Cie.

Have received Motteux's letter telling them that Matthew Boulton cannot obtain export licences. Cannot see when the embargo will be lifted. May have to transfer the cargoes to neutral ships.

- 24. Letter (in French). Perier Frères et Cie. (Paris) to James Watt (Birmingham). 9 Sep. 1779. Have received his letters, drawings and instructions. Perier is working on the details James Watt requested. He has been in Le Havre making arrangements for the arrival of the cargoes.
- 25. Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (London). 24 May 1781. The engines are almost finished. Cannot pay everything Boulton & Watt immediately, but they intend to issue new shares when the engines start work. Paying £151.2.- for various items.
- **26.** Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (London). 17 Sep. 1781. The engine is not quite perfect yet. Problems of paying Boulton & Watt the business is not yet profitable. Hope to have the new shares issued soon and pay Boulton & Watt.
- 27. Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham). 7 Dec. 1781.

  Some of their new shareholders are saying that Boulton & Watt have not obtained a privilege for establishing the steam engine in France. The assembly of shareholders is considering this can Boulton & Watt send copies of documents relating to their privilege.
- Letter (transcript, in French). Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham).
  7 Dec. 1781.
  This copy was probably sent to Boulton & Watt by J. Motteux & Co.
- Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (—). 14 Jan. 1782.
   Docketed as 7 Dec.
   Sending a copy of a letter they sent on 7 Dec. They have not had a reply. Perier the younger is going to visit England and will call on them. The copy is on the same sheet.
- Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham). 5 Feb. 1782.
  This letter will be presented by Mr. Perier Desgarennes who is in England to see John Wilkinson. They are still waiting for a reply to their letter of 7 Dec. sending another copy via J. Motteux & Co. Perier will tell them about the proceedings concerning their payment and about the state of the engines.

- 31. Wrapper.

  Marked "Perier Frères & Co. Dec. 1781 & Feb. 1782." This wrapper probably contained Nos. 27-30 above.
- 32. Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham). 5 Jul. 1782.

  Have received Boulton & Watt's letter and the documents stating their privilege to erect steam engines in France. The administrators cannot make a definitive decision on their demand, but it will be discussed in the next general assembly of shareholders in Aug. Apologies for the delay.
- **33.** Account. Perier Frères et Cie. (Paris) to Boulton & Watt. 1779—1784. *In James Pearson's hand.*
- 34. Memorandum. Mr. Motteux's method of stating Messrs. Perier frere & Company's Account. 1785.

  Details of what Perier owes and what he has paid from 1 Jan. 1784 to 1 Jul. 1785.
- 35. Letter. John Motteux (London) to Matthew Boulton (Soho). 28 Jun. 1785.

  Thanks Matthew Boulton for his hospitality. Details of the interest due on Perier's account.

  Constable's people say the tea was sent by wagon, due to an error by the shopowner.
- 36. Letter. John Motteux (London) to James Watt (Birmingham). 9 Jul. 1785. Will forward James Watt's letter to Perier. Does not know what Perier means by saying that James Watt "threw obstructions in the way of his new establishment", and doubts that Perier actually said it.
- 37. Transcript of letter. Boulton & Watt (—) to Perier Frères et Cie. (—). 22 Aug. 1786. Have repeatedly presented their account. Understand from a conversation between Mr. St. James and Aimé Argand that they are now willing to pay. Have drawn upon them in favour of Argand.
- 38. Letter (in French). Perier Frères et Cie. (Paris) to Boulton & Watt (Birmingham). 23 Sep. 1786.
  Argand presented their letter and bill. They have accepted and paid the bill and settled their account.

# MS 3147/3/517 SPECIAL SUBJECTS & CORRESPONDENTS CHEVALIER ALVISE PISANI 1793—1794

#### INTRODUCTION

Letters and papers relating to enquiries about steam engines from Chevalier Alvise Pisani, from 1793 and 1794. The enquiries concerned drainage engines for Padua.

1. Abstract of a letter from the Noble Count Simone Stractico to the Noble Count Sertorio Polcasto concerning the application of Steam Engines to the drainage of the lower part of the Ritratto del Gorzone which for want of a proper fall is in great part underwater. Padua, 24 Aug. 1793.

\*\*Communciated to Boulton & Watt by the St. Chevalier Procurateur Alvise Pisani. 8 Nov.

Communciated to Boulton & Watt by the St. Chevalier Procurateur Alvise Pisani. 8 Nov. 1793.

- **2a.** Calculations for Chevalier Pisani. Nov. 1793. *Sheet of calculations. Kept with (b) below.*
- **b.** Note on Venetian and Paduan carats.
- 3. Calculations. Chevalier Pisani calculation of engine etc. Not dated. *In John Southern's hand. The calculations are based on Joseph Poli's engine.*
- **4.** Memorandum. Extracts from the gentleman sent by Chevalier Pisani. Circa Nov. 1793.
- 5. Transcript of letter. Boulton & Watt (London) to Chevalier Alvise Pisani (8 Upper Berkley St., Portman Square, London). 11 Nov. 1793. 3 sheets.

  In James Watt's hand.
- **6.** Letter. Chevalier Alvise Pisani (Harrow) to Boulton & Watt [Soho]. 16 Nov. 1793.
- 7. Letter. Chevalier Alvise Pisani (Harrow) to Boulton & Watt (Birmingham). 8 Jul. 1794. *Forwarded to Matthew Boulton.*
- **8a.** Memorandum. Questions proposed to Boulton & Watt by Messrs. Signoretti, Rodella Assistant Astronomer at Padua, & Dr. Scandella, on the part of the Chevailier Pisani of Venice. Soho, 18 Jul. 1794. *Kept with (b) below. The replies are on the same sheet.*
- **b.** Calculations in reply to the above questions. *In Matthew Boulton's hand. Not titled or dated.*
- 9. Memorandum. Perier's Falsehoods. 18 Jul. 1794.

  Information given to Pisani by Jacques Constantin Perier about the power of steam engines etc.

# MS 3147/3/518 SPECIAL SUBJECTS & CORRESPONDENTS JOSEPH POLI OF NAPLES 1786—1788

### INTRODUCTION

Letters and papers relating to the purchase of a steam engine for the King of Naples by Joseph Poli, Preceptor to the Hereditary Prince, from 1786 to 1788. The engine was located at Carditelli, near Capua. It was erected by Malcolm Logan, and was used for pumping water for large fields near one of the King's palaces.

See Portfolio 5/562 for drawings of the engine.

- 1. Letter. Joseph Poli (Naples) to Matthew Boulton (Mr. Chippindall's, 119 Fleet Street, London). 4 Jul. 1786.

  The address is on a separate wrapper.
- **2.** Letter (press copy). Matthew Boulton (Truro) to Joseph Poli [Naples]. 28 Sep. 1786. 2 sheets.
- 3. Letter. Joseph Poli (Naples) to Matthew Boulton [Soho]. 27 Feb. 1787.
- **4.** Outline of letter? *In James Watt's hand. Docketed "Sketch to Mr. Poli of Naples.*
- **5.** Letter. Joseph Poli (Naples) to Matthew Boulton (Birmingham). 24 Jul. 1787.
- **6.** Letter. S. Ramsden (Haymarket) to Matthew Boulton (Soho). 16 Aug. 1787.
- 7a. Letter. S. Ramsden (Haymarket) to Matthew Boulton (at Thomas Wilson's, Chacewater). 1 Oct. 1787.
  Enclosing (b) below.
- **b.** Transcript of letter. S. Ramsden [Haymarket] to Joseph Poli [Naples]. Undated.
- **8a.** Letter. Le Comte Lucchese (Portman Square) to Matthew Boulton [Soho]. 28 Oct. 1787. *Enclosing (b) below. Docketed "About Neapolitan engine."*
- **b.** Memorandum. Instructions for replying to Poli via Le Comte Lucchese, the Neapolitan ambassador.
- **9.** Letter. Joseph Poli (Naples) to Matthew Boulton [Soho]. 26 Nov. 1787.
- 10. Invoice of Cast Iron, Hammered Iron, and Brass Materials for a Steam Engine furnished by Boulton & Watt of Birmingham in April and May 1788, to the order of Joseph Poli. Docketed "List of the articles belonging to Poli's engine for the King of Naples."
- **11.** Draft of letter. Boulton & Watt (London) to Joseph Poli (Naples). 24 Jun. 1788. *The final version of this letter was to be taken to Naples by Malcolm Logan.*

## MS 3147/3/519

# SPECIAL SUBJECTS & CORRESPONDENTS JACQUES RATTON ET FILS 1702, 1702, 1700

# 1793; 1797; 1799

### INTRODUCTION

Letters from Jacques Ratton et Fils concerning the application of steam engines to flour and oil mills, from 1793, 1797 and 1799. The bundle includes an extensive memoir by Ratton on powering mills by steam, and also a letter from his son Diego.

**1a.** Letter (in French). Jacques Ratton et Fils (Lisbonne) to Boulton & Watt [Soho]. 25 Sep. 1793.

Enclosing (b) below.

Docketed "With queries enclosed."

- **b.** Memorandum (in French). Questions re. applying a steam engine to a flour mill.
- 2. Transcript of letter. Boulton & Watt (Birmingham) to Jacques Ratton et Fils (Lisbonne). 30 Oct. 1793.

In James Watt's hand. Includes details of the Albion Mill.

- 3. Letter (in French). Jacques Ratton et Fils (Lisbonne) to Boulton & Watt (Birmingham). 28 Nov. 1793.
- **4a.** Letter (in French). Jacques Ratton et Fils (Lisbonne) to Boulton & Watt (Birmingham). 22 Jun. 1797.

Enclosing (b) below.

Docketed "Enclosing his memoir upon steam engines and their application to mills. Particulars of his flour mill and the boiler proposed for the engine. Ideas and improvements in flour mills. Mr. Evans' trestise upon mills."

- **b.** Jacques Ratton's memoir on steam engines and mills. 22 Jun. 1797. 16 pages. *In the following sections:* 
  - 1. Sur les Machines à Vapeur
  - 2. Explication du Moulin à farine qu'on désire d'établir
  - 3. Questions
  - 4. Moulin à huile d'olive

plus 8 pages of diagrams and explanations of boilers etc.

5. Letter (in French). Jacques Ratton et Fils (Lisbonne) to Boulton & Watt (Birmingham). — May 1799.

Docketed "Delivered by Mr. Ratton Junior."

**6.** Letter (in French). Diego Ratton (London) to Boulton & Watt (Birmingham). 23 Aug. 1799.

Docketed "Requesting letters of introduction for Holland."

# MS 3147/3/520 SPECIAL SUBJECTS & CORRESPONDENTS ROYAL MINT (BRITISH MINT) 1805—1809

#### INTRODUCTION

Letters and papers relating to the establishment of the Royal Mint, originally referred to as the "New Mint" or the "British Mint", from 1805 to 1809. Boulton Watt & Co. supplied steam engines to the mint, and made the coining machinery on Matthew Robinson Boulton's behalf. The bundle includes letters from the architect Robert Smirke and the Clerk of Works Thomas Pope, as well as Boulton Watt & Co.'s engineers John Southern, James Lawson and William Creighton. The majority of the letters are docketed by John Southern.

See Portfolios 5/716a—d for drawings of the Mint engines and machinery. See the next bundle, 3/521, for later correspondence relating to the Royal Mint.

- 1. Letter. Henry Rowles (Half Moon St., London) to M. R. Boulton [Soho]. 16 Nov. 1805. Docketed "Allows alteration proposed in the Mint plan."
- 2. Memorandum. Not titled or dated [circa 1807?].

  In Zaccheus Walker's hand. Description of who is making mint machinery, where it is being made etc. This is assumed to refer to the machinery for the Royal Mint.
- 3. Letter. M. R. Boulton (Soho) to John Southern (13 London St.). 1 Feb. 1807. *On the same sheet:*Sketch. Plan of the proposed arrangement of the Royal Mint.

  The sketch appears to have been done by William Creighton.
- **4.** Letter. William Creighton (Soho) to John Southern (13 London St.). 22 Feb. 1807. *Docketed "New Mint."*
- **5.** Letter. William Creighton (Soho) to John Southern (13 London St.). 28 Feb. 1807. *Not docketed.*
- 6. Letter. Thomas Pope, Clerk of the Works (New Mint) to Boulton Watt & Co. (Soho). 20 Mar. 1807.

  Docketed "Wants drawing of spring beam floor of rolling engine."
- 7. Letter. Thomas Pope (New Mint) to Boulton Watt & Co. (Soho). 18 May 1807. Docketed as New Mint.
- **8.** Letter. Robert Smirke (Albany, Piccadilly, London) to "Messrs. Boulton" (Soho). 30 Jul. 1807.

  Docketed "Proposes an alteration in the arrangement of the multiplying [?] etc."
- 9. Letter. Thomas Pope (New Mint) to John Southern (Soho). 1 Aug. 1807. Docketed "Mr. Smirke wants drawings of the adjusting rolls."
- Letter. Robert Smirke (Albany, London) to John Southern (Soho). 5 Aug. 1807. On the same sheet:Pen and wash elevation and plan of the proposed cutting out room.Docketed "Sketch of cutting out room."
- 11. Letter. M. R. Boulton (London) to John Southern (Soho). 28 Aug. 1807.

- **12.** Letter. Thomas Pope (New Mint) to John Southern (Soho). 14 Oct. 1807.
- 13. Memorandum. British Mint Memorandums. 15 Nov. 1805—Nov. 1807. 3 sheets. *In John Southern's hand. Notes about work done, alterations etc. Docketed by William Creighton as 1805.*
- 14. Letter. Thomas Pope (New Mint) to John Southern (Soho). 24 Nov. 1807. On the same sheet: Sketch. Plan of column for the cutting out room.
- **15.** Letter. Thomas Pope (New Mint) to John Southern [Soho]. 14 Dec. 1807. *Docketed "Mr. Smirke has made some alterations in the columns."*
- 16a. Letter. James Lawson (London) to M. R. Boulton (Soho). 14 Jan. 1808. Enclosing (b) below. Docketed "About the British Mint."
  - **b.** Memorandum. Explanation of my report of 31 Dec. 1807 with additions to 14 Jan. 1808.
- **17.** Letter. James Lawson (London) to John Southern (Soho). 5 Apr. 1808. *Docketed "Relative to Mint 6 horse engine cold water punp."*
- Memorandum. Memorandums for work to be done under Mr. Lawson's directions. 15 Nov. 1808. 2 sheets.
  In James Lawson's hand.
  Docketed "Memorandums for Mr. Lawson. 2 copies sent him 17 Nov. 1808."
- Memorandum. Memorandums for work to be done by Mr. Smirke's orders. 15 Nov. 1808.
   3 sheets.
   In James Lawson's hand.
   Docketed "Memorandums for Mr. Smirke. 2 copies sent to Mr. Lawson 17 Nov. 1808."
- **20.** Letter. James Lawson (London) to M. R. Boulton (Soho). 10 Jan. 1809. *Docketed "Order for bell crank brackets."*
- Letter. M. R. Boulton (London) to "John Southern or William Creighton" (Soho). 10 Jul. 1809.Docketed "Enquiry about pendulums etc. of the milling machines."

# MS 3147/3/521 SPECIAL SUBJECTS & CORRESPONDENTS ROYAL MINT (BRITISH MINT) 1816; 1818—1820; 1826

### INTRODUCTION

Letters and papers relating to engine spares, new boilers etc. for the Royal Mint, from 1816, 1818 to 1820 and 1826. Almost all the letters are from George Rennie, and all are docketed by William Creighton, the Head of the Drawing Office. These letters may have been removed from the now missing series of Drawing Office incoming correspondence, or from the bundles of letters from the Rennies.

See Portfolios 5/716a—d for drawings of the Mint engines and machinery. See the previous bundle, 3/520, for earlier correspondence relating to the Royal Mint. For further letters from George Rennie about the mint after 1820, see 3/321 to 3/323, letters from George & John Rennie.

1. Memorandum. Zaccheus Walker – Order for M. R. Boulton's Mint. 1 Apr. 1816. Docketed as being for the Royal Mint. Docketed "Order for brasses, copper pipe and syphon."

2. Memorandum. Royal Mint. Soho, 14 Oct. 1816.

Extract from a letter from James William Morrison to M. R. Boulton of 12 Oct. 1816.

Docketed "Order grate bars, steam guage and barometer pipe for 10 horse engine."

Letter. George Rennie (Royal Mint) to James Watt Jr. (Norfolk Hotel, London). 22 Jun. 1818.
 Docketed "Enquires after Mr. Lawson's whirling machine for Mint."

- **4.** Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 28 Aug. 1818. *Docketed "Orders a 6 horse boiler."*
- 5. Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 9 Sep. 1818. Docketed "Enquires after 6 horse boiler."
- 6. Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 29 Oct. 1818. On the same sheet:Sketch of emptying pipe.Docketed "Orders 6 horse engine emptying pipe for Mint."
- 7. Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 25 Feb. 1819. On the same sheet:
  Sketches of emptying pipes.
  Docketed "Orders an emptying pipe and cock for 30 horse engine."
- **8.** Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 4 Nov. 1819. Docketed "Orders parallel motion brasses for 30 and 16 horse engines. Also plate for 10 horse boiler."
- 9. Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 11 Nov. 1819. On the same sheet:Sketches of boiler plates.Docketed "Boiler plate wrong, and size it ought to be."
- **10.** Letter. George Rennie (Mint) to Boulton Watt & Co. (Soho). Nov. 1819. *Docketed "Corrected dimensions of boiler plate sent."*
- Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 5 Jun. 1820. On the same sheet:Sketches of piston rod and brass.Docketed "Orders piston rod and brass bush for Mint 16 horse engine."
- **12.** Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 6 Jun. 1820. *Docketed "Orders box of black paint. Directions for cylinder brass."*
- 13. Letter. George Rennie (Royal Mint) to Boulton Watt & Co. (Soho). 9 Jun. 1820. Docketed "In want of piston rod."

- 14. Letter. Henry William Atkinson (Royal Mint) to Boulton Watt & Co. [Soho]. 24 May 1826.

  Docketed "Orders 30 horse boiler for Mint."
- **15.** Letter. Henry William Atkinson (Royal Mint) to Boulton Watt & Co. [Soho]. 3 Jun. 1826. *Docketed "Wants to know how soon Mint boiler can be done."*

# MS 3147/3/522 SPECIAL SUBJECTS & CORRESPONDENTS ST. KATHARINE'S DOCK 1826—1829

#### INTRODUCTION

Letters and papers relating to engines for St. Katharine's Dock, London, from 1826 to 1829. The engines were used for pumping water to the entrance locks.

This bundle mainly consists of letters between James Watt Jr., Matthew Robinson Boulton and William Creighton, with various memoranda and calculations. The bundle was probably assembled by Watt Jr. in London as an aide memoire to what had happened with the dock, as the job was particularly drawn out and complicated. The letters were probably removed from other bundles. They were found scattered through the collection – the letters between Watt Jr. and Boulton had been placed with their other correspondence, Creighton's letters had been placed with his correspondence, and the memoranda and calculations had been placed with the drawings of the engines.

See Portfolio 5/661 for drawings of the engines.

- 1. Memorandum. About estimates of pumping engines for Mr. Telford for St. Katherine's Dock. Soho, 19 Oct. 1826. *In Creighton's hand.*
- **2.** Letter (press copy ). James Watt Jr. (London) to M. R. Boulton [Soho]. 16 Nov. 1826. 3 sheets.

The docket is on a separate wrapper.

Docketed "Wish him to consult Mr. Murdock about St. Katherine's Dock scheme. Mr. Teasdale has written to Dublin about the liability of the individuals of the Shannon Company. Conference with G. H. Freeling about the Dolphin's engines etc. Shannon strained by lying on the ground."

- 3. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 17 Nov. 1826. Docketed "Doubts and difficulties about the engines for St. Katherine's Docks."
- 4. Letter. William Creighton (Soho) to James Watt Jr. (London). 17 Nov. 1826.

  Docketed "Remarks respecting the proposed engines for the entrance lock of St. Katherine's Dock. Rough estimate of two 66 inch engines, 9 feet stroke and pumps see a letter on 20 Nov. About making 80 inch pumps in two parts. Consumption of coal."
- **5a.** Letter (press copy). James Watt Jr. (London) to Boulton Watt & Co. (Soho). 16 Nov. 1826. 3 sheets. *Kept with (b) (d) below.*

- **b.** Letter (press copy). James Watt Jr. (London) to Boulton Watt & Co. (Soho). 17 Nov. 1826. 2 sheets.
- **c.** Letter (press copy). James Watt Jr. (London) to William Creighton (Soho). 18 Nov. 1826. 3 sheets.
- d. Wrapper for the above three press copies.

  Docketed "Conference with Mr. Hall the Secretary to the St. Katherine's Docks. Estimates wanted of two and three engines to pump into the entrance lock. Estimates of 14 horse wanted for Charrington & Co. East London estimates. Vixen's hand pump much wanted. Working gear shafts for Dolphin come in badly. West Middlesex materials to be got off immediately. Enquire about having 50's. Escape's account paid at Post Office. Arrow's account wanted."
- 6. Letter. William Creighton (Soho) to James Watt Jr. (London). 19 Nov. 1826. Docketed "Explains calculation of St. Katherine's pumps. Extimate of three engines to do the work. Coal to be consumed by ditto. Increase which may be given to power of the James Watt and of the Soho. 18 ton of West Middlesex materials went on Friday. The rest not ready. Cannot find shipwrights' bills of the Thetis. Time required for engines of Magnet and Hero by Mr. Hunt."
- 7. Letter. William Creighton (Soho) to James Watt Jr. (London). 20 Nov. 1826. Docketed "Estimates for St. Katherine's Dock, viz 2 66 inch engines, 9 foot stroke with 81 inch pumps; 3 54 inch engines, 8 foot stroke with 68 inch pumps. West Middlesex heavy materials of 64 inch may be ready in 14 days and the engine completed in a month. West India Dock 36 inch engine and pumps in 2 to 3 months. Venus cylinder etc. in 3 weeks. A 20 horse ordered by Bury of Salford. Has found Thetis shipwrights' bills, which he forwards. Navy GB 50 (100) horse boiler weighs 23½ ton."
- **8a.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 20 Nov. 1826. 4 sheets. *Kept with (b) and (c) below.* 
  - **b.** Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 20 Nov. 1826. 3 sheets. *Marked "Private."*
  - **c.** Wrapper for the above two copies.

    Docketed "Have not received from the control of the cont

Docketed "Have not received from Creighton all the estimates wanted for St. Katherine's Docks. Mr. Hall likely to adopt his own plan of pumping into the entrance lock. Am getting plan of it and of the entrance basin and section of lock from Mr. Telford. Vixen's pump arrived. Advice in Mr. Brown's hands. Dolphin not to be tried in the river till Thursday. Hunt's letter to Brown about the mistakes in working gear. On Buckle's promises relative to West Middlesex goods. Shipwrights' bills of Thetis wanted."

"On John Bennett's transgression and negligence of the Foundry clerks. Opinion of John Dawn. Mr. Laird endeavouring to effect a compromise between Mr. Williams and the Post Office. Mr. Ewart in Town with a deputation from Manchester, on the subject of exportation of machinery."

**9.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 20 Nov. 1826. *Docketed "Advises pumping into the St. Katherine's Docks instead of the entrance lock."* 

- 10. Letter. M. R. Boulton (Soho) to James Watt Jr. (London). 21 Nov. 1826.

  Docketed "About Ceighton's letter, and estimates for St. Katherine's Docks. Ansd. 22 Nov."
- 11. Letter. James Walker (Limehouse) to James Watt Jr. [London]. 21 Nov. 1826. Docketed "Opinion about pumping into the entrance lock of St. Katherine's Dock. Invitation for Sunday."
- **12.** Letter (press copy). James Watt Jr. (London) to Boulton Watt & Co. [Soho]. 23 Nov. 1826. 4 sheets.

The docket is on a separate wrapper.

Docketed "Trial of new balance weight of Dolphin at moorings. Conference with Mr. Hall and Mr. Telford on the subject of the St. Katherine's Dock engines. Estimate given for two 66 inch engines with 81 inch pumps, 9 feet stroke - £11,000. Erection £500. Time of delivery 12 to 15 months. Consumption of coal. Visit to East London Water Works, and message left for Mr. Stevens. Letter from Capt. O'Brien relative to payment of the Shannon's engines."

- Transcript of letter. James Watt Jr. (London) to Boulton Watt & Co. (Soho). 10 Dec. 1826. On the same sheet:Sketches. Two sketches of the scheme for St. Katherine's Docks. 10 Dec. 1826. Docketed "With scheme for situation etc. of engines and pumps for St. Katherine's Docks."
- 14. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 15 Dec. 1826. Docketed "About Mr. Murdock's scheme of an air vault for the St. Katherine's Dock engines."
- **15.** Memorandum. Notes about the operation of St. Katherine's Dock entrance lock. 9 Feb. 1827.

Transcript of original signed by John Hall. On the same sheet:

Memorandums from Mr. Telford of the time required for letting off the water from the Entrance Lock in different states of the tide. 11 Feb. 1827.

**16a.** Transcript of letter. James Watt Jr. (London) to Boulton Watt & Co. (Soho). 14 Feb. 1827. 2 sheets.

Kept with (b) and (c) below.

Docketed "Estimates etc. for the two schemes for the St. Katherine's Docks. The directors resolve upon the air scheme. Send copy of queries to Mr. Hall with his answers. Wish Murdock to come up with his model."

- **b, c.** Two notes of estimates and calculations for St. Katherine's Dock. *In William Creighton's hand.*
- 17. Letter. M. R. Boulton (Soho) to James Watt Jr. [London]. 16 Feb. 1827.

  Docketed "Has made out revised estimates of the blowing and pumping engines for St. Katherine's Docks. Mr. Murdock unable to attend the conferences."
- **18.** Letter. William Creighton (Soho) to James Watt Jr. (13 London St). 16 Feb. 1827. *On the same sheet:*

Estimates of various blowing and pumping engines.

Docketed "With Mr. Boulton's revised estimates of blowing and pumping engines for St. Katherine's Dock."

- 19. Transcript of letter. James Watt Jr. (London) to M. R. Boulton (Soho). 17 Feb. 1827. Docketed "Sketch of letter to M. R. Boulton... upon the revised estimates of engines for St. Katherine's Docks."
- **20.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 17 Feb. 1827. Docketed "Cost of rotative motions to be added to the estimate of the 42 inch cylinder with 48 inch pumps. Thinks it might be preferable to work the pumps by means of cranks and auxiliary beams. Say two double 54 inch engines with 3 single pumps each 48 inches diameter."
- 21. Letter. M. R. Boulton (Soho) to James Watt Jr. [London]. 18 Feb. 1827. 3 sheets. Docketed "Explanations relative to the pressure and quantity of air, size and situation of the vault. Recommends double pumps worked from a rotative shaft by auxiliary beams. Murdock completing his model. Small sketches making out of engine house and vault. Estimate of two double 36 inch 8 feet stroke engines with 42 inch pumps and rotative motions."
- 22. Transcript of letter. James Watt Jr. (Rook's Nest) to M. R. Boulton [Soho]. 18 Feb. 1827. On the same sheet:
  Abstract of letter. James Watt Jr. (London) to William Bennett [Soho]. 18 Feb. 1827.
  Docketed "Wish for estimates to fill the docks only 10 or 8 feet. Copy of letter to Mr.
  William Bennett about his going to Holyhead to superintend the alteration of the Thetis."
- 23. Letter. M. R. Boulton (Soho) to James Watt Jr. [London]. 19 Feb. 1827.

  Docketed "Further remarks on the 36 inch 8 feet stroke double engines with 42 inch pumps.

  Enquires why 3 engines of 42 inch cylinders and 48 inch pumps would not be sufficient for the whole lock."
- **24.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 20 Feb. 1827. Docketed "Supposed reduction of the estimates in case of filling the lock only 10 feet. Repeats his opinion about the construction of double pumping engines. Has desired others of the establishment to give theirs. Mr. Barker unwell."
- 25. Memorandum. Project for Engines to St. Katherine's Dock. 20 Feb. 1827.

  In Creighton's hand.

  Docketed "Schemes for engines with double pumps to fill half the lock and work into the basin."
- **26.** Transcript of letter. James Watt Jr. (London) to M. R. Boulton (Soho). 21 Feb. 1827. *Docketed "Explanations of parts of my former letters which have been misapprehended."*
- Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 22 Feb. 1827.
  Docketed as 21 Feb.
  Docketed "Reduction in the estimate of the blowing engines by reducing the height of the lock to be filled to 10 feet and also to 8 feet. Murdock's model nearly finished and he is about to proceed to Town tomorrow. Wants coy of vaults estimate. Mr. Barker better."
- **28.** Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Soho]. 22 Feb. 1827. Docketed "Have sent copies of esimates of vault and engines. Remarks on the estimate of the vault. Query about the atmosphere and half allowed. Dolphin and other Post Office accounts settled. Vixen's wanted. Dinner at Telford's with Sir John Malcolm."

- Letter. M. R. Boulton (Soho) to James Watt Jr. [London]. 23 Feb. 1827.
   Docketed as 22 Feb. The docket is on a separate wrapper.
   Docketed "Explanations relative to misapprehensions and of errors in Creighton's estimate of the blowing engines. Cause of difference in our estimates of the power of the pumping engines. Thinks they should be made with rotative shafts and short strokes."
- **30.** Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 23 Feb. 1827. Docketed "Calculation of pumping engines for St. Katherine's Docks. Death of Mr. Tarrant. Mr. Barker better. Thinks Mosley should apply again to Barclay & Co. for payment of the City of Mexico mint."
- 31. Letter. William Creighton (Soho) to James Watt Jr. (London). 23 Feb. 1827. Docketed "Explanations about the atmosphere and half for St. Katherine's blowing apparatus. Rougemont & Co. have written a long letter of complaints etc. Wilkins & Co.'s 30 horse engine has broken cylinder bottom etc."
- 32. Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 23 Feb. 1827. 4 sheets.

  The docket is on a separate wrapper.

  Docketed "Mr. Murdock arrived. His model works well. Wish to bring the St. Katherine's Dock business to a close. Shall adopt his estimate of the blowing engines and machinery. Wish for estimates of pumping engines with rotative shafts and auxiliary beams. Reference to former estimates of pumping engines. Exposé of the state of the St. Katherine's Docks."
- Transcript of letter. James Watt Jr. (London) to M. R. Boulton [Soho]. 24 Feb. 1827. Docketed "Thursday 1st March appointed for delivery of estimates to St. Katherine's Docks. Have mentioned the mistake in the estimate of the blowing engines to Mr. Telford and stated the cost at £13,500. An experimental blowing apparatus included in this sum. Engines must be at work before 1st Oct. 1828. Mr. Murdock anxious to have the height of the lock to be limited to 8 feet. On Mr. Tarrant's death etc."
- 34. Letter (press copy). James Watt Jr. (London) to M. R. Boulton (Soho). 26 Feb. 1827. 3 sheets.

  The docket is on a separate wrapper.

  Docketed "Receipt of estimates of double pumping engines with auxiliary beams. Thinks the rotative shafts and cranks should be of wrought iron. Wish for sketches of the rotative engines and also of the pumping engines. Copy of letter from Mr. Telford wanting estimates of engines etc. to fill the lock 8 feet. About Mr. Murdock's taking out a patent for the air scheme. Mosley has written about his interview with Barclay & Co.'s agent."
- 35. Letter. M. R. Boulton (Soho) to James Watt Jr. (13 London St.). 27 Feb. 1827. Docketed "Does not consider wrought iron shafts and cranks requisite. Mr. Creighton and Mr. Hamilton to make out estimates and drawings. Does not think a patent for the air vault advisable."
- **36.** Letter. Gilbert Hamilton (Soho) to James Watt Jr. [London]. 28 Feb. 1827. Docketed "Sends large sketches of pumping and blowing engines, for the St. Katherine's Dock."
- 37. Transcript. Certificate of the Directors of the St. Katherine's Docks relative to their Inspection of Mr. Murdock's model of an air-tight vault. 1 Mar. 1827. *In James Watt Jr.'s hand.*
- **38.** Transcript of letter. Boulton Watt & Co. (London) to the Chairman & Directors of the St. Katherine's Docks Co. [London]. 1 Mar. 1827.

- 39. Calculations. Calculations of Engines and Pumps for St. Katherine's Docks. Mar. 1827. 2 sheets.

  In James Watt Jr. 's hand.
- **40.** Memorandum. Estimates of Engines etc. for the St. Katherine's Docks 1826 and 1827. *Covers estimates and schemes submitted between Nov. 1826 and Mar. 1827.*
- 41. Memorandum. Estimate of loss sustained per contract for the Materials of the St. Katherine's Dock Engines, prior to the Erection, to 26 Jul. 1828.
- 42. Transcript of letter. James Brown (25 Jewry St., London) to John Hall [London]. 30 Oct. 1828.
  Docketed as 1829. Docketed "Particulars of experiment made for filling the entrance lock to the heights of 13 feet and 15 feet."
- 43a. Memorandum. Experiments with Coal at St. Katherine's Dock. 2 Jan. 1829. Kept with (b) below. Docketed "Consumption of coal by the engines at St. Katherine's Dock."
- Transcript of extract of letter. Boulton Watt & Co. [Soho] to John Hall [London]. 13 Mar. 1828.Docketed "About probable consumption of fuel at St. Katherine's Dock engines."
- **44a.** Letter (press copy). James Watt Jr. (London) to William Creighton (Soho). 7 Feb. 1829. *Kept with (b) below.* 
  - **b.** Memorandum (press copy). Boulton Watt & Co.'s calculations of the power of the Engines required for St. Katherine's Dock proceded upon the data given them by Mr. Telford... 2 sheets.
- **45a.** Memorandum. Thomas Rhodes' statement of the superficial area of the Dock, Basin and Entrance Lock of the St. Katherine's Dock. 12 Feb. 1829. *Kept with (b) below.* 
  - b. Memorandum. Deductions from Mr. Rhodes' statement of the Contents of the Entrance Lock and Basin etc.
    In James Watt Jr.'s hand.
- **46.** Transcript of letter. Boulton Watt & Co. (Soho) to John Hall [London]. 12 Feb. 1829. *Marked "Suppressed."*
- 47. Transcript of letter. Boulton Watt & Co. (Soho) to John Hall [London]. 14 Feb. 1829. Docketed "With statement of our account for the erection of the engines and extras. Explanation of the extra power given and of the saving by adopting the plan we recommended."

# MS 3147/3/523 SPECIAL SUBJECTS & CORRESPONDENTS JOHN SMEATON – MISCELLANEOUS LETTERS 1776—1784

#### INTRODUCTION

Letters from John Smeaton to James Watt and Boulton & Watt, from 1776 to 1784. This small collection of letters from Smeaton was originally on display in glass cases in the Watt Room at Soho Foundry. They were presumably removed from the General Incoming Correspondence series.

- 1. Letter. John Smeaton (Ansthorpe) to James Watt (Soho). 11 Apr. 1776.
- **2.** Letter. John Smeaton (Ansthorpe) to James Watt (Birmingham). 23 Apr. 1776.
- 3. Letter. John Smeaton (London) to Boulton & Watt (Birmingham). 16 Mar. 1778.
- **4.** Letter. John Smeaton (Ansthorpe) to William Playfair (Soho). 1 Nov. 1780. *Docketed "Copying machines."*
- 5. Letter. John Smeaton (Ansthorpe) to James Watt (6 Green Lettice Lane). 3 Oct. 1784.
- **6a.** Letter. John Smeaton (Ansthorpe) to James Watt (6 Green Lettice Lane). 7 Oct. 1784. *Enclosing (b) below.* 
  - **b.** Memorandum. View of Craven Cross Lead Mine at Greenhow Hill. John Smeaton (Pateley Bridge). 5 Oct. 1784.
- **6.** Letter. John Smeaton (Gray's Inn, London) to James Watt (Birmingham). 19 Oct. 1784. *Docketed "On Craven Cross mine."*
- 7. Letter. John Smeaton (Gray's Inn, London) to James Watt [Birmingham]. 25 Oct. 1784. Docketed as 20 Oct.

# MS 3147/3/524 SPECIAL SUBJECTS & CORRESPONDENTS SPANISH ENGINES 1788—1795

### INTRODUCTION

Letters and papers relating to various steam engines sold to Spanish customers, from 1788 to 1795. The engines were as follows: a flour mill engine for Don Pasqual Mensa y March, Cadiz, for which the mill work was provided by John Rennie; an engine with a 60 inch cylinder for Don Fernando de Torres, for a saw mill in Cadiz; and two engines for Don Diego Gardoqui.

Mensa's 50 horse sun and planet engine was usually referred to by its code, "BWM", which stood for "Boulton & Watt – Mensa". The negotiations over this engine were extremely protracted, and it does not appear that the engine was actually shipped to Spain until 1791.

De Torres' sun and planet engine was usually referred to by its code, "BWS", which may have stood for "Boulton & Watt Spain." The merchant house of Fermin de Tastet & Co., of the City of London, acted as de Torres' agents during negotiations for the engine, which was of unusually large construction. The engine still had not been completed in February 1794, when Antonio de Tastet told Boulton & Watt that de Torres had gone prospecting for coal mines in Asturias and might not come to Cadiz again very soon — "... in this case I should not be surprised if the project of this immense Engine should vanish."

Don Diego Gardoqui had connections with Torres, and again de Tastet & Co. acted as agents for his engines. These were two blowing engines, again for Cadiz, referred to as "BWG 1 and 2" – "Boulton & Watt Gardoqui." BWG No. 1 was a new engine, but BWG No. 2 was actually the second engine installed at the Albion Mill, which had become redundant after the mill was destroyed by fire.

For letters about the erection of de Torres' engine at Cadiz and the problems with James Murdock, see letters from Malcolm Logan in 3/395, General Incoming Correspondence 1785—1795, L and 3/415, General Incoming Correspondence 1795—1798, L. See also 3/287, letters from James Murdock, and a letter from de Torres in 3/401, General Incoming Correspondence 1785—1795, T. For the draft of a letter from Boulton & Watt to Mensa's partners, see 3/22, Matthew Boulton – Miscellaneous Memoranda and Papers.

For drawings of the engines see Portfolios 5/240 (Don Pasqual Mensa y March), 5/58 (Don Fernando de Torres), 5/692 and 693 (Don Diego Gardoqui).

- 1. Bundle wrapper.

  Marked "Spanish Engines. Mensa 1788—1791; Torres 1789—1795; De Tastet for Don Diego Gardoqui 1791—5."
- **2.** Letter. John Talbot Dillon (Crescent No. 2, New Bridge St., Blackfriars) to Matthew Boulton (Soho). 11 Sep. 1788.
- **3.** Letter. John Talbot Dillon (Crescent, Blackfriars) to Matthew Boulton (Soho). 16 Sep. 1788.
- **4.** Letter. John Talbot Dillon (London) to Matthew Boulton [Soho]. 26 Sep. 1788.
- Memorandum. List of queries and general observations about an engine and Boulton & Watt's terms. London, 28 Jan. 1789.
  Docketed "Mr. Dillon's translation of a Spanish paper delivered to Mr. Pasqual Mensa, merchant in Cadiz, now in London, No. 45 Basinghall St. London, 30 Jan. 1789."
- 6. Memorandum. Mr. Boulton's conversation with Mr. Mensa. 1789.

  Notes about parts, cost, payment etc. of an engine similar to that at Albion Mill.
- 8. Memorandum. Calculation of space wanted for mill and granary. Incomplete. Not dated [1789?].

  In James Watt's hand.
- 9. Sketches. Plans of Mr. Mensa's mill [?]. Not dated [1789?].
- 10. Memorandum. Proposals to Mr. Mensa. Mar. 1789. 2 sheets. In James Watt's hand.

  Docketed "Our first proposals to Mr. Mensa."

- 10a. Letter. Pasqual Mensa y March (Birmingham) to Boulton & Watt [Soho]. 2 Mar. 1789. Enclosing (b) below. Docketed "Mr. Mensa's letter and answer to our first proposals."
  - **b.** Memorandum. Answer of Mr. Mensa to the Proposals of Messrs. Boulton & Watt.
- **11.** Memorandum. Observations for Mr. Mensa by Boulton & Watt. 3 Mar. 1789. *In James Watt's hand.*
- **12.** Memorandum. Boulton & Watt's List of Materials for Mr. Mensa. 6 Mar. 1789.
- **13.** Memorandum. Queries to Rennie for the Spanish Mill for Menza. Not dated [circa Mar. 1789?]
- **14.** Letter. John Rennie (London) to James Watt (Birmingham). 10 Mar. 1789. *Docketed "About Mr. Mensa's mill."*
- **15.** Memorandum. Draft Contract with Mr. Mensa & Co. for a 34 inch cylinder. 1789 [?]. 2 sheets. *In James Watt's hand. Names Mensa's partners.*
- 16. Letter. Pasqual Mensa y March & Company (Birmingham) to Boulton & Watt [Soho]. 12 Mar. 1789.
  Docketed "Accepting our proposals."
- 17. Letter. John Rennie (London) to James Watt (Birmingham). 14 Mar. 1789. Docketed "About Mr. Mensa."
- **18.** Letter. Pasqual Mensa y March (Birmingham) to Boulton & Watt [Soho]. 15 Mar. 1789.
- 19. Memorandum. Estimate & List of the different Articles of mill work necessary for a complete Mill for the purpose of Manufacturing Wheat into Flour. 1789. Sent by Rennie to Mensa, and then sent with the above letter of 15 Mar.? Docketed "Mr. John Rennie's complete list of materials for Mr. Mensa."
- Memorandum. List of Men necessary to work the Mill daily; Estimate of the Mill Work of a Mill to be worked by one of Messrs. Boulton & Watt's steam engines, consisting of ten pair of mill stones, dressing machinery etc. Mar. 1789.
  Sent with the above letter of 15 Mar.? Made up from information given by John Rennie to Mensa in London.
  Docketed "Mr. Rennie's list of men for the mill and price of mill work for Mr. Mensa."
- 21. Memorandum. Calculation of the Cost in Birmingham of a Fire Engine with its corresponding Mill to grind wheat, the Plantification, Conclusion & establishment in the Province of Andalucia in Spain. Mar. 1789.

  Sent with the above letter of 15 Mar.? For an engine with a 34 inch cylinder.

  Docketed "Mr. Mensa's comparative view of the engine and ataonas."
- **22.** Letter. John Rennie (London) to James Watt (Birmingham). 17 Mar. 1789. *Docketed "About Mr. Mensa's mill."*
- Letter. John Rennie (London) to James Watt (Harper's Hill). 18 Mar. 1789.
  On the same sheet:
  Estimate for mill work as extracted from the books of Albion Mill.
  Docketed "About estimate of Mr. Mensa's mill."

- 24. Memorandum. Computations upon Mr. Rennie's estimate. Not dated [circa Mar. 1789?]. 2 sheets.

  Mainly in James Watt's hand.
- **25a.** Letter. John Talbot Dillon (London) to Boulton & Watt (Soho). 9 Apr. 1789. *Enclosing (b) below.*Docketed "With agreement between Mr. Mensa and Mr. Rennie."
  - **b.** Translation of original Spanish agreement between Pasqual Mensa and John Rennie. 9 Apr. 1789.
- **25.** Letter. Pasqual Mensa y March (London) to Boulton & Watt (Birmingham). 11 Apr. 1789. *Docketed "His address and agreement with Mr. Rennie."*
- 26. Letter. Pasqual Mensa y March (London) to Boulton & Watt [Birmingham]. 29 Apr. 1789.
- 28, Letter. Pasqual Mensa y March (London) to Boulton & Watt (Birmingham). 5 May 1789.
- **29.** Letter. Pasqual Mensa y March (London) to James Watt (Birmingham). 23 May 1789. *Docketed "About soliciting patent."*
- 30. Memorandum. Draft An Agreement between Mr. Mensa (on behalf of himself & partners...) & Messrs. Boulton & Watt... for an association between the said parties to carry on the Business of erecting Steam Engines in Spain... Not dated [circa Jun. 1789?]
- **31a.** Transcript of letter. James Watt (Birmingham) to Matthew Boulton (—). 13 Jun. 1789. *Kept with (b) and (c) below. Docketed "Copy of our proposals to Mr. Mensa and his letters thereon."* 
  - **b.** Memorandum. Heads of an Agreement with Pasqual Mensa Esq. & Company on the one part & Boulton & Watt on the other part. Circa Jun.1789 [?]. *Docketed "Draft agreement with Mr. Mensa for Spanish patent."*
  - **c.** Memorandum. Description of the business between Mensa and Boulton & Watt, including transcripts and extracts from letters. Mar.—May 1789. 2 sheets.
- **32.** Letter. Pasqual Mensa y March (London) to Boulton & Watt [Birmingham]. 23 Jun. 1789.
- **33a.** Letter. Pasqual Mensa y March (London) to Boulton & Watt (Birmingham). 18 Jul. 1789. *Enclosing (b) & (c) below.* 
  - **b.** Memorandum. Mensa's thoughts and observations on his business with Boulton & Watt. 2 sheets.
  - **c.** Note of what should be included in a memorial to the King of Spain.
- 34. Memorandum. Review of Mensa's business with Boulton & Watt and John Rennie, and the privilege question. Not dated [circa Jul./Aug. 1789?]

  In Mensa's hand.
- 35. Letter. Pasqual Mensa y March (London) to Boulton & Watt [Birmingham]. 14 Aug. 1789.
- **36.** Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 15 Aug. 1789.

- 37a. Letter. James Watt (Cheltenham) to Matthew Boulton [Soho]. 21 Aug. 1789. *Kept with (b) below. On the same sheet:*Table. Tariffs of engines of various horse powers and cylinder diameters for Mr. Mensa.
  - **b.** Table & memorandum. Tariffs of engines of various cylinder diameters, and observations for Mr. Mensa on them.
- 38. Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 17 Sep. 1789.
- 39. Draft of letter. Boulton & Watt [Soho] to Benjamin Bewicke [London]. Not dated [circa 18 Sep. 1789].

  In Matthew Boulton's hand.

  Docketed "Draft letter to Mr. Mensa, 17 Sep. 1789."
- **40.** Letter. Benjamin Bewicke (London) to Boulton & Watt [Birmingham]. 23 Sep. 1789.
- 41. Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 26 Sep. 1789.
- **42.** Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 28 Sep. 1789.
- Tables & explanatory notes. Tariff of Double Engines with one Rotative Motion, and one Fly; Double Engines with 2 Flys, 2 Shafts, and 2 Rotative Motions. 1 Oct. 1789. Signed by Pasqual Mensa y March, James Watt and Matthew Boulton; witnessed by Benjamin Bewicke, Robert Bewicke and J. J. [?] Vickers. Docketed "Tariff of rotative engines, agreed upon with Mr. Mensa."
- **44.** Tables & explanatory notes. Draft of the tables above. Not dated [circa Sep. 1789]. 2 sheets.
- Memorandum. List of Materials for an Engine ordered by Pasqual Mensa Esq. containing the metallic parts of the Engine. 3 Oct. 1789. 2 large sheets.
   In James Watt's hand. Lists parts and gives Spanish translation. Signed by Mensa on 3 Oct.
   Docketed "Corrected copy of the list of materials for Mr. Mensa."
- 46. Memorandum (in Spanish). Lista de las differentes piezas de metal de una Bomba de fuego de doble injeccion.
  Docketed "Spanish translation of the list of materials."
- 47. Letter. Fermin de Tastet & Co. (London) to James Alston (Birmingham). 2 Oct. 1789.
- **48.** Letter. Fermin de Tastet & Co. (London) to James Alston (Birmingham). 3 Oct. 1789.
- **49.** Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 7 Oct. 1789. *Docketed "About Mr. Torres."*
- **50.** Letter. Benjamin Bewicke (London) to Boulton & Watt [Birmingham]. 10 Oct. 1789. *Docketed "Concerning Mr. Torres."*
- Letter. Fernando de Torres and Fermin de Tastet (Hotel, near the new church, Birmingham) to James Alston [Birmingham]. 11 Oct. 1789.

- **52.** Notes & calculations. Particulars for engine for Mr. Torres. 12 & 13 Oct. 1789. 2 sheets. *In James Watt's hand.*
- **53a.** Letter. Fermin de Tastet & Co. (London) to James Alston (Birmingham). 17 Oct. 1789. Enclosing (b) below. Docketed "With Mr. Torres" order."
  - **b.** Memorandum (in French). Don Fernando de Torres' order for an engine with a 60 inch cylinder. Birmingham, 13 Oct. 1789.
- **54.** Draft of letter. James Alston (—) to Fermin de Tastet (—). 16 Oct. 1789. *On the same sheet:*

Transcript of memorandum (in French). Copy of Fernando de Torres' order. Birmingham, 13 Oct. 1789.

*The above are written on the reverse of the following:* 

Note. S. & S. Galton [Birmingham] to James Watt (Harper's Hill). "Wednesday". Docketed "Draft of what Mr. Alstone wrote on our behalf to Mr. de Tastet."

- 55. Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 17 Oct. 1789.
- **56a.** Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 21 Oct. 1789. *Enclosing (b) and (c) below.* 
  - Letter. Pasqual Mensa y March (Weymouth) to Benjamin Bewicke (Millman St., London).
     18 Oct. 1789.
     The postscript is in Spanish, and Bewicke has attached a translation.
  - c. Translation of letter. Pasqual Mensa y March (Weymouth) to Fernando de Torres [?] [London]. 18 Oct. 1789.
    In Benjamin Bewicke's hand.
    Docketed "About Mr. Torres."
- 57a. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 28 Oct. 1789. Enclosing (b) below. Docketed "With Mr. Torres" acceptance of our proposals."
  - **b.** Letter (in French). Fernando de Torres (11 Queen St., Golden Square, London) to Boulton & Watt [Soho]. 26 Oct. 1789.
- **58.** Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 3 Nov. 1789. *Docketed "Mr. Mensa's sailing."*
- **59.** Letter (in French). Fernando de Torres (11 Queen St., Golden Square, London) to Boulton & Watt (Birmingham). 20 Nov. 1789.
- **60.** Letter. Benjamin Bewicke (London) to Boulton & Watt (Birmingham). 8 Jan. 1790.
- **61.** Letter (in French). Fernando de Torres (London) to Boulton & Watt (Birmingham). 18 Jan. 1790.
- **62.** Calculations. Estimate Mr. Torres' engine. Mar. 1790. *Mainly in James Watt's hand.*

- 63a. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 2 Mar. 1790. *Not docketed. Kept with (b) below.* 
  - **b.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 6 Mar. 1790. *Docketed as 2 and 6 Mar.*
- 64. Letter. Fermin de Tastet & Co. per Charles Fortnum (London) to Boulton & Watt (Birmingham). 18 Mar. 1790.
- **65.** Letter (in French). Fernando de Torres (London) to James Watt [Birmingham]. 18 Mar. 1790.
- Memorandum. Proposals to Don Fernando de Torres by Boulton & Watt of Birmingham.
   Birmingham, 19 Mar. 1790.
   Not docketed. In James Watt's hand.
- **67a.** Memorandum. List Materials of Engine for Mr. Torres BWS. Mar. 1790.
  - **b.** Wrapper for the above. The following has been used for the wrapper: Letter. John Roberts (Soho) to James Watt [?] [Birmingham]. 20 Mar. 1790. *Re. working gear etc. for Gardner & Co.*
- **68.** Letter. Benjamin Bewicke [London] to James Watt (6 Green Lettice Lane). "Thursday" [25 Mar. 1790].
- Memorandum. Proposals offered to Don Fernando de Torres, by Boulton & Watt of Birmingham. 28 Mar. 1790.
  Signed by Boulton & Watt and witnessed by de Tastet. At the end is a "réponse" in French accepting the proposals, signed by de Torres and witnessed by de Tastet.
  Docketed "Proposals accepted by Don F. Torres."
- Transcripts. Transcripts of 2 letters on the same sheet, as follows:
  Boulton & Watt (London) to Don Pedro Garcia Gaston (Cadiz). 14 Jun. 1790.
  Boulton & Watt (London) to Don Pasqual Mensa y March [Cadiz]. 14 Jun. 1790.
  Docketed "Copy letter to Messrs. Mensa & Co., London, June 15."
- 71. Letter (in French). Fernando de Torres (Queen St., Golden Square, London) to James Watt (Birmingham). 21 Jun. 1790.

  Docketed "Particular directions about some parts of machine."
- 72. Letter. Benjamin Bewicke (London) to James Watt (Soho). 21 Jul. 1790.
- 73. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 11 Aug. 1790.
- 74. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 21 Aug. 1790.
- 75. Letter. Benjamin Bewicke (London) to Boulton & Watt (Soho). 22 Oct. 1790.
- 76. Memorial (press copy). Memorial for Matthew Boulton & James Watt of Birmingham in the County of Warwickshire in the Kingdom of Great Britain Engineers. Not dated [1789/1790?]. 6 sheets.

  Copy of memorial to the King of Spain for grant of the patent.

- Printed patent grant (in Spanish). Real cedula de S. M. y señores del consejo, en que se concede privilegio exclusivo por término de viente años á Don Simon Plá y Mensa, y Compañia, para la introduccion en el Reyno de las Bombas del fuego, llamadas de doble inyeccion, baxo las condiciones que se expresan. Madrid, 1790. 9 pages. Signed and certificated by various Spanish officials [?]. The patent was granted circa Oct./Nov. 1790.
- **78.** Letter. Benjamin Bewicke (London) Matthew Boulton (Soho). 1 Dec. 1790.
- **79.** Memorandum. Estimated weight of Mr. Torres' goods. Jan. 1791. *By John Southern*.
- **80.** Letter. Fermin de Tastet & Co. per Charles Fortnum (London) to Boulton & Watt (Birmingham). 7 Jan. 1791.
- 81. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 13 Jan. 1791.
- **82.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 27 Jan. 1791.
- 83a. Letter (in Spanish). Don Pedro Garcia Gaston & Co. (Cadiz) to Boulton & Watt [Birmingham]. 22 Feb. 1791.

  Kept with (b) below. Signed by Pedro Garcia Gaston, Simon Pla y Mensa and Franco Marti.
  - **b.** Translation of the above letter. *Docketed "Translation and letter Don Pedro Garcia Gaston & Co."*
- **84.** Letter. Fermin de Tastet & Co. per Charles Fortnum (London) to Boulton & Watt (Birmingham). 26 Feb. 1791.
- **85.** Letter. Benjamin Bewicke (London) to Boulton & Watt (Soho). 4 May 1791.
- **86.** Letter. Benjamin Bewicke (London) to Boulton & Watt (Soho). 10 May 1791.
- 87. Memorandum (in French). Mr. Torres' queries for Mr. Gardoqui. Jun. 1791.
- **88.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 9 Jun. 1791. *Marked and docketed "G." [Gardoqui]*
- Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 2 Jul. 1791.
  On the same sheet:
  Letter. Fermin de Tastet & Co. (London) to Boulton & Watt. 2 Jul. 1791.
  Docketed "G. and T." [Gardoqui and Torres]
- 90. Letter. Fermin de Tastet & Co. (London) to James Watt & Co. (Birmingham). 2 Jul. 1791.
- 91. Letter. Fermin de Tastet & Co. per And. Prant [?] (London) to Boulton & Watt (Birmingham). 11 Jul. 1791.

  Docketed "T [Torres] boring rods."
- **92.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 27 Jul. 1791. *Docketed "About freight T [Torres]."*
- 93. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 11 Aug. 1791. Docketed "G. [Gardoqui] Order for 2 engines."

- Detter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 19 Aug. 1791.
  On the same sheet:
  Letter. Fermin de Tastet & Co. (London) to Boulton & Watt. 19 Aug. 1791.
  Docketed "G. and T." [Gardoqui and Torres]
- **95.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 30 Aug. 1791. *Docketed "G." [Gardoqui]*
- **96.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 30 Aug. 1791. *Docketed "Buttons."*
- 97a. Memorandum. Articles of agreement made, contracted and agreed between Matthew Boulton & James Watt of Soho... and Fermin de Tastet & Company of the City of London... 4 Sep. 1791. 2 sheets.

  \*Kept with (b) below.

  \*Docketed "Draft contract with Messrs. de Tastet & Co. for the engines G. [Gardoqui]"
  - **b.** Draft of letter. Boulton & Watt [Soho] to Fernando de Torres [Cadiz]. 4 Sep. 1791. *In James Watt's hand.*
- **98.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 19 Sep. 1791. *Marked "T." [Torres] and "G." [Gardoqui] Docketed "T."*
- Detter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 20 Sep. 1791.
  On the same sheet:
  Letter. Fermin de Tastet & Co. (London) to Boulton & Watt. 20 Sep. 1791.
  Docketed "G. and T." [Gardoqui and Torres]
- **100.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 1 Oct. 1791. *Docketed "T." [Torres]*
- **101.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 20 Oct. 1791. *Marked "T." [Torres]*
- **102.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 27 Oct. 1791. *Docketed "T." [Torres]*
- 103. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 12 Nov. 1791.
- **104.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 24 Dec. 1791.
- **105a.** Letter. Fermin de Tastet (London) to Boulton & Watt (Birmingham). 26 Jun. 1792. *Enclosing (b) below.* 
  - **b.** Note. Postscript to the above letter.
- **106.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 3 Nov. 1792.
- 107. Memorandum. Gardoqui's engine. Not dated [1793?]. *Progress with various parts of the engine.*
- **108.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 9 Mar. 1793.
- **109.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 18 Mar. 1793. *Letter passed to Matthew Boulton.*

- 110. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 2 Apr. 1793. Letter passed to William Forman.
- **111.** Letter. Samuel Wyatt [London] to Matthew Boulton [?] [London]. 5 Apr. 1793. *Docketed "Boilers."*
- 112. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 16 Apr. 1793.
- **113.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 18 Apr. 1793. *Docketed "About James Murdock's passage."*
- 114. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 30 Apr. 1793. Arrangements for shipping boilers with Mr. Wyatt. Arrangements for James Murdock's passage to Spain with Capt. Collins and his expenses. Hope he will be more economical in Spain.
- 115. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 24 May 1793. Further arrangements with Mr. Wyatt for shipping boilers. Shipping of goods marked 'BWM', presumably "Mr. G.'s engines". James Murdock's excessive drawing of money for his expenses at Portsmouth.
- Letter. Fermin de Tastet & Co. (Runes Court [?], London) to James Watt [London]. 13 Jun. 1793.Docketed "Mr. Gardoqui."
- 117. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 14 Sep. 1793. Docketed "Mistake about insurance."
- 118. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 21 Oct. 1793.

  James Murdock's scandalous behaviour in Cadiz. Boulton & Watt should either get him to conform to the contract or replace him.
- 119. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 25 Feb. 1794.
- **120.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 5 Sep. 1794. *Docketed "Malcolm Logan. Chevalier de Betancourt, by whom employed."*
- **121.** Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 3 Oct. 1794. *Docketed "Conde de Casa Montalvo. Francisco di Arango."*
- 122. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 5 Mar. 1795. Have delivered Boulton & Watt's "good advice" to Madrid hope the erection of the engine at the Carraca [Cadiz] will now be better managed. Arrangements with Mr. Duff to settle the wages of Malcolm Logan and James Murdock. Will examine the account Boulton & Watt sent.
- 123. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 11 Mar. 1795. Have been visited by James Murdock. Payment of his passage and expenses while in town belongs to the concern, but they have had no orders from de Torres. Boulton & Watt will be answerable for any extra charges made by Murdock. They should let Mr. Duff settle the question of the 30 guineas due after the erection, as he can discover whether it is Murdock's fault that the engine has not been erected yet.

- 124. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 14 Mar. 1795. News of James Murdock – his defrauding Capt. Collins of 2 guineas. He has no right to claim any part of the 30 guineas gratuity. He says he is leaving for Soho.
- 125. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 19 Mar. 1795. They have paid for James Murdock's passage and sent him to Soho. A note from Curt. Barron & Co., Murdock's "protectors" at Cadiz he has left without repaying the 30 dollars they lent him.
- 126. Letter. Fermin de Tastet & Co. (London) to James Watt Jr. (Birmingham). 5 Oct. 1795. Congratulating James Watt Jr. on joining the business. Enclosing a letter from Monsieur Roque to Matthew Boulton, and copies concerning Roque's "curious invention", which Theo. Casenove has asked them to forward.
- 127. Letter. Fermin de Tastet & Co. (London) to Boulton & Watt (Birmingham). 23 Nov. 1795. Have honoured Boulton & Watt's draft settling their account. Repayment of Capt. Collins for money that James Murdock borrowed.

# MS 3147/3/525 SPECIAL SUBJECTS & CORRESPONDENTS THOMAS TELFORD – MISCELLANEOUS LETTERS 1795—1832

#### INTRODUCTION

Letters from Thomas Telford, from 1795 to 1832. The letters mainly concern pumping engines for canals, water works and docks, including the Ellesmere Canal, the Caledonian Canal, Glasgow Water Works, Holyhead docks and St. Katharine's Dock.

This bundle is an artificial one. The letters were gathered together by Henry Hazleton in the 1890s, and many show signs of having been displayed in wall cases and mounted in guard books. The letters appear to have been mainly removed from the now missing post-1798 Drawing Office correspondence, as most of the dockets are by John Southern. The bundle also contains several sheets of calculations by Southern, a letter from Watt to Southern, and a letter from John Telford of 23 March 1806.

- 1. Letter. Thomas Telford (Shrewsbury) to James Watt [?] [Soho]. 25 Apr. 1795. Docketed by John Southern. Docketed "For Ellesmere Canal Co."
- **2.** Letter. Thomas Telford (London) to James Watt (Soho). 13 May 1800. *Docketed "Will call and see the little engine at work."*
- 3. Letter. Thomas Telford (Chester) to James Watt (Birmingham). 17 Aug. 1800. *Docketed "Wanting estimate."*
- **4.** Letter. Thomas Telford (Inverness) to James Watt (Heathfield). 9 Aug. 1804. *The outside of the letter is directed to Boulton & Watt, Soho. Docketed by John Southern. Docketed "Caledonian Canal T. Telford. Orders 2 steam engines."*
- 5. Letter. Thomas Telford (Inverness) to Thomas Southern [sic] (Soho). 25 Aug. 1804. Docketed "Caledonian Canal Mr. Telford. Orders a 3<sup>rd</sup> engine. The large and small one first wanted. No peculiarities in the situation of them."
- **6.** Letter. Thomas Telford (Fort William) to John Southern (Soho). 24 Sep. 1804. *Docketed "Proposes 20 horse engine to be at the Western end. Directs how to be sent."*
- 7. Letter. Thomas Telford (Edinburgh) to John Southern (Soho). 4 Oct. 1804.

  The outside of the letter is directed to Boulton Watt & Co. Docketed by M. R. Boulton.

  Docketed "Drawings to be addressed to him at Shrewsbury. Engines to be completed with all possible expedition."
- **8.** Letter. Thomas Telford (Shrewsbury) to John Southern (Soho). 21 Jan. 1805. *Docketed "Wishes to know when the Caledonian [Canal engines will be ready]."*
- 9. Letter. Thomas Telford (London) to Boulton Watt & Co. (Soho). 30 Mar. 1805. Docketed "Has ordered his bankers at Shrewsbury to remit for the amount of the Caledonian engines. Requests a receipt. Orders duplicate boilers and apparatus."

- 10. Letter. Thomas Telford (London) to John Southern (Soho). 6 Feb. 1805.

  Mis-docketed as John Telford. Docketed by?

  Docketed "Is pleased to learn that the engines are in such a state of forwardness. Will be ready to pay for them when delivered. Will let us know how high the injection is to be raised and wishes us to furnish the pipes. Will give directions about forwarding the engines."
- Letter. Thomas Telford (Salopian Coffee House, Charing Cross, London) to John Southern (Soho). 25 Feb. 1805.
   Docketed "Orders pipes for the cold water pumps of the 3 engines Caledonian Canal. Duplicate boilers advisable. Destination of the engines."
- 12. Letter. Thomas Telford (Shrewsbury) to Boulton & Watt (Soho). 17 Mar. 1805.

  Docketed "Proposes passing through Birmingham. Requests to have the account sent in and will direct his bankers to remit for it."
- 13. Letter. Thomas Telford (Liverpool) to Boulton Watt & Co. (Soho). 10 Apr. 1805.

  Docketed "Wishes to have stamped receipt forwarded to him at Inverness. Vessel with the 36 inch Caledonian engine has been sunk in the canal. Wishes a man to be sent to examine it and to proceed from thence in the same ship to Fort William."
- 14. Letter. Thomas Telford (Fort William) to Boulton & Watt (Soho). 25 Apr. 1805.

  Docketed "Ours with drawings and receipt come to hand. Will delay commencing the engine houses until the arrival of our man. Directions for forwarding the engines to Hull.

  John Telford manager at Fort William."
- 15. Letter. Thomas Telford (Whitchurch) to Boulton Watt & Co. (Soho). 19 May 1805. Docketed "Wishes the engines No. 1 and 3 to be insured. The vessel with No. 2 has not yet sailed from Chester. Thinks the expense of examining etc. the goods should be paid by Worthington & Co."
- **16.** Letter. Thomas Telford (London) to Boulton & Watt (Soho). 3 Jun. 1805. Docketed "Orders for forwarding the 2<sup>nd</sup> boiler etc. for the Caledonian Canal. Desires the account may be sent to him at Shrewsbury."
- 17. Letter. Thomas Telford (Shrewsbury) to Boulton & Watt (Soho). 10 Jun. 1805.

  Docketed "Proposes remitting for the boilers etc. on their arrival at Inverness. The two engines with George Taylor and an assistant are arrived at Inverness. Taylor to proceed to Fort William as the engines at Inverness will not soon be wanted."
- **18.** Letter. Thomas Telford (Shrewsbury) to Boulton Watt & Co. (Soho). 9 Jul. 1805. Docketed "Remittance for 2<sup>nd</sup> boilers and apparatus of Caledonian Canal engine. Part of steam case of the 48 inch engine broken. George Taylor is putting up the engine at Fort William."
- 19. Letter. John Telford (Corpach, Fort William) to Boulton & Watt (Soho). 23 Mar. 1806. Docketed "George Taylor has completed the first engine, except the pumps, for which the well is not ready. Waits our instructions about returning home."
- 20. Letter. Thomas Telford (Shrewsbury) to James Watt [Heathfield]. 25 Mar. 1806. Docketed by John Southern. Docketed "Glasgow Water Works."
- **21.** Draft of letter. John Southern [Soho] to James Watt [Heathfield]. 30 Mar. 1806. *Titled "Glasgow Water Works." Calculations, queries etc.*

**22.** Calculations. John Southern – Computations on Glasgow Water Works. — Apr. 1806. 2 sheets.

\*\*Docketed by James Watt.\*\*

23. Letter. Thomas Telford (Chester) to James Watt (Heathfield). 5 Apr. 1806. Mis-dated by Telford as 1805. Docketed "Glasgow Water Works."

24. Letter. Thomas Telford (Fort William) to James Watt (Heathfield). 1 May 1806. Docketed by John Southern. Docketed "Glasgow Water Works."

- **25.** Letter. James Watt (Heathfield) to John Southern [Soho]. "Saturday" [10 May 1806]. *Docketed "Glasgow Water Works."*
- **26.** Letter. Thomas Telford (Glasgow) to Boulton & Watt (Soho). 23 May 1806. 2 sheets. *Docketed by John Southern. Docketed "Glasgow Water Works."*
- **27.** Letter. Thomas Telford (London) to Boulton & Watt (Soho). 12 Jun. 1806. Docketed by John Southern. Docketed "Glasgow Water Works."
- **28.** Memorandum. Glasgow Water Works. 17 Jun. 1806. *In John Southern's hand. Calculations, notes etc.*
- **29.** Memorandum. Glasgow Water Works. 18 Jun. 1806. In John Southern's hand. Calculations, notes etc. Docketed "Memorandums."
- 30. Letter. Thomas Telford (Ellesmere) to Boulton & Watt [Soho]. 26 Jun. 1806.

  Docketed by John Southern.

  Docketed "Desires us to proceed without waiting for him, his movements being uncertain."
- 31. Letter. Thomas Telford (Ludlow) to Boulton & Watt (Soho). 2 Jul. 1806.

  Docketed "Going to attend the House of Lords on the subject of the Glasgow Water Works.

  Wishes to know the result of our consideration of that subject."
- 32. Letter. Thomas Telford (Salopian Coffee House, Charing Cross, London) to Boulton & Watt (Soho). 7 Jul. 1806.

  Docketed "Anxious to have the benefit of Mr. Watt's advice but states the necessity of being furnished with our calculations without delay. Opposition to the bill of the Glasgow Water Works from the coal owners on the Clyde. Wants to know the dimensions of an engine proper for raising 1500 Scotch pints per minute and double that quantity with every dispatch."
- 33. Letter. Thomas Telford (London) to Boulton & Watt (Soho). 11 Jul. 1806.

  Docketed "The opposition to the bill of the Glasgow Water Works withdrawn. Wants our estimates wih all dispatch."
- 34. Letter. Thomas Telford (Carlisle) to Boulton & Watt (Soho). 18 Jul. 1806.

  Docketed "Urgently pressing to have our estimates forwarded and addressed to him, Post Office, Carlisle."

- **35.** Letter. Thomas Telford (Glasgow) to Boulton & Watt (Soho). 22 Jul. 1806. Docketed "Receipt of our letter and estimates. Requests our opinion as to the mains, stop cocks etc."
- Wrapper of letter. Thomas Telford (Glasgow) to Boulton & Watt [Soho]. 25 Jul. 1806. The actual letter is missing. The wrapper bears the docket.

  Docketed "Sketch of the proposed distribution of the reservoirs adjoining the river and situation of the engine house. Orders two single engines. Desirous of having the water raised to a greater height by them than originally intended. Urges the completion of our drawings."
- 37. Letter. Thomas Telford (Glasgow) to Boulton Watt & Co. (Soho). 4 Aug. 1806.

  Docketed "Orders the engines of the increased size. Desirous of knowing when they will be finished and delivered."
- **38.** Letter. Thomas Telford (Edinburgh) to Boulton Watt & Co.(Soho). 5 Jan. 1807. *Docketed by John Southern*.
- Letter. Thomas Telford (Salopian Coffee House, Charing Cross, London) to Boulton Watt & Co. (Soho). 30 Jun. 1807.
   Requests copy of an account forwarded in 1805, against the Caledonian Canal."
- **40.** Letter. Thomas Telford (London) to Boulton Watt & Co. (Soho). 7 May 1810. Docketed "Desires a person to be sent to Fort William to set the engine to work. Desires to know the arrangement intended to be made for that pump etc."
- 41. Letter. Thomas Telford (Ellsemere Canal Office, Shrewsbury) to Boulton & Watt [Soho]. 25 Jan. 1815.
  Docketed "Wants drawings of the Caledonian Canal 48 inch 8 foot stroke engine, which they are about to erect themselves."
- 42. Letter. Thomas Telford (Ellsemere Canal Office, Shrewsbury) to Boulton & Watt [Soho].30 Jan. 1815.Docketed "Receipt of drawings of Caledonian Canal 48 inch 8 foot stroke engine."
- **43.** Letter. Thomas Telford (London) to James Watt Jr. [Aston Hall]. 17 Oct. 1826. *Docketed "Proposes to call on Thursday respecting an engine for the St. Katherine's Dock."*
- **44.** Letter. Thomas Telford (London) to James Watt Jr. [Aston Hall]. 7 Nov. 1827. Docketed "Wishes the Holyhead dock engine insured. Will pay as soon as Mr. Brown of Holyhead certifies their arrival and conformity to invoice."
- **45.** Letter. Thomas Telford (London) to James Watt Jr. [Aston Hall]. 14 Nov. 1827. Docketed "The 6 horse engine and pumps arrived at Holyhead. The carriage and freight to be charged in our account and sent to Mr. Brown at Holyhead."
- 46. Letter. Thomas Telford (24 Abingdon St., London) to James Watt Jr. [London]. 20 Feb. 1829.
  Docketed "Appointment to inspect Mr. Brown's accounts of men's time etc. and to look at the engines."

**47.** Letter. Thomas Telford (24 Abingdon St., London) to James Watt Jr. [London]. 23 Feb. 1829.

Docketed "Wishes me to look over his report upon our letter and account in the affair of St. Katherine's Dock."

48. Letter. Thomas Telford [London] to Boulton Watt & Co. [London?]. 10 Jan. 1832. Written by an amanuensis?

Docketed "At Aston 21 Jan. Wants estimates of sundry rotative engines to replace the

Docketed "At Aston 21 Jan. Wants estimates of sundry rotative engines to replace the water mills on rivers intended to be applied to the supply of water to the Metropolis. Also expenses of erection, consumption of coal and cost of repairs."

- **49.** Letter. J. Elliot (—) to Thomas Telford [?] (—). Not dated. *Concerning an agreement he made with Boulton & Watt about an invention of his which turned out not to work.*
- 50. Bundle label.
  In Henry Hazleton's hand. Marked "Letters by Thomas Telford. Also one at the end of the Parcel by John Telford."

# MS 3147/3/526 SPECIAL SUBJECTS & CORRESPONDENTS TITLED AND PRIVATE GENTLEMEN 1775—1817

#### INTRODUCTION

Letters from "titled and private gentlemen," from 1775 to 1817. The correspondents include titled gentry, government ministers and overseas scientists, aristocrats and ambassadors. The letters concern engine enquiries, trade, and matters such as Boulton & Watt's acquisition of a passport to go to France.

The arrangement and contents of this bundle must be considered as extremely speculative. The only record of its existance is a note in the List of the Contents of the Watt Room. Matthew Robinson Boulton kept a similar portfolio, "Familiarum Epistolæ et Selectæ." The original bundle was dismantled, probably by Henry Hazleton, and many of the letters show signs of having been displayed in wall cases or mounted in guard books. Letters which seem to have come from this bundle were found in three locations in the Library's system – Box 1/12, Box 34/1 and Box 35/1. The letters have been brought together, along with a few other letters that appear to belong with them. However, it should be borne in mind that many of these letters, particularly those concerning engines, may have been removed from the General Incoming Correspondence series or the Special Correspondents and Subjects bundles.

- 1. Letter (in French). Le Duc d'Arinburg (London) to Boulton & Watt [Birmingham]. 10 Apr. 1782
- 2. Letter. Lord of Balcarres (Birmingham) to James Watt (Soho). 29 Aug. 1809. Lord Balcarres is making enquiries into the iron trade. Can James Watt give him any advice or put him in contact with anyone in the works near Ironbridge.
- 3. Letter. Lord Balcarres [Birmingham] to James Watt Jr. [Soho]. 29 Aug. [1809]. Wishes to call on James Watt Jr.

- 4. Letter. Sir Joseph Banks (Soho Square, London) to Boulton & Watt (Soho). 18 Nov. 1784.
- 5. Letter. Sir Joseph Banks (Soho Square, London) to Boulton & Watt (Soho). 23 Jul. 1798. *Recommending Baron de Lenthe, son of the new Hanoverian minister in London.*
- Letter. Sir Joseph Banks (Spring Grove) to James Watt Jr. (Norfolk Hotel, London). 7 Sep. 1817.
   The address and docket are on a separate wrapper.
   Docketed "Upon the success of the Caledonia steam boat."
- 7. Letter. Sir Joseph Banks (Soho Square, London) to James Watt Jr. [London]. 18 Sep. 1817. Docketed "Regrets being unable to accompany us in the Caledonia on account of the state of his health and his journey into Lincolnshire."
- 8. Letter. Sir Francis Bassett (London) to Matthew Boulton (Soho). 30 Jan. 1783. Sees the Birmingham Canal Co. case in the same light as Matthew Boulton, and offers every assistance. However he fears there is a "powerful combination" against the company.
- Letter. Lord Berwick (Attingham, Shifnal) to Boulton & Watt (Birmingham). 21 Aug. 1809.
   Docketed "Enclosing a note from a gentleman in Sardinia enquiring about the application of steam engines to mechanical purposes and wishing to have models made of them etc."
- **10a.** Letter. Alexander Black (Morden) to Boulton & Watt [Birmingham]. 4 Feb. 1779. *Docketed by Henry Hazleton "Brother of Dr. Black."* 
  - **b.** Printed circular. Advertisement of Black offering his services for managing land. *Illustrated with engravings of cows by Black*.
- **10.** Letter. Alexander Black (11 Upper Thames St., London) to Boulton & Watt (Birmingham). 27 Feb. 1780.
- 12. Letter. Alexander Black (Albion Place, London) to Boulton & Watt (Birmingham). 30 Jan. 1784.Introducing Monsieur Givry, a French artillery officer.
- **13.** Letter. James Black (London) to James Watt [Birmingham]. 27 Oct. 1780. *Docketed "By Mr. Miller." [Introducing James Miller.]*
- 14. Letter. Dr. Joseph Black (Edinburgh) to James Watt (Heathfield). 22 Mar. 1799. Mr. Hutton [Edington Smeaton Hutton?] will soon join Watt at Birmingham. He has been working in a merchant's counting house in London.
- **15.** Letter. Lord Carysfort (Elton Hall) to Boulton & Watt (Birmingham). 2 Jul. 1793. *Enquiring about an engine for the grounds of his house.*
- **16.** Letter. Lord Cathcart (Shaw Park) to James Watt [?] [Birmingham]. 6 Oct. 1775. *Docketed as 26 Oct.*
- 17. Letter. Lord Cathcart (Grosvenor Place, London) to James Watt (Soho). 22 Nov. 1775. Can James Watt send three sets of regulators to Carron. He has returned the drawings. Hopes to see James Watt in London.

- **18.** Invoice. Regulators, boxes etc. bought by Lord Cathcart. Apr. 1776.

  Docketed "Copy transmitted to Mr. Campbell of Ashfield, Greenock to procure payment, Mar. 1777."
- **19.** Letter (in French). Count Cavalli [Venice] to Matthew Boulton [Birmingham]. 31 Aug. 1780.

*Not dated – date taken from the docket.* 

Docketed "Received and answered by James Watt 16 Oct. 1780.

- **20.** Letter (in French). Count Cavalli (London) to James Watt (Birmingham). 21 Oct. 1780. *Docketed "About fire engines."*
- 21. Letter (in French). Count Cavalli (Venice) to Matthew Boulton (Birmingham). 23 May 1788.

  Forwarded to James Watt at Harper's Hill.
- 22. Letter (in French). Count Cavalli (Venice) to Boulton & Watt (at Mr. Woodmason's, Leadenhall St., London). 22 Aug. 1788.

  Forwarded to Birmingham.

  Docketed "Answered."
- 23. Letter. The Marquis of Circello (7 Mansfield St., Cavendish Square, London) to Matthew Boulton (Birmingham). 1 Aug. 1794.

  \*Docketed "Answered. Order given out to Mr. Horton 2 Aug. 1794."
- 24. Letter. Sir John Clerk (Penicuik) to James Watt [Soho]. 25 May 1786.

  David Hutchinson of the Iron Mill near Dalkeith has invented a hinged draught excluder.

  He does not wish to patent it. Do Boulton & Watt wish to buy the right or can they advise him?
- **25.** Letter. Sir William Codrington (Davies St., London) to Matthew Boulton (Birmingham). 4 May 1779.
- **26.** Letter. Lord Dacre [?] (Hot Wells, Bristol) to James Watt (Heathfield). 10 Oct. 1794. *Docketed "Order for an apparatus [pneumatic apparatus]."*
- 27. Letter. Sir John Dalrymple (Edinburgh) to Boulton & Watt [Soho]. 28 Jun. —. *Docketed "About a mill for Mr. Gillespie."*
- **28.** Letter. Sir John Dalrymple (Edinburgh) to Matthew Boulton (Soho). 6 Aug. 1784. *Passed to James Watt.*
- **29.** Letter. Sir John Dalrymple (Edinburgh) to James Watt (Birmingham). 9 Aug. 1784. 2 sheets. *A transcript has been written between the lines*.
- **30.** Letter. Sir John Dalrymple (Edinburgh) to James Watt (Soho). 16 Aug. 1784.
- 31a. Letter. Sir John Dalrymple (Edinburgh) to James Watt [?] [Soho]. 4 Sep. 1784. Enclosing (b) below. Docketed "With drawing of steam engine."
  - **b.** Sketch. Proposed engine for raising water by steam.
- 32. Letter. Sir John Dalrymple (Edinburgh) to Boulton & Watt (Soho). 7 Feb. 1785.

- **33.** Letter. Sir John Dalrymple (Westminster [?]) to James Watt (Soho). 2 Apr. 1785.
- 34. Letter. Sir John Dalrymple (Oxenford Castle) to James Watt [?] [Birmingham]. 14 Sep. 1787.

  Docketed "By Mr. Howieson."
- **35.** Letter. Sir John Dalrymple (35 Great Pulteney St., London) to Boulton & Watt [Birmingham]. 25 Mar. 1788.
- **36.** Letter. Sir John Dalrymple (35 Great Pulteney St., London) to Boulton & Watt (Birmingham). 26 Mar. 1788.
- 37. Letter. Sir John Dalrymple (35 Great Pulteney St., London) to Boulton & Watt [?] [Birmingham]. 5 Jun. 1788. Letter incomplete.
- **38.** Letter. Sir John Dalrymple (Edinburgh) to Boulton & Watt (Birmingham). 24 Aug. 1788.
- **39.** Letter. Sir John Dalrymple (Edinburgh) to James Watt (Birmingham). 29 Nov. 1799. *Docketed "Offer of a scheme for bleaching and washing by means of P\_\_."*
- **40.** Draft of letter. Matthew Boulton (—) to Lord Dartmouth [London]. Circa Apr. 1779?
- 41. Draft of letter. Boulton & Watt [Soho] to Lord Dartmouth [London]. Circa Apr. 1779? Respecting the proper way to apply for a passport to France. They will only export finished engines and are not trying to deprive England of manufacturing work. Attempt of German barons to steal their invention.
- 42. Letter. Lord Dartmouth [London] to James Watt or Matthew Boulton [Soho]. 6 Apr. 1779. He cannot say whether the passport application will be successful. The proper method is to present a memorial to the King in Council. If he is sent a copy, he will talk it over with the Lord President and other council members. His thoughts on France's support for America.
- **43.** Letter. Erasmus Darwin [Derby] to James Watt (Birmingham). 18 Nov. 1788. *Not dated date taken from the docket.*
- 44. Letter. Erasmus Darwin (Derby) to James Watt (Birmingham). 19 Jan. 1790.
- **45.** Letter. Baron G. Hamilton (Dublin) to Boulton & Watt (Birmingham). 7 Oct. 1787.
- **46.** Letter. Sir Walden Hanmer (Sympson Place, near Fenny Stratford) to Boulton & Watt (Soho). 4 Nov. 1781.
- **47.** Letter. Lord King (Ockham) to Matthew Boulton (Soho). Not dated [circa 20 Aug. 1788]. *Postmarked 20 Aug. 1788*.
- **48.** Letter. P. Levêque (Nantes) to James Watt (Birmingham). 20 Mar. 1795. 2 sheets.
- **49.** Letter. Robert Livingstone (Clermont, New York State) to James Watt [Birmingham]. 4 Nov. 1798. 2 sheets.
- **50.** Transcript of letter. James Watt [Birmingham] to Lord Loughborough (—). 8 Jun. 1785. *In James Watt's hand.*
- **51.** Letter. Sir Herbert Mackworth (Gnoll Castle) to Matthew Boulton (Soho). 3 Jan. 1786.

- 52. Letter. Sir Herbert Mackworth (London) to Matthew Boulton [?] [Soho]. 30 Mar. 1786.
- **53.** Letter. Sir Herbert Mackworth (Gnoll Castle) to Matthew Boulton [?] [Soho]. 18 Apr. 1786.
- **54.** Letter. Sir Herbert Mackworth (London) to Boulton & Watt (Soho). 3 May 1786.
- **55.** Letter. Sir Herbert Mackworth (London) to James Watt (Birmingham). 12 Sep. 1788. *Docketed "Ordering engine for the Plate Glass Company."*
- **56.** Letter. Lord Penrhyn (Winnington) to James Watt [Soho]. 30 Jan. 1787. *Mis-docketed as 1786*.
- 57. Letter. Lord Penrhyn (Winnington) to James Watt [Soho]. 3 Feb. 1787. *Arrangements to meet in Birmingham.*
- **58.** Letter. Lord Penrhyn (Grosvenor Square, London) to James Watt [Soho]. 13 Feb. 1787.
- 59. Letter. Lord Penrhyn (Penrhyn) to James Watt (Birmingham). 3 Jul. 1802.

  Many salt manufactories in the Northwich area want to adopt James Watt's smokeless fireplace. Can someone be sent to Northwich to inspect the various works?
- 60. Letter. Dr. Thomas Percival (Manchester) to James Watt [Birmingham]. 9 Oct. 1786.
- 61. Letter. Moussin Pouschkin (London) to James Watt (Soho). 10 Jun. 1775.

  Introducing Mr. De Karsakoff. Can Watt explain his steam engine to him and introduce him to Matthew Boulton.
- **62a.** Letter. Count Reden (Berlin) to Boulton & Watt (Soho). 4 Feb. 1791. *Kept with (b) below.* 
  - **b.** Calculations. Engine for the Royal China Manufactory, Berlin. 1791.
- 63. Letter. John Robison (Edinburgh) to James Watt (Heathfield). 19 Nov. 1796. Docketed "Mentioning that he will send his remarks upon Mr. Watt's invention."
- 64. Letter. John Robison [London] to James Watt Jr. [Soho]. 27 Dec. 1796.

  Not dated date taken from the docket.

  Docketed "With advertisement for the newspapers respecting the trial with Maberley."
- 65a. Letter. John Robison (Edinburgh) to James Watt (Heathfield). 22 Feb. 1797. Enclosing (b) below. Docketed "Account of his expenses. Mr. Greenfield's receipt for the sum paid him."
  - **b.** Receipt. William Greenfield (Edinburgh College). 26 Feb. 1797. Receipt for money received from John Robison for teaching Robison's Natural Philosophy classes while Robison was subpoenaed for the case against Hornblower.
- **66.** Letter. George Saunders (252 Oxford Street, London) to Matthew Boulton (Soho). 30 Mar. 1797. *On the same sheet:*

Method of tracing segments by intersecting lines.

- Letter. Lord Sheffield (Sheffield Place, London) to James Watt or Matthew Boulton [Soho].9 Aug. 1785.Introducing Sir Godfrey Webster.
- **68.** Letter. Sir John Sinclair (Whitehall) to Boulton & Watt [Soho]. 23 Mar. 1795. *Docketed "Expense of pounding limestone."*
- 69. Letter. Sir John Sinclair (Whitehall) to Matthew Boulton [Soho]. 12 Apr. 1798.

  Docketed "Requests to furnish him with a drawing of an engine applied to a corn mill.

  Wishes information upon ram patent."
- **70a.** Letter. Lord Somerville (Weymouth) to Boulton & Watt [Soho]. Circa 14 Sep. 1797. *Enclosing (b) below. Marked "Received 15 Sep. 1797."* 
  - Memorandum. Queries by Messrs. Boulton & Watt. By Charles Fozard (Somerville House). 5 Sep. 1797.
     Answers to Boulton & Watt's queries about Lord Somerville's proposed engine.
- 71. Letter. The Marquis of Stafford (Bath) to Matthew Boulton [Soho]. 5 May 1798. Feels that the government must approve Boulton's proposed plan. Is sending it to London "for his Majesty's approbation".
- Letter. The Marquis of Stafford (Bath) to Matthew Boulton [Soho]. 12 May 1798.
   Forwarded to Charlotte Matthews in London. On the same sheet:
   Letter. William Cheshire (Soho) to Charlotte Matthews (13 London St.). 15 May 1798.
   Docketed "Transmitting extracts from Mr. Dundas' letter approving of our proposals for an armed association."
- 73. Letter. Earl Stanhope (Chevening House, near Sevenoaks) to Matthew Boulton [Soho]. 23 Oct. 1789.

On the same sheet:

Table. Powers etc. of Fire Engines of different sizes, supposing the same to be made upon Mr. Boulton's construction. [Blank table for Boulton to copy and fill in.] List of queries about the steam engine.

Docketed "About engines."

- 74. Letter. Dr. F. Swediaur (Paris) to James Watt (6 Green Lettice Lane). 4 Apr. 1791. Docketed "Dr. Schwediar."
- **75.** Letter. Le Comte de Thiville [?] (78 Picadilly, London) to James Watt (Soho). 27 Jul. 1800.
- **76.** Letter. Major-General B. Thompson (Munich) to Boulton & Watt [Soho]. 28 May 1798. *Docketed "Introducing George Reichenbach."*
- 77. Transcript of letter. James Watt (Birmingham) to Lord Thurlow (—). 30 Jun. 1785. 2 sheets.

  Docketed by Henry Hazleton "Watt's intended letter for Lord Thurlow, praying his Lordship to endeavour to stop the excess of exportation of English cast iron and manganese. Very interesting information."
- **78.** Letter. John Timaeus (Luneburg Royal College) to James Watt (Soho). 26 Aug. 1797. *Docketed "Enquires how his translation has succeeded."*

### MS 3147/3/527 SPECIAL SUBJECTS & CORRESPONDENTS MATTHEW WASBROUGH 1778—1779

#### INTRODUCTION

Letters from Matthew Wasbrough, from 1778 and 1779. Wasbrough, a Bristol brass founder and clock-maker, invented a rotative mtoion for engines based on a pawl and ratchet motion. He had protracted negotiations with Boulton & Watt about using his motion on their engines. Boulton & Watt also ordered copper eduction pipes for some of their Cornish engines from him.

- 1. Letter. Matthew Wasbrough (Bristol) to Matthew Boulton (Soho). 25 Jul. 1778.
- **2.** Letter. Matthew Wasbrough (Bristol) to Boulton & Watt (Soho). 30 Jan. 1779.
- 3. Letter. Matthew Wasbrough (Bristol) to Boulton & Watt (Soho). 27 Feb. 1779.
- **4.** Letter. Matthew Wasbrough (Bristol) to Boulton & Watt (Soho). 3 Apr. 1779.
- **5.** Letter. Matthew Wasbrough (Bristol) to Boulton & Watt (Soho). 6 May 1779.
- **6.** Letter. Matthew Wasbrough (Bristol) to Boulton & Watt (Soho). 18 May 1779. *Docketed "Advising that eduction pipe for Wheal Chance was ready."*
- 7. Letter. Matthew Wasbrough (Bristol) to James Watt (Chacewater). 6 Nov. 1779.

# MS 3147/3/528 SPECIAL SUBJECTS & CORRESPONDENTS JOSIAH WEDGWOOD 1781—1792

#### INTRODUCTION

Letters from Josiah Wedgwood, from 1781 to 1792. The letters mainly concern business matters, such as steam engines, flint mills, shares in Cornish mines, and the like. The bundle also includes letters signed by Wedgwood's sons John, Thomas and Josiah Jr., by his London agent Thomas Byerley, and by Peter Swift, Wedgwood's cashier. Several of Wedgwood's letters are in the hands of an amanuensis.

How Wedgwood's letters were originally kept is unclear. The List of Contents of the Watt Room notes the presence of "three packets of Wedgwood and Wedgwood & Byerley," while Hazleton's scrapbook notes separate bundles of letters from Wedgwood and Wedgwood & Byerley. However by the time the collection was listed by the Library the letters were in two indistinct bundles covering 1781 to 1842 (Box 36/25) and 1800 to 1825 (Box 36/26). It was clear that letters from the various General Incoming Correspondence series had been added to the original contents of the Wedgwood bundles – indeed it is possible that the Wedgwood bundles were entirely created by Hazleton in the 1890s from items removed from the General Correspondence. The only letters that could be replaced

with certainty were those from the 1829 to 1843 series, and these will now be found in 3/455, General Incoming Correspondence dealt with in the Drawing Office 1829-1843, W.

The Wedgwood letters are now arranged in two bundles. This first bundle contains letters written by or on behalf of Josiah. The second bundle covers the years 1794 to 1828, and contains business correspondence from the partnerships of Josiah Wedgwood Son & Byerley and Josiah Wedgwood & Byerley and from Josiah's sons after his death in January 1795.

- 1. Letter. Josiah Wedgwood (Etruria) to Boulton & Watt [Soho]. 25 Mar. 1781.
- **2.** Letter. Josiah Wedgwood (Greek St., London) to Matthew Boulton (Soho). 8 Apr. 1782.
- 3. Letter. Josiah Wedgwood per Peter Swift (Etruria) to Matthew Boulton & James Watt [Soho]. 8 Dec. 1782.

  Docketed "Answered per Mr. Watt."
- 4. Letter. Josiah Wedgwood (Etruria) to James Watt (Birmingham). 30 Jan. 1784. This letter has been removed from a display case or guard book. Docketed "About emigration and Polgooth agreement."
- **5.** Letter. Josiah Wedgwood (Etruria) to James Watt (Birmingham). 8 Feb. 1784. *Docketed "About Polgooth agreement."*
- **6.** Letter. Josiah Wedgwood (Etruria) to James Watt (Birmingham). 13 Jan. 1785. *Docketed "About Bond's engine."*
- 7. Letter. Josiah Wedgwood (Matlock) to James Watt (Birmingham). 17 Sep. 1785. This letter has been removed from a display case or guard book. Docketed "Cornish Metal Co. subscription."
- **8.** Letter. John Wedgwood (Etruria) to James Watt [Birmingham]. 18 Sep. 1785.
- 9. Letter. Thomas Byerley for Josiah Wedgwood (London) to James Watt [Birmingham]. 19 Sep. 1785.

  Docketed "With note of hand at 12 [?] date payable at Drummond's, value £400, being Mr. Wedgwood's first payment of 10 per cent. Remittance Mr. Matthews Sep. 21."
- 10. Letter. Peter Swift (Etruria) to James Watt (Birmingham). 22 Oct. 1785. Docketed as Josiah Wedgwood. Docketed "With £400 bill for Cornish Metal Co."
- 11. Letter. Josiah Wedgwood (Etruria) to James Watt (Birmingham). 14 Nov. 1785.
- **12.** Letter. Josiah Wedgwood (London) to James Watt (Birmingham). 20 Mar. 1787. *This letter has been removed from a display case or guard book.*
- 13. Letter. Josiah Wedgwood [Etruria] to James Watt (Birmingham). 17 May 1787.
- **14.** Letter. Josiah Wedgwood (Etruria) to James Watt (Birmingham). 20 Jun. 1787.
- **15.** Letter. Josiah Wedgwood (Etruria) to James Watt [Birmingham]. 12 Jul. 1787. *Docketed as 4 Jul.*

- **16.** Letter. Thomas Byerley (London) to James Watt [Birmingham]. 1 Aug. 1787. *Docketed as Josiah Wedgwood.*
- Letter. Josiah Wedgwood (Etruria) to James Watt (Birmingham). 9 Aug. 1787.
   Letter passed to Matthew Boulton. On the same sheet:
   Transcript of letter. Josiah Wedgwood [London] to Thomas Vivian (Truro). 20 Jul. 1787.
   Transcript of letter. Thomas Vivian (Truro) to Josiah Wedgwood. 2 Aug. 1797.
   Docketed "Copy of Mr. Vivian's letter."
- Letter. Josiah Wedgwood (Etruria) to James Watt (Birmingham). 25 Aug. 1787.On the same sheet:Letter. Josiah Wedgwood Jr. to James Watt. 25 Aug. 1787.
- 19. Letter. Josiah Wedgwood (Etruria) to James Watt (Birmingham). 17 Oct. 1787.
- 20. Letter. Josiah Wedgwood (Etruria) to James Watt [Birmingham]. 21 Oct. 1787.
- **21.** Letter. Josiah Wedgwood (Etruria) to James Watt [London]. 30 Oct. 1787.
- 22. Letter. Josiah Wedgwood Jr. for Josiah Wedgwood (Etruria) to James Watt [London]. 30 Oct. 1789.
  Docketed as Josiah Wedgwood.
  Docketed "About transfer of share in Polgooth."
- 23. Letter. Thomas Wedgwood [Etruria] to James Watt [Birmingham]. 24 Dec. 1792. Date taken from the docket. Docketed as Mr. Wedgwood. The top half of the letter has been cut away. For the top half, see MBP (Matthew Boulton General Correspondence).
- 24a. Memorandum. Steam Engine for the power of ten horses, to perform the following operations.

  \*\*Rept with (b) and (c) below.

  Re an engine for grinding flint. Docketed "Wedgwood Esq. 1792—1793."
  - **b.** Memorandum & calculations. Mr. Wedgwood's Flint Mill. Not dated. *In James Watt's hand*.
  - c. Memorandum. Notes on Mr. Spode's engine and flint mill, Trentham Flint Mill etc. Not dated.
    In Matthew Boulton's hand.

#### MS 3147/3/529

### SPECIAL SUBJECTS & CORRESPONDENTS JOSIAH WEDGWOOD & BYERLEY, JOSIAH WEDGWOOD, WEDGWOOD & SONS 1794—1828

#### INTRODUCTION

Letters from Josiah Wedgwood the younger, John Wedgwood, and the various business partnerships at Etruria, from 1794 to 1828. The letters mainly concern business matters, such as the installation and ongoing maintenance of the 30 horse power flint mill engine, warming apparatus, gas lighting, and other machinery at Etruria. Up until December 1810 the letters are mainly from the partnership of Josiah Wedgwood & Byerley, which consisted of Josiah Wedgwood the younger and Thomas Byerley. Following Byerley's death the letters are from Josiah Wedgwood until the 1820s, when letters appear from the new partnership of Josiah Wedgwood & Sons. Several of the letters are signed by clerks and engineers such as Hamlet Wood and Christopher Kirk, and a few of the later letters are by Josiah Wedgwood the younger's son, also called Josiah. There are also a few letters from John Wedgwood.

How letters from the Wedgwoods were originally kept is unclear. The List of Contents of the Watt Room notes the presence of "three packets of Wedgwood and Wedgwood & Byerley," while Hazleton's scrapbook notes separate bundles of letters from Wedgwood and Wedgwood & Byerley. However by the time the collection was listed by the Library the letters were in two indistinct bundles covering 1781 to 1842 (Box 36/25) and 1800 to 1825 (Box 36/26). It was clear that letters from the various General Incoming Correspondence series had been added to the original contents of the Wedgwood bundles – indeed it is possible that the Wedgwood bundles were entirely created by Hazleton in the 1890s from items removed from the General Correspondence. The only letters that could be replaced with certainty were those from the 1829 to 1843 series, and these will now be found in 3/455, General Incoming Correspondence dealt with in the Drawing Office 1829-1843, W.

The Wedgwood letters are now arranged in two bundles. The first bundle contains letters written by or on behalf of Josiah. This second bundle covers the years 1794 to 1828, and contains business correspondence from the partnerships and from Josiah's sons after his death in January 1795. Some of the letters from Josiah the younger in this bundle show signs of having been on display.

For drawings of the 30 horse engine bought by Josiah Wedgwood & Byerley see Portfolio 5/218.

- **1.** Letter. Josiah Wedgwood Son & Byerley (Etruria) to Boulton & Watt (Soho). 19 Dec. 1794.
- 2. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. (Soho). 23 Oct. 1795. This letter has been removed from a display case or guard book. Docketed "Character of Mr. Smith of Fenton."
- 3. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. (Heathfield). 7 Sep. 1796.

  This letter has been removed from a display case or guard book. On the same sheet:
  Sketch of a kiln.

  Docketed "Pottery ovens."
- 4. Letter. Josiah Wedgwood & Byerley (London) to Boulton Watt & Co. (Soho). 13 Oct. 1800.

Docketed "Want estimates and information relative to grinding flour mill."

**5.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 20 Dec. 1800.

Docketed "Order a 20 horse engine. Wish to have priority from the time of seeing Mr. Southern."

**6.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 23 Dec. 1800.

Docketed "Wish the size of their engine to be not yet determined."

7. Letter. Josiah Wedgwood (Gunville) to James Watt Jr. or Gregory Watt (Heathfield). 22 Jan. 1801.

The docket is on a separate wrapper. Part of the letter, including the address, has been torn away.

Docketed "About their proposed engine. Performance of the one for Mr. Keeling."

- **8.** Letter. Thomas Byerley (Etruria) to Boulton Watt & Co. (Soho). 27 Jan. 1801. *Docketed "About their proposed engine. Performance of Mr. Keeling's."*
- **9.** Letter. Josiah Wedgwood (London) to Gregory Watt (Heathfield). 13 Feb. 1801. *Docketed "Order of a 24 horse engine."*
- **10.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 26 Feb. 1801.
  - Docketed "Will send their millwright and bricklayer on Wednesday."
- 11. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. [Soho]. 2 Mar. 1801. On the same sheet:

Letter. M. R. Boulton to John Southern. 2 Mar. 1801 [?] Docketed "Sends his millwright and bricklayer – Thornicroft and Heath – to settle plans."

- 12. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 9 Apr. 1801. Docketed "Order a thirty horse engine. Want to know in what time it will be completed and whether an iron beam is preferable."
- 13. Letter. Josiah Wedgwood & Byerley per B. Prescot (Etruria) to Boulton Watt & Co. (Birmingham). 10 Jul. 1801.

  Docketed "Cannot answer our letter till Mr. Byerley's return which will be next week."
- 14. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. [Soho]. 11 Nov. 1801.

Docketed "Desire to know when their engine will be ready."

- 15. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 15 Nov. 1801.

  Docketed "Are unable to account for not answering our letter of 8 Jul. Urgent to have the engine as soon as possible."
- Letter. Josiah Wedgwood (Gunville, near Salisbury) to Boulton Watt & Co. (Soho). 24
  Nov. 1801.

Docketed "Determine upon iron beam and eccentric circle. Wish to have engine and mill completed by Lady Day."

17. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 28 Nov. 1801.

Docketed "Explanation respecting Mr. Lowe. Engine to be started by Lady Day."

- **18.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 2 Feb. 1802. *Docketed "Anxious for the delivery of their materials."*
- 19. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 13 Feb. 1802.Docketed "Wish enquiries to be made after their goods which are not arrived."
- **20.** Letter. Josiah Wedgwood (Etruria) to M. R. Boulton (Soho). 19 May 1802. *Docketed "Doubts about the speed of his mill. Explanations relative thereto requested."*
- 21. Letter. Josiah Wedgwood (Etruria) to M. R. Boulton (Soho). 22 May 1802. Docketed "Supposes the speed of his mill will be found right. J. Pearson at liberty to go elsewhere."
- **22.** Letter. Josiah Wedgwood (Etruria) to Boulton & Watt (Soho). 30 May 1802. Docketed "Further enquiries about speed of flint mill. Wishes our answer with the advice of the pump being forwarded."
- **23.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 25 Jun. 1802. *Docketed "Enquire when their pump will be finished."*
- Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Birmingham).Aug. 1802.Docketed "Send over Thomas Woodall to be instructed in working the engine."
- **25.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 3 Sep. 1802. *Docketed "Will start their engine upon the 13<sup>th</sup> inst."*
- Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 28 Sep. 1802.Docketed "Remittance of £1200. In want of directions for the management of the engine."
- **27.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 2 Oct. 1802. *Docketed "Remit £38 on account of Pearson's time, and interest."*
- **28.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 14 Jan. 1803. Docketed "Breakage of their engine. Wish some person to be sent over to examine and repair it."
- 29. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 21 Apr. 1803.

  Docketed "Desire our opinion of Mr. C. Bernecker's solidity."
- 30. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 10 May 1803.Docketed "Remittance in payment of their account."
- **31.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 31 Aug. 1803.

  Docketed "Order a second boiler for their engine."
- 32. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 10 May 1804.
  Docketed "Remittance in full of our account."

33. Letter. Hamlet Wood (Etruria) to Boulton & Watt [Soho]. 10 Sep. 1804. Docketed as J. Wedgwood & Byerley. Docketed "Order air pump bucket and rod."

**34a.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 30 Sep. 1804.

Enclosing (b) below.

Docketed "New air pump bucket and rod."

- **b.** Sketch & notes. New bucket rod required.
- **35.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. [Soho]. 6 Dec. 1804. *Docketed "Order 4 air pump bucket pins."*
- **36.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 10 Feb. 1805.

On the same sheet:

Sketch. Brass for foot valve.

Docketed "Order foot brasses."

37. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 26 Feb. 1805.

Docketed "Their engine man does not make the engine go regular speeds. Wish to have a counter. Desirous of having observations made upon the difference of power required in different states of their grinders."

**38.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 16 Mar. 1805.

Docketed "Appoint 25th for Mr. Southern to go over."

- 39a. Memorandum. Experiments with the Indicators at Etruria... with Mr. Wedgwood. Mr. E. Hutton & Mr. H. Creighton. 26 Mar. 1805. Kept with (b) below.
  - **b.** Memorandum. Recommended to Messrs. Wedgwood & Byerley to have done. Mar. 1805.
- **40.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 20 Apr. 1805.

Docketed "Remit £23.4.5. Wish Henry Creighton to be sent to them in about 3 weeks."

**41.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 25 Apr. 1805.

Docketed "Wish Henry Creighton to be there by the 18 May."

- **42.** Letter. John Wedgwood (Etruria) to James Watt Jr. (Soho). 3 May 1805. *Docketed "Satisfied with experiments about aqua regia. Enquires about brick machines."*
- **43.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 9 May 1805. *Docketed "Continue the speed John Southern left them at. Consumption of coals since."*
- **44.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 17 Jun. 1805. Docketed "Engine doing much work; but perhaps burns too much coal. Desire some person to call when going that way."

- **45.** Letter. Josiah Wedgwood & Byerley per Hamlet Wood (Etruria) to Boulton Watt & Co. (Soho). 9 Oct. 1805.

  Docketed "Enquire respecting valve apparatus of which we appear to have received no order. Enquire if there are any improvements in the mouths of boilers."
- **46.** Letter. Josiah Wedgwood & Byerley per Hamlet Wood (Etruria) to Boulton Watt & Co. (Soho). 16 Oct. 1805.

  Docketed "Explanation of theirs of the 9<sup>th</sup> inst."
- 47. Letter. Josiah Wedgwood & Byerley per Hamlet Wood (Etruria) to Boulton Watt & Co. (Soho). 22 Oct. 1805.

  Docketed "Have found their damper apparatus. Wish a man to be sent to put it up."
- **48.** Sketch. Wedgwood & Byerley guard for valve spindle, by Poole. 7 Nov. 1805.
- **49.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 18 Nov. 1805.

  Docketed "Want the valve guard."
- 50. Letter. Josiah Wedgwood & Byerley per Hamlet Wood (Etruria) to Boulton Watt & Co. (Soho). 26 Dec. 1805.

  Docketed "Remit £62.10.3."
- 51. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton & Watt (Soho). 6 Jan. 1806. Mis-dated as 1805. Docketed "Introducing Mr. Allen of Burslem."
- **52.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 24 Jan. 1806. Docketed "Their engine does not perform well. Wish some person from here to remain a week with them."
- 53. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 27 Jan. 1806. Docketed "Their difficulty with the engine increased. Wish a person to be sent over immediately."
- 54. Letter. John Wedgwood (Etruria) to James Watt Jr. (Soho). 22 Mar. 1806.

  Docketed "Has ordered 8 tons of coal from Mr. Gilbert for photogenous experiments.

  Enquires about the application of the new light to light houses."
- 55. Letter. John Wedgwood [Etruria] to James Watt Jr. (Soho). "Monday Evening" [— Jul. 1806].
  Forwarded to Watt care of Cheese & Davies, Kington.
  Docketed "Wish to light up part of their works with the new light and desire Mr. Murdock may call to take their particulars. Order cement."
- **56.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 1 Dec. 1806. Docketed "Order for brasses. Refer to memorandum taken by J. Watt and wish some person to call to inspect their boiler etc."
- 57. Sketches. Pins, pump links etc. for Josiah Wedgwood & Byerley. 17 Dec. 1806. *Docketed "J. Poole brings orders for sundry materials."*

- 58. Letter. Josiah Wedgwood & Byerley per Hamlet Wood (Etruria) to Boulton Watt & Co. (Soho). 1 Jan. 1807.

  Docketed "Enquiry about the best oil for machinery."
- 59. Sketches. Wedgwood & Byerley Gudgeons & order for cold water pump barrel. 5 Jan. 1807.

  Marked "From J. Poole." Docketed "Part of the gudgeons not to be executed till further orders."
- **60.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 20 Jan. 1807. *Docketed "Want a man sent over to repair their boiler."*
- 61. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 25 Feb. 1807.

  Docketed "Desire to have a man to seat their boiler and wish the fireplace to be constructed for the destruction of the smoke. Enquiries about iron pipes."
- Letter. John Wedgwood [Etruria] to Boulton Watt & Co. (Soho). Not dated [circa 1 Mar. 1807].
   Docketed as Wedgwood & Byerley.
   Marked "Received 2 Mar. 1807. Suppose from Etruria." Docketed "Order feed mouth. Want a man. Propose a scheme for heating the cylinder."
- Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton & Watt (Soho). 26 May 1807. On the same sheet:
  Letter. Josiah Wedgwood to James Watt Jr. 26 May 1807.
  Docketed "Want a new foot valve to their engine and are anxious to have the new one determined as soon as possible."
- **64.** Letter. Josiah Wedgwood (Etruria) to James Watt Jr. (Soho). 3 Jun. 1807. *Docketed "Enquiry about a photogenous apparatus for his new house."*
- Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 13 Jun. 1807.
   Kept with (b) below. On the same sheet:
   Memorandum. James Lawson's Trials by the Indicator on the Etruria engine. 1 Jun. 1807.
   Docketed "Experiments made with indicator."
  - **b.** Note. List of substances being ground by Wedgwood's machinery [?].
- 66. Letter. John Wedgwood (Etruria) to James Watt Jr. (Soho). 17 Jul. 1807. Forwarded to Watt Jr. at Messrs. Chase & Davies, Kington.

  Docketed "Wishes Mr. Murdock to assist them in some arrangements of their machinery."
- 67. Letter. Josiah Wedgwood & Byerley (Etruria) to James Lawson (Soho). 22 Jul. 1807. *Docketed "Intend to decline the erection of a 2<sup>nd</sup> engine at present."*
- **68.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 25 Jul. 1807. Docketed "Want a man to change their piston rod. Desire that John Poole may not be sent."
- 69. Letter. Josiah Wedgwood & Byerley per Hamlet Wood (Etruria) to Boulton & Watt (Soho). 28 Dec. 1807.

  Docketed "Wish us to send them a cask of oil or give them an address to procure it. Horton's men have left their bill at the inn unpaid. Enquire if they should discharge it. Order a ream of copying paper."

- **70.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 29 Jan. 1808. Docketed "Will be ready for our man to put up the heating apparatus on Monday or Tuesday."
- 71. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. [Soho]. 11 Mar. 1808.

  Docketed "Brought by John Haden who has put up their heating apparatus, and discovered their air pump top valve is bad."
- 72. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Birmingham). 23 Mar. 1808.
  Docketed "Order false face and valve for top of air pump."
- 73. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Birmingham). 31 May 1808.

  Docketed "Wish to have their boiler repaired and order plates. Have broken their air pump rod and wish to have a new one if we think it advisable."
- **74.** Sketch. Injection pipe for Josiah Wedgwood & Byerley. 27 Aug. 1808. *Docketed "Gavin McMurdo's sketch of injection pipes."*
- 75. Letter. Josiah Wedgwood per Hamlet Wood (Etruria) to Boulton Watt & Co. (Soho). 2 Sep. 1808.

On the same sheet:

Pen & wash drawing of a pillar.

Docketed "Orders 5 cast iron pillars."

- 76. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 14 Dec. 1808.

  Docketed "Information of Gavin's intention to be at Etruria on the 27<sup>th</sup> inst. and his desire to have another man to assist him sent a few days previously."
- 77. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 26 Dec. 1808.

  Docketed "Leave it to us to determine whether Gavin shall make the alteration in their engine."
- 78. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 31 Dec. 1808.

  Docketed "Gavin has engaged to be with them in a week. Wish to have the assistance of another man."
- **79.** Letter. John Wedgwood (Etruria) to Boulton & Watt (Soho). 10 Jan. 1809. *Docketed "Wants estimate of a pumping engine for Lord Milford."*
- **80a.** Letter. Josiah Wedgwood & Byerley (Etruria) to Gavin McMurdo [Manchester?]. 31 Jan. 1809.

Kept with (b) below.

Docketed "Desiring Gavin McMurdo to proceed to their assistance as the pillar and cross beam are got loose."

**b.** Note. Carting of certain articles from Etruria for repair.

- 81. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 25 Mar. 1809.
  - Docketed "Want hints about heating their ship with steam so as to dry it."
- **82.** Letter. John Wedgwood (Etruria) to James Watt Jr. (Soho). 29 Aug. 1809. *Docketed "Orders a punch etc."*
- Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 22 Sep. 1809.Docketed "Order a bucket rod for their hot water pump."
- Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 24 Oct. 1809.
  Docketed "Have sent a bucket and rod by waggon. Desire a copy of the account alluded to in ours of the 13th inst. to be sent."
- **85.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 18 Jan. 1810. Docketed "Enclose bills for £521.15. Desire to have hot water pump bucket and rod returned."
- 86. Letter. Josiah Wedgwood & Byerley per Hamlet Wood (Etruria) to Boulton & Watt (Soho).15 Mar. 1810.Docketed "Order some brass wire and cement. Have sent piston rod by canal."
- 87. Letter. Josiah Wedgwood & Byerley per Hamlet Wood (Etruria) to Boulton & Watt (Soho).24 Mar. 1810.Docketed "Order copying paper."
- **88.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 9 Oct. 1810. Docketed "Suppose the seatings of their valves to be worn and wish to have them examined."
- 89. Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 10 Nov. 1810.

  Docketed "Remind us of their request to have a man sent to repair their engine."
- **90.** Letter. Josiah Wedgwood & Byerley (Etruria) to Boulton Watt & Co. (Soho). 5 Dec. 1810. Docketed "Robert McMurdo has not adjusted their eccentric properly. Have replaced it as marked by Gavin."
- 91. Letter. Josiah Wedgwood (London) to James Watt Jr. (Soho). 14 Dec. 1810. This letter has previously been pinned up on display. Docketed "Wishes us to value his steam engine."
- 92. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. (Soho). 19 Dec. 1810.

  This letter has previously been pinned up on display.

  Docketed "Is obliged to have two valuations. Wishes one from us early in the ensuing year."
- 93. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. (Soho). 24 Dec. 1810.

  Docketed "Proposes Mr. Lowe to meet some person from hence to value the millwork and engine."
- **94.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 27 Dec. 1810. *Docketed "Have broke their (suppose) plummer block. Answered."*

- 95. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. (Soho). 2 Jan. 1811.

  Mis-dated by Wedgwood as 1810.

  Docketed "Have got the engine to work again and find the articles sent right. Has agreed with Mr. Byerley's executors for us to value the engine alone."
- 96. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 21 Jan. 1811.

  Mis-dated by Wedgwood as 1810.

  Docketed "Complains of the nozzle seat put in by Robert McMurdo having failed. States that Johnson would not stop to mend a leaking joint of the steam case. Would wish Gavin to be be employed for them. Answered."
- **97.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 14 Mar. 1811. *Docketed "Orders various small articles."*
- **98.** Letter. Josiah Wedgwood (Etruria) to Boulton & Watt Jrs. (Birmingham). 27 Apr. 1811. Docketed "With sockets for the gas pipes. Price at which the pipes and sockets can be made."
- 99. Letter. Josiah Wedgwood per Hamlet Wood (Etruria) to Boulton & Watt (Soho). 8 May 1811.Docketed "Orders brass wire, copper and cement."
- Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 25 Nov. 1811.
  On the same sheet:
  Notes for the reply.
  Docketed "Has never received the rod and bucket for hot water pump, sent on the 25 Jan. 1810. Answered by Mr. Ferguson 5 Dec."
- 101. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. [Soho]. 9 Dec. 1811.

  Docketed "Enquires about heating the rooms at Dulwich College by steam. Encloses Joseph Lancaster's proposals. Answered by J. W. in London 30 Dec. 1811."
- 102. Letter. Christopher Kirk (Etruria) to Boulton & Watt [Soho]. 31 Dec. 1811.
  Docketed as Josiah Wedgwood. On the same sheet:
  Sketch. Cold water pump.
  Docketed "Orders a jack head cold water pump."
- **103.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 7 Mar. 1812. *Docketed "Enquries concerning a piston rod forwarded to us in Mar. 1810."*
- 104. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 16 Apr. 1812. Docketed "Sends some nail rods and desires allowance for the old piston rod, sent some time since, if a new rod is necessary."
- Letter. Christopher Kirk [Etruria] to Boulton & Watt [Soho]. 16 Apr. 1812.Docketed as Josiah Wedgwood. On the same sheet:Sketch. Piston and rod.Docketed "Orders a piston, cap and gudgeon."
- 106. Letter. Josiah Wedgwood (Maer) to James Watt Jr. (Soho). 14 Jan. 1813. This letter has been removed from a display case or guard book. Docketed "Introducing Mr. B. Allen."

- Letter. Josiah Wedgwood per Hamlet Wood (Etruria) to Boulton & Watt (Soho). 17 Jun. 1814.
   Docketed "Orders ½ cwt of cement and set of oil papers for copying machine."
- 108. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 6 Mar. 1815. Docketed "Encloses proceedings of the North Staffordshire Infirmary and solicits a subscription."
- 109. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 26 Apr. 1815. Docketed "Has sent his barometer to be repaired. Orders two boxes of cement."
- 110. Letter. Christopher Kirk (Etruria) to Boulton & Watt (Soho). 4 Sep. 1815.
  Docketed as Josiah Wedgwood.
  Docketed "Directions respecting the piston and rod."
- 111. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. (Soho). 25 Oct. 1815.

  Docketed "Enclosing letter from Edward Jervis Ricketts Esq. Wishes to have his engine inspected on the 11 Nov. Wants my father's opinion on Mr. Gilbert's scheme."
- 112. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. [Soho]. 11 Nov. 1815.

  Docketed "His engine in tolerable order and can wait if not convenient to us to send on Saturday."
- Letter. Josiah Wedgwood per Hamlet Wood (Etruria) to Boulton & Watt (Soho). 22 Jan. 1817.Docketed "Orders 2 boxes of cement. Also ink powders."
- 114. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 5 Jun. 1817. Docketed "Nozzle valves and spindles being out of repair, enquires time of putting in new ones."
- 115. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 9 Aug. 1817. Docketed "Wishes to have his engine looked at for repairs. Enquires price of a new cylinder."
- 116. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 20 Aug. 1817. Docketed "Inclines to order a 36 horse cylinder etc. for his engine and wishes a person to be sent to inspect it. Enquires about the value of his old cylinder etc.; and wishes to know the time requisite for making the alteration."
- 117. Letter. Josiah Wedgwood (Etruria) to James Watt Jr. (Soho). 18 Sep. 1817. Docketed "Desirous to have a time appointed for a man to come over."
- 118. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 4 Oct. 1817. Docketed "Wood has examined engine, and it is of need only to be repaired. Wishes to know how soon the materials can be done."
- 119. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 20 Oct. 1817. Docketed "Third boiler not wanted at present. Enquires respecting the raising of chimney."
- **120.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 20 Nov. 1817. *Docketed "Enquires about the chimney."*
- **121.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 26 Nov. 1817. *Docketed "Wants Alexander Wood."*

- **122.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 16 Dec. 1817. *Docketed "Wishes articles back soon as possible. Names carriers and their days."*
- 123. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 29 Dec. 1817. Docketed "Wishes nozzles sent by a cart." Marked "Were loaded in a cart when this letter came."
- **124.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 10 Jan. 1818. *Docketed "Asks if Wood may have more than £10 advanced."*
- **125.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 13 Jan. 1818. *Docketed "Orders 2 boxes of cement, one of them for Mr. Spode."*
- **126.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 30 Jan. 1818. *Docketed "Enquires about a third boiler. Draft of chimney improved."*
- **127.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 17 Feb. 1818. *Docketed "Respecting his boilers and new ones."*
- 128. Letter. Josiah Wedgwood per Josiah Wedgwood Jr. (Etruria) to Boulton Watt & Co. (Soho). 25 Feb. 1818.

  Docketed "His dampers work ill. Is well satisfied with Alexander Wood. Cold water runs into hot water cistern."
- **129.** Letter. Josiah Wedgwood Jr. (Etruria) to Boulton & Watt [Soho]. 13 Apr. 1818. *Docketed "Does not want a boiler. Is about altering the water overflow."*
- 130. Letter. Josiah Wedgwood per Hamlet Wood (Etruria) to Boulton & Watt (Soho). 11 Jun. 1818.Docketed "Orders 2 boxes of cement."
- 131. Letter. Josiah Wedgwood per Josiah Wedgwood Jr. (Etruria) to Boulton Watt & Co. [Soho]. 12 Oct. 1818.
  Docketed "Enquires about method of keeping crust from boilers. Also price of one of 30 horse."
- 132. Letter. Josiah Wedgwood per Josiah Wedgwood Jr. (Etruria) to Boulton Watt & Co. [Soho]. 21 Oct. 1818.

  Docketed "Encloses draft for £340.9.0. Enquires price of a 30 horse boiler with and without apparatus."
- **133.** Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 19 May 1820. *Docketed "Orders 2 boxes cement."*
- 134. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. [Soho]. 18 Sep. 1821. Docketed "Enquires how crockery pipes answer."
- 135. Letter. Josiah Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 17 Jun. 1823. Docketed "Recommending Messrs. Sneyd for the supply of copper. N.B. This letter delviered by Messrs. Sneyd's agent on the 24 Jun."
- 136. Letter. Josiah Wedgwood per Josiah Wedgwood Jr. (Etruria) to Boulton Watt & Co. (Soho). 23 Oct. 1823.

  Docketed "Orders 2 boxes cement. Wants account."

- 137. Letter. Josiah Wedgwood & Son (Etruria) to Boulton & Watt (Soho). 5 Jun. 1824. Docketed "Order exhausting valves and seats."
- Sketches & notes. Various items previously made for Josiah Wedgwood & Byerley. 28 Mar. 1825.
  Docketed "Dimensions of some parts." Includes parts made in 1805.
- 139. Letter. Josiah Wedgwood & Sons per Francis Wedgwood (Etruria) to Boulton Watt & Co. (Soho). 14 Dec. 1825.

  Docketed "Order 2 boxes of cement."
- 140. Letter. Josiah Wedgwood & Sons (Etruria) to Boulton & Watt (Soho). 14 Mar. 1826. Docketed as 21 Mar. Docketed "Orders 2 exhausting valves. Sent some old ones back."
- **141.** Letter. Josiah Wedgwood & Sons (Etruria) to Boulton & Watt (Soho). 7 Apr. 1828. *Docketed "Order exhusting valves and seats."*
- **142.** Letter. Josiah Wedgwood & Sons (Etruria) to Boulton Watt & Co. (Soho). 19 Apr. 1828. *Docketed "Send old valves as pattern and only want two."*

# MS 3147/3/530 SPECIAL SUBJECTS & CORRESPONDENTS WEST INDIA DOCK – TRANSCRIPTS AND MEMORANDA 1825—1830

#### INTRODUCTION

Transcripts of letters and memoranda concerning a pumping engine for the West India Dock, London, from 1825 to 1830. The engine was ordered in 1825, but, as it was not urgently required, it was suspended due to pressure of work at Soho in Nov. 1826. It was finally completed in 1828. The majority of the letters are between Boulton Watt & Co. and George and John Rennie and their foreman John Walker.

For drawings of the engine, see Portfolio 5/664c.

1. Transcripts. Transcripts of 16 letters & 2 memoranda. 5 sheets sewn together.

In James Watt Jr.'s hand. The transcripts are as follows – Boulton Watt & Co. write from or receive letters at Soho unless otherwise noted:

John Rennie Jr. (Stamford St., London) to Boulton Watt & Co. 19 Mar. 1825.

Boulton Watt & Co. to John Rennie Jr. (Stamford St., London). 21 Mar. 1825.

John Walker (London) to Boulton Watt & Co. 22 Mar. 1825.

William Creighton for Boulton Watt & Co. to John Walker. 23 Mar. 1825.

John Walker (London) to Boulton Watt & Co. 24 Mar. 1825.

Boulton Watt & Co. to John Rennie Jr. (Stamford St., London). 1 Apr. 1825.

Memorandum. John Walker at Soho. 5 Apr. 1825.

John Walker (London) to Boulton Watt & Co. 19 Apr. 1825.

William Creighton for Boulton Watt & Co. to John Walker (London). 26 Apr. 1825.

William Creighton for Boulton Watt & Co. to John Walker (London). 26 May 1825.

Memorandum. John Walker at Soho. 4 Jun. 1825.

William Creighton for Boulton Watt & Co. to John Walker (London). 28 Jun. 1825.

John Walker (Holland St., London) to James Brown (13 London St.). 18 May 1826.

William Creighton for Boulton Watt & Co. to John Walker. 17 Nov. 1826.

John Walker (6 Holland St., London) to Boulton Watt & Co. 20 Nov. 1826.

Extract. John Walker (London) to Boulton Watt & Co. 26 Nov. 1826.

Boulton Watt & Co. to John Rennie Jr. (London). 6 Feb. 1827.

John Rennie (London) to Boulton Watt & Co. 7 Feb. 1827.

Docketed "Copy of correspondence relative to the West India Dock Company's steam engine 36 inch diameter 8 foot stroke, with 38/6 and 24/4 pumps."

Transcripts. Transcripts of 12 letters & 1 memorandum. 12 small sheets sewn together. In William Creighton's hand. Transcripts of all the items listed above for 1825 (except the memorandum of 5 Apr.), plus the following transcripts:

James Watt Jr. [London] to Boulton Watt & Co. 9 Mar. 1827.

James Watt Jr. [London] to Boulton Watt & Co. 7 Mar. 1827.

TD 1 - TD 1 - 0.51 - 4 - 11 1 - 11 11

**3.** Transcripts. Transcripts of 5 letters. 4 small sheets originally sewn together. *In William Creighton's hand. The transcripts are as follows:* 

William Creighton for Boulton Watt & Co. to John Walker. 17 Nov. 1826.

James Watt Jr. [London] to Boulton Watt & Co. 5 Dec. 1826.

Boulton Watt & Co. to John Rennie Jr. [London]. 14 Feb. 1827.

James Watt Jr. [London] to Boulton Watt & Co. 17 Feb. 1827.

James Watt Jr. [London] to Boulton Watt & Co. 23 Feb. 1827.

- **4.** Memorandum. Extract from Mr. Creighton's letter... relating to West India Dock. 25 Jun. 1828.
- **5.** Sketches. West India Dock Pump beams. Not dated.
- 6. Indicator figures & performance graphs. 24 May—4 Jun. 1830. 8 sheets.
- 7. Transcripts. Transcripts of letters and memoranda. 18 sheets. *In Gilbert Hamilton's hand. The transcripts are as follows:*

#### 1825:

John Rennie Jr. (Stamford St.) to Boulton Watt & Co. 19 Mar. 1825.

Boulton Watt & Co. to John Rennie Jr. (Stamford St.). 21 Mar. 1825.

John Walker (London) to Boulton Watt & Co. 22 Mar. 1825.

William Creighton for Boulton Watt & Co. to John Walker. 23 Mar. 1825.

John Walker (London) to Boulton Watt & Co. 24 Mar. 1825.

Boulton Watt & Co. to John Rennie Jr. (Stamford St.). 1 Apr. 1825.

Memorandum of John Walker's visit to Soho, 5 Apr. 1825.

John Walker (London) to Boulton Watt & Co. 19 Apr. 1825.

William Creighton for Boulton Watt & Co. to John Walker (London). 26 Apr. 1825.

William Creighton for Boulton Watt & Co. to John Walker (London). 26 May 1825.

Memorandum of John Walker's visit to Soho, 4 Jun. 1825.

William Creighton for Boulton Watt & Co. to John Walker (London). 28 Jun. 1825.

#### 1826:

John Walker (Holland St.) to James Brown (13 London St.). 18 May 1826.

William Creighton for Boulton Watt & Co. to John Walker. 17 Nov. 1826.

John Walker (6 Holland St.) to Boulton Watt & Co. 20 Nov. 1826.

Extract from John Walker (London) to Boulton Watt & Co. 28 Nov. 1826.

#### 1827:

Boulton Watt & Co. to John Rennie Jr. (London). 6 Feb. 1827.

John Rennie Jr. (London) to Boulton Watt & Co. 7 Feb. 1827.

Boulton Watt & Co. to John Rennie Jr. (London). 14 Feb. 1827.

Account. West India Dock Co. debtors to Boulton Watt & Co. for 36 inch engine. 9 Feb. 1827.

John Rennie Jr. (Stamford St.) to James Watt Jr. [London]. 16 Feb. 1827.

James Watt Jr. (Rook's Nest) to John Rennie Jr. [London]. 18 Feb. 1827.

James Watt Jr. (London) to Boulton Watt & Co. 17 Feb. 1827.

Calculation re pumps "transmitted by Mr. Creighton".

Extract from James Watt Jr. [London] to Boulton Watt & Co. 23 Feb. 1827.

Extract from James Watt Jr. [London] to Boulton Watt & Co. 7 Mar. 1827.

Extract from James Watt Jr. [London] to Boulton Watt & Co. 9 Mar. 1827.

Memorandum for Mr. Longlands respecting the West India Dock engine. By James Watt Jr. 9 Mar. 1827.

Memorandum of dates of sending off the heavy materials of the engine and payment for it.

Sketch plans of West India Docks (copies of originals sent by John Rennie Jr., 27 Jul. 1827).

James Watt Jr. (Soho) to John Rennie Jr. (London). 31 Jul. 1827.

Memorandum of dates of forwarding of bright materials and starting the engine.

#### 1829:

George Rennie (Stamford St.) to James Watt Jr. [Soho]. 10 Dec. 1829.

John Walker (London) to Boulton Watt & Co. 10 Dec. 1829.

William Creighton for Boulton Watt & Co. to John Walker. 11 Dec. 1829.

James Watt (Soho) to George Rennie (London). 17 Dec. 1829.

#### 1830

Memorandum. Copy of Mr. Brown's Experiments with the West India Dock Engine. 26 Mar. 1830.

William Creighton to James Brown (London). 31 Mar. 1830.

J. Longlands (West India Dockhouse) to Boulton Watt & Co. 2 Apr. 1830.

James Watt Jr. (Soho) to John Mosley (13 London St.). 8 Apr. 1830.

James Brown (London) to James Watt Jr. [Soho]. 13 Apr. 1830.

James Watt Jr. (Soho) to James Brown (London). 14 Apr. 1830.

William Creighton to James Brown [London]. 14 Apr. 1830.

Sketch. Proposed reservoirs for supplying ships (not executed). 14 Apr. 1830.

James Watt Jr. (Soho) to J. Longlands (West India Dockhouse). 22 Apr. 1830

James Watt Jr. (Soho) to George & John Rennie (London). 22 Apr. 1830.

George and John Rennie (Stamford St.) to James Watt Jr. (Soho). 27 Apr. 1830.

J. Longlands (West India Dockhouse) to James Watt Jr. (Soho). 1 May 1830.

Boulton Watt & Co. to George & John Rennie (Stamford St.). 8 May 1830.

James Brown (London) to William Creighton. 7 May 1830.

Extract from James Brown (London) to Boulton Watt & Co. 12 May 1830.

James Watt Jr. (Soho) to James Brown (13 London St.). 14 May 1830.

James Brown (London) to James Watt Jr. [Soho]. 17 May 1830.

Boulton Watt & Co. to J. Longlands [West India Dockhouse]. 17 May 1830.

James Brown (London) to Boulton Watt & Co. 24 May 1830.

3 indicator figures for the West India Dock engine (originals sent by Brown with his letter of 24 May).

### MS 3147/3/531 SPECIAL SUBJECTS & CORRESPONDENTS WHITE GRIT MINE AND SHELVEFIELD GRAVELS 1783—1785

#### INTRODUCTION

Letters and papers about pumping engines for White Grit Mine and Shelvefield Gravels, from 1783 to 1785. White Grit mine was a lead mine in Shropshire. The proprietors included Joshua Blakeway of Lythwood Hall near Shrewsbury, Thomas Lloyd Anwyl and John Lawrence, who was also the engineer. In 1784 Blakeway and Lawrence ordered another engine for their mine at Shelvefield Gravels, which they often referred to simply as "Gravels." The White Grit mine engine was stopped in 1785 and sold the following year. For letters from John Lawrence about the sale see 3/395/2-16, General Correspondence 1785-1795, L.

For drawings of the engines see Portfolios 5/553 (White Grit) and 5/557 (Shelvefield Gravels).

- 1. Letter. John Lawrence (—) to Boulton & Watt (Soho). 18 Jan. 1783.

  Joshua Blakeway & Co. of White Grit Mine want an engine. Details of their requirements.

  Request for details of costs, coal consumption etc.
- 2. Draft of letter. James Watt (—) to John Lawrence (—). 30 Jan. 1783.

  Detailed estimate of the cost of an engine for White Grit mine. Enclosing a copy of Boulton & Watt's terms of agreement. John Wilkinson is the only person they use for ironwork.

  Pumps are left up to the customer.
- 3. Letter. Joshua Blakeway (Shrewsbury) to James Watts & Co. (Birmingham). 3 Feb. 1783. Details of the mine. Would like an estimate of an engine the same as the one at Bog Mine, with an 8 ft. stroke. Wants to present Boulton & Watt's proposals at a meeting of the proprietors. John Lawrence has been strenuously recommending a Boulton & Watt engine.
- **4.** Letter. Joshua Blakeway (Shrewsbury) to Boulton & Watt (Birmingham). 27 Feb. 1783. *The proprietors have agreed to erect an engine. Wants to meet James Watt to dicuss terms.*
- **5.** Letter. Joshua Blakeway (Shrewsbury) to Boulton & Watt (—). 20 Mar. 1783. *Arrangements to meet Boulton & Watt in Shrewsbury*.
- 6. Memorandum. Agreement between the White Grit Co. and Boulton & Watt. 27 Mar. 1783. Signed by James Watt, Matthew Boulton, Joshua Blakeway, John Lawrence and Thomas Lloyd Anwyl.
- 7. Letter. Joshua Blakeway (Lythwood) to Matthew Boulton (Soho). 15 Apr. 1783. Thanks Matthew Boulton for some snuffers. Directions for the gudgeons. Mr. Lawrence hopes the engine will be ready as soon as possible. Sending some samples of ore.
- **8.** Letter. Joshua Blakeway (Lythwood) to Boulton & Watt (Soho). 18 Apr. 1783. John Lawrence is constructing the engine house. Details of the iron work he wants from Boulton & Watt.
- 9. Letter. Joshua Blakeway (Shrewsbury) to Boulton & Watt (Birmingham). 7 May 1783. John Lawrence's request for details of the iron work. Lawrence cannot understand the plan of the boiler and cannot find a boiler maker who can.

- 10. Letter. Joshua Blakeway (Lythwood) to James Watt (Soho). 23 May 1783. Received the drawings and model and sent them to John Lawrence. The model has been sent to Mr. Oram, the boiler maker. The model did not help Lawrence. Will return the agreement soon. Lawrence says that the plans have altered so much from the sketches James Watt gave him that he has incurred unusual expense in alterations. Lawrence's queries about various parts.
- 11. Printed list. List of Materials for White Grit ret<sup>d</sup>. from Mr. Lawrence with his remarks. 23 May 1783.

  Printed list of the engine compenents, showing what is to be at Bersham, Bradley and Soho and what the mine was to provide. Annotated by James Watt after John Lawrence had returned it. Sent by James Watt to Joshua Blakeway 23 May 1783 with a note saying he had also sent a model, book of directions and final drawings.
- **12.** Letter. John Lawrence (—) to Joshua Blakeway (Lythwood). 28 May 1783. *Returning James Watt's printed list of parts with notes about what the mine can make.* Forwarded by Blakeway to James Watt at Soho.
- **13.** Letter. Thomas Lloyd Anywl (Shrewsbury) to Boulton & Watt (Soho). 29 May. 1783. *Returning the agreement.*
- 14. Letter. Joshua Blakeway (Lythwood) to James Watt (Soho). 12 Jun. 1783.

  John Lawrence's completion of the engine house. Can James Watt send chain links to use as a pattern. Can James Watt ask Matthew Boulton to send him his observations on the ore that Blakeway sent and the price of turret clocks.
- 15. Letter. Joshua Blakeway (Shrewbury) to James Watt (Soho). 28 Jun. 1783. Has received several pressing letters from John Lawrence wanting to know about progress with engine. Can James Watt sent the chain pattern.
- 16. Letter. Joshua Blakeway (Shrewsbury) to Boulton & Watt (Soho). 23 Jul. 1783. John Lawrence is getting very impatient. Has Matthew Boulton tested the ore yet. Boulton & Watt did suggest when they visited that the engine might be at work by Midsummer.
- 17. Letter. Johsua Blakeway (Shrewsbury) to Boulton & Watt (—). 12 Aug. 1783. John Lawrence received the box of adjusting screws, but wants all the materials for the engine. Putting up the engine at this time of year will put the company to considerable expense.
- 18. Letter. Johsua Blakeway (Shrewsbury) to Boulton & Watt (—). 16 Aug. 1783. Very pleased to hear that many of the parts are nearly ready. Expense of putting the engine up when the days get shorter. Arrangements for the delivery of parts and sending of an engine erector.
- 19. Letter. John Smith for Joshua Blakeway (Shrewsbury) to Boulton & Watt (Birmingham). 30 Aug. 1783.

  The castings have been forwarded to White Grit mine. Can Boulton & Watt send their erector.
- Letter. John Smith for Joshua Blakeway (Shrewsbury) to Boulton & Watt (Soho). 25 Oct. 1783.
   John Lawrence's complaints about the delays in sending the piston rods. This is costing the White Grit Co. money.

- 21. Letter. John Lawrence (—) to Joshua Blakeway (Shrewsbury). 13 Nov. 1783.

  Progress with the engine. Problems with the boiler. The cylinder made by John Wilkinson had a hole in it which James Law has patched. Have run out of lime so cannot put the cyliner case on. Is pleased with Law's work. Blakeway forwarded this letter to James Watt at Soho.
- 22. Letter. John Lawrence (—) to Boulton & Watt (Soho). 31 Dec. 1783.

  Their engine works well but the boiler is bad. Need a new one. Will one of the same size they have already be sufficient.
- 23. Letter. John Lawrence (Shrewsbury) to James Watt (Soho). 1 Mar. 1784. Can James Watt send him details of an engine to pump surface water from an opencast mine at Gravels. Details of the mine. Progress at White Grit mine.
- **24.** Letter. Joshua Blakeway (Shrewsbury) to Boulton & Watt (Soho). 19 May 1784. *Need to meet to discuss the propsed small engine. John Lawrence will be in Birmingham in about a fortnight.*
- Letter. J. Wigley for Joshua Blakeway & Co. (Shrewsbury) to James Watt (Birmingham).
   Jul. 1784.
   Can Boulton & Watt send the articles as soon as possible. The delay is a great disappointment.
- 26. Letter. Joshua Blakeway (Shrewsbury) to James Watt (—). 21 Jul. 1784. John Lawrence wants the details of the ironwork for the Gravels engine. Orders locks for his sideboard, locks for a counting house desk and a lamp for his counting house.
- 27. Letter. Joshua Blakeway (Shrewsbury) to James Watt (—). 30 Jul. 1784. Alterations to his order for locks for a counting house desk. John Lawrence is very impatient for the details of the iron work of the Gravels engine.
- **28.** Letter. John Lawrence (—) to James Watt (Soho). 2 Aug. 1784. *Proposals for where the various parts for the Gravels engine should be made.*
- **29.** Letter. Joshua Blakeway (Shrewsbury) to James Watt (—). 12 Aug. 1784. *Is not concerned about the price of the five locks for his sideboard. Is anxious to have the Gravels engine working as soon as possible as they have had to abandon part of a vein.*
- 30. Letter. Joshua Blakeway (Shrewsbury) to James Watt (Soho). 9 Sept. 1784. Can the locks be delivered with the engine parts. Has James Watt heard from John Wilkinson as to whether the parts being made at Bersham are ready.
- 31. Letter. Joshua Blakeway (Shrewsbury) to James Watt (—). 28 Sep. 1784.

  John Lawrence wants the remaining engine materials so that an engine erector can be sent soon after. Has received the locks but no master keys. If the lamps are ready can one "of the common kind" be brought by the engine erector.
- 32. Letter. Joshua Blakeway (Shrewsbury) to Boulton & Watt (—). 5 Oct. 1784. Has received John Southern's letter and will send the locks for the master keys to be made. John Lawrence wants an engine erector to be sent.
- 33. Letter. John Lawrence (—) to James Watt (Birmingham). 27 Nov. 1784.

  James Law has started the Gravels engine. Details of what Lawrence has paid him. Have Boulton & Watt ben paid for the White Grit mine engine, as the company have given Joshua Blakeway cash to pay for outstanding articles.

- **34.** Letter. John Lawrence (—) to James Watt (Soho). 4 Dec. 1784. Details of his friend Mr. Probert's lead mine in Cardiganshire, and a nearby water wheel. Can James Watt tell him what quantity of ore the water wheel would raise in 24 hours.
- 35. Letter. John Lawrence (—) to Boulton & Watt (Soho). 7 Jan. 1785.

  The White Grit mine engine was stopped on 31 Dec. 1784. The Company will let them know when it is to be worked again. Thanks James Watt for his advice to Mr. Probert.

### MS 3147/3/532 SPECIAL SUBJECTS & CORRESPONDENTS JOHN WILKINSON – BILLS FOR ENGINE PARTS 1777—1778

#### INTRODUCTION

Various bills and accounts for castings, engine parts etc. sent to Boulton & Fothergill, Matthew Boulton and Boulton & Watt by the Shropshire iron master John Wilkinson. These were originally kept in smaller bundles, namely 1771—1776, 1775, 1776—1777 and 1777—1778, "Copies of Accounts to July 1776" and "Doubles of Accounts." However the bills were found in such a disordered state that it proved impossible to reconstruct the original bundles, so they have been arranged in chronological order.

- **1.** Bill. Messrs. Boulton & Fothergill bought of John Wilkinson. 1771—1772. *Also account of cash paid on account on 28 Sep. 1771.*
- 2. Bill. Messrs. Boulton & Fothergill bought of John Wilkinson. Circa 1771—1773? The left hand side of the bill has been torn away, rendering the dates of the entries unreadable. Also account of cash paid on account on 28 Sep. 1771 [?].
- **3.** Bill. Messrs. Boulton & Fothergill bought of John Wilkinson. 1773—1774. *Also account of bills paid on account and sundries paid 1771 and 1773.*
- Letter. William Johnson for John Wilkinson (Bradley Foundry) to Boulton & Forthergill (Soho). 13 Jul. 1775.
  On the same sheet:
  List of items sent by boat to Soho.
- **5.** Bill. Messrs. Boulton & Fothergill bought of John Wilkinson. 15 Aug. 1775. *Marked "Entered in Bought Book Folio 1."*
- 6. Delivery note. Mr. Boulton (Soho) from William Thomas for John Wilkinson (Bradley). 28 Aug. 1775.
  Marked "Entered in Bought Book Folio 1."
- 7. Bill. Messrs. Boulton & Fothergill bought of John Wilkinson. 31 Aug. 1775.
- **8.** Bill. Messrs. Boulton & Co. bought of John Wilkinson. 12 Sep. 1775. *Marked "Entered in Folio 2."*

- **9.** Bill. Messrs. Boulton & Co. bought of John Wilkinson. 7 Oct. 1775. *Marked "Entered Bought Book Folio 2."*
- Letter. William Johnson for John Wilkinson (Bradley Foundry) to Joseph Harrison (Soho).1 Nov. 1775.Marked "Entered in Bought Book Folio 2."
- Letter. William Johnson [Bradley] to Mr. Harrison (Tipton). Nov. 1775.
  On the same sheet:
  Delivery note. Patterns sent to Soho by Mr. Russell's boat. 17 Nov. 1775.
  Docketed "Mr. John Wilkinson's accounts 1775" originally used as a wrapper?
- **12.** Bill. Messrs. Boulton & Fothergill bought of John Wilkinson. 24 Jan. 1776. *Marked "Delivered by Jos. Williams' team at Soho."*
- Note. Bradley Foundry, 15 Mar. 1776.

  Note of three arms being sent to Soho by Russell & Co.'s boat.
- **14.** Bill. Messrs. Boulton & Co. bought of John Wilkinson. 5 Apr. 1776. *Docketed "Mr. Wilkinson's doubles of accounts. All entered."*
- Bill. Messrs. Boulton & Co. debtors to John Wilkinson. 1775—16 Apr. 1776.

  The left hand side of the bill has been torn away, rendering some of the dates of the entries unreadable. Includes parts for the "wheel engine" [steam wheel?].

  Marked "The sundries above, from the 24 Jan. 1776, are entered in Journal page 106 per J. P. [James Pearson]."
- 16. Bill. Messrs. Boulton & Fothergill bought of John Wilkinson. 15 May 1776.

  Marked by James Pearson "For Engine. This seems to be formerly entered from another bill [see below] in Journal 106."
- **17.** Bill. Messrs. Boulton & Co. bought of John Wilkinson. 11—30 May 1776. *Marked "Entered 106 per J. P. [James Pearson]."*
- **18.** Bill. Messrs. Boulton & Fothergill bought of John Wilkinson. 3 Jun. 1776. *Marked "Entered 108 J. P. [James Pearson]."*
- 19. Bill. Messrs. Boulton & Co. bought of John Wilkinson. Bradley Foundry, 12 Jun. 1776.

  Marked "Entered 112 J. P."

  Docketed "Mr. John Wilkinson's Accounts 1770 to 1776" originally used as the wrapper?
- **20.** Bill. Messrs. Boulton & Co. bought of John Wilkinson. Bradley Foundry, 3 Jul. 1776. Marked "Entered 126 J. P. [James Pearson]." Docketed "Copy of Mr. Wilkinson's accounts to July 1776."
- **21.** Bill. Messrs. Boulton & Fothergill debtors to John Wilkinson. 23 Apr.—23 Sep. 1776. *Includes parts for the "wheel engine" [steam wheel?]*.
- **22.** Bill. Messrs. Boulton & Co. bought of John Wilkinson. 16 Nov. 1776. *Marked "Entered 358 J. P. [James Pearson]."*
- 23. Bill. Messrs. Boulton & Co. debtors to John Wilkinson. 5 Nov. 1776—24 Mar. 1777.
- **24.** Note. Mr. Boulton's credit at Bersham Foundry. 29 Mar. 1777. *Lists payments by bills and goods 28 Sep. 1771 to 29 Mar. 1777.*

- **25.** Bill. Boulton Fothergill & Co. debtors to John Wilkinson. Midsummer—29 Sep. 1777. *Docketed "Mr. John Wilkinson's accounts 1776 & 1777" originally used as the wrapper?*
- **26.** Bill. Messrs. Boulton & Co. bought of John Wilkinson. 11 Feb. 1777. *Marked "Entered per John Hall" and "Entered 358 J. P. [James Pearson]."*
- 27. Bill. Messrs. Boulton & Co. bought of John Wilkinson. 12 Mar. 1777.

  Two entries, one marked "Entered per John Hall" and the other marked "Entered 358 J. P. [James Pearson]."
- **28.** Bill. Messrs Boulton Fothergill & Co. bought of John Wilkinson. 24 Mar. 1777. *Marked "Entered per J. H. [John Hall]" and "Entered 358 J. P. [James Pearson]."*
- **29.** Bill. Messrs. Boulton & Co. debtor to John Wilkinson. 9 May 1777.

  Docketed "Mr. Boulton & Co. for Expansive Engine. Bersham Bill £77.16. Should be £77.18.8."
- **30.** Bill. Messrs. Boulton Fothergill & Co. debtors to John Wilkinson. 24 Mar.—12 Jun. 1777. *Includes parts for "wheel engine" [steam wheel?] and expansive engine.*
- **31.** Bill. Messrs. Boulton & Co. debtors to John Wilkinson. 12 Jun. 1777. *Docketed "Copy of account delivered Misummer 1777."*
- 32. Bill. Edward Salmon debtor to John Wilkinson. 20 May—2 Sep. 1777. Marked "En. [Entered]" [For Edward Salmon's engine, Lawton, Cheshire.]
- **33.** Bill. Messrs. Boulton & Co. bought of John Wilkinson. 2—29 Sep. 1777. *Marked "Entered 5 per J. P."*
- **34.** Receipt. John Wilkinson's receipt of payment for Mr. Colville's goods. 7 Jan. 1778. [Goods for Peter Coleville's engine.]
- 35. Account. Abstract of Sundry Bills delivered & Cash adavanced on account of the Brig Bersham. 29 Jan. 1778.

  Docketed "Mr. John Wilkinson Accounts 1777 & 1778" originally used as the wrapper?
- **36.** Bill. The Proprietors of the Richmond Engine debtors to John Wilkinson. 8 Jul. 1777—7 Feb. 1778. *Marked "En. [Entered]"*

# MS 3147/3/533 SPECIAL SUBJECTS & CORRESPONDENTS JOHN WILKINSON – CORRESPONDENCE 1775—1779

#### INTRODUCTION

Letters from the Shropshire iron master John Wilkinson, from 1775 to 1779. The bundle includes three letters signed by John's brother William Wilkinson at Bersham, and also some letters from his foremen and clerks John Turner and Cornelius Reynolds.

- 1. Letter. John Wilkinson (London) to James Watt (Soho). 30 Jun. 1775.
- **2.** Letter. John Wilkinson (Broseley) to James Watt (Soho). 3 Aug. 1775.
- 3. Letter. John Wilkinson (Broseley) to James Watt (Soho). 17 Aug. 1775.
- **4.** Letter. John Wilkinson (Broseley) to "Boulton & Co." (Soho). 1 Sep. 1775.
- **5.** Letter. John Wilkinson (Broseley) to James Watt (Soho). 21 Nov. 1775.
- **6.** Letter. John Wilkinson (Broseley) to James Watt (Soho). 26 Jan. 1776.
- 7. Letter. John Wilkinson (Broseley) to James Watt (Soho). 5 Apr. 1776.
- **8.** Memorandum. Memorandums from Mr. Wilkinson. Apr. 1776. *Information for Watt about work in progress, drawings required etc.*
- **9.** Letter. John Wilkinson (Broseley) to James Watt (Soho). 28 Apr. 1776.
- **10.** Letter. John Wilkinson (Broseley) to James Watt (Soho). 30 Apr. 1776.
- 11. Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 4 May 1776.
- **12.** Letter. John Wilkinson (Broseley) to James Watt (Newhall). 6 May 1776.
- 13. Letter. John Wilkinson (Broseley) to James Watt (Soho). 7 May 1776. *The sheet has been used for calculations and a sketch of a pump [?].*
- **14.** Letter. William Wilkinson (Bersham) to James Watt (Soho). 31 May 1776.
- **15.** Letter. William Wilkinson (Broseley) to Matthew Boulton (2 Bush Lane, London). 5 Aug. 1776.
- **16.** Letter. John Wilkinson (Shrewsbury) to "Boulton & Co." (Soho). 7 Aug. 1776.
- Letter. John Wilkinson (Broseley) to Matthew Boulton (Soho). 9 Aug. 1776.
   On the same sheet:
   Transcript of letter. Thomas Dudley (North Downs) to John Wilkinson [Broseley]. 3 Aug. 1776.
- **18.** Letter. John Wilkinson (Broseley) to James Watt (Soho). 8 Sep. 1776.

- **19.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Soho). 27 Oct. 1776. *The sheet has been used for calculations*.
- **20.** Letter. John Wilkinson (London) to Boulton & Watt (Soho). 12 Nov. 1776.
- **21.** Letter. William Wilkinson (Bersham) to Boulton & Watt (Soho). 23 Nov. 1776.
- **22.** Letter. John Wilkinson (London) to James Watt (Birmingham). 17 Feb. 1777. *The sheet has been used for calculations*.
- 23. Letter. John Wilkinson (Broseley) to Matthew Boulton (Soho). 24 Mar. 1777.
- **24.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 18 Apr. 1777. *The sheet has been used for calculations.*
- **25.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 15 May 1777.
- **26.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 18 May 1777. *Docketed "Thick cylinders."*
- **27a.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 24 May 1777. *Kept with (b) below.* 
  - **b.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 24 May 1777. *Docketed "About Hornblower."*
- **28.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 27 May 1777. *The sheet has been used for calculations.*
- 29. Letter. John Wilkinson (Bersham) to Matthew Boulton [Soho]. 9 Sep. 1777.
- **30.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Soho). 19 Oct. 1777.
- **31.** Letter. John Wilkinson (Broseley) to Matthew Boulton (Soho). 24 Oct. 1777.
- **32.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 8 Nov. 1777.
- 33. Letter. John Turner (Bersham) to Boulton & Watt (Soho). 15 Nov. 1777.
- **34.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 8 Dec. 1777.
- **35.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 13 Jan. 1778.
- **36.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 17 Jan. 1778.
- 37. Letter. John Wilkinson (Ketley) to Boulton & Watt (Birmingham). 24 Jan. 1778.
- **38.** Letter. John Wilkinson (Broseley) to "Boulton & Co." (Soho). 13 Apr. 1778.
- **39.** Letter. John Wilkinson (Broseley) to "Boulton & Co." (Soho). 14 Apr. 1778. *The sheet has been used for calculations. Docketed "Concerning Mr. Jary."*

- **40.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Soho). 14 Apr. 1778. Different to the above letter – this letter has been written by an amanuensis. Docketed "Mr. Jary's engine."
- **41.** Letter. John Wilkinson (Wilson House) to James Watt (Redruth). 24 Aug. 1778.
- **42.** Letter. John Wilkinson (Grange) to James Watt [Redruth]. 1 Oct. 1778.
- **43.** Letter. John Wilkinson (Wilson House) to James Watt (Redruth). 15 Nov. 1778.
- 44. Letter. John Wilkinson (Bersham) to Matthew Boulton (Soho). 23 Dec. 1778.
- **45.** Letter. John Wilkinson (Broseley) to Boulton & Fothergill (Soho). 29 Dec. 1778.
- **46.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Soho). 10 Jan. 1779. *The sheet has been used for calculations and a sketch of a steam wheel [?].*
- 47. Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 16 Mar. 1779.
- **48.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 18 Mar. 1779.
- **49.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 23 Mar. 1779.
- **50.** Letter. John Wilkinson (Bersham) to Boulton & Watt (Birmingham). 1 Apr. 1779.
- **51.** Letter. Cornelius Reynolds (Broseley) to James Watt (Birmingham). 27 Apr. 1779.
- **52.** Letter. John Wilkinson (Broseley) to Boulton & Watt [Soho]. 4 May 1779. *Dated by Wilkinson as 4 Jun.*
- **53.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 10 May 1779. *Docketed "About Jary and Perrier's goods."*
- **54.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 17 May 1779. *Docketed "About sending off Jary and Perrier's goods."*
- Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 6 Jun. 1779.
   On the same sheet:
   Transcript of letter. Hugh Jones (Chester) to John Wilkinson. 5 Jun. 1779.
   Transcript of letter. Robert Pyrke (Newnham) to John Wilkinson. 3 Jun. 1779.
- **56a.** Letter. John Wilkinson (Broseley) to James Watt [?] [Birmingham]. 8 Jun. 1779. *Enclosing (b) below.* Docketed "Mr. Baldwin's enclosed."
  - **b.** Letter. John Baldwyn (Chepstow) to John Wilkinson [Broseley]. 29 May 1779.
- 57. Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 11 Jun. 1779.
- Letter. John Wilkinson (Bersham) to Boulton & Watt (Soho). 12 Jun. 1779.
  On the same sheet:
  Transcript of letter. Hugh Jones (Chester) to John Wilkinson (Court). 12 Jun. 1779.
  Transcript of letter. Robert Pyrke (Newnham) to John Wilkinson (Bersham). 10 Jun. 1779.
  Docketed "About the Peter and Severn."

- **59.** Letter. John Wilkinson (Bersham) to Boulton & Watt (Birmingham). 18 Jun. 1779.
- **60.** Letter. Hugh Jones (Chester) to Boulton & Watt [Soho]. 19 Jun. 1779.
- **61.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 25 Jun. 1779.
- **62.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 2 Jul. 1779.
- Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 4 Jul. 1779.
   On the same sheet:
   Transcripts of bills of lading. Goods shipped on the Peter for Wheal Chance, Poldice and Chacewater.
   Docketed "Bills of lading of Cornish goods."
- **64.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 8 Jul. 1779.
- **65.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 13 Jul. 1779.
- **66.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 16 Jul. 1779.
- 67. Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 21 Jul. 1779. Docketed as being from Bersham.
- **68.** Letter, John Wilkinson (Bersham) to James Watt (Birmingham). 3 Aug. 1779.
- **69.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 8 Aug. 1779.
- **70.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 10 Aug. 1779.
- **71.** Letter. John Wilkinson (Bersham) to James Watt [Birmingham]. 13 Aug. 1779. *Docketed "The* Peter *at Biddeford."*
- **72.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 16 Aug. 1779. *Docketed as 17 Aug.*
- 73. Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 21 Aug. 1779.
- 74. Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 24 Aug. 1779.
- **75.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 27 Aug. 1779. *Docketed "Grievances."*
- **76.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 31 Aug. 1779.
- 77. Letter. John Wilkinson [Bersham] to James Watt (Birmingham). 1 Sep. 1779.
- **78.** Letter. John Wilkinson (Liverpool) to James Watt (Birmingham). 7 Sep. 1779. *Docketed as being from Bersham.*
- **79.** Memorandum. Account of Castings made for Cornwall. 9 Sep. 1779. *Docketed "Mr. Wilkinson list of castings ready for Cornwall."*
- **80.** Memorandum. Mr. Wilkinson's dimensions of Ale & Cakes, Poldory, Tresavaine [Tresavean], Penryndee cylinders. Sep. 1779.

- **81.** Letter. John Wilkinson (Court) to James Watt (Birmingham). 12 Sep. 1779.
- **82.** Letter. John Wilkinson (Court) to James Watt (Birmingham). 14 Sep. 1779.
- 83. Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 17 Sep. 1779.
- **84.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 24 Sep. 1779.
- **85.** Letter. John Wilkinson (Bersham) to Boulton & Watt (Birmingham). 26 Sep. 1779.
- **86.** Letter. John Wilkinson (Bersham) to James Watt (Chacewater). 30 Oct. 1779.
- **87.** Letter. John Wilkinson (Bersham) to Matthew Boulton (at Messrs. Matthews & Barton's, London). 3 Nov. 1779. *Docketed "Answered the 12<sup>th</sup>. About Jary's goods."*
- **88.** Letter. Cornelius Reynolds (Broseley) to James Watt (Chacewater). 9 Nov. 1799.
- **89.** Letter. John Wilkinson (Wilson House) to James Watt (Chacewater). 21 Nov. 1779. *The inside of the letter is addressed to Boulton & Watt.*
- **90.** Letter. John Wilkinson (Bersham) to James Watt (Chacewater). 5 Dec. 1779. *Docketed "With United Mines and Tresavean invoices."*
- **91.** Letter. John Wilkinson (Broseley) to James Watt (Chacewater). 9 Dec. 1779. *The sheet has been used for calculations.*
- **92.** Letter. John Wilkinson (Bersham) to James Watt [Chacewater]. 21 Dec. 1779.

# MS 3147/3/534 SPECIAL SUBJECTS & CORRESPONDENTS JOHN WILKINSON – CORRESPONDENCE 1780—1791

#### INTRODUCTION

Letters from the Shropshire iron master John Wilkinson, from 1780 to 1791. The bundle includes letters from his clerks John Turner and William Johnson.

- 1. Letter. John Wilkinson (Broseley) to James Watt (Chacewater). 25 Jan. 1780. Docketed "United Mine goods shipping."
- **2.** Letter. John Wilkinson (London) to Boulton & Watt (Birmingham). 19 Feb. 1780.
- 3. Letter. John Wilkinson (London) to Boulton & Watt [Birmingham]. 2 Mar. 1780.
- 4. Letter. John Wilkinson [Bersham] to James Watt (Birmingham). 30 Mar. 1780. Not dated – date taken from the docket. On the same sheet: Memorandum. Dimensions of various engine parts for Poldice.
- 5. Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 31 Mar. 1780.

- **6.** Letter. John Wilkinson (Court) to James Watt (Birmingham). 18 Apr. 1780. *Docketed as 19 Apr.*
- 7. Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 21 Apr. 1780.
- **8.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 28 Apr. 1780.
- **9.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 11 May 1780.
- **10.** Letter. John Wilkinson (Bersham) to James Watt (Birmingham). 11 Jul. 1780. *Docketed "About Mr. Jary's goods shipping per the Peter."*
- 11. Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 20 Aug. 1780.
- 12. Letter. John Wilkinson (Castle Head) to Matthew Boulton (Redruth). 24 Aug. 1780.
- 13. Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 31 Aug. 1780. *Docketed "Freight of Jary's goods per the* Mary."
- Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 4 Sep. 1780.
   On the same sheet:
   Transcript (in French). Passport for the Mary.
   Docketed "Passeport for the Mary."
- **15.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 26 Sep. 1780. *The sheet has been used for calculations.*
- **16.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 14 Oct. 1780. *Docketed "About receipt of passport for Jary's goods."*
- 17. Letter. John Wilkinson (Castle Head) to Matthew Boulton (Redruth). 19 Oct. 1780.
- **18.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 6 Nov. 1780.
- 19. Letter. John Wilkinson (Castle Head) to James Watt [Birmingham]. 27 Nov. 1780.
- **20.** Letter. John Wilkinson (London) to James Watt (Birmingham). 28 Dec. 1780.
- 21. Letter. John Wilkinson (London) to James Watt (Birmingham). 30 Dec. 1780.
- **22a.** Letter. John Wilkinson (Bersham) to Boulton & Watt (Birmingham). 5 Feb. 1781. *Kept with (b) below.* 
  - **b.** Memorandum. Mr. Wilkinson's Charge for Cast Plummer Block. *The sheet has been used for sketches of pipes etc.*
- 23. Letter. John Wilkinson (Castle Head) to Boulton & Watt (Birmingham). 27 Feb. 1781.
- **24.** Letter. John Wilkinson (Castle Head) to Boulton & Watt (Birmingham). 4 Mar. 1781.
- **25.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 10 Mar. 1781.
- **26.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 26 Mar. 1781.

- 27. Sketch & memorandum. Section of hill showing required lift of a pumping engine. Partly in Matthew Boulton's hand. Docketed "J. Wilkinson's engine wanted at Castle Head."
- **28.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 7 May 1781. *Docketed "About Castle Head engine."*
- **29.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 9 May 1781.
- **30.** Letter. John Wilkinson (Castle Head) to Boulton & Watt (Birmingham). 17 May 1781.
- 31. Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 26 May 1781. Docketed as 29 May.

  Docketed "Receipt for £200 on account of Gregory Mine."
- 32. Letter. John Turner (Bersham) to Boulton & Watt (Soho). 15 Jun. 1781.
- **33.** Letter. John Wilkinson (Broseley) to Matthew Boulton (Soho). 17 Jul. 1781.
- **34.** Letter. John Wilkinson (Chester) to Matthew Boulton (Soho). 18 Sep. 1781.
- **35.** Letter. John Wilkinson (Castle Head) to James Watt (Cosgarne). 21 Sep. 1781.
- **36.** Letter. John Wilkinson (Castle Head) to Boulton & Watt (Birmingham). 28 Oct. 1781.
- 37. Letter. John Wilkinson (Broseley) to James Watt (Cosgarne). 22 Mar. 1782.
- **38.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 11 Jun. 1782. *With a note added by Matthew Boulton. The sheet has been used for calculations.*
- 39. Letter. John Wilkinson (London) to Boulton & Watt (Birmingham). 18 Jun. 1782.
- **40.** Letter. John Wilkinson (London) to Matthew Boulton (Soho). 20 Jun. 1782.
- 41. Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 22 Jul. 1782.
- **42.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Soho). 1 Aug. 1782.
- **43.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 6 Oct. 1782.
- **44.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 14 Oct. 1782.
- 45. Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). Dec. 1782. Circa 15 Dec? Watt replied on 28 Dec. and apologised for not having replied sooner. Docketed "Concerning Mr. Crouchley's engine."
- Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 23 Jan. 1783.
   Docketed as 18 Jan. On the same sheet:
   Transcript of letter. Joseph Crouchley (Leigh) to John Wilkinson. 18 Jan. 1783.
   Docketed "Ordering Mr. Crouchley's engine."
- **47.** Letter. John Wilkinson (Bersham) to Boulton & Watt (Birmingham). 23 Feb. 1783. *Docketed as 25 Feb.*

- 48. Letter (press copy). John Wilkinson (Broseley) to the Governor of the Chelsea Water Works [London]. 11 Apr. 1783.On the same sheet:Account. The Governor & Company of Chelsea Water Works debtors to John Wilkinson.
- 49. Letter. John Wilkinson [Broseley] to James Watt [Birmingham]. 21 Apr. 1783.
  On the same sheet:
  Part of letter. J. Harrison & Co. to John Wilkinson (Broseley). 17 Apr. 1783.
  Wilkinson removed the lower part of Harrison & Co.'s letter, then added his letter to the sheet and sent it to Watt.
- **50.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 16 Jul. 1783. *Docketed "Concerning small French engine."*
- **51.** Letter. John Wilkinson (London) to James Watt (Birmingham). 29 Jul. 1783. *Docketed "Agreeing to terms for small French engine."*
- **52.** Letter. John Wilkinson (London) to James Watt (Birmingham). 5 Aug. 1783.
- **53.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 20 Aug. 1783.
- **54.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 10 Sep. 1783.
- **55.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 21 Sep. 1783. *Docketed as 11 Sep.*
- **56.** Letter. John Wilkinson (Castle Head) to James Watt (Birmingham). 23 Sep. 1783. *Docketed "Refusing to pay carriage of Mr. Fenton's materials."*
- 57. Letter. John Wilkinson (Court) to James Watt (Birmingham). 30 Sep. 1783.
- 58. Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 22 Oct. 1783. Docketed as 26 Oct. Docketed "About Mr. Hallen's forge engine."
- **59.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 3 Nov. 1783. *Docketed "About Mr. Hallen's forge and Poldice cylinder."*
- 60. Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 6 Nov. 1783.
- **61.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 8 Nov. 1783.
- **62.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Soho). 28 Nov. 1783.
- **63.** Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 30 Nov. 1783.
- **64.** Letter. John Wilkinson (Court) to James Watt (Birmingham). 2 Jan. 1784. *Mis-dated by Wilkinson as 1783*.
- **65.** Letter. John Wilkinson (Bersham) to Boulton & Watt (Birmingham). 3 Feb. 1784. *Docketed "Concerning Mr. Perier & Co."*
- 66. Letter. John Wilkinson (Court) to James Watt (Harper's Hill). 8 Feb. 1784. Docketed "Concerning Mr. Perier & Co."

- 67. Letter. John Wilkinson (Court) to Boulton & Watt (Birmingham). 10 Feb. 1784.
- **68.** Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 5 Jun. 1784.
- 69. Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 1 Aug. 1784.
- **70.** Letter. John Wilkinson (Broseley) to Matthew Boulton (Cosgarne). 9 Oct. 1784.
- 71a. Letter. John Wilkinson (Broseley) to James Watt (Birmingham). 23 Apr. 1785. Enclosing (b) and (c) below. Docketed "About the Treasury iron paper."
  - **b.** Memorandum. Draft of paper on the iron trade with Ireland. 2 sheets.
  - c. Note by Wilkinson about printing a paper on the iron trade.
- **72a.** Letter. John Wilkinson (Court) to James Watt (Harper's Hill). 1 May 1785. *Enclosing (b) and (c) below.* 
  - **b.** Cutting from *The Shrewsbury Chronicle*, 30 Apr. 1785. *Letter to the publisher observations on the article "Iron Trade, England and Ireland" which appeared in* The Chronicle *on 23 Apr.*
  - **c.** Cutting from ?. Report of the Chancellor's discussion with leather dealers about trade with Ireland.
- 73. Letter. John Wilkinson (Castle Head) to Boulton & Watt (Birmingham). 14 May 1785. On the same sheet: Letter. Thomas Williams (Ravenhead) to John Wilkinson. 9 May 1785.
- 74. Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 22 May 1785.
- 75. Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 24 Aug. 1785. Docketed "Mr. Stockdale's engine."
- **76.** Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 12 Sep. 1785.
- 77. Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 17 Nov. 1785.
- **78.** Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 6 Dec. 1785. *Docketed "With drawing of rotative motions."*
- 79. Letter. John Wilkinson (Broseley) to Matthew Boulton (Soho). 19 Jan. 1786. On the same sheet: Letter. Jacob Yallowley (London) to John Wilkinson. 11 Jan. 1786.
- **80.** Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 25 Mar. 1786.
- 81. Letter. John Wilkinson (Castle Head) to Boulton & Watt (Birmingham). 14 Aug. 1786. On the same sheet: Account. Adventurers in Hallammanin debtors to John Wilkinson.
- **82.** Letter. John Wilkinson (Bersham) to James Watt (Harper's Hill). 22 Oct. 1786. *Docketed "About Chacewater shares."*

- **83.** Letter. John Wilkinson (Castle Head) to James Watt [Birmingham]. 16 Jun. 1787. *Docketed "About Wheal Virgin pumps."*
- **84.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 20 Aug. 1787.
- **85.** Letter. John Wilkinson (Broseley) to James Watt (Harper's Hill). 22 Aug. 1787.
- **86.** Letter. John Wilkinson (Broseley) to James Watt [Harper's Hill]. 15 Oct. 1787. *Docketed as 7 Oct.*
- 87. Letter. John Wilkinson (Fair Hill) to James Watt (6 Green Lettice Lane). 30 Oct. 1787.
- Letter. John Wilkinson (Copper Office, London) to Boulton & Watt [6 Green Lettice Lane].20 Nov. 1787.Docketed "About Cornish Metal Co. affairs."
- **89.** Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 6 Sep. 1788. *Docketed "About Swedish engine."*
- **90.** Letter. John Wilkinson (Court) to James Watt (Harper's Hill). 20 Sep. 1788.
- **91.** Letter. John Wilkinson (Bersham) to James Watt (Harper's Hill). 29 Oct. 1788.
- **92.** Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 9 Nov. 1788.
- 93. Letter. John Wilkinson (Chester) to Boulton & Watt (Birmingham). 22 Jan. 1789.
- **94.** Letter. John Wilkinson (Castle Head) to James Watt (Harper's Hill). 31 Jan. 1789.
- **95.** Letter. John Wilkinson (Bersham) to Boulton & Watt (Birmingham). 25 Feb. 1789.
- **96.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 1 May 1789.
- **97.** Letter. John Wilkinson (London) to James Watt (Harper's Hill). 30 May 1789.
- **98.** Letter. John Wilkinson (London) to James Watt [Harper's Hill]. 3 Jun. 1789. *Docketed "About Mr. Weston."*
- **99.** Letter. John Wilkinson (London) to James Watt (Harper's Hill). 17 Jun. 1789. *Docketed "About sales of copper and about Weston."*
- **100.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 19 Jul. 1789.
- 101. Memorandum. John Wilkinson (Cark) account of the strokes made by the Cark engine. 15 Aug. 1789.

On the same sheet:

Letter. James Stockdale Jr. for Thackeray Stockdale & Co. (Cark) to Boulton & Watt (Birmingham). 15 Aug. 1789.

Docketed "Number of Cark counter."

- **102.** Letter. John Wilkinson (Castle Head) to Matthew Boulton (Soho). 12 Nov. 1789.
- **103.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Birmingham). 23 Dec. 1789.

- 104. Letter. John Wilkinson (Broseley) to Boulton & Watt [Birmingham]. 11 Jan. 1790. Docketed "About Sir W. Williams' engine."
- Letter. William Johnson for John Wilkinson (Bradley) to John Roberts (Soho). 8 Jan. 1791.On the same sheet:Invoice. Iron bought from Wilkinson by Matthew Boulton.
- Letter. William Johnson (Bradley) to John Southern (Soho). Feb. 1791.
  On the same sheet:
  Invoice. Boiler for the Soho engine. 17 Feb. 1791.
  Docketed "Invoice of a boiler for Mr. Boulton from Johnson in which a mistake of £6.12.0."
- **107.** Letter. John Wilkinson (Broseley) to Matthew Boulton (Soho). 25 Feb. 1791.
- **108.** Letter. John Wilkinson (Broseley) to Matthew Boulton (Soho). 26 Feb. 1791.
- **109.** Letter, John Wilkinson (Broseley) to Boulton & Watt (Soho). 30 Jul. 1791.
- Letter. John Wilkinson (Wrexham) to James Watt (Birmingham). 16 Aug. 1791.
   Docketed as 19 Aug. On the same sheet:
   Transcript of invoice. Cylinder shipped for the Poldice Adventurers. 30 Jun. 1787.
   Docketed "Hallammanin mine."

### MS 3147/3/535

## SPECIAL SUBJECTS & CORRESPONDENTS JOHN WILKINSON – CORRESPONDENCE AND PAPERS CONCERNING HIS DISPUTE WITH BOULTON & WATT 1775—1796

### INTRODUCTION

Letters and papers relating to John Wilkinson's dispute with Boulton & Watt, from 1775 to 1796. The dispute followed on from the falling out John had with his brother William. William subsequently informed Boulton & Watt of various engines that John had made without Boulton & Watt's consent. The material in this bundle was assembled as evidence for Boulton & Watt's claims for engine premiums, and it is divided into five smaller bundles, as follows:

Nos. 1-12.Letters from John Wilkinson, 1792 and 1795.

Nos. 13-29. Transcripts of Correspondence, Memoranda etc.

Nos. 30-34.Lists of Engines made by John Wilkinson.

Nos. 35-43. Calculations of Premiums on John Wilkinson's Engines.

Nos. 44-49. Accounts.

For more details of Wilkinson's dispute with Boulton & Watt, see his entry in the Guide to Persons and Firms.

### Letters from John Wilkinson, 1792 and 1795.

1. Letter. John Wilkinson (London) to James Watt (Heathfield). 27 Jun. 1792.

- **2.** Letter. John Wilkinson (Castle Head) to Matthew Boulton (Soho). 26 Nov. 1792.
- **3.** Letter. Richard Watson for John Wilkinson (Broseley) to Boulton & Watt (Soho). 16 Feb. 1795.
- **4.** Letter. Cornelius Reynolds (Broseley) to Boulton & Watt (Soho). 5 Mar. 1795.
- **5.** Letter. Richard Watson for John Wilkinson (Broseley) to Boulton & Watt (Soho). 6 Mar. 1795.
- **6.** Letter. Richard Watson for John Wilkinson (Broseley) to Boulton & Watt (Soho). 7 Mar. 1795.
- 7. Letter. Richard Watson for John Wilkinson (Broseley) to Boulton & Watt (Soho). 8 Mar. 1795.
- Letter. Richard Watson (Broseley) to Boulton & Watt (Soho). 11 Mar. 1795.
  On the same sheet:
  Memorandum. A List of Debtors to Bersham Works, Invoices thereof have been sent to Messrs. Boulton & Watt, the Amounts of which have not yet been paid or Accounted for.
- **9.** Letter. Richard Watson for John Wilkinson (Broseley) to Boulton & Watt (Soho). 13 Mar. 1795.
- **10.** Letter. Richard Watson for John Wilkinson (Broseley) to Boulton & Watt (Soho). 19 Mar. 1795.
- 11. Letter. John Wilkinson (Broseley) to James Watt (Heathfield). 27 Mar. 1795.
- **12.** Letter. Richard Watson for John Wilkinson (Broseley) to Boulton & Watt (Soho). 29 Mar. 1795.

On the same sheet:

Account. The New River Head Co. debtor to John Wilkinson. 24 Feb. 1795.

### Transcripts of Correspondence, Memoranda etc.

- 13. Memorandum. Extracts from John Wilkinson's letters in 1779 about boring mills.
- 14. Memorandum. Memorandum at Harper's Hill. 22 Jan. 1784.

  In Matthew Boulton's hand. Memorandum of meeting between Boulton, Watt and John Wilkinson concerning premiums.
- 15. Memorandum. Agreement between John Wilkinson and Matthew Boulton. Wolverhampton, 31 Mar. 1787.

  Agreement for two engines, one for Bradley forge and one for a mill. Witnessed by Richard Crawshay and David Jebb.
- Memorandum. Extracts from our Correspondence with J. Wilkinson. Extracts from the following letters:
  Boulton & Watt to John Wilkinson. 17 Jul. 1777.
  John Wilkinson to Boulton & Watt. 29 Oct. 1788.
  James Watt [?] to John Wilkinson. 4 Nov. 1788.
  Boulton & Watt to John Wilkinson. 14 Nov. 1788.

- 17. Memorandum. Mr. Wilkinson's remarks on his own engines. 24 Dec. 1788. *In John Wilkinson's hand.*
- **18.** Memorandum. Brief summaries of letters from John Wilkinson to Boulton & Watt, 24 Jan. 1775—30 Jul. 1791. 2 sheets.
- **19.** Transcripts. Copies of Boulton & Watt's letters to John Wilkinson. Feb.—Apr. 1795. 2 sheets.

*Transcripts of five letters, as follows:* 

Boulton & Watt (London) to John Wilkinson. 26 Feb. 1795.

Boulton & Watt (Soho) to John Wilkinson. 8 Mar. 1795.

James Pearson for Boulton & Watt (Soho) to John Wilkinson. 12 Mar. 1795.

James Pearson for Boulton & Watt (Soho) to John Wilkinson. 18 Mar. 1795.

James Pearson for Boulton & Watt (Soho) to John Wilkinson. 3 Apr. 1795.

- **20.** Draft of letter. Matthew Boulton [Soho] to John Wilkinson. Mar. 1795. *Circa 22 Mar. Docketed "Sketch of Mr. Boulton's letter to Mr. Wilkinson."*
- **21.** Draft of letter. James Watt [Heathfield] to John Wilkinson. Mar. 1795. 2 sheets. *Circa 28 Mar.*?
- 22. Memorandum. Statement of the Transactions that have taken place between John Wilkinson and Boulton & Watt. Sep. 1795. 3 sheets.

  Memorandum detailing Boulton & Watt's involvement with Wilkinson from 1775 to 1792, quoting extracts from various letters and agreements.
- **23.** Letter. James Watt (Glasgow) to James Watt Jr. (Soho). 17 Sep. 1795. *Docketed "About John Wilkinson and Minera account."*
- **24.** Letter. James Watt (Glasgow) to Matthew Boulton (Soho). 4 Oct. 1795. *Docketed "About John Wilkinson."*
- 25. Memorandum. Relative to date of Mr. Wilkinson's engines.

  Note of the dates the nozzles and the final articles were sent by Boulton & Watt for two engines at Snedshill and two engines at Bradley.
- Memorandum. Observations on the Case Boulton & Watt and John Wilkinson. Nov. 1795.2 sheets.In James Watt's hand.
- 27. Memorandum. William Murdock's Memorandum of Engines at Work at Bradley. 3 Nov. 1795.
- **28.** Transcript of letter. Boulton & Watt (Soho) to John Wilkinson (Castle Head). 12 Nov. 1795.
- 29a. Memorandum. Calculations of premiums owed on 4 Llynypanda engines, the Caemuneth engine and the Bradley engines.

  Kept with (b) below.

  Docketed "Copy of this paper delivered to Mr. John Wilkinson, Soho, 5 Aug. 1796."
  - **b.** Memorandums. 5 Aug. 1796.

    Notes about the premiums on the Snedshill and Bradley engines. For the meeting with Wilkinson?

### Lists of Engines made by John Wilkinson.

- **30.** Memorandum. List of engines made by Mr. Wilkinson with Boulton & Watt's consent. *Covers engines made from 1777 to 1783*.
- 31. Memorandum. List of engines made by Mr. Wilkinson without the knowledge of Boulton & Watt.

  Covers engines made from 1783 to 1794.
- 32. Memorandum. Sundry engines upon Boulton & Watt's principles made by Mr. Wilkinson at Bersham without Boulton & Watt's consent.

  In James Watt's hand.

  Docketed "Contraband engines by J. Wilkinson."
- 33. Memorandum. An Account of Sundry engines made at Bersham, by John Wilkinson's order for himself, as well as for other persons upon Boulton & Watt's plan; extracted from the Bersham Books. 28 Aug. 1795.

  \*\*Docketed "Contraband engines by J. Wilkinson."
- 34. Memorandum. List of Engines made by John Wilkinson at Bersham for his own and other persons' uses, with and without our consent. *Covers engines made from 1776 to 1795*.

### Calculations of Premiums on John Wilkinson's Engines.

- **35.** Letter. Matthew Boulton [Soho] to James Watt (Harper's Hill). Dec. 1784. *Docketed "Memorandum of premium for Mr. Wilkinson's engines."*
- **36.** Memorandum. Mr. Pearson's Memorandum of Entry of Premiums for Snedshill & Bradley Blowing Engines, upon Boulton & Watt's Journal in 1784. 6 Sep. 1795.
- 37. Memorandum. Rough Calcualtion of Premiums of Mr. Wilkinson's Engines. 2 sheets.
- 38. Memorandum. Total of Premium paid by Mr. John Wilkinson from the commencement of our Connection up to the 6 Aug. 1796. *In James Watt Jr.'s hand?*
- 39. Memorandum. Account of Premiums due to Boulton & Watt from Mr. John Wilkinson, for Engines erected by him for his own use. 1 Jan. 1796.
- Memorandum. Account of Premiums due to Boulton & Watt from Engines erected by Mr. Wilkinson for the use of other persons. 1 Jan. 1796.On the same sheet:Memorandum. Premiums given up to Mr. John Wilkinson by Boulton & Watt.
- 41. Memorandum. Premiums given up to Mr. John Wilkinson from the beginning of our conenction with him. [Circa 1 Jan. 1796.]

  \*Memorandum not completed.\*
- **42.** Memorandum. Note of various of John Wilkinson's engines including premium on the French forge engine. Not dated. *In James Watt's hand.*

**43.** Calculations. Calculations of premiums [?] due on various of John Wilkinson's engines. Not dated.

On the same sheet is a list of engines made by Wilkinson.

#### Accounts.

- 44. Memorandum. Sundry Accounts Current delivered by Messrs. Boulton & Watt to John Wilkinson. 1781—1784.
  In James Pearson's hand.
  Docketed "Statement of the balances of John Wilkinson's account."
- **45.** Transcript of account. John Wilkinson in account current with Boulton & Watt for 1784. *In James Pearson's hand.*
- **46.** Transcript of account. John Wilkinson in account with Boulton & Watt, 1788—1791. *In James Pearson's hand.* Docketed "John Wilkinson's account current to January 1791."
- 47. Transcript of account. John Wilkinson in account with Boulton & Watt, 1793—1795. In James Pearson's hand. Docketed "John Wilkinson's account current with Boulton & Watt from 14 Jun. 1793 to 30 Sep. 1795."
- **48.** Account. Boulton & Watt in account with John Wilkinson. 1784—1795. Account of cylinders, boilers etc. made for Boulton & Watt at Bersham. Docketed "Bersham account as stated by William Fawcett."
- **49.** Memorandum. Remarks on Mr. Fawcett's Statement of the Bersham Account. [Circa Sep. 1795.]

### MS 3147/3/536 SPECIAL SUBJECTS & CORRESPONDENTS JOHN WILKINSON – CORRESPONDENCE 1796—1797

### INTRODUCTION

Letters from John Wilkinson, from 1796 to 1797. The letters conern the final orders for cylinders and other castings executed for Boulton & Watt by Wilkinson, the dispute at Minera Mine, and Wilkinson's intention to manufacture engines himself. The majority of the letters are signed on Wilkinson's behalf by his clerks and engineers, and his nephew Thomas Jones (later Thomas Jones Wilkinson).

- **1.** Letter. Thomas Jones for John Wilkinson (Brymbo) to Boulton & Watt (Soho). 3 Jan. 1796.
  - Docketed "Answered. From Thomas Jones. On cylinder etc. Promises to answer the remaining part."
- **2.** Letter. Thomas Jones for John Wilkinson (Brymbo) to Boulton & Watt (Soho). 4 Jan. 1796.
  - Docketed "Answered. Cylinders etc."
- **3.** Letter. Thomas Jones for John Wilkinson (Brymbo) to Boulton & Watt (Soho). 19 Jan. 1796.
  - Docketed "Answered. Cylinders supposed to be missing."
- **4.** Letter. Thomas Jones for John Wilkinson (Broseley) to Boulton & Watt (Soho). 29 Jan. 1796.
  - Docketed "Acknowledges receipt of letter. Cylinders etc."
- **5.** Letter. John Turner for John Wilkinson (Bersham) to Boulton & Watt [Soho]. 4 Feb. 1796. *Docketed "Enquiries concerning a casting."*
- **6.** Letter. John Wilkinson (Brymbo) to Boulton & Watt (Soho). 18 Feb. 1796. *Docketed "Acknowledging receipt of orders."*
- 7. Letter. Richard Watson for John Wilkinson (Brymbo) to Matthew Boulton (Soho). 28 Feb. 1796
  - Docketed "Abraham Storey's departure."
- **8.** Letter. John Wilkinson (Brymbo) to Matthew Boulton (Soho). 31 Mar. 1796. *Docketed "Cylinder to be completed. Thanks for conduct to Jones."*
- **9.** Letter. John Turner for John Wilkinson (Bersham) to Boulton & Watt (Soho). 21 Apr. 1796.
  - Docketed "Cylinders ready for delivery."
- **10.** Letter. Thomas Jones for John Wilkinson (Wrexham) to Boulton & Watt [Soho]. 29 Apr. 1796
  - Docketed "Air pump to be completed. Cylinders delayed."

- 11. Letter. John Turner for John Wilkinson (Bersham) to Boulton & Watt [Soho]. 17 May 1796.

  Docketed "Barclay's air pump. Air pump and bucket delivered. Want dimensions of air pump for 14 inch cylinder."
- **12.** Letter. John Wilkinson (Brymbo) to Boulton & Watt (Soho). 10 Jul. 1796. *Docketed "Wants amount of charges against Maesyfynnon."*
- **13.** Letter. John Wilkinson (Brymbo) to Boulton & Watt (Soho). 16 Aug. 1796. *Docketed "Maesyfynnon Wen mine."*
- 14. Letter. Thomas Jones (Brymbo) to James Watt Jr. (Soho). 24 Aug. 1796.

  Docketed "Acknowledging receipt of Minera account. Goods to be forwarded. Refers to Mr. Wilkinson for an answer to the rest of the letter."
- **15.** Letter. John Wilkinson (Broseley) to Boulton & Watt (Soho). 11 Oct. 1796. *Docketed "Proposes visiting Soho with Mr. Robertson of Glasgow."*
- **16.** Letter. John Wilkinson (Ketley) to John Southern (Post Office, Wrexham). 17 Oct. 1796. *Docketed "Complains of not being informed of John Southern's journey to Minera."*
- 17. Memorandum. List of engines at Bradley. 1796. *The sheet has been used for calculations.*
- **18a.** Letter. John Wilkinson (Bradley) to Matthew Boulton (Soho). 16 Jan. 1797. *Enclosing (b) below.* 
  - b. Letter. John Wilkinson (Bradley) to Boulton & Watt [Soho]. 16 Jan. 1797.
    On the same sheet:
    Transcript of notice. "Steam & Fire Engines."
    Transcript of Wilkinson's announcement that he intends to supply and erect engines.
- Letter. William Johnson for John Wilkinson (Bradley) to Boulton & Watt (Soho). 24 Jan. 1797.Docketed "Proposes to reply to our letter upon his arrival at Brymbo."
- **20.** Letter. John Wilkinson (Bradley) to Boulton & Watt (Soho). 18 Feb. 1797.
- 21. Letter. John Wilkinson (Broseley) to Boulton & Watt (Soho). 6 Mar. 1797.

  Docketed "Excuses backwardness in the repairs of the engines at Minera. Comments upon the French invasion. Ideas of remedies for the scarcity of cash. Proposes to issue notes."
- 22a. Letter. Thomas Jones for John Wilkinson (Brymbo) to Boulton & Watt (Soho). 2 Apr. 1797.
  Enclosing (b) below.
  Docketed "With sundry affadavits in the Minera affair."
  - **b.** Memorandum. Transcripts of affadavits of John Southern, Charles Howard, William Wilkinson; extract from John Wilkinson, John Jones, Richard Watson and Thomas Jones' affadavits.
- 23. Letter. John Wilkinson (Bradley) to James Watt (Heathfield). 12 Apr. 1797.
- **24.** Letter. John Wilkinson (Wrexham) to James Watt (Heathfield). 24 Apr. 1797. *Docketed "Declines having any further concern with the Minera engines."*

**25.** Letter. Thomas Jones for John Wilkinson (Brymbo) to Boulton & Watt (Soho). 8 Sep. 1797.

Docketed "Will undertake the order for blowing cylinder."

### MS 3147/3/537 SPECIAL SUBJECTS & CORRESPONDENTS WILLIAM WILKINSON 1786, 1788, 1794—1799

### INTRODUCTION

Letters from William Wilkinson, from 1786, 1788 and 1794 to 1799. William Wilkinson was the brother of the iron master John Wilkinson, and an engineer and iron founder in his own right. The brothers had various disagreements which lead to William spending time away from the works in Shropshire during the 1780s. The first two letters in the bundle date from that period. In the 1790s John and William had an irrevocable dipsute which went to arbitration and saw the division of their various works. It was during this dispute that William informed Boulton & Watt of John's engine piracy, leading to their action against him. The letters cover the dispute between John and William, and others involving Boulton & Watt which resulted from their falling out, such as the dispute at Minera Mine and the dispute over the Stockdales' engine at Cark. The letters also cover Boulton & Watt's employment of men from John's Bersham works, and William's assistance in the design of Soho Foundry.

- **1.** Letter. William Wilkinson (Chacewater) to James Watt (Harper's Hill). 28 Jul. 1786. *Docketed "Truro."*
- **2.** Letter, William Wilkinson (Copenhagen) to James Watt (Birmingham), 11 Oct. 1788.
- 3. Letter. William Wilkinson (57 Devonshire St., Portland Place, London) to Boulton & Watt (Soho). 1 May 1794.

  Docketed "Statement of accounts with Bersham Works."
- **4.** Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 11 Mar. 1795. *Docketed "The visit from Clark of Bewdley. Banks of Bewdley. State of affairs."*
- **5.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 15 Mar. 1795. *Docketed "Abraham Storey. Offers other men."*
- 6. Letter. William Wilkinson [London] to Boulton & Watt (Soho). 16 Apr. 1795.

  Not dated date taken from the postmark.

  Docketed "Hutton Jackson & McGraith want a halfpenny. Law business with John Wilkinson."
- 7. Letter. William Wilkinson (London) to James Watt Jr. (Soho). 22 Apr. 1795. Docketed "Promises account of engines. Interview with Watson."
- **8.** Letter. R. Jackson for William Wilkinson (Court) to James Watt Jr. (Soho). 10 Jun. 1795. *Docketed "William Wilkinson gone to London."*

9. Letter. William Wilkinson (Clifton, near Rotherham) to Boulton & Watt (Soho). 28 Jun. 1795.

Docketed "Joshua Walker's acceptance of the office of arbitrator."

**10.** Letter. William Wilkinson (Lincoln's Inn Hall, London) to James Watt Jr. (Soho). 20 Jul. 1795.

Docketed "Endeavours to gain an injunction against his brother."

11. Letter. William Wilkinson [Court?] to James Watt Jr. (Soho). 2 Aug. 1795.
Docketed as being from Bersham. Postmarked Wrexham. On the same sheet:
Transcript of letter. James Weston (Fenchurch St., London) to William Wilkinson. 29 Jul. 1795.
Docketed "Injunction granted. Arbitration fixed."

12a. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 14 Aug. 1795. Enclosing (b) and (c) below. Docketed "Upon the new works at Smethwick."

- **b.** Plan. Plots of land upon which Soho Foundry is intended to be built.
- **c.** Plan. William Wilkinson's proposed layout of Soho Foundry and boring mill.
- Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 28 Aug. 1795. 2 sheets.On the same sheets:Transcript of proceedings of the first meeting of the arbitrators.

Memorandum. An Account of Sundry Engines made at Bersham by John Wilkinson's order for himself as well as for other Persons upon Messrs. Boulton & Watt's plan. *Docketed "With resolution of the arbitrators."* 

- **14.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 4 Sep. 1795. *Docketed "Sale of Bersham Works. Maesyfynnon Wen mine."*
- **15.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 6 Sep. 1795. 2 sheets. Docketed "Caemuneth mine. Maesyfynnon Wen. Milwr mine. Mr. Fawcett and John Wilkinson."
- **16.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 7 Sep. 1795. Docketed "Milwr mine. Proceedings of the arbitrators. John Wilkinson."
- Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 24 Sep. 1795.
  On the same sheet:
  Account. Invoice of sundry engine materials sent per our waggon for the account of Nicholas Ashton Esq. to his Colliery near St. Helen's, Lancashire. Bersham, 27 Dec. 1790.
  Docketed "Invoice of winding engine."
- 18. Memorandum. Notes on Bersham sale, assets, orders to be given to Fawcett etc. Not dated [circa Aug./Sep. 1795?].
- **19.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 2 Oct. 1795. Docketed "Golftyn mine. Mr. Fawcett. Ashton's double winding engine."
- **20.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 24 Oct. 1795. Docketed "Mr. Fawcett's visit to Castle Head. Proceedings of the arbitration."

**21.** Letter. William Wilkinson (Bersham) to James Watt Jr. (Soho). 28 Oct. 1795. *On the same sheet:* 

Transcript of letter. William Fawcett (Castle Head) to Gilbert Gilpin (Bersham). 24 Oct. 1795.

Docketed "On Mr. Fawcett. Boulton & Watt's order to be expedited."

- **22.** Letter. William Wilkinson (Bank) to James Watt Jr. (Soho). 5 Nov. 1795. Docketed "Prospect of a conclusion of animosities. Mr. Reynolds. Journey to Bradley with William Murdock."
- **23a.** Letter. William Wilkinson (Chester) to James Watt Jr. (Soho). 14 Nov. 1795. Enclosing (b) below. Dated as 16 Nov. and docketed as 15 Nov. However Wilkinson's next letter says that he wrote from Chester on 14 Nov. Docketed "Mr. Fawcett's antipathy at Watson. Sketch of cupola at Bersham."
  - Sketches. Plans and sections and notes on the Bersham cupola.
     On the same sheet:
     Memorandum. List of Cylinders and other Engine Materials now at Bersham upon Messrs.
     Boulton & Watt's Plan which are deemed good and will be disposed of at the Sale.
- **24.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 16 Nov. 1795. Docketed "Robertson declines attending the sale. Wishes to attend and bring a clever agent."
- 25. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 21 Nov. 1795.

  Docketed "Agrees with Boulton & Watt respecting the agent. The conditions of the sale.

  Cupola etc."
- **26.** Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 23 Nov. 1795. Docketed "Wishes James Watt Jr. to come with a letter authenticating his power of treating on business. The determination of the arbitrators to come."
- 27. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 24 Nov. 1795.

  Docketed "Advises James Watt Jr. to bring copies of accounts and a letter empowering him to treat. Conversation with Mr. Fawcett."
- **28.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 28 Nov. 1795. *Docketed "Preparations for the sale. Manner in which it is to be conducted."*
- 29. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 2 Jan. 1796.

  Re-directed to Watt Jr. at 13 London St.

  Docketed "Brymbo. Order to Bersham. John Wilkinson's circular letter to arbitrators.

  William Wilkinson's ditto. Abraham Storey."
- **30.** Letter. William Wilkinson (Court) to James Watt Jr. (13 London St.). 12 Jan. 1796. *Docketed "Abraham Storey secured. John Wilkinson."*
- **31.** Letter. William Wilkinson (Court) to Matthew Boulton (Soho). 16 Feb. 1796. Docketed "About Abraham Storey and his brother's application to Mr. Porter for payment of the premium of his engine."

- Letter. William Wilkinson (Court) to M. R. Boulton (Soho). 25 Feb. 1796.
   On the same sheet:
   Transcript of letter. Richard Watson (Brymbo) to Abraham Storey. 24 Feb. 1796.
   Transcript of letter. Abraham Storey (Bersham) to John Wilkinson. 24 Feb. 1796.
   Docketed "Enclosing correspondence of Abraham Storey with John Wilkinson."
- **33.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 7 Apr. 1796. *Docketed "Upon his difference with John Wilkinson."*
- **34.** Letter. William Wilkinson (Court) to Boulton & Watt Jrs. (Soho). 15 Apr. 1796. *Docketed "John Kendrick's notice to John Wilkinson and offer to come to us."*
- **35.** Letter. William Wilkinson (Wrexham) to Boulton & Watt Jrs. (Soho). 26 Apr. 1796. Docketed "Kendrick's conversation with John Wilkinson and acceptance of our terms. Meeting of arbitrators."
- Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 5 May 1796.
   On the same sheet:
   Transcript of award of the arbitrators in settlement of dispute between William and John Wilkinson. 2 May 1796.
   Docketed "Award."
- 37. Letter. William Wilkinson (Court) to James Watt Jr. (13 London St.). 19 May 1796. Docketed "Cark engines and Thackeray. Kendrick. T. Matthews. John Wilkinson."
- **38.** Letter. William Wilkinson (Court) to Boulton & Watt [Soho]. 20 May 1796. *Docketed "Offers to come over with Mr. Stockdale to settle about the Cark business."*
- 39a. Letter. William Wilkinson (Court) to James Watt (Heathfield). 26 May 1796. Kept with (b) below. Docketed "Reflections about Thackeray. Minera boiler. Churn."
  - **b.** Memorandum. Minera engines. *In John Southern's hand?*
- **40.** Letter. William Wilkinson (Court) to M. R. Boulton (at Thomas Jones', Manchester). 31 May 1796.
- 41. Letter. William Wilkinson (Soho) to James Watt (Heathfield). "Thursday Morning" [2 Jun. 1796].

  Docketed as 3 Jun., which was a Friday.

  Docketed "Notice of Thackeray's arrival at Birmingham."
- **42.** Letter. William Wilkinson (Court) to James Watt (Heathfield). 18 Jun. 1796. *Docketed "Cark engines and sundries."*
- **43.** Letter. William Wilkinson (Court) to M. R. Boulton (at Thomas Jones', Manchester). 18 Jun. 1796. *Docketed "About his leaving home for a short time."*
- 44. Letter. William Wilkinson (Court) to M. R. Boulton (at Thomas Jones', Manchester). 29 Jun. 1796.
  Docketed "Acknowledges receipt of letter. Advises him to see the salt works at W... [Northwich?]."

- **45.** Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 6 Jul. 1796. *Docketed "Minera resolutions."*
- **46.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 12 Jul. 1796. *Docketed "His journey to London. Proposed meeting of the Cark Company."*
- **47.** Letter. William Wilkinson (London) to Boulton & Watt (Soho). 21 Jul. 1796. *Docketed "Minera."*
- **48.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 9 Aug. 1796. *Docketed "About our meeting with his brother and the Minera business."*
- **49.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 26 Aug. 1796. *Docketed "About our settlement with his brother."*
- **50.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 28 Aug. 1796. *Docketed "Bersham workmen. Assistance in the arrangement of the Foundry."*
- 51. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 25 Sep. 1796. Docketed as 26 Sep. Docketed "Edward Pugh and other Bersham workmen."
- **52.** Letter. William Wilkinson (Court) to Matthew Boulton (Soho). 25 Oct. 1796. *Docketed "Upon the subject of a loan of £3000 to Mr. Boulton."*
- 53. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 30 Dec. 1796.
- **54.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 31 Dec. 1796.
- **55.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 7 Jan. 1797. *Docketed "About our engaging more of the Bersham men."*
- **56.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 12 Jan. 1797. Docketed "John Wilkinson's affadavit in the Minera affair. Wants Mr. Southern to make an affadavit concerning the engines."
- 57. Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 27 Jan. 1797. Passed to James Watt at Heathfield. Docketed "Appointment of Boulton & Watt in the Minera affair."
- **58.** Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 4 Feb. 1797. *Docketed "Mr. Lovett's refusal to accept the management of Minera."*
- **59.** Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 4 Feb. 1797. *Docketed "Agrees to Mr. Lovett's being appointed manager of Minera."*
- **60.** Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 11 Feb. 1797. *Docketed "On transactions relative to the Minera mine."*
- 61. Letter. Thomas Williams, Thomas Griffiths, William Davies (Wrexham) to William Wilkinson (Court). 24 Feb. 1797.

  Docketed "Letter from some of the Bersham men to William Wilkinson."
- **62.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho Foundry). 28 Feb. 1797. *Docketed "Chiefly about the Minera arbitration."*

- **63.** Letter. William Wilkinson (Court) to James Watt (Heathfield). 1 Mar. 1797. *Docketed "John Wilkinson's message to Mr. Jones, Coedŷglyn. Mr. Jones' reply."*
- 64. Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 2 Mar. 1797.

  Docketed "Wishes Mr. Jones" nomination to be dispatched immediately. Approves Boulton & Watt's application for an order in exemption."
- **65.** Letter. William Wilkinson (Court) to James Watt (Soho). 7 Mar. 1797. *Docketed "Agrees to John Wilkinson's furnishing the boiler plates."*
- Letter. William Wilkinson (Court) to James Watt (Soho). 13 Mar. 1797.
   On the same sheet:
   Transcript of letter. William Wilkinson (Court) to James Weston. 13 Mar. 1797.
   Docketed "Copy of his letter to James Weston on Mr. Campbell's opinion. Transactions at Minera. Delivery of the books. Proposes coming to Birmingham on his way to London."
- 67. Letter. William Wilkinson (Court) to James Watt (Soho). 16 Mar. 1797.

  Docketed "Receipt of bank note of £10. Satisfaction at the nomination of Mr. Jones.

  Depreciation of bank notes."
- **68.** Letter. William Wilkinson (Court) to James Watt (Soho). 9 Apr. 1797. Docketed "Complaints upon proceedings at Minera. Remonstrances upon John Wilkinson's conduct."
- 69. Letter. William Wilkinson (Court) to James Watt Jr. (Soho Foundry). 8 Jun. 1797. Docketed "Upon using straps for boring. Cupola. William Gilpin at Bersham. Kendrick's satisfaction. Advises taking apprentices. Wants £50 of coin. Wishes to decline reference with Cark Company."
- **70.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 27 Jun. 1797. *Docketed "Has not recevied his apppointment from the Cark Co."*
- 71a. Letter. William Wilkinson (Court) to Boulton & Watt (Soho Foundry). 30 Jun. 1797. Docketed as 30 Jun. Enclosing (b) below. On the same sheet:
  Receipt for ten shillings and sixpence received by Edward Edwards from William Wilkinson.
  Docketed "No authority from the Cark Company. Discharge of the workmen at Bersham. Dismissal of the bearer Edward Edwards."
  - **b.** Note. John Turner, Bersham Iron Works, 29 Jun. 1797. *Certifying that Edward Edwards, moulder has been freely discharged.*
- **72.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 2 Jul. 1797. *Docketed "Letter from Mr. Stockdale Jr. empowering him to act in the Cark affair."*
- **73.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 8 Jul. 1797. *Docketed "Notice of receipt of his credentials from the Cark Company."*
- **74.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 22 Jul. 1797. Docketed "Fresh discharge of men from Bersham. Offer of Griffiths and Jones."
- **75.** Letter. William Wilkinson (Parkgate) to James Watt Jr. (Soho). 18 Aug. 1797. *Docketed "Reply to suggestions upon award in the Cark affair."*

- **76.** Letter. William Wilkinson (Parkgate) to James Watt Jr. (Soho). 19 Aug. 1797. *Docketed "Sentiments upon his award. Wants £50 of the new coinage."*
- 77. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 3 Jan. 1798.

  Docketed "Upon the repayment of his money on bond. Thinks the notice short. New engine building at Bersham for boring. John Wilkinson refuses to pay his share at Minera."
- 78. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 12 Jan. 1798.

  Mis-dated by Wilkinson as 1797.

  Docketed "Manner in which he wishes his bond to be discharged. Orders coin from Mint."
- **79.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 29 Jan. 1798. *Docketed "Particulars of the bills to be drawn in payment of his bond."*
- **80.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 3 Feb. 1798. Docketed "Acknowledgement of the liquidation of our bond. Fresh complaints of his brother's conduct at Minera."
- 81a. Letter. William Wilkinson (Court) to Boulton & Watt (Soho). 6 Feb. 1798. Enclosing (b) below. Docketed "Covering Boulton & Watt's bond for £2500 discharged."
  - Printed form. Boulton & Watt's Bond to Mr. William Wilkinson. 2 Nov. 1796.
     On the same sheet:
     Memorandum. Discharge of bond and list of bills passed to William Wilkinson. 3 Feb. 1798.
- **82.** Letter. William Wilkinson (Court) to James Watt Jr. (Soho Foundry). 24 Feb. 1798. *Docketed "About Kendrick's having left us."*
- 83. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 12 Jun. 1799. Docketed "Receipt of £5.5. Maesyfynnon. John Wilkinson's new fit of engineering. Churns. Aberdare situation."
- **84.** Letter. William Wilkinson (London) to James Watt Jr. (Soho). 7 Dec. 1799. Docketed "Wishes to have an advertisement for Cark engine. John Wilkinson's law difficulties increase."

## MS 3147/3/538 SPECIAL SUBJECTS & CORRESPONDENTS WILLIAM WILKINSON 1800—1807

### INTRODUCTION

Letters from William Wilkinson, from 1800 to 1807. The letters concern William's ongoing dispute with his brother John, progress at his various works and mines, and more domestic concerns such as wine and the purchase of corkscrews.

1. Letter. William Wilkinson (Court) to James Watt Jr. (Soho). 22 Jan. 1800.

Docketed "Weston's account of expenses at Minera. Our claims upon the mine. John Wilkinson's projects in the iron trade. Aqueduct over the Dee. Martin Meldrum."

- **2.** Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 23 Jul. 1800. *Docketed "Invitation to his house and directions how to proceed."*
- 3. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 25 Jan. 1801. Docketed "Profitable state of the mine at Minera. Intention of coming here. State of his suit with his brother. Wennington to take the command at Brymbo."
- **4.** Letter. William Wilkinson (Plasgrono) to James Watt Jr. (Soho). 9 Apr. 1801. Docketed "Cannot get the churns made in Lancashire. Produce of Minera. Sale of Cark engine. State of his affairs with John Wilkinson."
- 5. Letter. William Wilkinson (Plasgronow) to James Watt Jr. [Soho]. 16 Apr. 1801. Docketed "A large stock of wines expected at Liverpool. Offers his services to procure some."
- 6. Letter. William Wilkinson (Plasgrono) to James Watt Jr. (Soho). 22 Nov. 1801. Docketed "Intention of visiting Soho. State of his law suit. Sentiments upon going to France."
- 7. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 17 Jan. 1802. Forwarded to Watt Jr. at 13 London St.

  Docketed "Arrival at home. State of Botfield's engine. Gilbert Gilpin dissatisfied. Vist to the Dale and to William Reynolds. Good report of Onions' castings. William Reynolds' sentiments upon John Wilkinson's new bank. Intends having a governess for his daughters at home."
- **8.** Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 4 Feb. 1802. Docketed "Encloses Mrs. Wilkinson's case. Wishes for some of Thomason's corkscrews."
- 9. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 5 Jun. 1803.

  Docketed "State of law proceedings at Minera. Encloses draft for corkscrews etc. Mrs.

  Wilkinson's lameness better. Particulars of another engine which they are likely to want."
- 10. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 18 Jul. 1803. Forwarded to Watt Jr. care of Philips Wood & Lee, Manchester.

  Docketed "Wants drawings of engine house for Plas Mostyn Colliery. Displeased with Weston's inactivity. Wants particulars of our Foundry stoves. Is going to Lancaster. Good account of Minera mine and Llanarmon engine. Answered Manchester 29 Jul."
- 11. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 31 Jul. 1804. Docketed "Has taken a wrong key with him from Mr. Boulton. Wishes the one he left to be sent by Mr. Kenrick."
- 12. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Handsworth). 20 Aug. 1804. Not dated date taken from the docket. Docketed "Sends a key by Mr. Kenrick. Wishes his own to be sent with the plated goods from Mr. Hodgetts."
- 13. Letter. William Wilkinson (Plasgronow) to Boulton & Watt (Soho). 3 Nov. 1804. *Docketed "His acknowledgement for the present of plated goods."*

- 14. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 16 Nov. 1804. Docketed "Mr. Stockdale wishes to make me a present of beef at Cark. Wishes to have remarks upon and directions for engines. Progress at Minera and Llanarmon. Visit to Fawcett. Wishes to have his key. Offers to pay my father a visit. Good account of his children."
- **15.** Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 26 Jan. 1805. Docketed "Causes which have delayed his visit to Heathfield and intention of being there in a few days."
- 16. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Handsworth). 18 Apr. 1805. Docketed "Sends some maps to be framed and glazed. Success in his road indictment. Casing at Plas Mostyn leaking. Cannot meet with a pony for William etc."
- 17. Letter. William Wilkinson (Flookborough) to James Watt Jr. (Soho). 4 Jul. 1805. Docketed "Arrangement of his time. Have put in a 7 inch pump at Nantypalma. Will want a larger engine there. Enquires if the present one can be made to work double. Estates to be sold in his neighbourhood."
- **18.** Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 7 Nov. 1805. Docketed "Statement of account between us. Progress made in reforming the Lancashire roads. Remarks on the Radnorshire ones."
- Letter. William Wilkinson (Plasgronow) to James Watt Jr. (Soho). 28 Mar. 1807.
   On the same sheet:
   Transcript of letter. Jabez Carter Hornblower (East Place, City Road, London) to William Wilkinson [Plasgronow]. 7 Jun. 1806.
   Docketed "Copy of Jabez Hornblower's letter. Particulars of Shropshire iron works learnt from Gilbert Gilpin. Proposes relinquishing the mine works at Minera."
- 20a. Letter. William Wilkinson (Plasgronow) to James Watt Jr. (The Rookery). 23 Dec. 1807. Enclosing (b) below.
  Docketed "Enclosing a letter from Jabez Hornblower. Complains of not being able to get an account from Messrs. Westons'. Minera and Llanarmon. His brother's proceedings against Mrs. Turner etc."
  - **b.** Transcript of letter. Jabez Carter Hornblower (East Place, City Road, London) to William Wilkinson [Plasgronow]. 7 Jun. 1806.

### MS 3147/3/539

### LETTERS FROM "SCHEMES" (CONCERNING NEW INVENTIONS, IMPROVEMENTS TO THE STEAM ENGINE ETC.) 1801—1810

### INTRODUCTION

"Letters from Schemes" from 1801 to 1810. "Letters from Schemes," or sometimes "Letters from Schemers," was Boulton Watt & Co.'s way of referring to correspondence from engineers and inventors offering the sale or use of their inventions and patents. Between 1801 and 1810 these inventions ranged from supposed improvements to the steam engine and boilers, through gas lighting apparatus, to corkscrews, perambulators and a portable kitchen.

According to the draft list of the Watt Room they were arranged in three packets: 1801 to 1810; 1811 to 1820; and a "third packet". The majority of the 1801—1810 letters were found in Box 7/III, the 1811—1820 ones were mainly in Box 7/I, and the "third packet", covering 1821—1829, were mostly in Box 34/11. Some letters offering "schemes" prior to 1801 can be found among the series of General Correspondence, and some after 1829 can be found among the General Correspondence dealt with in the Drawing Office, 1829 to 1843.

- 1. Printed memorandum. Stedman Adams (36 Carey St., Lincoln's Inn Fields, London) Exposition of a New Patent Steam Engine. 25 Jan. 1810.

  With a note on the same sheet from Alexander Walker Sons & Co. recommending Adams to Boulton Watt & Co.
- 2. Letter. Anonymous [London] to Boulton & Watt. Nov. 1802.

  Docketed "Anonymous application left at London St., 29 Nov. 1802. Respecting a supposed improvement upon the boilers of steam engines."
- 3. Letter. Anonymous ["P. M."] (Ormskirk) to Boulton & Watt (Birmingham). 8 Jul. 1803. Marked "Favoured per T. Y." Docketed "Enquiry about the danger of transmitting steam through a tin pipe enclosed in a wooden case."
- 4. Letter. William Appleyard (Great Church Lane, Gainsborough) to Boulton & Watt (Soho). 17 Jan. 1803.

  Docketed "A friend of his has invented a substitute for the steam engine, and is willing to treat with us for the purchase."
- 5. Letter. William Appleyard (Gainsborough) to Boulton & Watt (Soho). 21 Mar. 1803. Docketed "Proposes that we should lay his friend's invention before the Society of Arts. Also that he should make a model at our works and superintend the execution of the machines."
- 6. Letter. "A. B." (Lancaster) to Matthew Boulton (Soho). 29 Jan. 1801. Docketed "Offer of an improvement upon steam engines."
- 7. Letter. John Bennock (Liverpool) to Boulton & Watt (Soho). 28 Nov. 1801. Docketed "Offer of a share in his machine for making nails of iron and copper."
- 8. Letter. D. Blair (Glasgow College) to Boulton & Watt (Lancaster). 24 Oct. 1801. Re-directed to Birmingham.

  Docketed "Offer to communicate a scheme for saving ½ the fuel in steam engines."
- Letter. James Blundell (Leigh Grammar School) to Boulton Watt & Co. (Soho). 20 May 1804.
   Docketed "Offer of an invention for cutting screws."
- **10.** Letter. James Boaz (London) to Boulton & Watt (Soho). 25 May 1805. Docketed "Offer to communicate an improvement on extinguishing engines."
- **11.** Letter. Thomas Carey (Dublin) to Boulton & Watt (Soho). 28 Aug. 1802. *Docketed "Invention of a machine to supersede all others. Offer of a share."*

**12.** Letter. Robert Claiborne (Washington, USA) to Boulton & Watt (Great Britain). 13 Feb. 1803.

Postscript added on 11 Mar. 1803.

Docketed "Offer of a scheme for moving boats and vessels."

Letter. William Congreve (8 Arundel St., London) to Boulton & Watt [Soho]. 28 Jul. 1805. The docket is on a separate wrapper. On the same sheet:Sketches and memorandum describing his corkscrew designs.Docketed "Explanation and offer of his improvement of the corkscrew."

Letter. William Congreve [London] to John Woodward (London St.). "Sunday evening" [11 Aug. 1805].Docketed "Renewed of his invention of an improved corkscrew."

- **15.** Letter. Thomas Cormouls (Tanworth) to James Watt (Handsworth Heath). 1 Jun. 1800. *Docketed "Offer of a scheme."*
- **16.** Letter. David Cuthbert (8 St. Dunstan's Court, Fleet Street, London) to Boulton & Watt (Soho). 15 Mar. 1803.

On the same sheet:

Table. Comparison between crank and Cuthbert's motion.

Docketed "Offers to communicate an invention of a rotative motion superior to our crank or sun and planet wheel."

- 17. Letter. David Cuthbert (London) to Boulton Watt & Co. (Soho). 4 Apr. 1803.

  Docketed "Has made a model of our rotative motion and finds the superiority of his own not so great as he expected. Solicits an interview and wishes to treat with us for the purchase of his invention."
- **18.** Letter. Robert Delap (Loughbrickland) to Boulton & Watt (Birmingham). 11 Jul. 1801. *Docketed "Offer of his invention of a new steam engine."*
- 19. Letter. George Dixon (Bridge St., Lisburn) to Boulton & Watt (Birmingham). 21 Feb. 1806.Docketed "Offers an invention of an improvement of the steam engine."
- **20.** Letter. George Dixon (Lisburn) to Boulton Watt & Co. (Soho). 4 Sep. 1806. Docketed "Confirmed in his opinion of the advantages of his improvement on the steam engine. Illustration of its excellence."
- Letter. John Dumbell (Perivale, near Warrington) to "Boulton & Son" (Soho). 24 Sep. 1806.Docketed "Offer of a share in his invention for the cure of smoking chimneys."
- **22.** Printed memorandum. William Cornelius English (Smalley, Thwaits & Co., Union Foundry, Bolton) Steam: Fuel saved, for engines and every other purpose requiring steam. Oct. 1810.

  The memorandum includes three testimonials witnessed by William Murdock. Sent by Samuel Crompton to Mr. Willoughby of Philips & Lee, Salford.
- 23. Letter. Mr. Fishwick (Swan Inn, Birmingham) to Boulton Watt & Co. (Soho). 18 Feb. 1805.

  Docketed "Is arrived there with Mr. G. Dodd and wishes to have a conversation upon improvements on steam engines and diverse other inventions."

- **24.** Letter. George Gray (Edinburgh) to Boulton & Watt (Soho). 29 Sep. 1803. Docketed "Has invented a method of working an engine without condensing water or dense steam."
- **25.** Letter. William Hamilton (Dublin) to Boulton & Watt (Birmingham). 18 Sep. 1801. *Docketed "Offer of his invention of an improved steam engine. Evidence of its merits."*
- **26a.** Letter. William Hamilton (Dublin) to Boulton Watt & Co. (Birmingham). 20 Oct. 1801. *Enclosing (b) below.*Docketed "Further observations on his scheme for the improvement of the steam engine."
  - **b.** Pen & wash drawing. Section of his engine apparatus.

    This drawing is of the part of his apparatus which he substitutes for "the leading stops" see his letter of 9 May 1804 below.
- 27. Letter. William Hamilton (Dublin) to Boulton Watt & Co. (Birmingham). 9 May 1804. Docketed "Explains his improvements upon the steam engine which consists in working expansively."
- 28. Letter. William Hamilton (11 Linen Hall St., Dublin) to Boulton Watt & Co. (Birmingham). 30 May 1804. 2 sheets.

  Docketed "Has been prevented by want of means from finishing the model of his improvements. Has applied himself to drawing and chemistry and has improved the apparatus for making soda water. Successful application of his invention to a working engine. Has invented and completed a model of a machine for raising water in distilleries. Proposes an excursion hither and intimates a wish to be employed by us."
- 29. Letter. William Hamilton (Dublin) to Boulton Watt & Co. (Birmingham). 26 Jun. 1804. On the same sheet:
  Sketch. Section of his hydraulic machine.
  Docketed "Is satisfied that his supposed invention has been anticipated. Sends a sketch and description of his hydraulic contrivance. Is desirous of being engaged by us."
- 30. Letter. W. Hendy (7 Horseferry Road, Westminster) to Boulton Watt & Co. (Soho). 30 May 1804.
  Docketed "Offer of an improvement upon rope making."
- 31. Letter. James Hill (Birmingham) to Boulton & Watt (Birmingham). 13 Feb. 1810. 2 sheets.

  Docketed "Upon the introduction of the steam engine into the island of St. Croix, and the general improvement of the system of mechanics and chemistry in the West Indies."
- 32. Letter. James Hill (Henley in Arden) to Boulton & Watt (Birmingham). 10 Mar. 1810. 3 sheets.

  Docketed "Dr. Hill of St. Croix. Upon the difficulty of procuring water and fuel for steam engines in the island of St. Croix. Has invented a steam engine which he intends sending out to St. Croix."
- 33. Letter. James Hill (Hen & Chickens, Birmingham) to Boulton & Watt (Birmingham). 2 Apr. 1810. 2 sheets.

  Docketed "Communicates his invention of an engine to be worked with spirits of wine, and remarks upon its theory and application in the West Indies."

- **34.** Letter. James Hill (Birmingham) to James Watt Jr. (Soho). 9 Apr. 1810. Docketed "Dr. Hill of St. Croix. Going to London. Further remarks upon the alcohol engine. Wishes to have a machine constructed for trying the experiments."
- Letter. Stephen Hooper (Chatham Place, Walworth) to Boulton & Watt (Soho). 19 Jul. 1805.Docketed "Offers in participation of his invention."
- Letter. John Hope (37 Princess St., Buxton) to Boulton & Watt (Birmingham). 13 Apr. 1801.Docketed "Offer to communicate his invention of an improvement upon canal locks."
- **37.** Letter. D. Howard (Portsea) to Boulton Watt & Co. (Soho). 19 Oct. 1801. *Docketed "Has invented a new and advantageous method of treating water."*
- 38a. Printed prospectus. New Imperial Patent Company. London, 20 Aug. 1804.
  Docketed as the Imperial Smoke Company. Sent with (b) and (c) below.
  Sent to Boulton & Watt by the patentee, F. A. Winsor. Patent for "making and extracting from all combustibles of pit-coal, timber, peat etc. coke, charcoal, tar, pitch, oil, acids, ammonia, salts, and inflammable gas for lighting and heating."
  - **b.** Printed form for subscribers to the New Imperial Patent Manufactory.
  - **c.** Printed advertisement. "Now exhibiting, Most Brilliant Illuminations from Smoke." *Display of Winsor's invention at The Lyceum.*
- 39. Letter. S. Leather (Brown's Buildings, St. Mary Axe, London) to Boulton & Watt (Soho). 18 Aug. 1804.

  Docketed "Communicating an invention of John Gower. Offer of a share in the patent."
- 40. Letter. J. MacCulloch (New England Coffee House, Threadneedle St., London) to James Watt Jr. (Soho). 17 Dec. 1802.
  Docketed "States his having called on James Watt Jr. respecting an improvement on boilers, of which he makes us an offer."
- 41. Letter. J. MacCulloch (New England Coffee House, Threadneedle St., London) to Boulton & Watt (Soho). 30 Dec. 1802.

  Docketed "Thinks his hopes of improvements warranted by Wilcox's experiments. Refers to Mr. Davey. Offers to accede to any terms of communication we think proper. Proposals made him by Messrs. Foxes."
- **42.** Letter. John McDonald (Nottingham) to Matthew Boulton (Soho). 25 Nov. 1801. *Docketed "Offer of a scheme. Not answered."*
- 43a. Letter. John Maiber (Perth) to Boulton & Watt (Soho). 23 May 1810.
   Enclosing (b) below.
   Docketed "Has taken out a patent for a gas light apparatus of which he encloses a drawing and description and makes us an offer of the patent for England."
  - **b.** Memorandum & drawings. Description of Maiber's invention.
- Letter. John Maiber (Perth) to Boulton & Watt (Soho). 12 Jun. 1810.
  On the same sheet:
  Pen & wash drawing of his gazometer.
  Docketed "Further explanation of his gas apparatus."

- **45.** Letter. John Nimmo (Glasgow) to James Watt Jr. (Soho). 22 Sep. 1802. *Docketed "Offers to make communication of his improvements upon the steam engine."*
- **46.** Letter. William Niven (Kidwelly) to Boulton & Watt (Soho). 30 Mar. 1803. *Docketed "Has invented an improvement upon corn mills."*
- 47. Letter. James Oliver (Bonsall) to Boulton & Watt (Soho). 21 Dec. 1802.

  Docketed "Offers to communicate his schemes of a new stocking frame and writes us to undertake the casting of it."
- **48.** Letter. "T. P." (London) to Boulton & Watt (Soho). 18 Aug. 1802. Docketed "Has invented a portable kitchen and other articles and offers to communicate his discovery."
- **49.** Letter. W. Parkes (Francis St., Newington) to Boulton & Watt (Soho). 27 Mar. 1801. Docketed "Proposes to disclose to us conditionally an invention for superseding the necessity of water or steam mills."
- **50.** Letter. W. Parkes (Francis St., Newington) to Boulton & Watt (Soho). 5 May 1802. Docketed "Has brought the perpetual motion to bear, and gives us the option of making the castings."
- 51. Letter. William Playfair (Old Brompton) to Boulton Watt & Co. (Birmingham). 8 May 1805.
  Docketed "Offer of a patent for transparent clock dials."
- **52.** Letter. Charles Pritty (Thornham) to Boulton Watt & Co. (Soho). 6 Jul. 1805. Docketed "His brother offers us an interest in his newly invented perambulator. Has also a variety of other mechanical inventions etc. etc."
- 53. Letter. A. Richardson (A. & W. Adams & Co., Digbeth St., Walsall) to Boulton & Watt (Soho). 17 Jan. 1806.
  Docketed "Offers communication of an invention for preventing the scurfing of boilers."
- **54.** Letter. Anthony Robinson Jr. (Birmingham) to M. R. Boulton (Soho). 4 Jan. 1802. *Docketed "Wanting advice upon a scheme."*
- 55. Letter. James Sharples (Furnivals Inn Coffee House, London) to Boulton & Watt (Birmingham). 20 Dec. 1801.

  Docketed "Has invented improvements in the steam engine which he offers to communicate."
- Letter. James Sharples (Furnivals Inn Coffee House [London]) to Boulton & Watt (Birmingham). 8 Feb. 1802.
  Mis-dated as 1801. Mis-docketed as John Sharples.
  Docketed "Has taken out a patent for his invention. Repeats his offer to us to treat for the purchase."
- 57. Letter. Mr. Smith (London) to Boulton & Watt (Birmingham). 27 Mar. 1805. Docketed "Enquiry as to the possibility and expediency of coking under an engine boiler."

**58a.** Letter. John Smith (Crown Point, Camlackie) to "Dr. James Watt" (Heathfield). 9 Aug. 1806.

Kept with (b) below.

Docketed "Advising of his having sent a scheme of a steam engine and pumps for the Glasgow Water Works. Wishes Mr. Watt to inspect them and recommend him to the superintendence of said works, or employ him in any other capacity. Has erected some engines near Glasgow and refers to sundry persons for an account of these etc."

- b. Letter. James Watt [Heathfield] to Boulton Watt & Co. (Soho). 16 Aug. 1816. Not dated – date taken from the docket. Docketed "Accompanying a letter and drawings from John Smith."
- **59.** Letter. Thomas Spencer (Gravesend) to Matthew Boulton (Soho). 22 Jan. 1805. *Docketed "Offer of an improvement upon the steam engine."*
- 60. Letter. William Steel (Longport) to Boulton & Watt (Soho). 18 Mar. 1805.

  Docketed "Offers an improvement upon the steam engine. Has also invented a machine for taking soundings at sea."
- **61.** Letter. William Steel (Glass Works, Longport) to Boulton & Watt (Soho). 13 Apr. 1805. *Docketed "Proposes sending a sketch of his invention."*
- 62a. Letter. William Steel (Longport) to Boulton & Watt (Soho). 15 Apr. 1805.

  Enclosing (b) below.

  Docketed "Enclosing plan and description of his supposed invention of an expansive engine."
  - **b.** Memorandum & drawing. Description of Steel's engine.
- **63.** Letter. Richard Stevens (Brownfield) to Boulton & Watt (Soho). 4 Aug. 1802. *Docketed "Has discovered a scheme to prevent sand and gravel from getting into pumps."*
- **64.** Letter. James Tate (Llynally) to James Watt Jr. (Soho). 12 May 1801. Docketed "Wishes me to call on Lord Stanhope to see his invention. Not answered."
- **65.** Letter. Thomas Walters (Batheaston) to Boulton & Watt [Soho]. 30 Oct. 1802. *Docketed "Description of a new invented lock etc."*
- 66. Letter. Thomas Walters (Batheaston) to Boulton & Watt (Soho). 9 Nov. 1802.

  Docketed "Refers to his letter by Capt. Pierreport and mentions the lock being sent by the Bath coach."
- 67. Letter. Thomas Walters (Batheaston) to Boulton & Watt (Soho). 12 Nov. 1802. Docketed "Pressing us to undertake the manufacturing of his new invented locks. Directions for returning it."
- **68.** Letter. Robert Watts (Paisley) to Boulton & Watt (Soho). 12 Mar. 1804. *Docketed "Offer to communicate an improvement upon the steam engine."*
- **69.** Letter. Joshua Wigfull (Aldwark) to Boulton & Watt (Birmingham). 12 Nov. 1804. *Docketed "Offer to communicate an invention of his."*
- **70.** Letter. Joshua Wigfull (Aldwark) to Boulton & Watt (Soho). 20 Nov. 1804. *Docketed "Terms upon which he wishes to communicate his invention."*

- 71. Letter. Joshua Wigfull (Aldwark) to Boulton & Watt (Birmingham). 23 Jan. 1805. Docketed "Renewed offer of a participation in his patent. Nature of it."
- Printed prospectus. C. Wilson (3 Grange Walk, Bermondsey) Patent. Apr. 1803.

  Patent for "a new method of making or obtaining a vacuum or vacuums, whereby Powers are gained or obtained applicable to the Improvement of Hydraulic, Pneumatical, and Mechanical Machines or Engines, or any others where fluids, steam, or vapour, may be used or applied."

  Docketed "Statement of the properties of his new invented power."
- 73. Memorandum. Henry Wood (Birmingham) Description and sketch of his Time Setter. 10 Jan. 1801. 2 sheets.

### MS 3147/3/540

## LETTERS FROM "SCHEMES" (CONCERNING NEW INVENTIONS, IMPROVEMENTS TO THE STEAM ENGINE ETC.) 1811—1820

### INTRODUCTION

"Letters from Schemes" from 1811 to 1820. "Letters from Schemes," or sometimes "Letters from Schemers," was Boulton Watt & Co.'s way of referring to correspondence from engineers and inventors offering the sale or use of their inventions and patents. Between 1811 and 1820 these inventions ranged from improvements to the steam engine, paddle wheels and other means of steam boat propulsion, and boilers through lathes and balances to electrical telegraphs, a hot house and "pocket book" pistols. The bundle also includes letters from Isaac Coffin sending details of steam engines being made in America.

According to the draft list of the Watt Room they were arranged in three packets: 1801 to 1810; 1811 to 1820; and a "third packet". The majority of the 1801—1810 letters were found in Box 7/III, the 1811—1820 ones were mainly in Box 7/I, and the "third packet", covering 1821—1829, were mostly in Box 34/11. Some letters offering "schemes" prior to 1801 can be found among the series of General Correspondence, and some after 1829 can be found among the General Correspondence dealt with in the Drawing Office, 1829 to 1843.

**1a.** Letter. Joseph de Baader (31 Surrey St., Strand, London) to Boulton Watt & Co. (Soho). 2 Sep. 1815.

Enclosing (b) below.

Docketed "Enclosing introductory letter from Mr. Rennie. Offer of an invention of locomotive engines."

- **b.** Letter. John Rennie (London) to Boulton Watt & Co. (Soho). 30 Aug. 1815.
- 2. Letter. E. Barker (Rugeley) to James Watt (Soho). 16 Jul. 1815.

  The letter is written on a printed leaflet for John Street's "Hydrostatic, portable, single and double blowing engines" made by Barker.

  Docketed "With description and certificate of Street's blowing engines. Wishes us to make trial of one."
- 3. Letter. William Bateman (Kirkland, Kendal) to Boulton & Watt (Birmingham). 14 Feb. 1815.

  Docketed "Offering to treat for an invention." [Dispensing with the beam and crank of engines.]
- **4.** Letter. J. C. Bernhard (Dresden) to Boulton & Watt (Birmingham). 5 Oct. 1818. *Docketed "Has schemed a scheme."*
- Letter. Isaac Blackburn (43 Princes St., Rotherhithe) to James Watt Jr. (Soho). 27 Oct. 1818.
   Docketed "Project for improving steam boats and performances in towing ships."
- 6. Letter. Isaac Blackburn (43 Princes St., Rotherhithe) to Boulton & Watt [Soho]. 17 Nov. 1818.
  - Docketed "Has a scheme to sell for strengthening Eclipse boat."

- 7. Letter. Isaac Blackburn (Princes St., Rotherhithe) to James Watt Jr. [London]. 20 Jul. 1819. Docketed as 1820. On the same sheet: Drawing of a paddle wheel. Docketed "Communicates a paddle wheel scheme."
- **8.** Letter. John Blackburn (Leeds) to Boulton & Watt (Birmingham). 18 Sep. 1816. *Docketed "Has invented a parallel lathe and applies for a place."*
- 9. Letter. J. H. Brekmer (Lübeck) to James Watt (Soho). 9 Jul. 1817.

  Docketed "Has invented an improvement upon boilers, by which consumption is diminished 1/3, which he offers to communicate."
- 10. Letter. C. Broderip (Paris) to Boulton & Watt (Soho). 8 Apr. 1819.

  Docketed "Refers to a communication made to Mr. Lawson upon the subject of an improvement on the steam engine. Offers to treat with us concerning it. Wishes another copy of Mr. Watt's edition of Dr. Robison's essay to be sent to the Institute."
- 11. Letter. George Buckley (Taunton) to Boulton & Watt (Soho Foundry). 23 Jun. 1816. Not dated date taken from the postmark.

  Docketed "Offer of an invention for moving boats."
- 12. Letter. C. A. Busby (12 New Millman St., London) to Boulton Watt & Co. (Soho). 14 Nov. 1812.

  Docketed "Has invented a scheme to diminish the loss of water by locks and would wish us to make the iron work."
- **13.** Letter. William Caldwell (Sheffield) to Boulton & Watt (Soho). 6 Dec. 1816. Docketed "Offers to communicate a scheme for increasing power of engines."
- **14a.** Letter. Charles Cameron (Glasgow) to Boulton & Watt (Soho). 24 Aug. 1813. *Enclosing (b) below.* Docketed "With offer of a scheme of a steam engine."
  - **b.** Pen & wash drawing. Section of a cylinder and valves.

    Arrangement of an engine "intended for lessening the machinery of the valves."
- 15. Letter. Thomas Clemetshaw (at Mr. Diliant's [?], George & Dragon, Ripon) to Boulton & Watt (Soho). 25 Jun. 1820.

  The letter is written on a printed advertisement for Clemetshaw's newly invented burglary pistol and pocket book pistols.

  Docketed "Offers his patent burglary pistol for sale."
- Letter. Isaac Coffin (Quebec) to James Watt Jr. (Soho). 6 Aug. 1815.
   Enclosing (b) below.
   Docketed "Enclosing an account of an American improvement (Capt. Ogden's) on the steam engine. Great increase of steam boats in America. Favourable report of ours in Canada. Intended voyage down the Mississippi."
  - **b.** Newspaper cutting. "Domestic Manufactures." From? *About a steam engine in Ohio.*

17a. Letter. Isaac Coffin (Boston) to James Watt Jr. (Soho). 29 May 1816.

Enclosing (b) below.

Docketed "Encloses notice of Mr. Curtis of Massachusset's improvement of the steam

engine. Will return home next year."

- **b.** Newspaper cutting. "Important Mechanical Improvement." From?
- 18a. Letter. Isaac Coffin (Boston) to James Watt Jr. (Soho). 4 Jun. 1816.

  Enclosing (b) below.

  Docketed "Encloses a statement from an American newspaper of an improved steam engine."
  - **b.** Newspaper cutting. "Steam engines." From?

    About an engine developed by David Heath Jr. of New Jersey."
- **19.** Letter. Robert Couper (Wigton) to Boulton & Watt (Birmingham). 23 May 1811. *Docketed "Has invented a circumrotatory horizontal motion."*
- Letter. William Cruise (Lincoln's Inn, London) to Boulton Watt & Co. (Soho). 18 May 1813.
   On the same sheet is a note about John Southern's meeting with Cruise.
   Docketed "Offering sale of an invention."
- 21. Letter. Evan Davies (6 Princes St., Liverpool) to Boulton Watt & Co. [Soho]. 12 Mar. 1817.
  Docketed "Proposes to shew models of machines for pumping ships and driving boats.
  Omitted to be answered."
- **22.** Letter. James Dawson (5 George's Place, Dublin) to James Watt Jr. (Soho). 17 Jan. 1820. *Docketed "Has invented a mode of propelling steam boats and offers to dispose of it."*
- Letter. James Dawson (5 George's Place, Dublin) to Boulton Watt & Co. (Soho). 26 Jan. 1820.Docketed "Description of his fishes' tail scheme for propelling boats."
- Letter. James Dawson (5 George's Place, Dublin) to Boulton Watt & Co. [Soho]. 15 Feb. 1820.Docketed "Desirous of having answer to his steam boat scheme."
- Letter. James Dawson (5 George's Place, Dublin) to Boulton Watt & Co. (Birmingham).26 Feb. 1820.Docketed "About his fishes' tail. Mr. Lawson of Canal had no answer to a letter."
- 26a. Letter. Joseph Day (Maldon) to "Watt & Son" (Soho). 13 Dec. 1817.

  Kept with (b) below.

  Docketed "Wishes us to undertake the manufactory of electrical telegraphs upon a new plan."
  - **b.** Transcript of letter. James Watt Jr. (Rotterdam) to Joseph Day (Maldon). 30 Dec. 1817.
- 27. Letter. H. H. Dodd (London) to James Watt (Soho). 9 Dec. 1815. 2 sheets. Docketed "Has invented a scheme for working steam boats at sea, which he partly communicates for an opinion as to his taking out a patent etc."

- **28.** Letter (printed circular). John Playter (The Hague) to The Birmingham Canal Co. (Mr. Lee, Edgbaston, Birmingham). 27 Feb. 1817.

  Docketed "A. G. Eckhardt. Mr. Playter's notice and offer of his inventions."
- Letter. John Edwards (Park Hill, Nottingham) to Boulton Watt & Co. (Soho). 22 Oct. 1817.
   The address and docket are on a separate sheet which has been attached to the letter. Docketed "Has a contrivance for reducing friction to dispose of."
- **30.** Letter. John Edwards (Park Hill, Nottingham) to Boulton Watt & Co. (Soho). 4 Nov. 1817. *Docketed "Offers a scheme for saving friction."*
- **31.** Letter. J. Leslie Foster (Rathescar, Dunleer) to James Watt Jr. [Soho]. 8 Jan. 1820. *Docketed "Offers a scheme for propelling steam boats."*
- Letter. Richard William Franklin (London) to Boulton & Watt (Soho). 1 Mar. 1812.On the same sheet:Pen & wash sketch. Arrangement of a steam engine.Docketed "Scheme of a steam engine."
- **33.** Letter. James Frost (Soham) to James Watt Jr. (13 London St.). 16 Aug. 1817. *Docketed "Wishes to make a confidential communication of an improvement upon the steam engine."*
- **34.** Letter. David Gordon (57 Hanover St., Edinburgh) to Boulton & Watt (Soho). 2 Jul. 1819. *Docketed "Communicates a scheme for gas lamps."*
- 35. Letter. John Goudie (Commercial Buildings, Dublin) to Boulton & Watt (Soho). 10 Jan. 1811.

  Docketed "Has made a discovery which he thinks applicable to the steam engine and wishes to treat with us for it."
- **36.** Letter. John Goudie (Dublin) to Boulton Watt & Co. (Soho). 18 Feb. 1811. Docketed "Communication of his method of obtaining a circular motion from the rectilinear one of the piston rod."
- 37. Letter. John Goudie (Commercial Buildings, Dublin) to Boulton Watt & Co. (Soho). 21 Mar. 1811.
  Docketed "Requests an answer to his former letter."
- 38a. Letter. Joseph Gregson (Charles St., Grosvenor Square, London) to Boulton & Watt (Soho). 20 Jun. 1817.

Enclosing (b) below. On the same sheet:

Letter. Joseph Gregson to James Watt. 20 Jun. 1817.

Docketed "Advantages of his boilers and other schemes. Offer of selling privilege for using his invention."

- **b.** Advertising card for Gregson's Interior Surveyor's Office.
- 39. Letter. Joseph Gregson (Charles St., Grosvenor Square, London) to Boulton & Watt (Soho).24 Jun. 1818.Docketed "Recommending his smoke consuming scheme."
- **40.** Letter. James Hunt (Uley) to Boulton & Watt (Soho). 17 Dec. 1813. Docketed "Offer of a scheme for saving fuel by an alteration in the mode of firing."

- **41.** Newspaper cutting. "Important Invention in Navigation." From ?, Mar. 1819. Docketed "Prof. Jeffray of Glasgow, invention for driving boats. Grand puff in a magazine."
- Newspaper cutting. "Improvements in Steam Vessels." From the Glasgow Courier, Apr. 1819.
   About the improvements made by Dr. James Jeffray. Mounted on a sheet with a note by William Creighton about the failure of Jefferay's experiments.
   Docketed "Magnificent puff about his method of propelling steam vessels."
- 43. Letter. John, Archduke of Austria (Vienna) to Boulton & Watt [Soho]. 17 Feb. 1817. Docketed "Favourable account of his steam engine. Sends the specimens of medals from the Mint at Milan. Transmits drawings of a method of keeping the paddles of the wheels of steam boats perpendicular on entering and leaving the water."
- Letter. W. Johnson (3 London Road, Southwark) to Boulton Watt & Co. (Soho). 3 Jun. 1811.
  Enclosing (b) below.
  Docketed "Sketch of his method of raising steam."
  - **b.** Memorandum & sketch. Description of his arrangement of boilers.
- **45.** Letter. W. Johnson (3 London Road [Southwark]) to Boulton Watt & Co. (Soho). 6 Jun. 1811.

  Docketed "Additional observations to those in his last of the 3<sup>rd</sup> inst."
- **46.** Letter. W. Johnson [Southwark] to Boulton Watt & Co. (Soho). 8 Jun. 1811.
- 47. Letter. W. Johnson [Southwark] to Boulton Watt & Co. (Soho). 10 Jun. 1811.
- **48.** Letter. W. Johnson [Southwark] to Boulton Watt & Co. (Soho). 26 Jun. 1811. *Docketed "Scheme."*
- **49.** Letter. William Johnson (20 Broad St., Salford, Manchester) to Boulton & Watt (Soho). 26 Nov. 1812.

  Docketed "Has invented a method of raising water, which with half the power raises double the quantity of the present machines."
- 50a. Letter. F. Johnston (16 Royal Exchange, Edinburgh) to Boulton Watt & Co. [Soho]. 29 Nov. 1817. *With (b) below attached.*

Docketed "Proposes a scheme for the improvement of engines."

- **b.** Memorandum. Details of his experiments and a small engine constructed on his principles.
- 51. Letter. Thomas Johnston (1 Buchan's Court, Charlotte Lane, Glasgow) to Boulton & Watt (Soho). 28 Jul. 1815.

  Docketed "Has made an invention to supersede steam engines etc., which he offers to us."
- Letter. William E. Lee (6 Whittall St., Birmingham) to James Watt Jr. (Aston Hall). 1 Dec. 1819.
   Docketed "Offer to communicate an improved steam engine etc. for moving vessels."

- 53. Letter. William E. Lee (6 Whittall St., Birmingham) to James Watt Jr. (Aston Hall). 13 Dec. 1819.

  Docketed "Does not wish to impose any condition of secrecy to the communication of his invention."
- **54.** Letter. W. Lester (Eagle Foundry, Birmingham) to Boulton & Watt [Soho]. 24 Nov. 1814. *Docketed "Appointment to shew his models."*
- 55. Letter. W. Lester (Birmingham) to Boulton Watt & Co. (Soho). 12 Dec. 1814. Docketed "Has obviated Mr. Murdock's objection. Has no objection to enter into an arrangement for applying and manufacturing his invention."
- **56.** Letter. Edward Massey (Coventry) to Boulton Watt (Soho). 22 Aug. 1815. *Docketed "Offer to communicate an invention."*
- **57.** Letter. Edward Massey (Coventry) to Boulton & Watt (Soho). 7 Feb. 1816. *Docketed "Offer to communicate an invention respecting steam boats."*
- **58.** Letter. Edward Massey (Coventry) to Boulton Watt & Co. (Soho). 12 Feb. 1816. Docketed "Objections to taking out a patent and further proposals for communicating his plan. Prices of a lady's watch."
- 59. Letter. J. Nonnen (13 James St., Buckingham Gate, London) to Boulton & Watt (Soho). 23 Oct. 1818.

  Docketed "Offers improvement on the steam engine."
- Letter. James Norman (Bath) to Boulton & Watt (Birmingham). 18 Apr. 1811.On the same sheet:Sketch. Arrangement of wheels intended to replace cranks.Docketed "A new scheme!"
- **61.** Letter. Francis Oldis (Post Office, Dublin) to Boulton Watt & Co. (Soho). 19 Mar. 1817. *Docketed "Offers to communicate diverse schemes, and share in patent."*
- 62. Letter. G. H. Palmer (8 Regent St., Vincent Square, Westminster) to Boulton & Watt (Soho Foundry). 1 Jun. 1820.

  Docketed "Has a most marvellous scheme to dispose of."
- 63. Letter. William Panter (Hampton Hill, Bath) to Boulton & Watt (Birmingham). 25 Sep. 1820.

On the same sheet:

Sketch. Roller boxes designed to eliminate friction.

Docketed "Has invented friction wheels."

- Letter. William Panter (Hampton Hill, Bath) to Boulton Watt & Co. [Birmingham]. 9 Oct. 1820.Docketed "Strongly recommends his friction wheels."
- Printed & illustrated advertisement. S. J. Pauly (1 Clayton Place, Kennington Rd., London)
   Pauly's Patent Balance. 1817.
   Docketed "Left by him 30 Jun. 1817."

Letter (in French). S. J. Pauly (1 Clayton Place, Kennington Rd., London) to Boulton & Watt (Soho). 13 Oct. 1817.

Enclosing (b) below.

Docketed "Has a project for machinery to move boats to communicate."

- **b.** Sketch of his apparatus.
- 67. Letter. S. J. Pauly (17 Poplar Row, New Kent Road, London) to Boulton & Watt [Birmingham]. 25 Nov. 1818.

  Docketed "Offers to communicate a steam boat scheme."
- 68. Letter. S. J. Pauly (17 Poplar Row, New Kent Road, London) to Boulton Watt & Co. [Birmingham]. 19 Dec. 1818.

  Docketed "Captains' favourable report of his scheme. Wants opinion, or terms offered from Soho."
- **69.** Letter. Julius Pumphrey (11 New St., Worcester) to Boulton & Watt (Soho). 8 Oct. 1817. *Docketed "Offers to communicate a scheme for rotative steam engine."*
- 70. Memorandum. John Reed (Bath, or Dockfour Estate, Demerara) at Soho. 16 May 1820. In William Creighton's hand. Docketed "Has a scheme for saving fuel."
- 71. Letter. John Rennie (Leith Walk, Edinburgh) to Boulton Watt & Co. [Soho]. 4 Apr. 1814. Docketed "Offer of a scheme of a new steam engine."
- 72. Letter. James Robinson (at Mr. Wallis', Shoemaker, Bow) to James Watt (Soho). 12 Jul. 1817.

  Docketed "Wishes to communicate a new plan of an engine for propelling boats."
- 73. Letter. Thomas Rogers (90 North Strand, Dublin) to James Watt Jr. (Birmingham). 20 Mar. 1819.

  The address and docket are on a separate sheet.

  Docketed "Offer to communicate a plan for the improvement of steam engines."
- 74. Letter. Rose & Chapman (Gough Square, London) to Boulton & Watt (Birmingham). 3 Mar. 1815.

  The letter is written on a prospectus for Rose & Chapman's patent steam vessels.

  Docketed "Patent steam vessels. Want estimate of engines."
- 75. Letter. Henry Rullen (Pleasant Hill Estate, St. Thomas in the East, Jamaica) to Boulton & Watt (Birmingham). 29 Mar. 1817.

  Forwarded to 13 London St.

  Docketed "Offers to communicate a scheme to economise fuel in steam engines and sugar mills."
- 76. Letter. James Ryan (Newcastle upon Tyne) to "John Watt" (Soho). 18 Oct. 1815.

  Docketed "Wishes Mr. Watt to give an opinion upon his scheme for drawing inflammable air from collieries. A deputation sent from Newcastle to examine its operation in the Staffordshire collieries."
- 77. Letter. John B. Sevny (83 High St., Ramsgate) to Boulton & Watt (Soho). 11 Feb. 1818. Docketed "Offers a steam boat scheme."

- **78.** Memorandum. Steam packets improved to safely cross the ocean. Not dated. *About an invention by W. Sewell, 30 Great Tower St., London.*
- **79.** Letter. S. Spiller (Manufactory, Battersea) to Boulton & Watt (Soho). 6 May 1819. *Docketed "Has an improvement in steam engines to dispose of."*
- **80.** Letter. William Stone (Worcester) to Boulton & Watt (Birmingham). 20 Sep. 1815. *Docketed "Suggestion of a rotatory green, or hot house."*
- **81.** Printed leaflet. John Street, Esq.'s Hydrostatic, Portable, Single and Double Blowing Engines... Jul. 1814. Sent by Street to Boulton Watt & Co. Docketed "Advertisement of his blowing engines."
- **82.** Letter. William Street (New Court, Throgmorton St., London) to Boulton & Watt (13 London St.). 22 Jul. 1813. *Forwarded to Soho.* Docketed "Performance of his wooden blowing cylinder."
- **83.** Letter. Edward Thomas (Bristol) to Boulton & Watt (Soho Manufactory). 5 Sep. 1818. *Docketed "Has contrived a wonderful lock and also a table which he offers to dispose of."*
- **84.** Letter. Lewis Thompson (Chapter Coffee House, St. Paul's Church Yard, London) to Boulton & Watt (Soho Manufactory). 15 Feb. 1816.

  Docketed "Offer of a share in a patent for remedying the defects of lock gates."
- 85. Letter. Richard Tucker (Alphington) to James Watt (Soho). 25 Apr. 1817.
  On the same sheet:
  Sketch of a steam boat.
  Docketed "Communicates a plan of moving steam boats by horizontal paddles and consults us about taking out a patent. Suggests precautions for high pressure boilers."
- **86.** Letter. Joshua Wigfull (Ferrybridge) to Boulton & Watt (Soho). 10 May 1811. Docketed "Has an invention for increasing the power of steam engines. Offers ½ of it and to take out a patent."
- **87.** Letter. Joshua Wigfull (Ferrybridge) to Boulton & Watt (Soho). 21 May 1811. *On the same sheet:* Sketch of a boiler.

Docketed "Communication of his scheme."

- 88. Letter. Joshua Wigfull (Ferrybridge) to Boulton & Watt (Soho). 5 Jul. 1811.On the same sheet:Sketch of a fly wheel.Docketed "Another scheme."
- **89.** Letter. C. Wilks (Office of Ordnance, Ballincollig) to Boulton & Watt (Birmingham). 8 Oct. 1811.

On the same sheet:

Pen & wash drawings. Plan and section of pump. Docketed "Scheme for the valves of large pumps."

**90.** Letter. William Wood (Caerleon) to Boulton Watt & Co. (Soho). 24 Jan. 1820. *Docketed "Has a scheme for canal locks to dispose of."* 

91. Letter. "Z" (—) to Boulton & Watt (Birmingham). 6 May 1820.

Docketed as being sent from Liverpool.

Docketed "Proposal that Boulton Watt & Co. should try to burn smoke."

# MS 3147/3/541 LETTERS FROM "SCHEMES" (CONCERNING NEW INVENTIONS, IMPROVEMENTS TO THE STEAM ENGINE ETC.) 1821—1829

### INTRODUCTION

"Letters from Schemes" from 1821 to 1829. "Letters from Schemes," or sometimes "Letters from Schemers," was Boulton Watt & Co.'s way of referring to correspondence from engineers and inventors offering the sale or use of their inventions and patents. Between 1821 and 1829 these inventions ranged from improvements to the steam engine, paddle wheels and heating, through rail roads and suggested routes for steam boats, to a steam gun and life jackets.

According to the draft list of the Watt Room they were arranged in three packets: 1801 to 1810; 1811 to 1820; and a "third packet". The majority of the 1801—1810 letters were found in Box 7/III, the 1811—1820 ones were mainly in Box 7/I, and the "third packet", covering 1821—1829, were mostly in Box 34/11. Some letters offering "schemes" prior to 1801 can be found among the series of General Correspondence, and some after 1829 can be found among the General Correspondence dealt with in the Drawing Office, 1829 to 1843.

- **1.** Letter. Charles Albert (30 Rue de Clery, Paris) to Boulton Watt & Co. (Soho). 9 Jul. 1822. *Docketed "Has a marvellous rotative engine to dispose of."*
- **2a.** Letter. William Anderson (Pershore) to Boulton & Watt (Soho). 5 Jul. 1825. *Enclosing (b) below.* 
  - **b.** Memorandum & sketches. Description of Anderson's boiler designs. 2 sheets. *Docketed "With schemes of boilers for high pressure engines."*
- 3a. Letter. James Backwell (16 London Wall, London) to James Watt Jr. [London]. 15 Jan. 1825.Kept with (b) below.
  - Docketed "Wishing to make a communication upon the subject of Brown's gas engine."
  - **b.** Transcript of letter. James Watt Jr. (Norfolk Hotel, London) to James Backwell [London]. 18 Jan. 1825.
- **4.** Letter. John Barker (Newton Lodge, Dumfries) to James Watt Jr. (Soho). 4 Jan. 1822. *Docketed "Enclosing Mr. Gladstone's scheme for propelling steam vessels and requesting an opinion."*
- 5. Letter. F. Barnes (Aldgate Coffee House, London) to Boulton & Watt (Birmingham). 30 Jul. 1823.
  - Docketed "Has a scheme for driving vessels by a windmill."

6. Printed advertising circular. Barnes & Miller, Engineers, Millwrights etc. (Glass House Fields, Ratcliffe, & No. 4 Mercer's Place, Commercial Road). — 1824.

Docketed "Catalogue of articles made."

**7a.** Letter. John Barton (38 Seward St., Goswell St., London) to Sir Francis Freeling [London]. 14 Sep. 1827.

Docketed by James Watt Jr. Enclosing (b) below.

Docketed "Recommending his patent metallic pistons and enclosing circular respecting them."

**b.** Printed advertising circular. Barton's Metallic Pistons. Circa Oct. 1826. *Includes transcripts of 15 testimonial letters*.

**8.** Letter. William Bell (Hull) to Boulton Watt & Co. [Soho]. 27 Mar. 1821. *Docketed "Project for steam vessels to carry goods."* 

9. Letter. Mr. — de Berenger (Target Cottage, Kentish Town) to Boulton & Watt (Soho). 22 Mar. 1828.
Docketed "A schemer-general wanting to dispose of some of his stock."

Docketed A schemer-general wanting to dispose of some of his stock.

**10.** Letter. John Biggs (Crawleys Wharf, Greenwich) to Boulton & Watt (London St.). 19 Sep. 1821.

On the same sheet:

Sketch of his apparatus.

Docketed "Has got a scheme for propelling boats – describes."

**11.** Letter. William Bland Jr. (Hartlip, Sittingbourne) to Boulton & Watt (London). 18 Nov. 1822.

*Not dated – date taken from the docket.* 

Docketed "Has a steam engine scheme or improvements."

**12.** Letter. William Bland Jr. (Hartlip, Sittingbourne) to Boulton & Watt [London]. 15 Dec. 1822.

Docketed "Wants answer about his steam engine scheme."

13. Letter (printed circular). Henry Bond (21 Queen St., Pimlico) to Boulton & Watt (Birmingham). 5 May 1829.

Docketed "Has a steam engine improvement to dispose of."

- **14.** Letter. John Bower & Sons (Hunslett) to Boulton Watt & Co. [Soho]. Jan. 1823. *Docketed "Offer an improvement on the steam engine by which a saving is to be effected."*
- 15. Letter. John Broster (Bangor) to Boulton & Watt (Soho). 21 Aug. 1821.

  The letter is written on a copy of a printed address by Broster to the Proprietors of the Dublin Steam Packets, on their removal from the Holyhead Station, owing to the Government establishing their own Steam Vessels at Holyhead; recommending a station at Dawpool.

  Docketed "Scheme for steam boats between Dawpool and Dublin."
- Printed memorandum. Communications with America. Not dated. Sent by James Brown to William Creighton in Jun. 1821. Docketed "James Brown, London. Scheme for steam navigation from West of Ireland to New York."

17. Letter. William Brunton (Camden St., Birmingham) to Boulton & Watt [Soho]. 9 Apr. 1823.

Docketed "Offers to dispose of his patent for the revolving grate."

**18.** Letter. William Brunton (Camden St., Birmingham) to Boulton Watt & Co. [Soho]. 16 Apr. 1823.

Docketed "It is not a revolving grate he wants to dispose of."

19. Letter (printed circular). William Brunton (East India Chambers. Leadenhall St., London) to William Creighton (Soho). — Jan. 1827.

Docketed "Advantages of fire regulators. Engineering etc. in London."

**20.** Letter. "D. C." (James Smetham's, Wagg St., Congleton) to Boulton & Watt [Soho]. 29 Apr. 1828.

Docketed "Desirous of offering a scheme to double the power of the steam engine etc."

21. Letter. Richard Capes (127 Shad Thames, London) to Boulton & Watt (London St.). 4 Apr. 1823.

Docketed "Has a scheme to dispose of."

Letter. Alexander Clark (Globe Tavern, Fleet St., London) to Boulton Watt & Co. (Soho).16 Sep. 1822.Docketed "A. Clark of Dundee. Has steam engine schemes to be disposed of."

23. Letter. Alexander Clark (Globe Tavern, Fleet St., London) to Boulton Watt & Co. [Soho].23 Sep. 1822.Docketed "Will send copy of his specification."

Letter. Alexander Clark (George Inn, Digbeth St., Birmingham) to Boulton Watt & Co. [Soho]. 30 Sep. 1822.Docketed "Wishes to communicate his plans of boilers and condensers for steam engines."

25a. Letter. William Tierney Clark (Hammersmith) to James Watt Jr. [Soho]. 1 Feb. 1826. Kept with (b) & (c) below. On the same sheet:

Memorandum. James Watt Jr.'s notes of extracts from papers sent.

Docketed "Perkins' steam gun. Communicates sundry papers respecting Perkins' generator and artillery, by desire of Sir William Rawson. Hornblower and Moyle about to erect one of these engines on the Regents Canal. Enquires if we could be disposed to treat for these inventions."

**b.** Note on atmospheric pressure and temperature. *In William Creighton's hand.* 

Transcript of letter. Capt. — Bobadil (Colis House, London) to Jacob Perkins (—). 1 Mar. 1826.
 Docketed "About destroying the enemy."

26a. Letter. Edward Colliear [Birmingham] to James Watt Jr. (Aston Hall). 13 Dec. 1824. Not dated – date taken from the docket. With (b) below attached. Docketed "Has a marvellous globular perpetual motion for sale."

**b.** Printed advertisement. "To be sold – The Invention of a Perpetual Globe."

- 27. Letter. Andrew M. Collum (20 Gloucester St., Dublin) to Boulton Watt & Co. [Soho]. 6 Feb. 1824.

  Docketed "Has contrived improved paddles and wants to dispose of scheme."
- 28. Letter. B. M. Coombs (Pudding Brook, Bromsgrove St., Birmingham) to James Watt Jr. (Soho Manufactory). 13 Apr. 1822.

  Docketed "Has invented a new boiler for steam engines etc. Offers his services as an assistant in our business."
- 29. Memorandum. B. M. Coombs (Birmingham) at Soho. 25 Jul. 1823.

  The memorandum is written on the back of a printed illustrated advertisement for Coombs' patent cooking apparatus.

  Docketed "Has a scheme for rollers to reduce friction."
- **30.** Letter. Sol. Go. da Costa (41 Basing Lane, Bread St., Cheapside, London) to Boulton Watt & Co. [Soho]. 21 Mar. 1823. *Docketed "Has a scheme to dispose of."*
- Letter. John Costigin (Collon, County Louth) to Boulton & Watt (Birmingham). 17 Jan. 1826.Docketed "Has a wonderful steam engine and boiler to dispose of for patent."
- 32. Letter. Robert A. Cox (Office of Spanish Claims, Manchester Buildings, Westminster) to James Watt Jr. [Soho]. 28 Nov. 1825.

  Docketed "Scheme for heating cylinders. Is translating Dr. Ure on steam engines and wants drawings."
- **33.** Letter. Abraham Davy (13 Bank St., Sheffield) to Boulton & Watt (Soho). 29 Dec. 1827. *Docketed "Offers a scheme for packing pistons etc."*
- **34.** Letter. James Dawson (Birmingham) to Boulton Watt & Co. [Soho]. 23 Oct. 1826. *Docketed "Introducing Moses Isaacs a schemer."*
- 25. Letter. Robert Delap (Belfast) to Boulton & Watt (Birmingham). 13 Sep. 1821.25. On the same sheet:26. Pen & wash sketch and description of Delap's apparatus "applicable to all steam engines."27. Docketed "Has a patent scheme to dispose of."
- **36.** Letter. Robert Delap (Belfast) to Boulton & Watt [Birmingham]. 11 Oct. 1821. *Docketed "Wants answer about his scheme."*
- 37. Letter. Robert Delap (Belfast) to Boulton & Watt [Birmingham]. 29 Oct. 1821. Docketed "Has much faith in his scheme and wants it tried."
- **38.** Letter. W. Ergie (Holborn, London) to Boulton & Watt (Soho). 30 Sep. 1825. Not dated – date taken from the postmark. Docketed "Has invented a safety valve pot lid."
- **39.** Memorandum & sketch. Peter Ewart (London). 27 Nov. 1826. *Docketed "Scheme for disengaging pump rods."*
- **40.** Letter. J. P. Fesenmeyer (17 Hemlock Court, Carey St., Lincolns Inn, London) to Boulton Watt & Co. [Soho]. 10 May 1826.

  Docketed "Offer to make a confidential communication of a new atmospheric power."

- 41. Letter. John Francis (29 Whitfield St., Chorlton, Manchester) to William Creighton (Soho).7 Nov. 1824.Docketed "Has a new grease nostrum."
- **42.** Letter. James Fraser (103 Houndsditch, London) to Boulton Watt & Co. (Soho). 29 May 1828.

  Docketed "Has a boiler scheme he wishes to be examined."
- 43. Letter. Thomas Gaunt (4 Beaufort Buildings, Stapleton Court, Bristol) to Boulton Watt & Co. [Soho]. 12 Jun. 1827.

  Docketed "Offer to make a confidential communication of sundry improvements upon the steam engine."
- **44.** Letter. G. Gurney (Argyle St., London) to Boulton & Watt (Soho). Jun. 1826. *Docketed "Has invented a flue boiler."*
- **45.** Transcript of article. From the *New Times*, London. 16 Jan. 1828. *Docketed "Puff about Gurney's steam carriage."*
- **46.** Memorandum. Mr. Hanson (Worcester) at Soho. 22 Feb. 1826. *Docketed "Has a steam engine scheme to dispose of."*
- **47.** Letter. George Emanuel Harper (Leighton Buzzard) to Boulton Watt & Co. [Soho]. 7 Jul. 1823. *Docketed "Has a scheme to dispose of."*
- **48.** Letter. W. J. Hayerath M. D. (Privy Place, Bristol Road, Birmingham) to James Watt Jr. (Aston Hall). 25 Nov. 1827.

  Docketed "A proposal to communicate sundry improvements on the steam engine."
- **49.** Letter. John Henderson (Greenock) to Boulton & Watt (Birmingham). 6 Jun. 1821. *Docketed "Wants to dispose of a scheme for propelling boats."*
- 50a. Letter. John Henning (2 Somers Place West, New Road, London) to James Watt Jr. [Soho]. 8 Feb. 1826.

  Enclosing (b) and kept with (c) below.

  Docketed "Offering some schemes by Dr. Crivelli."
  - **b.** Memorandum (in French). Josef Crivelli's description of his experiments. Docketed "Offer made through Mr. Henning to communicate some schemes for a vacuum etc. etc."
  - **c.** Letter. T. M. Musgrave [London] to G. H. Freeling [London]. 16 Feb. 1826. *Docketed "About Mr. Henning."*
- 51. Letter. John Hicks Jr. (39 Upper Charlotte St., Fitzroy Square, London) to James Watt Jr. [Soho]. 31 Jan. 1822.

  Docketed "Offers to communicate a scheme of a rotary engine."
- **52.** Letter. Edwin Hill (Old Cotton Mill, Birmingham) to James Watt Jr. [Soho]. 17 Jul. 1824. *Docketed "Offer to communicate an improvement on condensing engines."*
- **53.** Letter. William Hillary [London] to Boulton & Watt [Soho]. 20 Aug, 1825. *Docketed "Has a scheme for steam life-boats."*

- **54.** Letter. W. H. Hilton (10 Regent St., London) to James Watt Jr. [Soho]. 27 May 1828. Docketed "Wishes assistance in bringing a scheme for the improvement of ships' pumps before the Admiralty."
- **55.** Letter. F. H. Hirsch (Bordeaux) to Boulton & Watt [Soho]. 1 Sep. 1825. *Docketed "Offers 3 mechanical inventions."*
- **56.** Letter. H. C. Jennings (Devonshire St., London) to Boulton & Watt [London]. 30 Apr. 1825.

*Not dated – date taken from the docket.* 

Docketed "Wishes to communicate a scheme for generating steam."

- 57. Letter. W. Johnson (Droitwich) to James Watt Jr. [Soho]. 12 Jan. 1826. Docketed "Offers to communicate an improvement upon boilers."
- **58.** Letter. Wilbraham Liardet (Marine Cottage, Bexhill) to Boulton & Watt (13 London St.). 29 Feb. 1828.

Forwarded to Soho.

Docketed "Offers a smoke burning scheme. Appears to be only a theory."

**59a.** Letter. Richard Mackilwain (Sheffield) to James Watt Jr. (Soho). 26 Feb. 1829. *Kept with (b) below. On the same sheet:* 

Printed drawings. Plan and sections of Vaughan's patent steam engine as made by Vaughan & Mackilwain.

Docketed "Offers to dispose of Vaughan's patent atmospheric engine. Copy of answer enclosed."

- **b.** Transcript of letter. James Watt Jr. (London) to Richard Mackilwain (Sheffield). 9 Mar. 1829.
- 60. Letter. James Clegg Maiben (21 Merchants Quay, Dublin) to Boulton Watt & Co. [Soho]. 4 Oct. 1822.

Docketed "Has a scheme for paddle wheel. Oldham's at Waterloo removed."

- 61. Letter. James Clegg Maiben (21 Merchants Quay, Dublin) to Boulton Watt & Co. (Soho). 30 Jul. 1828.

  Docketed "Offers a scheme for paddles."
- 62. Letter. James Mayer Martin (Birmingham) to Boulton & Watt (Soho). 5 Apr. 1828.

  Not dated date taken from the docket.

  Docketed "Offers a rail road scheme."
- 63. Letter. Alexander Molleson (Anlyn [?] Place, Glasgow) to Boulton & Watt (Soho). 2 Dec. 1826.

James Watt Jr. has added a note to the sheet.

Docketed "Solicits subscriptions for his safety garments or life preservers at sea. See memorandum by Mr. Watt."

- **64.** Letter. William Musgrave (Stockton-on-Tees) to Boulton & Watt (Soho). 13 Mar. 1824. *Docketed "Has invented a wonderful engine and wants one made for nothing."*
- **65.** Printed memorandum. William Panter (Walcot House, Bath). Oct. 1822. Docketed "At Soho 14 Oct. 1822. Has discovered a circular motion by which cranks, beams etc. in steam engines may be dispensed with. Terms upon which he is willing to dispose of it."

- 66a. Letter. Henry Penneck M. D. (Penzance) to James Watt Jr. (Soho). 26 Dec. 1822.

  Enclosing (b) and (c) below.

  Docketed "Has taken a patent for a rotative motion obtained by the use of ratchet wheels.

  Offers a share in it and to communicate other improvements."
  - **b.** Printed drawings. Penneck's Patent Rotary Machinery.
  - **c.** Printed memorandum. Explanation of the plate.
- 67. Letter. W. Peters Sr. (1 Thomas St., Bristol) to Boulton Watt & Co. [Soho]. 24 Dec. 1821. Docketed "Has a scheme for raising water to dispose of."
- Letter. L. B. Rabaut (11 London St., Greenwich) to Boulton & Watt (Soho). 31 May 1823. On the same sheet:Sketches and description of his apparatus.Docketed "Has a filtering scheme to dispose of."
- 69. Letter. E. S. Simmons (1 Pavement, Moorfields, London) to Boulton & Watt [Soho]. 15 Oct. 1821.

  Docketed "Has got a paddle wheel scheme."
- **70.** Letter. Nicholas Skottowe (Carrick-on-Suir) to Boulton Watt & Co. (Soho). 29 Sep. 1827. Docketed "Wants to dispose of a scheme for increasing power of steam engines above 200 times."
- 71. Letter. Nicholas Skottowe (Carrick-on-Suir) to Boulton Watt & Co. (Soho). 7 Oct. 1829. Docketed "Further application, if not answered will apply to Mr. Brunel."
- **72.** Letter. William Speer (93 Summer Hill, Dublin) to Boulton & Watt [Soho]. 7 Aug. 1823. *Docketed "Has a freezing scheme to dipose of."*
- 73. Letter. S. Stannat (94 Regent St., London) to Boulton Watt & Co. [Soho]. 9 Dec. 1826. Docketed "Has an invention for heating to dispose of."
- 74. Letter. Edward Stephens (36 Stafford St., Dublin) to Boulton & Watt (Soho). 6 Dec. 1826.

  The letter is written on the same sheet as a printed circular describing Stephens' "patent steam dispensers without noise."

  Docketed "Makes offer of his patent steam dispensers."
- 75. Letter. F. Swediaur (Paris) to James Watt Jr.(Handsworth). 10 May 1823.

  Docketed "A Mr. Dietz has set a steam wheel to work which excites great admiration. Has entered a caveat in England, and advises treating with him."
- **76.** Letter. Edward Thomas (Bristol) to James Watt Jr. [?] [Soho]. 18 Aug. 1823. *Docketed "Has schemed a machine and wants to dispose of it."*
- 77. Letter. John Udney (London) to James Watt Jr. (Soho). 2 Oct. 1828.

  Forwarded to Watt Jr. at Carlisle.

  Docketed "Has a steam engine scheme to dispose of. See Mr. Watt's letter of 13 Oct. from Ardgowan for answer."
- **78.** Letter. Patrick Whytock (Glasgow) to Boulton & Watt [Soho]. 27 Jan. 1826. *Docketed "Scheme for beautifying weights."*

- **79a.** Letter. Richard H. Wilcocks (Paris) to Boulton & Watt (Birmingham). 16 Jul. 1821. *Enclosing (b) below.* 
  - Memorandum. Note on the business of introducing into the Kingdom of South America steam engines...
     Docketed "Has a project about mines of Mexico to dispose of."
- 80. Letter. John Wilkinson (Hirwain, near Cardiff) to Boulton Watt & Co. [Soho]. 20 Dec. 1823.Docketed "Has a marvellous and secret scheme to dispose of."
- **81.** Letter. Capt. H. Williams R. E. (Plymouth Dock) to Boulton Watt & Co. (Birmingham). 4 Feb. 1823. *Docketed "Has schemed a boiler."*
- **82a.** Letter. Capt. H. Williams R. E. (Enniskillen) to Boulton Watt & Co. (Soho). 22 Jan. 1825. *Enclosing (b) below.* Docketed "Description of strong steam boiler, along with a model."
  - **b.** Pen & wash drawing. Section of Williams' boiler.
- 83. Letter. John Dyer Williams (Walmer Road, Deal) to Boulton Watt & Co. [Soho]. 14 Jan. 1823.

  Docketed "Has invented the principle of a perpetual motion and states the terms on which he will communicate it."
- 84. Letter. John Wood (Port Glasgow) to James Watt Jr. (Soho). 4 Dec. 1822. Forwarded to 13 London St. On the same sheet:
  Pen & wash drawings. Plan and section of valve.
  Docketed "Has a scheme for steam valves."
- **85a.** Letter. "A. Z." (Post Office, Birmingham) to Boulton & Watt (Soho). 27 Feb. 1825. *With (b) below attached.* 
  - **b.** Letter. "A. Z." (Post Office, Birmingham) to Boulton & Watt [Soho]. 29 Feb. 1825. *Docketed "Has a scheme for making a one horse equal to 20 horses power."*

# MS 3147/3/543 SCHEMES, PLANS & CALCULATIONS, DESCRIPTIONS OF NEW MACHINES ETC. (1)

# 1774—1790

#### INTRODUCTION

Memoranda, notes and calculations on various engines, both Boulton & Watt's and other engineers, schemes for various applications of steam engines, etc., from 1774 to 1790.

- **1.** Bundle cover.
  - Marked "Schemes, Plans & Calculations, Descriptions of new Machines etc. Calculations & particulars of the following engines and machines," followed by a list of the contents of the bundle.
- 2. Memorandum & Calculations re. London Bridge Water Works. Not dated. In John Southern's hand? On the same sheet: Estimate of the Expense of putting North Downs Mine to work, and getting a sale of Ores. In Thomas Wilson's hand?
- 3. Memorandum & sketch. Sir Roger Newdigate's colliery engine account of it from his bailiff. 1776.

  Winding engine at Oakthorpe Pit, Leicestershire.
- **4.** Memorandum. Calculation relating to the Carron engine. Jun. 1775.
- **5.** Memorandum. Experiments at Donnington Wood & Wren's Nest engines. 17 & 15 Sep. 1779.
- **6.** Letter. Edward Brown (Denton) to Matthew Boulton (Soho Manufactory). 22 Jul. 1776. *Docketed "Account of Mrs. Montagu's engine." The sheet has been used for calculations.*
- 7. Letter. John Buchanan (Soho) to James Watt [Harper's Hill?]. "Thursday Ev<sup>g</sup>." [— Dec. 1782].

  Docketed "Dimensions taken at pig mill by J. B."
- **8.** Memorandum. Some dimensions of Forge Mills by Mr. Boulton. 1782. *Details of Wren's Nest and Coalbrookdale forges.*
- 9. Memorandum. Estimate of the Intended Works at Spon Lane. 11 Dec. 1776. *Memorandum by S. Bull. Docketed as the Birmingham Canal Co.*
- 10a. Memorandum. Mr. Fox's account of Polgooth Mine. Jan. 1782. *Kept with (b) and (c) below.* 
  - **b.** Estimate of Polgooth. Jan. 1782. *Estimate of cost of an engine, clearing and repairing shafts and adits etc.*
  - **c.** Estimate Polgooth. Apr. 1782. *Similar estimate to the above.*

**11.** Draft of letter. James Watt [Birmingham] to Thomas Wilson [Chacewater]. 5 Mar. 1779. *On the same sheet:* 

Memorandum. Account of the savings by Scorrier engine. *Docketed "Letter to Mr. Wilson and calculations."* 

- **12.** Pencil sketch. Plan of Bateman's engine. 1787.
- **13.** Memorandum. Account of the work done by the mills in Messrs. Goodwyn & Co.'s brewery. 1784.
- **14.** Sketch. Malt mill at Messrs. Goodwyn & Co.'s brewhouse. 1784. *Marked "This is a reverse."*
- Sketch. The liquor and cleansing mill at Messrs. Goodwyn & Co.'s brewhouse. 1784. *(b) below was added in the 1890s.* 
  - **b.** Note taken from Goodwyn & Co.'s engine agreement. *In Henry Hazleton's hand.*
- 16. Pen & wash drawing. A plan of Trial & New Pits near Whitehaven. "E. M." 13 May 1782.
- 17. Memorandum. Dr. Mills' Analysis of the Bovey Coal; Mr. Patch's distillation of the Bovey Coal the board kind, in glass. Nov. 1780.

  Docketed "Analysis of Bovey Coal from Mr. Galton."
- 18a. Letter. Thomas Calverley (Southwark) to Matthew Boulton (Soho). 4 Feb. 1778. Enclosing (b) and kept with (c) and (d) below. Docketed "Borough Water Works. Plan etc. New single."
  - **b.** Pen & wash drawing. Plan of the Borough Water Works. 1778.
  - c. Letter. William Burgess (53, The Borough) to Boulton & Watt [Soho]. 15 Aug. 1777. On the same sheet:Memorandum. Particulars of the Borough Water Works Engine.
  - **d.** Sketch & notes. Section of the steam engine at Borough Water Works. *In Zaccheus Walker's hand.*
- **19.** Printed circular. John Rothwell's patent iron valve water-cocks. Not dated. *With engravings on the same sheet.*
- Transcripts. Transcripts of 2 memoranda about working an engine at Newark Colliery with different boilers. 21 Sep. 1774 & undated. 2 sheets.

  The first memorandum was signed by John Anstruther, William Brown, Richard Brown, Gavin Hay [?], Henry Kenwick and James Kyd.

  Docketed "Boiler with spiral flue said to work a 50 inch cylinder."
- 21. Letter. John Buchanan [Soho] to James Watt [Harper's Hill?]. Dec. 1782.

  Not dated date taken from the docket.

  Docketed "Bell's mill and some memorandums relating to Soho tilting hammer."
- **22a.** Letter. James Weir (London) to James Watt [Birmingham]. 15 Aug. 1789. *Enclosing (b) below.* Docketed "Concerning his model."

- **b.** Memorandum. An Account of Weir's Improvement of the Steam Engine. 13 pages.
- 23. Printed booklet. "Proposals to the Adventurers in by Boulton & Watt." 7 pages.

  Marked at the top ""Method of calculating tables for Wheal Maid 63 inch cylinder, double 9 feet or 18 feet stroke." Some of the details have been filled in.

  Docketed "Calculations of savings on a 63 inch cylinder."

  [This seven-page printed booklet was intended to form a standard basis for agreements between Boulton & Watt and Cornish mine adventurers. Various parts were blank so that details of individual engines could be filled in. It included details of the performance of the two Poldice engines, against which new engines would be measured.]
- Letter. John Houghton [Birmingham] to James Watt (Harper's Hill). 23 Apr. 1790.
   On the same sheet:
   Memorandum. Expense of Working & Repairing two Steam Engines belonging to the Birmingham and Birmingham & Fazeley Canal Navigation Co. at Smethwick.
   Docketed as 1789.
- **25.** Memorandum. Description of Trevenan Mine. Not dated. *In James Watt's hand. Originally docketed as Tresavean.*

# MS 3147/3/544 SCHEMES, PLANS & CALCULATIONS, DESCRIPTIONS OF NEW MACHINES ETC. (2) 1769; 1781—1788

#### INTRODUCTION

Memoranda, notes and calculations on various engines, both Boulton & Watt's and other engineers, schemes for various applications of steam engines, etc., from 1774 to 1790.

- **1.** Bundle cover.
  - Marked "Schemes, Plans & Calculations, Descriptions of new Machines etc.," followed by a list of the contents of the bundle.
- **2a.** Printed leaflet. "A Plan of a new invented Engine... Invented by Thomas Hunt, of London, 1783."
  - **b.** Drawing of Hunt's engine. May 1783.
    - Titled "A View of a Machine upon an intire new Construction, whereby Mills of every kind and for any purpose whatever, can be set to work in any place or situation, without having recourse either to Men, Horses, Wind or even a Stream of water. Invented by Thomas Hunt of London. Published According to Act of Parliament May 1783." [The drawing shows a crank engine.]
    - Docketed "Pretended invention. Thos. Hunt of London 1784."
- **3.** Letter. David Watson (—) to James Watt [Soho]. Jun. 1787. *On the same sheet:*

Pen & wash drawing of Watson's engine.

Docketed "D. Watson's scheme for a pillar engine."

**4a.** Letter. Thomas Mitchell (58 Basinghall St., London) to Boulton & Watt (Birmingham). 18 Oct. 1787.

Enclosing (b) and (c) below.

Docketed "Plan of Mr. Mitchell's flame engine."

**b.** Printed circular. A new method of Raising Water for useful purposes, by rarifying and condensing the Air in several ways...

Docketed "New invention for raising water by fire without steam."

c. Printed circular. By His Majesty's Patents, granted to Thomas Mitchell of Perth. A new method of Raising Water for useful purposes, by rarifying and condensing the Air in several ways...

With an engraving on the same sheet.

5. Memorandum. Extracts from the Marquis du Crest's Memoir. 1788. 11 pages. *The docket is on a separate sheet.*Memoire on water supply for Paris.

- 6. Memorandum. Information of the Quantity of Water that must be raised to have a proper circulation through all the Canals at Amsterdam. By Mr. Eckhardt. Not dated. *Docketed "Amsterdam Canals. Entered."*
- 7. Sketch. Saw mill for Silas Dean. 1786.
- 8. Memorandum. Calculations of the power necessary to lift slimy mud from any given depth of water. Not dated.

  In James Watt's hand.
- 9. Memorandum. Dimensions etc. of Messrs. Cooke & Company's stills. 1786.
- **10.** Printed pamphlet (in French). Prospectus de la fourniture et distribution des eaux de la Seine, à Paris, par les machines à feu. 13 Oct. 1781. 26 pages.
- Pen & wash drawings. Section of Mr. Westgarth's engine for raising water at Colclough Lead Mine. Jun. 1787.

  Sent with (b) below.

Docketed "Sent by Mr. Hamilton."

- **b.** Memorandum. Explanation of the Section of Mr. Westgarth's water engine.
- **12.** Printed circular. Description of John Chinn of Tewkesbury's machine for raising and returning water out of a mill tailrace. 1787.
- 13. Memorandum. John Rennie's observations on paper mills. Aug. 1784. 13 pages.

  Notes and calculations on a mill near Tamworth; mill at Elford 28 Aug. 1784; Yewel paper mill 30 Aug. 1784; Borley paper mill.

  For a transcript of this see folios 1—3 of Watt's calculation book 1784 & 1789.
- 14. Memorandum. Account of Chichester corn mills by Mr. Menza [?]. Mar. 1789. Description of Michael Kingsford's mill, Sidlesham; William Souter's mill; mill belonging to the Government in Portsmouth; Mrs. Bowden's mill, Gosport.
- 15. Sketch. Mr. Linnow's machine for raising water. 1782.
- **16.** Memorandum. Bedford Level notes. Not dated.

- 17. Memorandum. Mr. William Wilkinson's account of the iron made in France. 5 Feb. 1787.
- **18.** Printed circular. Address and proposals from Sir John Dalrymple Bart. on the subject of the Coal, Tar, and Iron Branches of Trade. Jun. 1784.
- 19. Printed pamphlet. "Mr. Cummins' Book upon Sawing Timber." 6 Apr. 1769. 15 pages. Cover missing. Docketed "Mr. Cummin's Book upon Sawing Timber."
- **20.** Letter. George Wolff (Albion Mill) to Boulton & Watt (Birmingham). 7 Apr. 1787. *Docketed "Account of the Surtarbrand [a fossil]."*
- **21.** Sketch. Lord Dundonald's tar ovens. 1784.
- Printed circular (in French). Formes et conditions de l'Assurance proposée contre les Incendies par Monsieurs Perier frères & Compagnie. 1786.
- **23.** Printed circular (in Dutch). Programma van het Bataafasch Genootschap der proefondervindelyke wysbegeerte te Rotterdam. 1784.
- 24. Memorandum. Prize Questions proposed by the Batavian Society of Experiment Philosophy, Rotterdam. 9 Aug. 1784. 2 sheets. *Question re. using engines for drainage.*
- Printed circular. Account of a machine constructed for the purpose of deepening and scouring canals, rivers and ports. Newly invented by the brothers F. and A. Eckhardt. 1785.
  With an engraving on the same sheet.
- **26a, b.** Printed circular. Succinct account of the advantages of mills with inclined float-board-wheels. Used for the draining of marshes. Invented by Mr. A. G. Eckhardt. 1785. *2 copies. With an engraving on the same sheet.*
- Calculations. Estimate of a method to supply water from the Serpentine River in Hyde Park, for watering that of Piccadilly which extends from the turnpike to Berkeley Street, by means of pipes and an engine fixed on the inside of the park wall near the said turnpike. Not dated. 3 sheets
- 28. Sketch. Kestal Adit Mine. By William Murdock. Jun. 1781.
- **29a.** Transcript of extract of letter. ? (Italy) to Matthew Boulton [Soho]. Not dated. *Kept with (b) below. Docketed "Letter concerning a new mechanical invention."* 
  - **b.** Letter (in French). Chevalier W— (—) to Matthew Boulton [?] [Soho]. 21 Mar. 1783.

# JOHN BUCHANAN – EXPERIMENTS ON THE FORGE ENGINE AT SOHO MANUFACTORY 1783

#### INTRODUCTION

Notes and letters sent by John Buchanan to James Watt in 1783, recording the performance of the experimental forge engine at Soho Manufactory. The notes record consumption of coals, evaporation of water, number of strokes made, general performance of the engine etc.

- **1.** Letter. John Buchanan (Soho) to James Watt (Harper's Hill). "Wednesday". *On the same sheet:* 
  - Notes of 2 experiments on the engine.

Docketed "Accounts of experiments on forge engine Sep. 1783."

- 2. Note. John Buchanan (Soho) to James Watt [Harper's Hill]. "Thursday night" [11 Sep. 1783].

  Marked by Watt "With steam in the case."
- 3. Note. John Buchanan (Soho) to James Watt [Harper's Hill]. "Friday evening" [12 Sep. 1783].

  Marked by Watt "Without steam in the case."
- **4.** Letter. John Buchanan (Soho) to James Watt (Harper's Hill). "One o'clock" [20 Sep. 1783].
- 5. Letter. John Buchanan (Soho) to James Watt (Harper's Hill). 22 Sep. 1783.
- 6. Letter. John Buchanan (Soho) to James Watt (Harper's Hill). "½ past 7 o'clock" [24 Sep. 1783.]
- 7. Letter. John Buchanan (Soho) to James Watt (Harper's Hill). "Wednesday Ev<sup>g</sup>." *Marked by Watt as 25 Sep., which was a Thursday.*Docketed "Account of experiments on the forge engine Sep. & Oct. 1783."
- **8.** Letter. John Buchanan [Soho] to James Watt (Harper's Hill). "7 o'clock" [26 Sep. 1783].
- **9.** Note. Performance of the engine. 1 Oct. 1783.
- **10.** Note. Performance of the engine. 10 Oct. 1783.
- 11. Letter. John Buchanan (Soho) to James Watt (Harper's Hill). "Monday Mor<sup>g</sup>." [20 Oct. 1783?].

The letter concerns insurance valuation of the Engine Works. On the same sheet: Note by Buchanan of performance of the engine, dated by Watt as Sat. 18 Oct."

- 12. Note. Performance of the engine. 20 Oct. 1783.
- Note. John Buchanan (Soho) to James Watt [Harper's Hill]. 24 Oct. 1783. On the same sheet:

Note. Performance of the engine. 23 Oct. 1783.

- Note. John Buchanan (Soho) to James Watt (Harper's Hill). "Friday afternoon" [24 Oct. 1783].
- 15. Note. John Buchanan [Soho] to James Watt (Harper's Hill). "Monday Morning" [27 Oct. 1783].

On the same sheet:

Note. Performance of the engine. 25 Oct. 1783.

- **16.** Note. Performance of the engine. 27 Oct. 1783.
- 17. Letter. John Buchanan (Soho) to James Watt (Harper's Hill). "Wednesday mor<sup>g</sup>." [29 Oct. 1783].

On the same sheet:

Note. Performance of the engine. 28 Oct. 1783.

- **18.** Note. Performance of the engine. 30 Oct. 1783.
- 19. Note. John Buchanan [Soho] to James Watt (Harper's Hill). "Monday ev<sup>g</sup>.".
- **20.** Note. John Buchanan (Soho) to James Watt [Harper's Hill]. "Saturday ev<sup>g.</sup>".
- 21. Note. John Buchanan [Soho] to James Watt (Harper's Hill). "Sat<sup>y.</sup> night".
- 22. Note. John Buchanan [Soho] to James Watt (Harper's Hill). "<sup>1</sup>/<sub>4</sub> past 7 o'clock".
- 23. Note. John Buchanan [Soho] to James Watt [Harper's Hill]. "½ past 6 o'clock."

# MS 3147/3/548

# "... REPORTS... MENTS RELATIVE TO... CONNECTED THEREWITH" (PAPERS ABOUT NEWCASTLE AND LEEDS ENGINES, SUGAR MILLS) 1790—1798

#### INTRODUCTION

Memoranda relating to engines in the Newcastle upon Tyne area sent by Thomas Barnes, from 1791 to 1798. The bundle also includes a memorandum on engines in the Leeds area by James Lawson dating from 1797, and notes on sugar mills by James Watt from 1790.

- **1.** Bundle wrapper.
  - The top has been torn away. The following fragments of the original title can be made out: "...Reports... ments Relative to... connected therewith," followed by a list of contents of the bundle.
- 2. Memorandum. Comparative Estimate of the Annual Expense of drawing the Water of Walker Colliery from the depth of 91 fathoms. By Thomas Barnes. Jul. 1791. Comparison of a Boulton & Watt engine and a common engine. On the same sheet:

  List of parts of Winding Engines which have generally been prepared at Newcastle.

  Docketed "Mr. Barnes' Comparative Estimate of Boulton & Watt's and the common engine in point of annual expenditure."

- 3. Memorandum. Report on sundry Engines of Messrs. Boulton & Watt's construction in the Vicinity of Newcastle upon Tyne. By Thomas Barnes. Jan. 1798. 8 pages. The docket is on a separate wrapper.

  Report on the Walker Colliery pumping engine with an addendum of 20 Mar.; Willington rotative engine, examined 17 Jan. 1798; Heaton rotative engine; Wall's End engine; Lawson Main; Messrs. Grimshaw & Co.'s engine at Sunderland; Mr. Pickernell's boat engine; Small engines wanted.
- **4.** Memorandum. Account of wear & tear of Rope in raising coal from the undermentioned collieries near Newcastle upon Tyne. By Thomas Barnes. Jan. 1798.
- 5. Memorandum. Rough draft of Instructions for George Taylor. Jul. 1798. 2 sheets.

  Docketed "General instructions for the management & repairs of the Newcastle engines."

  Instructions working rotative engines, and notes on Wall's End, Heaton, Willington,
  Cowpen, Hepburn, Sheriff Hill, Pontop Pike and Rainton engines.
- 6. Memorandum. Estimate of the Expense of drawing coal at the King Pit in Walker Colliery. By Thomas Barnes. Jul. 1798.
- 7. Memorandum. Number of engines at Newcastle upon Tyne. 1797. Lists Boulton & Watt and common engines used for pumping and winding.
- **8.** Memorandum. Mr. Hodgson's note of consumption of coals at Cowpen by the 72 inch cylinder engine. Jul. 1798.
- 9. Memorandum. James Lawson's memorandums of Leeds engines. 1797. Lists 11 engines and details the machinery they are driving. Docketed "Say performances of ditto."
- **10.** Rough sketch & notes. Memorandums about sugar mills. By James Watt. 1790. *The memorandum is written on the same sheet as the following:*Letter. Samuel Whitbread [London] to James Watt (6 Green Lettice Lane). 28 May 1790.

# "STATEMENTS CALCULATIONS & GENERAL INFORMATION RELATIVE TO VARIOUS OBJECTS OF MANUFACTURING & COMMERCIAL SPECULATION" 1795, 1801

# INTRODUCTION

Two memoranda found in an original bundle wrapper. The items are in the order they are listed on the bundle wrapper.

**1.** Bundle wrapper.

Marked "No. 5 Statements Calculations & General Information relative to various Objects of Manufacturing & Commercial Speculation," followed by a list of the two items contained in this bundle.

- 2. Memorandum. Copy of a statement relative to a Coal & Iron Work in the County of Staffordshire communicated by Mr. Crummer for Mr. Watt's Opinion. 2 Oct. 1801. *Concerning a works proposed to be built at Gorscote.*
- 3. Calculations. Expense of Carriage of Iron & Coals from Winson Green to a Foundry supposed to be erected at Soho. Jun. 1795. 3 sheets.

  Marked "For estimate of the quantity of cast iron executed for B&W in 1791, 1792, 1793 & 1794 see No. 4."

# MS 3147/3/551 MISCELLANEOUS MEMORANDA AND PAPERS 1770S—1790S

#### INTRODUCTION

Miscellaneous items found scattered through the collection, whose original location could not be identified. These items range from the 1770s to the 1790s. They include notes of other engineers' engines, experiments on engines, calculations etc.

- 1. Memorandum. 1776. (1 item) *Description of Mr. Beeche's engine.*
- 2. Notes. 14 Dec. 1776. (1 item)

  Experiment in the tower at Stratford Water Works.
- 3. Memorandum. 1778—1779. (1 item)

  Calculations & deductions made from three experiments upon the old & new engines at Chelsea. Experiments on the old engine next the road, 15 May 1778; the old engine next the river, 24 May 1778; the new engine erected by Boulton & Watt, 6 Jul. 1779.

  Docketed "Calculations and Certificate of experiment... engines of... Copy sent to Mr... Sep. 3 1779."
- 4. Memorandum. 1778-1779. (1 item)

  Particulars of three Experiments made with the Fire Engines at Chelsea on

  15 May 1778, 24 May 1778 and 6 Jul. 1779. Signed by Zaccheus Walker and Peter Peill.

  In Walker's hand.
- 5. Memorandum . Joseph Rathbone & Co. to Boulton & Watt. c. 24 Jan. 1785. (1 item) Lists savings from their engine from 1784-1785.
- **6.** Memorandum by William Wilkinson. 20 Mar. 1786. (1 item) *Information on Indret Boring Mill. Docketed as 1787.*
- 7. Transcript from St James's Chronicle. 12 Jun. 1787. (1 item) *Concerning Garbett, Boulton and copper.*
- 8. Calculation re? circa Nov. 1789. (1 item)
  In James Watt's hand.
  Written on a scrap torn from a letter, which bears the postmark 28 Nov. 1789.

- 9. Calculations. 1791. 2pcs. (1 item)

  Engine in Marshland. In James Watt's hand.
- 10. Memorandum. 11 May 1795. 2pcs. (1 item)

  Experiments: Lee & Lawson. Experiments on the heat, evaporation and pressure of an engine, 1 Apr. 1793—31 Mar. 1795.
- 11. Receipt . William Rose to Boulton & Watt. 11 Sep. 1795. (1 item) "For damages done to my land at Smethwick".
- 12. Table by G. Lee. 7 Dec. 1793—9 Dec. 1795. (1 item)

  Experiments made with a Steam Engine constructed by Boulton & Watt, at Salford Cotton Mill.

  Docketed "No. 11. George Lee's Experiments with Indicator."
- 13. Memorandum. 31 Oct. 1796. (1 item) *Concerning an engine at Kenton colliery.*
- **14.** Account. To James Woodruff & Co. 2 Jun. 1798. (1 item) *For repair of a carriage.*
- **15.** Memorandum by J[ohn] S[outhern]. 8 Dec. 1799. (1 item) "Considerations relative to rotary engines moving in fluids."
- **16.** Calculations for a pumping engine. Not dated. (1 item) *In Matthew Boulton's hand.*
- 17. Memorandum. Not dated. (1 item)

  Survey of the Land for a Reservoir. with total of acres, rods & perches of "Harborne Church Land, Baley's Blue School at Dudley, Spoie [?]." Reverse marked "Mr. Bentley at Mr. Lanes, Birm"
- Memorandum with pen and wash drawings, by William Creighton (?) Not dated. (1 item)

  Docketed "Communications from Mortimer. Suggestions for perfectioning tooth'd wheels by cogs upon a new principle. Machine for forming the teeth of a true figure. Advantages of the proposed new teeth. A rectilinear motion produced from a crank motion."
- **19.** Calculations and notes re: Hornblower's engine. Not dated. 2 pcs. *In Matthew Boulton's hand.*
- **20.** Draft of statement by John Southern. Not dated. (1 item) *Concerning the relative performances of Hornblower and Watt's engines in Cornwall.*
- **21.** Memorandum & calculations. Not dated. (1 item) *Flask Experiment*.
- **22.** Memorandum. Not dated. (1 item) *Particulars of pumps*.
- 23. Sketch of the wheel race of a water mill. Not dated. (1 item) *With notes on an intended engine.*

- **24.** Printed proposals of George Goodman, engineer, for supplying the inhabitants of Dublin with water. Not dated. (1 item)
- 25. Note. Not dated. (1 item)

  Concerning the reckoning of working days in winter and summer.

  In James Watt jr.'s hand.
- **26.** Note. Not dated. (1 item) *Concerning an unidentified canal, with questions about boats.*
- **27.** Calculations. Not dated. (1 item) *For Willington engine; Long Benton new engine; Denton engine; Shirermoor engine.*
- **28.** Memorandum. Not dated. (1 item)

  Concerning Mr de Ballancourt's experiments with steam power.
- **29.** Memorandum by John Southern. Not dated. (1 item) "Flint Mills. Speeds of the Pans ascertained by J. Southern & collected from the informat[ion] of sundry Persons."
- 30. Note. Not dated. (1 item)
  "to the Bell inn Thomas Streat Bristol Pr. Boycees wagon to Mr Hoddinetts Factory Milton"

# MS 3147/3/552 MISCELLANEOUS MEMORANDA AND PAPERS 1800s—1830s

# INTRODUCTION

Items found scattered through the collection whose original location could not be identified.

- 1. Sketch and description of an iron bridge at Bristol. 24 Feb. 1806. (1 item)
- 2. Memorandum. Portsmouth Dock Yard. Jan. 1813. (1 item)
  "An account of the average quantity of new copper sheathing manufactured in one week at the Metal Mills and the expense of the Manufacturing."
- 3. Memorandum. 27 May 1839. 2 pcs.
  "Description of Mr. Watt's Indicator and Feed Mouth as altered from the Copy sent to Mr. Watt in Paris." In James Brown's hand.
- 4. Dimensions of the large chimney at Stoke Prior and of various other chimneys. Not dated. c. Oct. 1839. 3pcs.
- 5. Drawings from Beale's patents 1841, 1842. (1 item)
- 6. Tracing of table. Diagram showing the Resistance of railway trains of different weights and at different speeds. Not dated. (1 item)
- 7. Description of two engines at Livourne; sketch of engine; two notes with calculations by James Watt. In French. Not dated. 5 pcs.

- **8**. Copy press drawing of beam, frame, and gudgeon for an unidentified engine. Not dated. (1 item)
- 9. Copy press description of experiments. Not dated. 3 pcs. "Experiments relating to the practicability of weighing considerable weights in a boat
  - suffering various degrees of agitation in different directions."
- 10. Copy press drawing of part of an unidentified engine house and chimney. Not dated. (1 item)
- 11. Drawing of a barometer. Not dated. (1 item) "a scheme for a barometer or vacuum gage"
- 12. Drawing of a mud stirrer. Not dated. (1 item)
- Drawing of an engine. Not dated. (1 item)
  "Sketch of an engine near Tipton blowing 3 furnaces". Includes a water regulator.

# STEAM BOAT MEMORANDA WILLIAM CREIGHTON'S MEMORANDA AND SKETCHES 1815—1822

#### INTRODUCTION

Memoranda, sketches and calculations for proposed and experimental steam boat designs. These include various types of engine, the layout of "passage boats" and various methods of propulsion. The majority of the items are by William Creighton, the head of the Drawing Office. Many date from around 1815, when Boulton Watt & Co. were working on designs for boat engines in order to properly enter the expanding boat engine market.

The bundle was sub-divided into four smaller envelopes, as follows:

Nos. 1-15. Envelope A – Engine Plans

Nos. 16-25. Envelope B – Plans of Boats

Nos. 26-36.Envelope C – Propulsion, Dimensions

Nos. 37-39. Envelope D – Distances and Times

# 'Envelope A - Engine Plans'

The majority of these items are in William Creighton's hand. Sketches showing proposed arrangements, dimensions etc. of boat engines, 1815—1818 and 1822.

- 1. Sketches. General order 30 to 53 horse engines hot water pumps. 22 Mar. 1815. Coded "KRK No. 2." Docketed "Sketch Feed Pumps 30 to 53 HP."
- 2. Sketches. Section and plan of a boat engine. 3—5 Sep. 1815. Docketed "Design for boat engine."
- 3. Sketch. Proposed 20 horse boat engine. 10 Nov. 1815.
- **4.** Pen & wash drawings. Scheme for Boat Engine 20 horse. 16 Nov. 1815.
- **5.** Sketches. Sections and plan scheme for a boat engine (20 horse). 14 Mar. 1816. *Docketed (in a much later hand) "Overhead grasshopper beam engine in a boat."*
- 6. Sketch. 14 horse boat engine with 23 ½ inch cylinder. Not dated.
- 7. Sketch. "Superwigwag / Talywag Engine, being scheme CCCXXXVIII." Not dated. Docketed (in a much later hand) "An inverted grasshopper with rising and falling gear-driven paddle wheel."
- **8.** Sketch. General Scheme 10 horse boat engine. Feb. 1818.
- 9. Sketch. Sketch of a scheme for Mr. Murdock. Aug. 1822. Showing a boat engine [?] with a 60 inch cylinder and 2 foot stroke.
- 10. Sketches. Section and plan of a boat engine with a 38 inch cylinder. Not dated.
- 11. Sketch. Small rough sketch and notes on a boat engine. Not dated.

- 12. Sketches. Section of a steam boat and 20 horse power engine. Not dated.
- 13. Sketch (on press copy paper). Arrangement of a boat engine. Not dated.
- 14. Sketches. Section and plan of a 20 horse boat engine. Not dated.
- **15.** Sketch. "The Spick & Span new Patent Daffy!!!" Not dated. *Sketch of a diagonal boat engine.*

# 'Envelope B - Plans of Boats'

Drawings of proposed boats, cross-sections of American steam boats, and various other calculations, circa 1815—1818.

- **16.** Sketches. "Scheme for a boat at sea." Oct. 1815. *Sections of a paddle boat pitching at sea.*
- 17. Sketches. "Sketches of Passage Boats." Not dated. Plan and elevation. Initialed "H. C. [Henry Creighton]"
- **18.** Sketches. "Passage Boats." Not dated. *Plan and elevation. Initialed "H. C. [Henry Creighton]"*
- 19. Sketches. Plan and elevation of boat similar to the "passage boat" above. Not dated. *Initialed "H. C. [Henry Creighton]"*
- **20.** Sketches. "Proposed Boat." Not dated. *Rough plans and sections of arrangement of boat engines.*
- 21. Sketches & notes. Rough notes for a boat engine. Not dated.
- 22. Sketches. Rough sections and details of nine American steam boats. Not dated.
- 23. Sketches. Sections and details five American steam boats. [Circa Feb. 1817.]

  These sketches have been drawn on the reverse of drawing JCM, engine and boiler house for Messrs. Meinert Lind & Dickie.

  The boats are John Molson's first boat Swiftsure, his second boat Malsham, Chancellor, steam frigate Fulton the First, and Powhattan.
- **24.** Memorandum (press copy). Rough Calculation on Steam boats. Soho, 25 Jun. 1818.
- **25.** Drawings. Cross section of a steam boat; part of sheer draught intended for the Engine; Whole breadth of the timbers for Engine room. Not dated. [This item is of a much later date than the rest of the contents of the envelope.]

# 'Envelope C - Propulsion; Dimensions'

- **26.** Sketches. Methods of propulsion. 1815 or 1816. "Duck's foot" and kicking mechanisms, Archimedes' screw impellor and "chain pump".
- 27. Sketches. "A rowing scheme." 1815 or 1816.

  These sketches have been drawn on the reverse of drawing BUE (reverse copy), engine house for Robert Willoughby.

  Plans for steam-powered oars.

- **28.** Diagrams. Inclination and depth of paddle wheel blades and graph of resistance. Jan. 1816.
- 29. Sketches. Patent Scheme. Not dated.

  Three sketches of boats propelled by air being blown out into the water at the stern. The first scheme features "farting out wind behind, the bubbles rising up an inclined plane to make the boat go forwards!!!"
- **30.** Sketch. Paddle wheel with moveable sheet iron shell. Not dated. Docketed (in a much later had) "Paddle wheel driven by open gear and being in hinged frame to be raised or lowered."
- 31. Sketches. Section and elevation of a paddle wheel. Not dated.
- **32.** Memorandum. Dimensions of 200 and 300 ton ships. Not dated.
- 33. Calculations. Dip of paddle wheels of boats with one or two engines. Sep. 1817.
- 34. Memorandum. Dimensions of Coal Boxes proposed & drawn for the two 60 horse engines for the Navy Towing Vessels. Mar. 1822. *In James Watt Jr.'s hand.*
- **35.** Memorandum. Dimensions of cross bars, beams and air pump cross bars of 20 and 30 horse engines. Not dated.
- **36.** Memorandum. "Other proposed diagrams." [Circa 1824.]

### 'Envelope D – Distances and Times'

- **37.** Memorandum. Distances from London to Rotterdam. Not dated.
- **38.** Memorandum. Voyage of a tug from Hull to Gainsborough. From *The Times*. Not dated.
- **39.** Calculation. Voyage of a tug from Leith to Grangemouth towing a 50 ton lighter. Not dated.

### MS 3147/3/553

# MR. MURDOCK'S MEMORANDUMS RESPECTING LORD LOWTHER'S COLLIERIES AT WHITEHAVEN 1802

### INTRODUCTION

Memoranda and sketches describing the coal mines in the Whitehaven belonging to Lord Lowther, and the various pumping and winding engines at work on them, from 1802. The information was gathered by William Murdock and passed to Boulton Watt & Co.

- 1. Bundle wrapper.

  Marked "No. 12 Mr. Murdock's Memorandums respecting Lord Lowther's Collieries at Whitehaven 1802."
- 2. Memorandum. Agents on Lord Lowther's Coal Works. 22 Jul. 1802.

- **3.** Pencil sketch. Elevation and plan of Ginn's engine. Jul. 1802. *By William Murdock? Also includes a section of the boiler.*
- **4.** Sketch. Elevation of the Salton engine, Whitehaven. 24 Jul. 1802.
- 5. Sketch. Plan of the Salton engine, Whitehaven. 24 Jul. 1802. *Also includes a section of the boiler*.
- 6. Memorandum. An account of the Quantity of Coals... Salton and Ginn's Engines will consume in two hours, by a trial made 26 July 1802. *By R. Bryham.*
- 7. Memorandum. Pits and engines upon Howgill Colliery. 26 Jul. 1802.
- 8. Memorandum. A List of the different Seams of Coal, and Stratas of Metal in James Pit, situate about 100 yards east of St. James Chapel, the property of Lord Viscount Lowther. Whitehaven, 26 Jul. 1802.

  By John Peile. Given to William Murdock. Docketed as 24 Jul.
- 9. Memorandum. Depth of Pits from the surface at Whingill Colliery, situated at the East Side of Whitehaven, the property of Lord Viscount Lowther. 27 Jul. 1802.
  By John Peile. Given to William Murdock.
  With details of engines at the colliery on the same sheet.
- 10. Memorandum. Memorandums respecting Lord Lowther's Engines. 26 Sep. 1802. 2 sheets. Docketed "Communicated by Mr. Murdock." In James Watt Jr.'s hand. Details of pumping engines, Ginn's engine, winding engines.
- **11.** Drawing. A section of the Coal mine between Duke's Pit and Lady Pit. Not dated. *In five separate sections*.

# MS 3147/3/554 STEAM BOAT MEMORANDA STEAM BOAT *CALEDONIA* 1818—1819

# INTRODUCTION

Memoranda, sketches and diagrams relating to the steam boat *Caledonia*, from 1818 and 1819. The *Caledonia* was built by James and Charles Wood and James Barclay of Glasgow in 1815. James Watt Jr. and M. R. Boulton bought the boat from her original owners, The *Caledonia* Steam Boat Co., in May 1817, and replaced her existing engines with the 14 horse Boulton Watt & Co. side lever engines. The boat was used for trials and demonstrations of the Boulton Watt & Co. engines, including a voyage across the Channel and up the Rhine with James Watt Jr. aboard. She was sold in 1819 and went to Copenhagen.

For drawings of the *Caledonia* see Portfolio 5/1243.

1. Memorandum. Details of the power of *Swiftsure*, *Malsham*, *Ontario*, and experiment on the *Caledonia*. 1818.

In William Creighton's hand.

- 2. Memorandum. Trials of the *Caledonia*. 3—4 and 10—11 Jul. 1818. 5 sheets. *In James Watt Jr.'s hand*.
- 3. Diagrams. Caledonia from experiments of 1818. In William Creighton's hand. Diagram of angles etc. of paddle wheels.
- **4.** Sketch. Section of *Caledonia* showing dimensions of paddle wheels. Not dated [circa 1818/1819?].
- 5. Memorandum. *Caledonia* wheels 10/6. Circa Apr. 1819. *In William Creighton's hand.*Notes and calculations re experiments on the Caledonia's paddle wheels.
- 6. Memorandum. *Caledonia* 16 paddles in wheels. Circa Apr. 1819. *In William Creighton's hand.*Notes and calculations re experiments on the Caledonia's paddle wheels.
- 7. Graph. Comparison of performance of *Caledonia* with other steam boats. Not dated. *Marked "From best experiments of* Caledonia."

# MS 3147/3/555 STEAM BOAT MEMORANDA MISCELLANEOUS MEMORANDA, PAPERS ETC. 1737; 1816—1830

#### INTRODUCTION

Memoranda, sketches, transcripts, calculations etc. concerning various steam boats, from 1816 to 1830. The bundle contains information on a wide variety of boats, both those fitted with Boulton Watt & Co. engines and those with other manufacturers' engines, including a transcript of a pamphlet published in 1737. Many of the items are in William Creighton's hand, and the dates of these items roughly spans his tenure as head of the Drawing Office.

- 1. Transcript of a pamphlet by Jonathan Hulls on steam boats, 1737.

  Transcribed in the 1810s/1820s? Docketed (in a late 19<sup>th</sup> c. hand) "Jonathan Hulls, steam tug."
- 2. Memorandum. Dimensions of the Humber Steam Packet now plying between Hull and Selby. 3 May 1816.

  Docketed "Particulars communicated by Mr. Brown."
- 3. Sketch & notes. Section of an American steam boat Ogden Esq. Dec. 1816. *In William Creighton's hand.*
- **4.** Sketches & notes. Sections of a steam frigate and the *Chancellor*. 2 Feb. 1817. *Marked "From Mr. Molson."*
- **5.** Memorandum. Dimensions of *Prince Regent* steam packet. John Walker, May 1817.
- **6.** Memorandum. Account of the American boat *Chancellor Livingstone*. Not dated [circa Nov. 1817].

- 7. Memorandum. Notes on a boat engine for Mr. Schröder. Not dated [circa Nov. 1817].
- 8. Sections & plan. Sketch of a model made by Capt. (now Admiral) Schank, & from which the Forth & Clyde Canal Co. have built a barge for their Committee. 22 Mar. 1817.
- 9. Memorandum. List of Steam Boats trading to New Orleans. 1818. *In James Watt Jr.'s hand. Taken from Brock's* Sketch of Improvements in Phildelphia.
- **10.** Memorandum. Account of some steam vessels in America. London, 20 Mar. 1818. *In James Watt Jr.'s hand.*
- Memorandum. Dimensions of Several Steam Boats in America according to Mr. Molsham [Molson]. 25 Apr. 1818. 2 sheets.By George Rennie.Docketed "Particulars of steam boats obtained from Mr. Molson."
- 12. Sketches. London Engineer steam boat. Aug. 1818.

  In William Creighton's hand. Marked "From Mr. Murdock & Mr. Brown." Section of the boat showing internally mounted paddle wheels, and plan and section of the engines made by Henry Maudslay.
- **13.** Sketch. Section of the *Favourite* steam boat. 1818. *In William Creighton's hand.*
- 14. Memorandum. Favourite steam boat in 1818.

  In William Creighton's hand. Marked "From Johnson". Dimensions, coal consumption, details of paddles etc.
- **15.** Memorandum. Lengths of the *Favourite*, *Victory*, *Eclipse* and *Engineer* steam boats. 5 Sep. 1818
- Memorandum (in Italian). Particulars of the Velocity of the current, depth of water and modes of navigating the River Po. Communicated by Count Confalonieri. 7 Oct. 1818. 2 sheets.

  \*Kept with (b) below.
  - **b.** Memorandum. Translation of the Particulars of the Navigation of the Po, communicated by Count Confalonieri at Soho. With memorandum made with him there. 7 & 8 Oct. 1818. 2 sheets. *In James Watt Jr.'s hand.*
- 17. Memorandum. Draft of agreement for building a steam boat with Daniel Brent of Rotherhithe. 1819. 2 sheets.
- **18.** Memorandum. *Eclipse* towing *Hastings* 74 gun ship. James Brown, 5 Jun. 1819. *In William Creighton's hand*.
- Calculation & small newspaper cutting. Robert Burns boat a voyage to Greenock. Circa Aug. 1819.In William Creighton's hand.
- **20.** Memoranda. Estimate of the expense of a Steam Schooner of 387 tons; Dimensions of a Steam Vessel, No. 2. Aug. 1819.

- 21. Memorandum. Towing Boat for the Navy. Soho, 11 Dec. 1819.

  In William Creighton's hand.

  Docketed "Some particulars of the proposed design, boat and engines."
- 22. Sketch. Outer end block, paddle wheels, 40 horse boat engines. Not dated [circa 1820?]. *In William Creighton's hand. For engines XS & XT.*
- 23. Sketches & notes. Dimensions etc. of the *Eclipse* and *Engineer*. Not dated [circa 1820?] *In William Creighton's hand.*
- **24.** Memorandum (press copy). *Eclipse*. Not dated [circa 1820?] *In William Creighton's hand. Details of performance, paddle wheels etc.*
- 25. Memorandum (press copy). *Eclipse* steam boat, Thames, experiment. 4 Feb. 1820. *In William Creighton's hand. Marked "Given to Mr. Ewart by W. C. Feb. ? 1820."*Mounted on a sheet on the reverse of which are some plans of an engine room.
- **26.** Sketches & notes. Sections and performances of the *Caledonia* and *Sons of Commerce*. 6 Sep. 1820.
- 27. Sketches. Sections of *Ivanhoe* and *Talbot* steam boats. 11 & 13 Sep. 1820. *In William Creighton's hand. Marked "Mr. Brown's letter, 14 Sep."*
- **28a.** Memorandum. Boat Engines No. 1. Soho, 21 Sep. 1820. *Kept with (b) and (c) below.* 
  - **b.** Memorandum. Proposed sizes of steam pipes for boat engines. Not dated. *In James Watt Jr.'s hand. Covers engines pairs of engines from 20 to 100 horse power.*
  - **c.** Memorandum. Project for Sizes of Boat Engines. Not dated.
- Diagrams, sketches & notes. Post Office Lightning steam boat from experiment. 10 Apr. 1821. 4 sheets.In William Creighton's hand. Diagrams and graphs re the positioning and resistance of the paddle wheels etc.
- **30.** Sketch. Section of the *Swiftsure* steam boat. May 1821. *In William Creighton's hand.*
- 31. Sketches. Sections of the *Meteor* and *Eagle* steam boats. 8 & 12 May 1821. *In William Creighton's hand.*
- 32. Sketch. Section of the *Venus* steam boat. 29 May 1821. *In William Creighton's hand.*
- 33. Sketches. *Dasher* steam packet, Dover No. 1. Experiment. 14 Oct. 1821. *In William Creighton's hand*.
- 34. Memorandum. Memorandums & Suggestions for the construction of the 3<sup>rd</sup> Holyhead Steamer. Apr. 1822. 2 sheets attached together.

  In William Creighton's hand. Docketed by James Watt Jr.

- 35. Memorandum. Catalogue of Steam Vessels. 29 Apr. 1822.

  Table giving port, name, power, place of work, builders and engine makers of various steam vessels.

  Docketed "From Mr. Maudslay in the Report on Holyhead roads."
- **36.** Sketches. Rough plan & section of an iron boat. 11 May 1822. *In William Creighton's hand.*
- 37. Transcript. Grant of exclusive privilege to William Wager for operating steam boats between Rotterdam and Antwerp. The Hague, 21 Sep. 1822.

  \*\*Docketed "Copy of exclusive privilege. Dated Renewed 21 Sep. 1822."
- 38. Memorandum. Dimensions of Steam Vessels James Brown at Soho. 24 Sep. 1822.
- Memorandum. Weights of pumps for boiler in the *Lightning* and also in the *Comet*. 3 Oct. 1822.In James Watt Jr. 's hand.
- **40.** Sketch. Section of the *Soho* steam vessel. Sep. 1823. *In William Creighton's hand.*
- **41.** Memorandum. Steam Boat Chimneys & Flues. 30 Sep. 1823. *In William Creighton's hand.*
- **42.** Memorandum. Experiments with the *City of Edinburgh*, and *Crocodile*. 14 Jan. & 10 Apr. 1825.
- **43.** Memorandum. Experiments made with the *Crocodile*. James Brown, 8—11 Apr. 1825. 2 sheets sewn together.
- 44. Memorandum. Rules and Regulations to be observed by the Engineers and Firemen belonging to the Dublin Steam Packet Company. Not dated [circa 1825?] *Date taken from the watermark.*
- **45.** Sketch. Section of the *Etna*, Liverpool, built by Fawcett. 1826. *In William Creighton's hand.*
- **46.** Graph. 70 horse engine parallel Motion. 3 Apr. 1826. *Marked at the bottom "Model for* Thetis *4 Dec. 1826."*
- 47. Sketch. Boiler shrouding iron. 21 Jun. 1826.
- **48.** Memoranda. Tables with details of paddle wheels of various vessels. [Late 1820s?] 3 sheets.
- **49.** Memorandum. General Dimensions of Steamers. James Brown, 5 May 1830. Docketed "Catalogue of steam vessels having engines made at Soho the power, tonnage, dimensions."
- **50.** Memorandum. "Steam Boat Vocabulary." Not dated.

  In William Creighton's hand. Soho slang names/pronunciations of the names of various steam boats.
- 51. Memorandum. Ships of 1600, 1700, 1800, 1900 tons being 74 guns. Not dated. *Tables of dimensions of 74 gun ships*.

- **52.** Memorandum. Comparison of draughts of the *London* and *Sons of Commerce* steam packets. Not dated.
- 53. Sketch. Savery's boat *Lexicon Technicum*. Not dated.
- **54.** Table. Experiments on vessels and oars. Not dated.
- 55. Memorandum. List of dimensions and weights of various boats. Not dated. [Box 8/5]

# MS 3147/3/556 STEAM BOAT MEMORANDA MISCELLANEOUS MEMORANDA, PAPERS ETC. 1832—1847

#### INTRODUCTION

Memoranda, sketches, transcripts, calculations etc. concerning various steam boats, from 1832 to 1847. Most of the items relate to boats fitted with Boulton Watt & Co. engines.

- **1.** Table. Dimensions of Navy Steamers 492 tons *Firebrand* and *Flamer*. Not dated [circa 1832?]
- **2.** Table. Timbers used in the *Monarch*. 21 Feb. 1833.
- **3.** Table. Details of slide valves for boat engines. Not dated [circa 1834?] 2 sheets. *Date taken from the watermark.*
- 4. Notes and calculations re. marine boilers. Not dated [circa Feb. 1835].

  In 2 different hands a second hand has added pencil comments. The first page mentions a letter of 4 Feb. 1835. Mentions Beaver and Maria Anna.
- **5.** Table. *Dundee* body. 27 Apr. 1836. *Table of timbers used in the vessel.*
- **6.** Memorandum. Trial of *Crusader*. James Brown, 15 Aug. 1836.
- 7. Memorandum. Post Office Flamer. 1 Dec. 1836.

  In Gilbert Hamilton's hand. Note of James Brown's proposed alterations. Also his comments on grease cups 6 Dec. 1836.
- **8a.** Memorandum. Steam expansion *Atalanta* and *Berenice*. 18 Nov. 1837. *Extracts from the engineering logs. Kept with (b) and (c) below.* 
  - **b.** Calculations. In reference to the *Berenice*. 14 Dec. 1837. *Calculations re power, steam expansion etc*.
  - c. Draft letter. ? to the Editor of ?. Not dated [circa Dec. 1837]. Re the passage of the Atalanta and Berenice to India and their performance.

- 9. Memorandum. *Vulcan* Calculation of displacement. 10 Jan. 1838.
- **10.** Table. Danube Body No. 15. 12 Apr. 1838. *Table of timbers used in the vessel.*
- 11. Calculations. Parallel Motion 14 horse boat engine. 27 Apr. 1838.
- Memorandum. Operation of the 110 horse crank with 15 foot connecting rod as per *Hydra*. 5 Nov. 1838.
- Letter. James Brown (London) to Henry Wollaston Blake (Soho). 17 Sep. 1841.On the same sheet:Memorandum. Ratio of performance of six flat-bottomed, square bilged steam vessels.
- **14.** Memorandum. Size of Air Pumps etc. Boat Engines. Circa Apr. 1842. *Written on a sheet torn from a letter with a postmark dated 15 Apr. 1842.*
- Table. Austrian Lloyd steamers body. 30 Nov. 1842.

  Table of timbers used in the steamers for the Austrian Lloyd Co. Marked "Ex<sup>d.</sup> 9 Nov. 1864."
- 16. Note on the size of various boat engines' slide valves. [Circa 1843?] *On the reverse are calculations re. the 60 horse belted cylinders of the* Herne Bay.
- Table. Proportion of cylinders and air pumps boat engines. Not dated [circa 1844]. *Date taken from a postmark on the scrap on which the table is written.*
- **18.** Calculations. *Centaur*'s air pump beam. Not dated [circa 1845?].
- 19. Transcript of letter. Boulton Watt & Co. (London) to J. H. I. Corry (Admiralty). 22 Dec. 1845.Docketed "On subject of using high steam."
- **20.** Table. Necks of shafts marine engines. Not dated [circa 1847.]

  Date taken from the watermark.

  Docketed "Boat Engine Memoranda & Calculations" originally used as a wrapper?

# MS 3147/3/557 STEAM BOAT MEMORANDA STEAM BOAT NEWSPAPER EXTRACTS ETC. 1821—1842

#### INTRODUCTION

Transcripts from newspapers, notes and memoranda about various steam boats, from 1821 to 1842. Several of the notes concern boats that were not fitted with Boulton Watt & Co. engines. Most of the transcripts were made by William Creighton, the head of the Drawing Office, and his successor Gilbert Hamilton.

**1.** Bundle wrapper. *Marked "Steam Boat newspaper Extracts etc."* 

- 2. Memorandum. Arrival of the *Majestic* at Greenock from Liverpool. From a Scottish newspaper. [18 May 1821.]
- 3. Memorandum. Steam ship *Majestic*. From the *Glasgow Chronicle*, 10 Jul. 1821. *In William Creighton's hand. Details of the ship and its voyage from Greenock to Liverpool.*
- Transcript. Voyage of the *Eclipse* from Belfast to Glasgow. From the *Glasgow Chronicle*, 23 Oct. 1821.In William Creighton's hand.
- **5.** Memorandum. Dover *Sovereign* particulars from Capt. Wager. 1822.
- 6. Memorandum. Extracts from evidence about steam vessels. Mar. 1822. Marked "Parl. Report." Docketed "Sovereign, Meteor, Ivanhoe, Talbot, Hero, Victory."
- 7. Memorandum. Extracts from evidence about steam vessels. 22 Apr. 1822.
- 8. Memorandum. List of Steam Boats plying on the River Clyde in 1822.

  Taken from the Edinburgh Philosophical Journal, 1 Jul. 1822.

  Docketed "Catalogue of steam vessels in the River Clyde. Passage of St. George from Greenock to Liverpool and back again. Dimensions of St. George and St. Patrick."
- 9. Memorandum. New steam boat at Potsdam. From the *Glasgow Chronicle*, 10 Feb. 1824.
- **10.** Memorandum. *Neptune* on the Clyde. Not dated. *In William Creighton's hand. Costs and dimensions.*
- 11. Memorandum. Steam vessels America. Apr. 1830.

  In William Creighton's hand. Notes taken from London newspapers, 8 and 25 Apr. 1830.

  Docketed "Explosion at Louisville. Explosion in Tennessee."
- 12. Memorandum. "Dreadful Steam Boat Accidents from the American Papers." From the *Liverpool Mercury*, 8 Jul. 1831. *In James Watt Jr.'s hand*.
- **13.** Transcript (press copy). "Iron Steam Boats." From the *Glasgow Herald*, 30 Oct. 1835. 2 sheets.
- **14.** Memorandum. French steam ship the *Courier* on the Dover Station. 25 Aug. 1836. *Information from James Brown*.
- 15. Memorandum. Particulars of steam boats *Sirius* and *Great Western*. From the *Albion* newspaper, 28 May 1838.
- **16.** Memorandum. The *British Queen*. 17 Jul. 1839. *Information from James Brown*.
- Note. Dimensions of the beams of *Teadorio* and *ElRapido*. [Circa Nov. 1841.] *Written on the reverse of a note from Hollins Hunt dated 23 Nov. 1841.*
- **18.** Transcript. "New Men of War." From the *Hereford Journal*, 7 Sep. 1842.
- **19.** Note. Dimensions of the *Trident*. Not dated

- **20.** Note. Dimensions of the *London* and *Wilberforce*. Not dated.
- 21. Note. Dimensions of the *Styx*. Not dated.
- 22. Note. Experiments on a steam boat. Not dated.

# MS 3147/3/558 STEAMBOAT MEMORANDA STEAM BOAT BOILERS. 1827—1836

#### INTRODUCTION

Memoranda and correspondence about the construction, weight and cost of boilers for various steam boats, from 1827 to 1836. The last three items also concern the accounts of Samuel Richards, the head boiler maker at Soho Foundry.

- 1a. Memorandum. For calculating the size etc. of the new boiler of the *James Watt*, two 60 horse engines. 27 Feb. 1827.

  In James Watt Jr. 's hand. Kept with (b)—(d) below.
  - **b.** Letter. James Brown [London] to James Watt Jr. [London]. 27 Feb. 1827.
  - **c.** Memorandum. Weight of the *Hero*'s boiler, say for 2 50 horse engines. 10 May 1827.
  - **d.** Memorandum. Weight of the pieces of boiler No. 357 for the *James Watt*. 10 Mar. 1828.
- **2.** Memorandum. Comparative view of boilers for two 40 horse engines. 2 Mar. 1827.
- **3.** Table. List of boilers. 27 Nov. 1820—6 Sep. 1827. *Boilers for ships records boiler no., name of vessel, weight and date sent away.*
- **4.** Letter. Isaac Horton (West Bromwich) to Boulton & Watt [Soho]. 12 May 1827. *On the same sheet:*

Account. Charge for the *Venus* boiler. 30 Sep. 1827.

The account and the docket are in William Creighton's hand. Docketed "Terms for boilers £5 plain, £8.10 boat. N.B. An order given Isaac Horton for a boat boiler for the Venus to be made on his own premises 17 May 1827. Charge for Venus boiler, Soho Day Book, 30 Sep. 1828."

- Letter. John Dawn (Soho Foundry) to James Watt Jr. [Soho]. 6 Nov. 1827.On the same sheet:Tables. Weights of various boat boilers.
- 6. Memorandum. Price charged to us for boilers by Horton & Laird 1826 and 1827 and by Isaac Horton 1827 and 1828.
- 7. Memorandum. Estimate of making boat boilers with iron of £9 per ton. 20 Oct. 1829.

- Memorandum. Boulton Watt & Co.'s charges for boat boilers. Jun. 1828, Oct. 1829, Jan. & Mar. 1830.
  In James Watt Jr.'s hand.
- 9. Memorandum. Estimate of boat boiler No. 495 for 2 40 horse engines sent for the *Aladdin*. Soho Foundry, 21 Oct. 1829.

  Marked "Revised 22 Mar. 1830."
- 10. Transcript of letter. John Dawn (Soho Foundry) to James Watt Jr. (London). 3 Jul. 1828. Docketed "Price charged from Foundry for common boilers in sundry years, and cost of the plates used. Revised 24 Oct. 1829 and 22 Mar. 1830."
- Letter. Jonathan Dawn (Soho) to James Watt Jr. (Soho). 29 Nov. 1827.
  On the same sheet:
  Tables. Weights of the pieces of various boat boilers.
  Details of various other boat boilers up to Mar. 1830 have been added to the sheet.
- Letter. John Dawn (Soho Foundry) to James Watt Jr. [Soho]. 28 Sep. 1830.On the same sheet:List. Boilers in stock at Soho Foundry.
- **13.** Memorandum. Boiler plates. Frederick Bennett (Soho Foundry). 20 Apr. 1831. *Docketed "Thickness of plates used in land and boat boilers and in coal boxes."*
- **14.** Memorandum. Stock of boilers at Soho Foundry. 5 Aug. 1831.
- 15. Memorandum. Weight of 45 horse boilers for Plymouth Victualling Engines. Oct. 1831.
- **16.** Accounts. Samuel Richards' accounts, Lady Day 1820—Christmas Quarter 1830; Christmas Quarter 1830—6 Jul. 1832. Soho Foundry, 20 Jul. 1832.
- Letter. John Thomas Jr. (Soho Foundry) to James Watt Jr. (Soho). 29 Jul. 1832.On the same sheet:Account. Samuel Richards' account, Christmas 1830—Midsummer 1833.
- 18. Letter. Henry Wright (Soho Foundry) to James Watt Jr. (Soho). 20 Aug. 1836.

  Docketed "Abstract of Richards' boiler making account from Christmas 1830 to Jul. 1836.

  Average cost of making boat boilers: 1820 to 1824 £8.8.2 per ton; 1824 to 1830 £8.13.2 per ton; 1830 to 1836 £9.12.4 per ton. Means of accounting for the increased cost."

# MS 3147/3/559 STEAMBOAT MEMORANDA MISCELLANEOUS MEMORANDA, PAPERS ETC. 1849—1863

### INTRODUCTION

Memoranda, transcripts, calculations etc. concerning various steam boats, from 1849 to 1863, when the firm was called James Watt & Co. The items relate both to boats fitted with James Watt & Co.'s engines and boats fitted with other manufacturer's engines. The bundle contains three items relating to the engines for Isambard Kingdom Brunel's boat *Great Eastern*.

- 1. Memorandum (draft). "Why are H. M. Steam ships inferior to those of the merchant service." Not dated [1840s?]. 2 sheets.
- 2a. Memorandum. The Cost of an Iron Vessel 160 feet long. John Laird, Birkenhead, 16 Jun. 1849. Kept with (b) below.
  - Memorandum. The Cost of an Iron Vessel 220 feet long. John Laird, Birkenhead, 16 Jun. 1849.
     Docketed "Scantlings of iron steam vessel for the Honourable East India Company."
- 3. Memorandum. Specification and Scantlings for Iron Steam Vessels for the Honourable East India Co. Money & W. L. Wigram, Blackwall Yard, 16 Jun. 1849.
- **4.** Graph. Height of high and low water at Sunderland. 30 Nov.—13 Dec. 1849.
- **5.** Memorandum. Weight of feathering paddle wheel for *Thames*. Jun. 1850.
- 6. Memorandum. *Marlborough* screw steamship, 131 guns. [Circa 1850]. Date taken from the watermark.

  Docketed "Dimensions of the Marlborough and other ships of war."
- 7a. Memorandum. Extract from the Engineer's Log, steam ship *Great Britain*. 1—14 May 1852. *Kept with (b) below. The original was signed on 15 May by F. P. Smith.* 
  - Memorandum. Extract from the Engineer's Log, steam ship *Great Britain*. 5—16 Jun. 1852.
    The original was signed on 16 Jun. by F. P. Smith.
- 8. Memorandum. Difference between H. M. S. ships *James Watt* and *St. Jean de Acre*. [Circa 1853].

  Date taken from the watermark.
- **9.** Table. Dimensions of foot and delivery valves, marine engines. [Circa 1854]. *Date taken from the watermark.*
- **10.** Table. Velocities of Steam Ships supposing the engines are exerting 3 times their nominal horse power. 28 Jul. 1855. 2 sheets.
- 11. Table. Velocities of Steam Ships supposing the engines are exerting 3½ times their nominal horse power. [Circa Jul. 1855?]
- 12. Memorandum. Details of the boilers of the *Stephanie*, *Rajah*, *Loa*, *Cornelia* and *Furribees* [?]. [Circa 1855.]

  Date taken from the watermark.
- 13. Memorandum. Introduction of Steam Vessels 1787—1812. [Written circa 1856.] Date from the watermark. Notes on W. Miller, W. Symington and Robert Fulton's boats.
- **14.** Tables. Irish postal vessels expansion etc. of steam in the boilers. [Circa 1856.] *Date taken from the watermark.*

- Printed sheets. Results of Trials of "Wethered's Patent Combined Steam," as compared with Ordinary Steam, on board the Steam Ship *Avon*. 10 Dec. 1857—6 Feb. 1858. 3 sheets. *Docketed "Superheated steam results."*
- **16.** Memorandum. *Great Eastern* speed, coal and ratio. [1858?]
- 17. Memorandum. *Great Eastern* power at different pressures. [1858?]
- **18.** Table. Displacement of Ships Constant to find the same. 4 Jun. 1860.
- 19. Memorandum. Holyhead Steamers Surface of the Boilers of the *Ulster* and *Munster*, and the *Leinster* and *Connaught*. 28 Jun. 1860.
- **20.** Memorandum. *Ulster* trial by Admiral Moorsom. 5 Apr. 1861.
- 21a. Memorandum. Queen's Yacht and Dublin steamer. Aug. 1861.
  Kept with (b) below.
  Memorandum of trial of Queen's yacht at Stokes Bay, 3 Jul. 1855, and crossing to Holyhead Aug. 1861, compared to the Postal Vessel Ulster.
  - **b.** Calculations. Comparison of the Queen's Yacht and the *Ulster*.
- **22.** Memorandum. Performance of *Leander*'s engines. Nov. 1861.
- **23.** Calculations. *Deerhound*. 15 Jul. 1863.
- 24. Memorandum. List of Vessels which now form the Peninsular & Oriental Steam Navigation Company's magnificent steam fleet. Not dated.
- **25.** Memorandum. Boilers for Indus troop steamer. Not dated. *Docketed "Calculation of capacity for water to be evaporated per minute."*
- **26.** Memorandum. Great Circle Arcs or Minimum Distances. Not dated. *By R. Abbatt.*
- 27a. Calculations. Sizes of various back plate openings boat engines. Not dated. 2 sheets. *Kept with (b) below. Includes calculation for the* Great Eastern.
  - **b.** Calculations. Back plate openings. Not dated. *Includes calculation for the* Great Eastern.
  - **c.** Wrapper for the above two items. Docketed "Sizes of various back plate openings – boat engines."

# STEAMBOAT MEMORANDA DRAWINGS OF BOATS, ENGINES, PADDLE WHEELS ETC. 1814—1850s

#### INTRODUCTION

Drawings, reverse drawings, printed plates, tracings etc. of various steam boats, engines, machinery and paddle wheels, from 1814 to the 1850s. Several of the items concern engines other than those made at Soho, including Joseph Maudslay and John Penn.

- 1. Drawings. Method of preserving parallelism in the paddles of water wheels attached to a steam boat. Robertson Buchanan, Glasgow. 1814.

  Marked "Copy of sketch made for the Archduke John of Austria, 31 May 1817."
- 2. Pen & wash drawings. Steam boat proposed for James River from Norfolk to Richmond, Virginia. From Mr. F. B. Ogden. Dec. 1816.
- **3.** Printed drawings. A steam engine constructed on the principle of F. B. Ogden's patent. [Circa 1816?]
- 4. Pen & wash drawings. Plans and sections of various steam boats. [Circa 1817?] *Includes sections of hulls of London-Richmond and London-Gravesend boats, plans of the* Caledonia, Majestic *and* Richmond, *paddle wheels of* Caledonia *and* Prince Regent *etc*.
- **5.** Printed drawings. Mr. Schroder No. 1. Nov. 1817. *Marked "Mr. Trev. [Treviranus]."*
- **6.** Drawings. Design of a Tow Boat for the River Po. 18 Aug. 1818. *Reverse copy. Drawing LEV.*
- **7a.** Drawing. Cross section of machinery on board the *Tartar* steamer. [Circa 1824.] *Kept with (b) below. Date taken from the watermark of (b).* 
  - **b.** Drawing. Plan of machinery on board the *Tartar* steamer. [Circa 1824.] *Date taken from the watermark.*
- 8a. Transcript. Letters Patent to Joseph Maudslay for "Certain Improvements on Steam Engines." 29 Nov. 1827.

  Patent for the oscillating engine. Transcript made much later than 1827. Kept with (b) & (c) below.
- **b, c.** Drawings (on tracing paper). Maudslay's patent vibrating engine (to accompany his specification dated 29 Nov. 1827). 2 sheets. *Traced much later than 1827*.
- 9. Pen & wash drawings. Mr. Morgan's paddle wheel as applied to H. M. Steam Boat *Confiance*. 30 Dec. 1830.

  Reverse copy. Marked "See Mr. Brown's letter 16 Nov. 1830."
- 10. Printed memorandum & drawings. Elijah Galloway's new patent paddle wheels. 1835.

- 11. Printed memorandum & drawing. Elijah Galloway's patent paddles. 1836.
- **12.** Drawings. Sections of *Gorgon*'s engines 2 160 horse power. 1841. *Reverse copy. Marked "To Soho 30 Apr. 1841."*
- **13.** Printed drawings. Grantham's Patent Plate No. 1. Not dated. *Drawings of various arrangements of boat engines.*
- Drawings (on tracing paper). Cylinder for H. M. S. *Lively*, 250 horse power, as made by J. Penn & Co. Not dated.
- **15.** Drawings (on tracing paper). Design for engines for H. M. Steam Frigate *Arrogant* of 350 horse power. Not dated.