INDUSTRIAL REVOLUTION: A DOCUMENTARY HISTORY

Series One: The Boulton and Watt Archive and the Matthew Boulton Papers

from Birmingham Central Library

Part 13: Boulton & Watt Correspondence and Papers (MS 3147/3/286-404)

DETAILED LISTING

REEL 243

3/390 General Correspondence, F

(35 items)

- **1.** Letter. James Fairweather & Co. (Dundee) to Boulton & Watt (Birmingham). 22 Feb. 1792. Have almost decided to have a 10 horse Boulton & Watt engine. How soon can Boulton & Watt have one erected, as much depends on the time.
- **2.** Letter. F. Fawssett (Wisbeach) to Boulton & Watt (Birmingham). 25 Aug. 1790. Details of marshland in Cambridgeshire they will receive an official letter from Mr. Whincop. Some landowners are opposed to drainage. They cannot decide if steam engines can be used for drainage without someone visiting. They should answer Whincop's letter with appropriate caution.
- **3.** Letter. Fector & Minet (Dover) to Matthew Boulton (Birmingham). 16 Feb. 1793. This letter was passed to Boulton & Watt by Zaccheus Walker. Have forwarded the box for Monsieur L'Eveque of Nantes to Calais.
- **4.** Letter. Thomas Fenton (Rothwell Haigh) to Boulton & Watt [Soho]. 7 Feb. 1785. *John Lister is ill. Fenton will keep the drawings until he is better.*
- **5.** Letter. Thomas Fenton (Rothwell Haigh) to Boulton & Watt (Soho). 18 Aug. 1785. *Docketed "Depth of his lifts."*

Thomas Wilson has visited him. Thoughts on the "Cornish business" – the Company of Copper Smelters. John Lister has died. Need assistance with the engine as it is not running well. Progress with the mine and need for alteration to the pumps. Arrangements for paying his account.

6. Letter. Thomas Fenton (Rothwell Haigh) to Boulton & Watt (Birmingham). 16 Jul. 1786. Docketed "About drawing coals from the pits."

The bearer Mr. Humble wishes to discuss the application to collieries of their use of engines in Cornwall to draw ore.

- **7.** Letter. Thomas Fenton (Rothwell Haigh) to Boulton & Watt [Soho]. 19 Aug. 1786. Will pay his account has had large calls for money for "fixing" the colliery.
- **8.** Letter. Thomas Fenton Jr. for Messrs. Fenton (Rothwell Haigh) to Boulton & Watt [Soho]. 10 Nov. 1788.

Can someone be sent to inspect their engine as they fear it is not in good order.

- **9.** Letter. Thomas Fenton Jr. (Rothwell Haigh) to Boulton & Watt [Soho]. 19 Nov. 1788. *Can they send the person they mentioned over as soon as possible.*
- **10.** Letter. Thomas Fenton (Rothwell Haigh) to Boulton & Watt [Soho]. 13 Feb. 1791. Docketed "With remittance. Prices of glass &c." Enclosing a draft. The price of superfine glass squares.
- **11.** Letter. Fish & Yates (London) to Boulton & Watt [Soho]. 7 Mar. 1786. The indenture seems to be right Boulton & Watt can have it engrossed.

- **12.** Letter. Fish & Yates (London) to Boulton & Watt [Soho]. 7 Jun. 1786. John Wilkinson is sending the cylinder. "Great forwardness" of John Rennie's work. When will the remainder of the engine be sent.
- **13.** Letter. Thomas Fitzherbert (Epsom) to Boulton & Watt [Soho]. 18 May 1792. A friend has recommended he use a Boulton & Watt engine for his well. Requests an estimate.
- **14.** Letter. Alexander Fleming (Kirkliston) to James Watt (Birmingham). 10 Aug. 1786. Requesting an estimate for an engine to supply his friend's distillery with water.
- **15.** Letter. Cornelius Flint (Hartington) to Boulton & Watt (Birmingham). 30 Jul. 1787. He made an error about the amount of water in Ecton mine when he met Boulton & Watt. Details of the amount in the wettest season.
- **16.** Letter. Cornelius Flint (Hartington) to Boulton & Watt (Birmingham). 26 Dec. 1787. They have decided to proceed with an engine for the Duke of Devonshire's mine at Ecton. Mr. Heaton recommends that Boulton & Watt see the situation of the mine.
- **17.** Letter. Cornelius Flint (Hartington) to Boulton & Watt [Birmingham]. 9 May 1789. Will have the money to pay Ecton mine's account next week. Details of a meeting for the paying of their accounts.
- **18.** Letter. Cornelius Flint (Hartington) to Boulton & Watt [Birmingham]. 18 May 1789. *Enclosing 5 bills paying for the Ecton mine engine. The engine is going very well.*
- **19.** Letter. Cornelius Flint (Hartington) to Boulton & Watt [Birmingham]. 18 May 1789. *Docketed "With remittance."*

Has only just received their letter telling him to meet Thomas Hart, therefore he sent the bills for the Ecton mine engine this morning. Mr. Heaton will pay the premium money in London. It is best to mention this to Mr. Whately as Mr. Heaton may forget.

Marked "Mr. Wheately has perused this letter & will speak to Mr. Boulton upon the subject. Z[accheus] W[alker] Jun."

- **20.** Memorandum. Calculations on the Ecton mine engine and a note of Cornelius Flint's address. Undated [Circa 1788/1789?]. *In John Southern's hand.*
- **21.** Letter (in French). G. C. P. Flitzig (37 Kings Street, St. Ann's, Soho, London) to James Watt (Harper's Hill). 22 Jul. 1788. Is taking out a patent for a machine for raisning water. Monsieur de Luc has suggested he get in touch with James Watt. Seeking James Watt's advice on taking out the patent, protection against piracy etc.
- **22.** Letter (in French). G.C.P. Flitzig (37 Kings Street, St. Ann's, Soho, London) to James Watt (Harper's Hill). 6 May 1789. Has had several problems, therefore has not written to James Watt before now. Has abandoned his patent. Has applied himself to navigation. Has developed another pumping machine which will be useful in warships. Offers to let James Watt be involved.
- **23.** Letter (in French). J. B. J. Fontaine (Rouen) to Matthew Boulton (Soho). 16 Jun. 1790. *Marked "belongs to Boulton & Watt".*Wants to do business with Boulton. Offers his services.
- **24.** Letter. S. W. Fores (3 Piccadilly, London) to Matthew Boulton (Birmingham). 11 Mar. 1785.

Fores, a bookseller, is offering Humphrey Gainsborough's model of his last steam engine design. He got it from a gentleman who got it from Humphrey's brother [William].

25. Letter (in French). Monsieur de la Fosse (—) to James Watt (L'Hotel due Partement d'Angleterre, Rue Coquéron, Paris). 6 Jan. 1787. The docket notes the letter came "by Mr. Gemain". Introducing Monsieur Le Roi, an artist who studied at L'Academie d'Architecture.

- **26.** Letter. John Foster (Selby) to Boulton & Watt [Soho]. 19 Feb. 1792. Requests details and costs of an engine for grinding flint; and also an engine for cotton spinning and one for a rolling mill, so he can decide how best to invest his money.
- **27.** Letter. John Foulds (London Bridge) to James Watt (Birmingham). 15 Apr. 1785. Problems with their engine house – a wall has had to be replaced. Problems with fitting their boiler around the brick piers.
- **28.** Letter. John Foulds (London Bridge) to James Watt (Birmingham). 5 Aug. 1785. Details of the construction of the engine house. Fitting in the boiler and engine.
- **29.** Letter. John Foulds (London) to James Watt [Birmingham]. 3 Aug. 1786. Docketed "About setting the engine to work."

Mr. Till got impatient so Malcolm [Logan] tried to start the engine before it was ready. Details of problems with and adjustments to the engine. She now works well. Adjustments to the boiler. They have not had any steam leaks or bad joints.

30. Letter. John Foulds (London Bridge Water Works) to James Watt [Birmingham]. 5 May 1787.

Docketed as 6 May.

Has received the drawings. Adjustments to the engine – extension of the suction pipe.

- **31.** Letter. Mr. Foxlow (Orleans) to Richard Conquest (Birmingham). 5 Nov. 1788. Apologies he has not visited Conquest. Inviting him and his wife to France. Details of the cotton works he is involved in with the Duke d'Orleans, three other nobles and two "private gentlemen". They plan to use a steam engine. One of the partners makes engines but will probably not make theirs. Can Conquest get details of engines of various sizes from Boulton & Watt. Can he keep it secret as the man who makes engines [possibly Perier?] is involved in a law suit concerning the "Eaux de Paris" with one of the other principal partners.
- **32.** Memorandum. Mr. John Franklin's Queries. Oct. 1791. *In James Watt's hand. Marked "Mr. John Franklin, at Blockley, but the mill at Camden, Gloucestershire."*
- **33.** Letter. William Frazer (Shadwell Water Works) to Boulton & Watt (Soho). 7 May 1791. Docketed by William Creighton, many years after its receipt. Ordering a new piston, and a bucket for the air pump.
- **34.** Letter. William Frazer (Shadwell Water Works) to Boulton & Watt (Birmingham). 11 May 1791.

Docketed by William Creighton, many years after its receipt. Enclosing a note with the exact diameter of their cylinder.

35. Letter. John Frere (Roydon) to James Watt (—). 31 Oct. —. He gave his German friend Salis a letter of introduction to James Watt. They expected him to have returned by now. Has he been with James Watt. Hopes to see James Watt in London. Has heard nothing of the last quarter's settlement of the Albion Mill account.

3/391 General Correspondence, G (79 items)

1. Letter. Samuel Galton [Birmingham] to James Watt [Birmingham]. 16 Aug. 1785. Docketed "Refusal of shares in Cornish Metal Co." Will call on James Watt and explain why he cannot "contract such an engagement".

2a. Letter. John Smith (Manchester) to Joseph Smith (of William Rathbone & Son, Liverpool). 1 Jun. 1785.

Docketed "Letters to Mr. Galton on the subject of a clerk for us, 1785". Kept with (b) and (c) below.

His desire to leave his current job as he has no chance to learn anything new.

- **b.** Letter. William Calcott (Bristol) to Samuel Galton (Birmingham). 11 Sep. [1785]. Offering his services as a clerk to Boulton & Watt.
- **c.** Letter. ? (Hackney) to "Dear Nephew" [Samuel Galton?]. 16 [1785]. The half of the sheet containing the signature and the address has been torn away] The suitability of John Ashley as a clerk for Boulton & Watt.
- **3.** Letter. Samuel Garbett (Birmingham) to James Watt [London]. 22 Feb. 1785. His thoughts on the questions put to traders before King's Council [possibly re Arkwright's patent case]. Has written to Matthew Boulton. James Watt's "plain speaking is the only chance we have to acquire attention." Wishes to hear judges' opinions on Richard Arkwright's claim.
- **4.** Letter. Samuel Garbett (Birmingham) to James Watt [Birmingham]. 29 Mar. 1786. Has read the papers does not think they can be abridged. Will write James Watt a letter expressing what was in his mind when he conversed with Mr. Pitt.
- **5.** Letter. Samuel Garbett (Birmingham) to James Watt [Birmingham]. 21 Jun. 1786. Docketed "About Birmingham Smelting Company". Doubts the amount of copper raised in Britain is enough to support the Cornish mines. Potential problems of Mr. William's character. Has a good opinion of Thomas Wilson but is afraid of trusting one man with "so many fundamentals". Need adequate protection.
- **6.** Letter. Samuel Garbett (Birmingham) to James Watt [Birmingham]. 22 Jun. 1786. *Docketed as Mr. Wilson.*

Thomas Wilson should request a meeting with him, Matthew Boulton and the others who form the committee to negotiate for the gentlemen who want command of copper and brass works. Realises it does not appear proper that his answer to Wilson should be decisive for the whole committee.

7. Letter. Samuel Garbett [Birmingham] to James Watt [Birmingham]. "Sunday Morning" [24 Jun. 1786].

Docketed "About tool bill."

The comments the committee intend to send to Mr. Rose about a bill intending to repeal the general clause that prohibits export of metal goods.

8a. Letter. Samuel Garbett (—) to James Watt [Birmingham]. "Thursday" [22 Mar. 1787]. *Enclosing (b) below.*

Has had a card from William Russell and Mr. Humphreys. He will come to see James Watt today or he will be at home.

- **b.** Letter. William Russell (Birmingham) to Samuel Garbett [Birmingham]. 20 Mar. 1787. Has shown Mr. Humphreys Garbett's letter. They both agree with Garbett's sentiments.
- **9.** Letter. Samuel Garbett (Birmingham) to James Watt (London). 28 Oct. 1787. Has not managed to meet Mr. Wilkinson. Ways in which the [Cornish?] Metal Company can apply to Mr. Pitt to consult with the Lord Chancellor to grant a petition protecting those in the mining industry. James Watt must clearly state the organisation and power of the company. Hopes the Chancellor will be able to enforce the determinations of a general meeting of the company. It is not a good time "to solicit a copper coinage, it is a species of swindling...".

- **10.** Memorandum. Mr. Garbett's Mem^m to Mr. Boulton... about Sword Blades. May 1790. Garbett's request as Chairman of a meeting that Boulton consider trials of the quality of sword blades being made in Birmingham for the India Company. Boulton's proposals to use a test used by a German.
- **11.** Letter. Zaccheus Walker (Birmingham) to James Watt (Harper's Hill). 14 Dec. 1789. Docketed "Concerning Mr. Gardiner's engine at Spalding." Enclosing a letter from Gardiner which was delivered by Mr. Steele.
- **12.** Letter. Charles Gardiner (Spalding) to Boulton & Watt [Soho]. 20 Dec. 1789. Can engines be made to 2 and 4 horse powers. Needs a small engine.
- **13.** Letter. Charles Gardiner (Spalding) to Ward & Steele (Birmingham). 3 Jan. 1790. Thanks for delivering his earlier letter to Boulton & Watt. Fears his subsequent letter miscarried. Queries for Boulton & Watt about small engines the difference in cost, coal consumption between 2 and 4 horse engines.
- **14.** Letter. Charles Gardiner (Spalding) to Boulton & Watt [Soho]. 11 Nov. 1790. Requesting an engine erector to put up the engine at their oil mill.
- **15.** Letter. John Garford (Clements Lane, London) to Boulton & Watt [Soho]. 18 Aug. 1785. *Enquiring about a two horse engine to work a pair of 5 foot grindstones.*
- **16.** Letter. Samuel Gaskell & Co. (Warrington) to Boulton & Watt [Soho]. 2 Mar. 1789. Requesting an estimate of a small engine to work carding machinery.
- **17.** Letter (in French). J^{h.} Gaudin Fils et C^{ie.} (Nantes) to Boulton & Watt (Birmingham). 28 Jun. 1787.

Requesting an estimate and details of an engine to power tilt hammers at their factory. Monsieur L'Evéque, an engineer in Nantes, has recommended Boulton & Watt's engines.

- **18.** Letter. Thomas Gee (Bristol) to "Bolton & Co." (Birmingham). 10 Feb. 1785. Requesting an estimate and details of an engine for his snuff mill.
- **19.** Letter. William Gibbons (Bristol) to Matthew Boulton (Birmingham). 17 May 1785. His examination before the House of Commons about the [iron?] trade's opposition to the "Irish Propositions". Mr. Rose's denials about what he said. Mr. Pitt's support for Rose. Mr. Reynolds' support of Gibbons' evidence. Has taken copies of what Rose said to the Treasury. Wants to strengthen his evidence with Matthew Boulton and James Watt's recollections of what Rose said can they sign the enclosed copy if they think it is right. Fears of the effect of the Propositions on the iron trade.
- **20.** Memorandum. Copy of what I wrote to Mr. Gibbons. May 1785. *In James Watt's hand.*

Cannot recall exactly how Mr. Rose answered Gibbons, Reynolds and Wilkinson, but thinks it was as Mr. Gibbons recalls, and that Rose repeatedly said the iron trade "should not suffer by any treaty which should be made with Ireland."

- **21.** Letter. John Gilbert (Kidcrew) to James Watt (Birmingham). 7 Mar. 1789. Queries about the cost of the engine for his rock works. Boulton & Watt should provide everything that he cannot get locally. Progress with the engine house. A nearby forge has decided to have a common engine Boulton & Watt are loosing out by not agreeing to erect engines for fixed sums.
- **22.** Letter. John Gilbert (Worsley) to Boulton & Watt [Soho]. 16 May 1789. Details of the cost of his boiler. Is expecting to hear when the engine is set to work. Wants to see Boulton & Watt's erector before he leaves.

- **23.** Letter. John Gilbert Jr. (Worsley) to Matthew Boulton (Soho). 4 Jun. 1791. His friends are entering into a navigation scheme from Sowerby Bridge to Manchester. Enquiring about John Rennie as a navigation surveyor.
- **24.** Letter. Edward Giles (Cuckney) to James Watt (Soho). 15 Oct. 1789. Plans to leave his post as Mr. Gorton's engineman – there is a suitable replacement.
- **25a.** Letter. George Glenny (Bromley Hill) to Boulton & Watt (Soho). 3 Jun. 1792. *Enclosing (b) below.*

Requests details of engines for a friend's [Mr. Cochrane's] flour mill in Bengal. Encloses a copy of his friend's request. Problems of shipping the boiler. Who would Boulton & Watt recommend for the mill work – knows James Cooper of Poplar.

- **b.** Transcript of Cochrane's letter detailing of his requirements. Not dated.
- **26.** Letter. George Glenny (London) to Boulton & Watt (Soho). 15 Jun. 1792. Has settled the details of the engine with Rennie, who will write to them. Wants to ship it in September. Wants a reduction in the premium if the engine is lost on the voyage or cannot be put up in Bengal for lack of skilled workmen. Wants to pay the annual premiums together in one sum.
- **27.** Letter. George Glenny (London) to Boulton & Watt (Soho). 6 Jul. 1792. Has seen Mr. Cochrane's brother. Wants the engine to be in India early next year. Will write to John Rennie about his articles and someone to erect the engine. Who would Boulton & Watt recommend to make the boiler.
- **28.** Letter. George Glenny (London) to Boulton & Watt (Soho). 18 Aug. 1792. Docketed "Acceptance of our proposals."

 Agreeing to Boulton & Watt's proposed details for the engine for Bengal. Has permission to ship it from the East India Company. It needs it to be in London in December.
- **29.** Letter. George Glenny Jr. (London) to Boulton & Watt (Soho). 15 May 1787. Mr. Wyatt has told him Boulton & Watt are erecting an engine in Jamaica. Is going to Jamaica next September. Offering his services as an erector. Has worked at Albion Mill as a millwright.
- **30.** Letter. George Glenny Jr. (Glasgow Estate, St. James', Jamaica) to Boulton & Watt (Birmingham). 19 Jun. 1788. His friends advised him that engines were too complex for Jamaica, and not to try setting one up until he knew the country better this is why he has not replied to Boulton & Watt. Is now convinced engines will be very valuable to the sugar cane estates benefits of engines over

convinced engines will be very valuable to the sugar cane estates – benefits of engines over cattle. Reservoirs can be constructed and ships can bring coal instead of ballast. Mr. Foulds of London can make an agreement on his behalf. Many of his friends are anxious to see an engine at work.

- **31.** Letter. G. Goodwin (Winster) to James Watt [Birmingham]. 7 Jul. 1785. Tried to see James Watt in London after Richard Arkwright's trial Arkwright wanted to talk to him and pay his expenses. Enclosing a draft to pay his expenses.
- **32.** Letter. G. Goodwin (Winster) to James Watt [Birmingham]. 17 Jul. 1785. Richard Arkwright will call on James Watt and give him a copy of the notes from the trial. The decision is under the consideration of the counsel.
- **33.** Letter. G. Goodwin (Winster) to James Watt [Birmingham]. 6 Feb. 1786. Watt sent Richard Arkwright a bill or bills of exchange, as he thought that the money Arkwright had sent him for expenses for his appearances at Arkwright's trials in London was too much. Arkwright has kept no account of the bills can Watt send the details.

34. Letter. Goodwin Platt & Goodwin (Part Street, Southwark) to Boulton & Watt (—). 4 Aug. 1791.

Docketed as 14 Aug.

Disappointed that they have not yet received their engine. If it does not come soon they will have to re-establish the one they have under repair.

On the same sheet:

Pencil list of parts and whether they have been forged or cast or not.

- **35.** Letter. Goodwin Platt & Goodwin (London) to Boulton & Watt (Soho). 17 Aug. 1791. Further complaints of the delay to their engine. Mr. Lea has declined taking their old one. The names of the partners for the engrossment of the agreement.
- **36.** Letter. Goodwin Platt & Goodwin (Park Street, Southwark) to Boulton & Watt [Soho]. 2 Sep. 1791.

Docketed "About disposing of their old engine."

Want to sell their old boiler as well as their old engine. It was made before the fire. Are going on with the framing and mill work for their new engine.

37. Letter. Goodwin Platt & Goodwin per John Goodwin (London) to Boulton & Watt (Soho). 3 Sep. 1791.

Docketed "Coupling links &c."

A scheme for securing a second coupling link to the sun and planet wheels, suggested by John Rennie's foreman Mr. Taylor.

- **38.** Letter. Goodwin Platt & Goodwin (London) to Boulton & Watt (Soho). 17 Sep. 1791. Have not yet sold their 12 horse engine, but David Watson has almost finished the repairs. Their planned alterations to the pump.
- **39.** Letter. Henry Goodwyn (London) to James Watt (Soho). 2 Sep. 1785. Articles he still owes Boulton & Watt for. Queries about how much water his engine will pump wants to use the engine to pump water, worts and beer next summer.
- **40.** Letter. Henry Goodwyn (London) to Boulton & Watt (Birmingham). 5 Dec. 1785. Requesting an estimate of an engine for Dawson & Clowes, brewers, whose old brewhouse has burnt down. His scheme to use a boiler to scald casks.
- **41.** Letter. Henry Goodwyn [London] to Boulton & Watt [Soho]. 14 Nov. 1788. Docketed "About terms for their new engine."

 John Rennie says that Boulton & Watt have an 8 horse engine available. Would like to buy it

Jonn Rennie says that Boulton & Watt nave an 8 norse engine available. Would like to buy it "in our present unfortunate situation".

- **42.** Letter. H. Goodwyn & Co. (London) to James Watt [?] [Birmingham]. 17 Nov. 1788. Want the 8 horse engine in a month. Hope Boulton & Watt will take into account the fact that their old engine was destroyed, not sold to their advantage, and that the term the patent has left is now less than when they bought their old engine.
- **43.** Letter. H. Goodwyn & Co. per B. J. Robinson (London) to Boulton & Watt [Soho]. 17 Dec. 1788.

They are anxious to know if their engine is on the road, on account of the weather.

- **44.** Letter. H. Goodwyn & Co. (London) to Boulton & Watt [Soho]. 2 Mar. 1789. Docketed "About rotative wheels. Answered March 4th by Mr. Roberts." Need rotative wheels for their engine.
- **45.** Letter. H. Goodwyn & Co. (London) to Boulton & Watt [Soho]. 7 Mar. 1789. Thank Boulton & Watt for sending an engine at such short notice. Can [David] Watson the engine erector be stationed with them and given a letter stating that his business is with their engine.

- **46.** Letter. H. Goodwyn & Co. (East Smithfield) to Boulton & Watt [Soho]. 19 May 1789. Requesting details of the weight their new engine will raise, how much coal it will consume and how much injection water will be required.
- **47.** Letter. H. Goodwyn & Co. per John Green (Red Lion Brewhouse, East Smithfield) to Boulton & Watt [Soho]. 22 Dec. 1789. Have received the account of the engine materials. Also want the premium charge.
- **48.** Letter. H. Goodwyn & Co. [London] to Boulton & Watt [Soho]. 18 May 1790. Complaining of the excessive coal consumption of their engine.
- **49.** Memorandum. Notes respecting Sugar Engines from Mr. Gordon Senr. Jun. 1790. Details of likely costs, cost of coals, availability of water etc. for engines for sugar cane mills in the Caribbean.
- **50.** Letter. Richard Gorton (Mansfield) to Boulton & Watt [Birmingham]. 4 Jul. 1787. Docketed "Approving draught of agreement." Approves of the agreement. However he may want to use the engine for things other than weaving smallwares.
- **51.** Letter. Richard Gorton for Thomas Gorton & Son (Mansfield) to Boulton & Watt [Birmingham]. 9 Aug. 1787. The engine has arrived at Nottingham. Have Boulton & Watt ordered the boiler.
- **52.** Letter. Thomas Gorton & Son (Mansfield) to Boulton & Watt (Birmingham). 10 Apr. 1788.

Problems with the engine – broken and poor quality sun wheels and uneven running.

- **53.** Letter. Richard Gorton (Mansfield) to Boulton & Watt (Birmingham). 14 Apr. 1788. The engine continues to work very badly. The man they sent does not understand what to do and they cannot work the looms off it. James Law or another skilled erector should be sent. So far a dozen parts have broken.
- **54.** Letter. Thomas Gorton & Son (Mansfield) to Boulton & Watt [Birmingham]. 24 Apr. 1788. Had got the engine going pretty well. James Law has examined it and altered the sun wheel. Think the reason it went so badly was the fact that they had removed a ton of weight from their machinery. Other parts that had broken. Ordering a "patent lamp for the engine", a spindle and collar, and chocks. Enclosing a drawing of the fly wheel shaft and pin.
- **55.** Letter. Gorton & Thompson (Mansfield) to Boulton & Watt (Birmingham). 28 Apr. 1791. *Docketed "Richard Cartwright."*

They discharged Richard Cartwright after 3 days – his drinking, excessive expensives and incompetence. Mr. Thompson has seen an engine in London which consumes much less coal than Boulton & Watt's.

- **56.** Letter. Gorton & Thompson (Mansfield) to Boulton & Watt (Birmingham). 24 Aug. 1791. Problems with their engine it is consuming too much coal and using a great deal of piston packing. Think it would be cheaper to have an engine raising water than powering the works directly.
- **57.** Letter. Gorton & Thompson (Mansfield) to Boulton & Watt (Birmingham). 2 Sep. 1791. Details of the excessive coal consumption of their engine. Have to pack the piston every day. Can they send a "good doctor" John Southern.
- **58.** Letter. John Grant (London) to Boulton & Watt (Birmingham). 19 Apr. 1790. He and Dr. Harry Parker want to call in at Soho on their way to Ravenhead. Wish to discuss an improvement to the steam engine mentioned by Mr. Black, which might be applicable to their grinding and polishing engine.

- **59.** Letter. Richard Gregory, Surgeon (Spondon) to James Watt [?] [Soho]. 30 Apr. 1791. James Law's injuries in a coach accident. His wife is ill, so he wants James Watt to tell her himself if he tells her at all. He is being attended by Gregory and two gentlemen from Derby.
- **60.** Letter. Mr. Greville (Kemp Mews, London) to James Watt (London). 8 Mar. 1787. Docketed "About Baron Stein." Inviting James Watt to breakfast with himself and Baron Stein. Has seen the Baron and "is convinced everything will end to the satisfaction of all parties".
- **61.** Letter. Gilbert Grierson (Leith) to Boulton & Watt (Birmingham). 6 Dec. 1793. Can he have an answer to his letter about a reasonable abatement against the estate of Aitchison Brown & Co. Is about to declare a dividend on the estate.
- **62.** Letter. William Grimsell (Swan Inn) to James Watt [Birmingham]. 26 Apr. 1787. *If Watt comes to the Swan Inn Grimsell will tell him something he needs to know.*
- **63.** Letter. Christopher Gullett (Beerferris) to Matthew Boulton (Truro). 29 Sep. 1785. Thanks Boulton for his calculations re. an engine. The terms are not what he expected after they met in Exeter. Is now looking at using a stream for power. Would have been happy to have had the first Boulton & Watt engine in Devon had it been on the same terms as Cornish engines.
- **64.** Memorandum. Mr. Gullett's Mine as p. Capt. V[ivian?]. 3 Oct. 1787. Calculations and sketch of the depth of the shafts.
- 65. Letter. Christopher Gullett (Beerferris) to Matthew Boulton (Truro). 8 Oct. 1787.
- **66.** Letter. Christopher Gullett (Beerferris) to Matthew Boulton [Truro]. 26 Oct. 1787. News from Richard Jennings about when the engine will arrive. Can William Murdock be sent to inspect the premises and give directions. The North Downs Adventurers have consented to send [David?] Watson in 3 weeks to erect it.
- **67.** Letter. Christopher Gullett (Beerferris) to Matthew Boulton [Soho]. 17 Apr. 1790. *Problems with the mine it is very unprofitable and difficult to work. Lord Buckingham, who owns the land, has given up his dues. Can Matthew Boulton give him an abatement of the premium.*
- **68.** Letter. Alexander Gunn (Wilsontown) to Gilbert Hamilton (Glasgow). 29 Nov. 1791. James Murdock's movements – he is on his way to Darlington. At Wilsontown he spent "fifteen months doing what any other person... might do in two months."
- **69.** Letter. Ben Gurden (Wood Street, London) to James Watt [?] [Soho]. 14 Mar. 1787. Enquiring about Albion Mill and requesting an estimate for an engine to power a flour mill on behalf of a correspondent in Canada.
- **70.** Letter. Gurney & Peckover per J. Peckover (Norwich) to Boulton & Watt [Soho]. 29 Dec. 1791.

Requesting an estimate for a 4 horse engine following B. Gurney's conversation with Mr. Wyatt in London.

71. Letter. A. Guyot (Paris) to Matthew Boulton (Soho). 16 May 1787. Letter continued on 17 May.

Had not written to Boulton previously, but he did say to M. R. Boulton that he would. Mr. Delessert has not been hurt by recent changes. Mr. Startin has arrived. Has not seen Mr. Vandermonde, so cannot answer James Watt's letter yet. Pearson saw M. R. Boulton at Versailles. News of M. R. Boulton. Problems of finding good situations for young men in Paris. Sir William Forbes' son is going to Mr. Frossard at Lyon. M. R. Boulton's finances, payment for lessons etc. Request from President de Virly for Matthew Boulton to procure tungsten and wolfram. Mrs. Delessert's friend Mr. Prevost is planning to visit Birmingham. Will see Mr. Vandermonde. A note from him saying he wants instructions on how to proceed.

72a. Letter (in French). A. Guyot (Paris) to James Watt (Birmingham). 30 Jan. 1791. *Enclosing (b) below.*

Enclosing a note dictated by his friend Mr. Ladebat, Deputy for St. Domingue in the National Assembly. News of the Delessert family.

- **b.** Note (in French) dictated by Mr. Ladebat.
- 73. Letter (in French). A. Guyot (Paris) to James Watt (Heathfield). 21 Feb. 1791.
- 74. Letter (in French). A. Guyot (Paris) to James Watt (Heathfield). 8 Mar. 1791.
- 75. Letter (in French). A. Guyot (Paris) to James Watt [Birmingham]. 2 Jun. 1791.
- **76.** Letter (in French). A. Guyot (Paris) to James Watt (Birmingham). 25 Nov. 1791. Docketed "About sugar engines."
- 77. Letter (in French). A. Guyot (Paris) to James Watt (Birmingham). 8 Mar. 1792.
- **78.** Letter (in French). A. Guyot (Edinburgh) to James Watt (London). 26 Feb. 1794. *Forwarded to Heathfield.*
- **79.** Letter. Gyfford & Co. (London) to Boulton & Watt [Soho]. 20 Nov. 1788. Docketed "About nozzles."

Have decided to have a new upper nozzle, after consulting with James Cooper and Richard Dayus.

3/392 General Correspondence, H (89 items)

- **1.** Letter. James Haig (Canonmills) to Boulton & Watt (Birmingham). 17 Jun. 1785. Sir John Dalrymple has suggested he write to Boulton & Watt about an engine for grinding malt and barley.
- **2.** Letter. James Haig (Canonmills) to Boulton & Watt (Birmingham). 11 Jul. 1785. *Mis-docketed as 17 Nov.*

Has seen Goodwyn & Co.'s engine. Barley and wheat are harder to grind than malted grain. Thoughts on the amount of power he needs. The premium charge might be thought too high as coals are cheap.

- **3.** Letter. James Haig & Co. (Canonmills) to Boulton & Watt (Birmingham). 13 Oct. 1785. *Mis-docketed as 17 Nov.*
- Presuming that Boulton & Watt have ordered their engine. When can they send an erector, or if that is not possible their clerk Robert Punshon says he has erected engines in Newcastle.
- **4.** Letter. James Haig & Co. (Canonmills) to Boulton & Watt (Birmingham). 17 Nov. 1785. Have not had replies to their letters of 11 Jul. and 13 Oct. Can Boulton & Watt's engine be adapted for grinding unmalted grain.
- **5.** Letter. James Haig & Co. (Canonmills) to Boulton & Watt (Birmingham). 11 May 1786. *Docketed "Ordering 10 horse engine."*

Have had Boulton & Watt's letter about Whitbread and Stonard & Curtis' engines. Think a 10 horse engine will suit. Want a man to visit to finally determine the power required. The man who comes to erect John Aitchison's can erect theirs.

6. Letter. James Haig & Co. (Edinburgh) to Boulton & Watt (Birmingham). 14 Sep. 1786. *Mis-docketed as 1784.*

Have heard from distillers in Bristol that barley ground with stones powered by steam engines is not good for brewing. Can Boulton & Watt assure them this is due to the stones and not the motion communicated by the engine. If so, they will want a 20 horse engine.

- 7. Letter. James Haig & Co. (Canonmills) to Boulton & Watt (Birmingham). 28 Sep. 1786. Docketed "Ordering engine."
- Have received Boulton & Watt's letter explaining that the engine at Bristol is not one of theirs and is of bad construction, and that grinding problems are due to the stones. Therefore want their engine as soon as possible. Delivery arrangements. The placing of the engine.
- **8.** Letter. James Haig & Co. (Canonmills) to Boulton & Watt (Birmingham). 12 Oct. 1786. Thoughts on the type of stones. Want the shaft to be as Boulton & Watt suggested. Have plates for a boiler originally intended for an atmospheric engine. Hope to use the engine to pump water as well.
- **9.** Letter. James Haig & Co. (Canonmills) to Boulton & Watt (Birmingham). 19 Dec. 1786. The original site of the engine house will not suit, and the season is too far advanced for building. Are progressing with the other works and machinery. Can they ship parts via Andrew Mackenzie & Co. of London.
- **10.** Letter. James Haig & Co. (Canonmills) to Boulton & Watt (Birmingham). 20 Apr. 1787. Have had Boulton & Watt's advice of parts being shipped from Hull and from John Wilkinson. Their agent Moodie has called to get a signature on the agreement. They have refused because of the expense and their fears for the prosperity of their trade. Have decided to procede no further. Will pay Boulton & Watt for their trouble and the plans.
- **11.** Letter. James Haig & Co. (Canonmills) to Boulton & Watt (Birmingham). 15 May 1787. Docketed "Agreeing to our proposals for taking back engine materials." Agreeing to Boulton & Watt's proposals for taking back the parts of their engine. Can they settle with John Rennie about the wheels he cast. Have no plans to erect an engine.
- **12a.** Printed letter. David Steuart & George Leslie, Trustees of the Estate of James Haig & Co. (Edinburgh). Sep. 1788. Enclosing (b) below. Docketed "Proposal from J. Haig & Company to their creditors."
- **b.** Printed Memorandum. James Haig's proposal of an offer to his creditors, made at a meeting of them 17 Sep. 1788.
- **13.** Letter. Hague & Parkin (Sheffield) to ? [Soho]. 14 Mar. 1792. Have given up the idea of having a steam engine.
- **14a.** Letter. Henry Hale (Bristol) to Boulton & Watt (Birmingham). 9 May 1785. *Enclosed in (b) below.*

Has heard from Samuel Galton that Boulton & Watt want someone "to superintend one of your concerns". Is a Quaker and has worked in business for 20 years. His abilities. He is known to Samuel Galton and Samuel Baker of Birmingham. His terms.

- **b.** Letter. Samuel Galton (Bristol) to Samuel Galton Jr. [Birmingham]. 9 May 1785. The bottom part of this letter has been cut away. His attempts to find Boulton & Watt a clerk. Details of Henry Hale's career and character and his terms. Thomas Collins of Birmingham, a former grocer, would engage for £50.
- **15.** Letter. George Hamilton (Dublin) to Matthew Boulton (Soho). 18 May 1787. His friend Mr. Jebb's good impressions of Matthew Boulton's works. Requesting an estimate of a steam engine for his works at Balbrygen. His desire to visit Soho.
- **16.** Letter. Richard Hare (Limehouse, London) to Boulton & Watt (Birmingham). 11 Jan. 1785.

Requesting an estimate of an engine like that of Goodwyn & Co.'s. However understands Boulton & Watt's engines are so expensive that they will not come into general use. Has talked to Mr. Wood of Oxford about buying one of his patent engines. Will not buy one of Wood's until he has heard from Boulton & Watt.

- **17.** Letter. Richard Hare (Limehouse) to Boulton & Watt [Birmingham]. "Wednesday Even⁹." After he left Boulton & Watt he heard that another brewer Mr. Clowes has made calculations that a 9 horse steam engine saves nothing for a brewery. Will not determine about an engine until he has talked to Clowes.
- **18.** Letter. Harford & Co. (Goswell Street, London) to Boulton & Watt [Soho]. 6 Mar. 1792. Requesting an estimate and details of a 6 horse engine for a brewery.
- **19.** Letter. Harford & Co. (London) to Boulton & Watt [Soho]. 23 Mar. 1792. *Are dropping the idea of erecting an engine as the expense is too great.*
- **20a.** Letter. William Harper (Macclesfield) to Boulton & Watt [Soho]. 15 Nov. 1786. *Kept with (b) below.*

His friend Mr. Hawkins has recommended he writes to Boulton & Watt. Wants an engine for his silk mill. Details of his water supply which is insufficient to turn his whole machinery. There is already an engine in Macclesfield but apparently it is "imperfect".

b. Letter (press copy). John Southern (Birmingham) to William Harper [Macclesfield]. 18 Nov. 1786.

Boulton & Watt are absent. Questions about Harper's stream and water supply. Engines are made to turn mills without intermediate water wheels.

Nos. 21-35. Timothy Harris (later Harris Harris & Plant).

Harris owned a cotton mill in St. Mary's, Nottingham, but he himself seems to have lived in Bridge Street, Blackfriars, London. When signing the agreement he said he had no partners, but a few of the letters are signed by one William Harris who was presumably his brother or son. By May 1787 the concern had become Harris Harris & Plant.

- **21.** Letter. Timothy Harris (Bridge Street, Blackfriars) to James Watt (—). 17 Nov. 1785. The plans for the engine look well-executed. Hopes it will be erected quickly. Has entirely given up horses for the engine.
- **22.** Letter. Timothy Harris (Bridge Street, Blackfriars) to James Watt (Birmingham). 19 Nov. 1785.

His engine must consume its smoke. His neighbours at Nottingham have already applied to the Mayor to prevent it being erected.

- **23.** Letter. Timothy Harris (Bridge Street, Blackfriars) to James Watt (—). 28 Nov. 1785. Has sent the plans to Nottingham and referred his millwright to James Watt if he does not understand them.
- **24.** Letter. Timothy Harris (Bridge Street, Blackfriars) to James Watt (—). 2 Mar. 1786. Is pleased to hear the engine is nearly complete. Has no objection to the agreement. Has no partners at present. Will write to his millwright Mr. Low to ensure everything is ready.
- **25.** Letter. William Harris (Nottingham) to Boulton & Watt (Birmingham). 3 May 1786. *Have not yet received the cylinder.*
- **26.** Letter. William Harris (Nottingham) to Boulton & Watt (Birmingham). 3 Jun. 1786. *Have now received the cylinder.*
- **27.** Letter. Timothy Harris (Nottingham) to James Watt (Birmingham). 15 Jun. 1786. Looked through the engine articles with the two Boulton & Watt men they have not in fact received the cylinder from John Wilkinson. What arrived came from Soho.
- **28.** Letter. Timothy Harris (Nottingham) to James Watt (—). 16 Jun. 1786. Has heard that the items from Wilkinson are at Charley. [This item was originally next to a letter to [William?] Hazledine of 23 Jan. 1790 this letter is now wanting.]

- **29.** Letter. Timothy Harris (Nottingham) to James Watt (—). 20 Jun. 1786. Docketed "List of goods in casks awaiting."

 One cask of items from John Wilkinson has not arrived. List of the items.
- **30.** Letter. Timothy Harris (Nottingham) to James Watt (Birmingham). 28 Jun. 1786. *John Wilkinson said the missing cask was at Shardlow can find nothing of it.*
- **31.** Letter. Timothy Harris (Nottingham) to James Watt (—). 14 Sep. 1786. The bearer Richard Cartwright has finished the engine. The heaviest part of the works are not yet up, but he can leave as agreed. Good impressions of Cartwright would prefer him to return if they ever need anyone.
- **32.** Letter. Timothy Harris (Bridge Street, Blackfriars) to James Watt (—). 31 Oct. 1786. Has heard their engine has stopped. Can Boulton & Watt send someone. [In a postscript] Hopes to go to Nottingham. Has seen Cartwright and paid for his coach to Nottingham.
- **33.** Letter. Timothy Harris (Nottingham) to James Watt (Birmingham). 5 Nov. 1786. Cartwright's repairs to his engine. Cartwright says the problem was the way Mr. Low put up the timber. Cannot say if this is true or not.
- **34.** Letter. Harris Harris & Plant (Nottingham) to Boulton & Watt (—). 4 May 1787. Boulton & Watt's engineer is leaving having put the engine to rights. Can Isaac Perrins be sent in future. Will get their own engineman, but the one Boulton & Watt sent works it very well.
- **35.** Letter. William Harris (Nottingham) to Boulton & Watt (—). 15 Oct. 1789. Docketed "Wanting new connecting link." The bearer Taylor will give them the details of the new connecting rod they need. The engine now works well.
- **36.** Letter. David Harrison (Doveridge) to Matthew Boulton (Birmingham). 9 May 1785. *Enquiry about an engine for the cotton spinning mill at Uttoxeter in which he is a partner.*
- **37.** Letter. David Harrison (Doveridge) to Boulton & Watt (Birmingham). 30 May 1785. Answers to Boulton & Watt's queries about his mill the wheel, shuttles, coals, what amount of water is needed in a stated time etc.
- **38.** Letter. William Hazledine (Shrewsbury) to Boulton & Watt (Soho). Oct. 1791. Requesting the price of an engine with a 16 inch cylinder for a company in Shrewsbury.
- **39.** Letter. Robert Herries & Co. (London) to Boulton & Watt (Birmingham). 10 Jun. 1786. *Docketed "By Monsieur Barthelemy."*
- **40.** Letter. Robert Herries & Co. (St. James St., London) to Boulton & Watt (Birmingham). 19 Apr. 1788.

On the same sheet:

Memorandum (in French). Queries about Watt's steam engine.

- 41. Letter. Robert Herries & Co. (London) to Boulton & Watt (Birmingham). 14 May 1788.
- **42.** Letter. Thomas Hill (27 Gresse Street, London) to James Watt (Birmingham). 10 Aug. 1790.

Enquiring about rents of shops. A friend of his wants to open a shop for tobacco and snuff. Imagines tobacco and snuff is sold in Birminham by grocers.

43. Letter. Robert Hoakesly (Chester) to "Bolton & Co." (Birmingham). 15 Jan. 1789. Requesting the price of an engine for shelling, and grinding oatmeal and wheat.

- **44.** Letter. T. Hobbins (Worcester) to "Bolton & Co." (Birmingham). 31 May 1789. Requesting an estimate of an engine to drain a mine. Details of the water, depth etc.
- **45.** Letter. Richard Hodge (St. Ives) to Matthew Boulton (Chacewater). 30 Nov. 1785. Has heard that Charles Forman has empowered Matthew Boulton to act in Wheal Speed mine in place of Capt. Nuiten [?] who has been neglectful. Accounts of the mine. Dealings between Forman and Nuiten.
- **46.** Letter. Roger Hog (London) to Boulton & Watt (Birmingham). 19 May 1786. Delivered the papers for J. D. H. Van Liender to Capt. John Logan of the Conqueror bound for Rotterdam.
- **47.** Letter. Roger Hog (London) to Boulton & Watt (Birmingham). 30 May 1786. Docketed "Account of specification being delivered in Holland."

 J. D. H. van Liender has received his parcel of papers safely.
- **48.** Letter. Roger Hog (London) to Boulton & Watt (Birmingham). 12 Aug. 1786. *Has received the plans for J. D. H. van Liender and will forward them.*
- **49.** Letter. James Holbrook (Morriston) to James Watt (Harper's Hill). 16 Aug. 1878. *Docketed "About Raby's slags."*
- **50.** Account. David Holt & Co. Drs. to Boulton & Watt. 7 Mar. 1793. *In James Pearson's hand. The totals have not been completed.*
- **51.** Letter. David Holt & Co. (Holt Town Mills) to Boulton & Watt (Birmingham). 9 Jul. 1793. Docketed "About his assignment of effects to trustees."

 Their creditors propose assigning the business to trustees. Do Boulton & Watt consent? Names of the trustees.
- **52.** Letter. John Holt (Measham) to James Watt (Handsworth). 30 Nov. 1790. His work on a new boiler and pipes for Mr. Wilkes. Will leave in 7 or 8 weeks on good terms with Mr. Wilkes. Wants his old place at Soho back.
- **53.** Letter. B. van Homrigh (Amsterdam) to Boulton & Watt (Birmingham). 3 Mar. 1789. *Docketd "Price of tin."*

Thinks they were right to sell the tin at home. Frost had interrupted trade. Thoughts on the best European tin markets.

- **54.** Letter. J. Hopkirk (—) to Gilbert Hamilton [Glasgow]. Dec. 1787. Queries for James Watt about engines for grinding wheat.
- **55.** Letter. Jabez Hornblower (38 St. George's Row, St. George's Fields, London) to Boulton & Watt (Birmingham). 7 Jun. 1793. Son of Jabez Carter Hornblower. Not dated date taken from the postmark. Looking for work. He and his father could not agree, which is why they have parted company.
- **56.** Letter. John Houghton (Birmingham Navigation Office) to Boulton & Watt (Soho). 11 Dec. 1790.

The Navigation Committee wish to meet James Watt to discuss his letter of 23rd Nov.

- **57.** Letter. Thomas Houlbrooke (Edinburgh) to James Watt [?] [Soho]. 5 Nov. 1790. *Is in Edinburgh to attend Dr. Black's lecture. Can he have a letter of introduction.*
- **58.** Letter. George Houstoun (Johnstone) to James Watt (Birmingham). 8 Jul. 1788. Asking James Watt's advice about the height the water can be raised in the mill he is erecting. Includes a sketch of the layout of the water wheels.

Nos. 59-79. Howard & Houghton / Thomas Lee.

Richard Howard & Son of Hull and Thomas Houghton of Barrow, Lincolnshire were partners in proposed a paper mill, Wilmington Mill, Sutton in Holderness, East Riding of Yorkshire. Houghton made the initial enquiry about an engine after seeing the engine at Coates & Jarrat's oil mill in Hull, and he also visited the engine at the Hull Water Works. Joseph Moyser was their millwright. Richard Howard died in 1787, while the mill was being built, and his son John took on the business. Thomas Lee took over the mill in 1789. Several of the letters have been used for rough pencil sketches and calculations.

- **59.** Letter. Thomas Houghton (Market Rasen) to Boulton & Watt (Soho). 30 Aug. 1785. Has seen the engine at Coates & Jarrat's oil mill in Hull. Requests an estimate of an engine for his paper mill.
- **60.** Letter. Thomas Houghton (Barrow, Lincs.) to James Watt (—). 13 Aug. 1786. He and Richard Howard & Son have determined to have an engine for their paper mill. Want an 11 horse engine. Have a boiler which may be suitable. Joseph Moyser will send a plan of the mill.
- **61.** Letter. Joseph Moyser (Buttercrambe) to Boulton & Watt (Birmingham). 23 Aug. 1786. Docketed as Howards & Houghton. Sending a sketch and details of the mill. Explanation of its layout.
- **62.** Letter. Joseph Moyser (Buttercrambe) to Boulton & Watt (Birmingham). 27 Aug. 1786. Docketed as Howard & Houghton. Sent a sketch plan of the mill. The Day House and other buildings are almost finished. They are ready to lay the foundations of the mill.
- **63.** Letter. Thomas Houghton (Hull) to Boulton & Watt (—). 15 Sep. 1786. Details of the intended boiler. Need the plans as soon as possible. Returning the samples of [copying?] paper.
- **64.** Letter. Thomas Houghton (Hull) to James Watt (—). 4 Oct. 1786. Have not received the plans of the engine. Need them as the weather is good.
- **65.** Letter. Joseph Moyser (Buttercrambe) to James Watt (Birmingham). 10 Nov. 1786. When will the engine arrive at Hull. What are the dimensions of the axle tree.
- **66.** Letter. Richard Howard & Son (Hull) to Boulton & Watt (Birmingham). 24 Nov. 1786. *Arrangements for shipping the engine parts to Hull.*
- **67.** Letter. Richard Howard & Son (Hull) to Boulton & Watt (Birmingham). 5 Dec. 1786. Arrangements for delivery of the engine parts they should be directed to Edward Hollingshead, Principal Clerk at Chamberlayn's Wharf.
- **68.** Letter. Richard Howard & Son (Hull) to Boulton & Watt (Birmingham). 10 Jan. 1787. Arrangements for shipping the remainder of the parts they should be sent via the canal at Gainsborough on Henshall & Co.'s boats.
- **69.** Letter. Joseph Moyser (Buttercrambe) to Boulton & Watt (Birmingham). 21 Jan. 1787. Further queries on the dimensions of the axle tree.
- **70.** Letter. Thomas Houghton (Hull) to Boulton & Watt (Birmingham). 3 Mar. 1787. Have heard nothing of their engine articles. Joseph Moyser wrote to them about the rotative shaft. Cannot understand the delay. The millwrights will be at a standstill.
- **71.** Letter. Richard Howard & Son (Hull) to Boulton & Watt (Birmingham). 17 May 1787. *The works are ready for Boulton & Watt's men. The articles from Bersham arrived.*

- **72.** Letter. Thomas Houghton (Hull) to Boulton & Watt (Birmingham). 26 May 1787. Problems with the agreement Richard Howard has died and his son John taken over the business. John is away. Unsure what name he wishes to use for his business. Queries on the agreement the sending of an erector, the export of the engine, altering its use.
- **73.** Letter. Thomas Houghton (Hull) to Boulton & Watt (Birmingham). 20 Jun. 1787. Will show Boulton & Watt's letter of 16 Jun. to John Howard when he returns. Progress of Boulton & Watt's men Richard [Cartwright] and Thomas [Baker] with the engine some parts have been made wrong. They have a grate already.
- **74.** Letter. Thomas Houghton (Hull) to Boulton & Watt (Birmingham). 6 Jul. 1787. John Howard's objections to the clause which defines the use of the engine. Boulton & Watt's men's progress with the engine. Will allow Richard [Cartwright] to put up the engine at Gainsborough. The name of their mill is Wilmington Mill.
- **75.** Letter. Richard Cartwright (Hull) to James Watt (—). 28 Jul. 1787. Docketd as Howard & Houghton.

Is about to go to Morehouse's engine. Has been teaching Thomas Baker to work Howard & Houghton's engine. Houghton intends to keep him a month, and is very pleased with the engine, and wants Cartwright to return when the mill work is ready.

76. Letter. Joseph Moyser (Buttercrambe) to Boulton & Watt (Birmingham). 21 Sep. 1787. Starting of the engine. It works well. Mr. Thompson wishes to visit Birmingham to discuss apparatus for drying corn. On the same sheet:

Letter. Joseph Moyser to John Southern.

Sorry he did not see Southern in Hull. Is told that Southern disapproved of Richard [Cartwright]'s work on the engine. Thinks Cartwright "a trusty diligent man".

- 77. Letter. Thomas Houghton (Hull) to Boulton & Watt (Birmingham). 4 Oct. 1787. Fears the engine is too weak to drive all the rag engines in the mill. Had been assured it would be strong enough by Boulton & Watt. Thomas Baker's inexperience at running the engine. Needed the help of Coates & Jarrat's engineman. Has asked Richard Cartwright to return. Wants Baker to be removed. Boulton & Watt said they would charge a premium for one horse less than they actually provided, due to the "uncertainty of the works". This seems to have escaped their memory. The excessive coal consumption of the engine.
- **78.** Letter. Thomas Houghton (Hull) to James Watt (Birmingham). 9 Nov. 1787. [Joseph] Harrison and Richard Cartwright have examined the engine. Still feels James Watt's calculations were erroneous as the engine does not do the work they expected. Considers James Watt should make abatements in the premium in future for trials and uncertain trade.
- **79.** Letter. Richard Howard & Son (Hull) to Boulton & Watt (Birmingham). 14 Dec. 1787. Enclosing 3 bills of exchange. Thomas Houghton thinks they have charged for an eduction pipe which Boulton & Watt promised to pay for. Sorry that the engine does not perform to Houghton's expectations.
- **80.** Letter. T. B. Howell (Lincoln's Inn Fields) to Boulton & Watt (Birmingham). 21 Sep. 1793. Has received answers to his queries from the West Indies following his conversation with Boulton & Watt. Water temperature will be the biggest problem. Offering them timber from his friend's beech wood for fuel.
- **81.** Letter. Edward Hughes (—) to John Roberts (Soho). 19 Sep. 1787. James Webb has not brought the money for James Law and son and Nat Willes as he is helping his brother pack to go to Scotland. Webb said he would rather go to Scotland with his brother, who has a pattern for stocking frame making.
- **82.** Letter. John Hurd (London) to James Watt (—). 18 Nov. 1787. Thinks "peace will be established in the evening" so there is no need for James Watt to come to London. Mr. Vivian is to take the "P.M. Co. ultimatum" to the adjourned meeting.

- **83.** Letter. John Hurd (London) to James Watt (Birmingham). 20 Nov. 1787. "Mr. Williams' ultimatum" was finished too late for the post. All parties agree something must be done about the smelting business. Williams says he can take it in hand. Refused to accept a bill from Mr. Vivian to accommodate M. L. & Co. On the same sheet:
- Transcript of letter. Williams (London) to Vivian. 19 Nov. 1787. Details of his reasons for refusing the proposition for a joint agent.
- **84.** Letter. John Hurd (London) to James Watt [?] (—). 24 Nov. 1787. Has had no news from Cornwall. Has he heard anything from Thomas Wilson.
- **85a** Letter. J. E. Hurter (London) to Matthew Boulton (Soho). 24 Aug. 1789. Kept with (b) below. Docketed "Wants a small engine." Requesting an estimate of a pumping engine for a friend resident abroad. A note on the bottom reads "J[ohn] S[outhern] thinks this letter relates to the same business that the one Mr. B. received from Mr. Huntsman of Sheffield did."
- **b.** Calculations. Mr. Hurter wants Engine to raise 20,000 gallons of Ñ in 24 hours 45 feet high. *In James Watt's hand.*
- **86.** Letter. Thomas Hutchins (Griff Colliery) to James Watt (Birmingham). 26 Dec. 1789. It is five weeks since he conferred with James Watt about an engine. Progress with the engine house. Needs to decide whether to have a Boulton & Watt engine or a Newcomen one.
- **87.** Letter. Thomas Hutchins (Griff Hill) to James Watt (Birmingham). 11 Jan. 1790. The rate of working of their current engines and the amount of water they have lifted. Hopes this information will enable James Watt to reduce the premium. If not, the Boulton & Watt engine will be "out of their reach". Will be happy to see the coal-drawing engine come into use.
- **88.** Letter. Thomas Hutchins (Griff Hill) to James Watt (Birmingham). 23 Jan. 1790. Has showed James Watt's letter to Sir Roger Newdigate his questions on the premium, coal consumption and the wages of an engineman.
- **89.** Letter. Thomas Hutchins (Griff Hill) to James Watt (Birmingham). 13 Feb. 1790. Sir Roger Newdigate thanks James Watt for his attentions. They are afraid that the opening of the canal will bring Staffordshire coal into the Warwickshire markets, leading to the closure of Warwickshire collieries. Boulton & Watt's premium is too high, so they are giving up the thought of a Boulton & Watt engine.