

# **Hollingworth Collection**

(1810-1983)



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University of Bath Archives

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Title: Hollingworth Collection

Compiled by: Adrian Nardone and Lizzie Richmond

Description level: Fonds

Date of material: 1810-1983

Extent of material: 10 boxes, ca 286 items

Deposited in: University of Bath Library

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**A.1** 

#### GENERAL INTRODUCTION

## **PROVENANCE**

The original donation of material, owned by J. E. R. Hollingworth (1905-1976), a civil engineer whose father, E. W. Hollingworth (1873-1927), had been resident engineer to Henry Brunel (1842-1903), was deposited with the University of Bath Library in the early 1970s. Over the years items in the Collection had become disassociated. A catalogue produced in 2018 was the result of an attempt to re-establish the Collection as a whole and make is contents publicly visible.

A supplementary donation of material was made in 2024 by Edward Hollingworth comprising additional papers of his father and grandfather.

For more information about the Hollingworth family see Section G.

#### DESCRIPTION OF THE COLLECTION

The Collection is small but diverse. Its theme is broadly engineering but beyond this its subject matter is rather eclectic, and Hollingworth family ownership, through authorship, purchase and inheritance, appears to be the only strong link between some of the otherwise unconnected documents and publications.

Material in the Collection ranges from an early proposal for the UK's first largescale, landscaped cemetery and specifications for the development of the Kidderpore Docks in Calcutta (now Kolkata), India, to architectural drawings of churches in Derbyshire and copies of correspondence between Isambard Kingdom Brunel and John Scott Russell relating to the SS *Great Eastern*. Despite the lack of obvious overall coherence, the Collection contains several items of national and international significance.

The two donations - separated by more than four decades - have been preserved in the current arrangement of the material. The two parts of the Collection are interconnected and overlap; it is not known how the division came to be made. The Collection has been organised into sections to facilitate ease of access although several sections only comprise a single document.

A. Nardone and L. Richmond, University of Bath, 2025.

SECTION A CEMETERY PROPOSAL

A.1 10pp bound manuscript draft entitled 'Necropolis', 1825.

The unsigned draft contains outline proposals and estimated costings for variants on a landscaped cemetery scheme. Explanatory text, which cites current interment practices, chronic problems of overcrowding in London and the Pere Lachaise cemetery in Paris, France, suggests this may be a draft prospectus for circulation to potential investors.

A prospectus of the General Cemetery Company written by George Carden and published in 1830 refers to an earlier scheme of 1825. It seems possible, therefore, that the draft may relate to this first, unsuccessful attempt to develop a largescale landscaped cemetery in London.

SECTION B BATH TRADES UNION COUNCIL B.1

B.1 29pp manuscript minutes (with thread binding) of meetings of Bath Trades Union Council, 2 February 1891-16 December 1892.

Bath Trades Union Council (also known as Bath Trades Council) was formed in 1891 of representatives of trade societies in Bath and acted as a forum for discussion on current trade related issues in the city.

For further records of Bath Trades Union Council see the Bath Trades Union Council Collection, Archives & Research Collections, University of Bath.

SECTION C CANADA COMPANY C.1

C.1 Black and white poster (44.7cm x 56cm) relating to lands in the province of Upper Canada to be disposed of by the Canada Company, 1833-1834.

Below a map of the townships, details about the plots of land on sale and where further information can be found from agents around the British Isles are presented. Details of climate, soil and production are given on the reverse.

D.5

# SECTION D ARCHITECTURAL DRAWINGS D.1-D.37

This section contains architectural drawings by Sir Arthur William Blomfield (1829-1899) and by Claude Pemberton Leach (1858-1951) or their associates of churches and ecclesiastical buildings in Derbyshire, the Isle of Wight, London, and Surrey made during the 1880s and 1890s. Their connection to the Hollingworth family is not known.

D.1-D.15	DERBYSHIRE
D.16-D.27	ISLE OF WIGHT
D.28-D.32	LONDON
D.33-D.35	SURREY
D.36, D.37	UNIDENTIFIED

D.1-D.15	DERBYSHIRE	1885
D.1	Repton Church West Elevation (St Wystan), June 1885.	
	Ink and wash on paper (38.2cm x 55.5cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.	l
D.2	Church of St Wystan Repton South Elevation, June 1885.	
	Ink and wash on paper (38cm x 56cm) signed in bottom right-hand cor 'Arthur W. Blomfield June 1885'.	ner
D.3	Repton Church South Elevation, June 1885.	
	Ink and wash on paper (39.1cm x 56.6cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.	l
D.4	Repton Church North Elevation, June 1885.	
	Ink and wash on paper (38.7cm x 56.5cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.	

	Elevation and plan, ink on paper (38cm x 55.9cm).
D.6	Church of St Wystan Repton East Elevation, June 1885.
	Ink and wash on paper (38cm x 56cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.
D.7	Repton Church Longitudinal Section, June 1885.
	Ink and wash on paper (38.2cm x 55.6cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.
D.8	Church of St Wystan Repton, June 1885.
	Sectional drawings, ink and wash on paper (37.8cm x 56cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.
D.9	Repton Church as at present, June 1885.
	Sectional drawings, ink and wash on paper (38.5cm x 55.6cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.
D.10	Church of St Wystan Repton Accommodation, June 1885.
	Seating plan, ink and wash on paper (37.8cm x 55.9cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'. Reverse annotated with address for a Mrs Blomfield and calculations relating to seating.
D.11	Repton Church Plan as at present, June 1885.
	Ink and wash on paper (38cm x 55.6cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.
D.12	St Wystan Repton Inch Detail of Seats, June 1885.
	Ink and wash on paper (37.7cm x 56.2cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.

St Wystan Repton ½ Inch detail of North Door as at present, June 1885.

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D.13	Church of St Wystan Repton Inch Detail of Chancel Seats, June 1885.
	Ink and wash on paper (37.8cm x 56cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.
D.14	St Wystan Repton, June 1885.
	Details of chancel including a plan of wood vaulting and a section, ink and wash on paper (37.8cm x $56.1$ cm).
D.15	St Wystan Repton ½ Inch detail of N. Aisle Roof & East End of S. Aisle, June 1885.
	Ink and wash on paper (37.9cm x 56.1cm) signed in bottom right-hand corner 'Arthur W. Blomfield June 1885'.
D.16-D.27	ISLE OF WIGHT ca 1891-1894
D.16	All Saints Church Ryde Seating in chancel Aisle Inch Scale, ca 1891-1894.
	Ink on paper (38.2cm x 56.4cm).
D.17	All Saints Church Ryde Isle of Wight, ca 1891-1894.
	Detail of chancel seat carving with rough pencil sketch details on reverse, pencil on paper (38 cm x $56.2$ cm).
D.18	All Saints Church Ryde, ca 1891-1894.
	Detail of door and window elevation for new vestry covered way and plan with west elevation vestry and chancel study on reverse, pencil on paper (39cm x 55.8cm).
	No. Marks All October 4 A. 114004
D.19	New Vestry All Saints Church, 1 April 1891.  Plans and sections of new vestry entrance and covered way, ink and wash

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D.20	New Vestry All Saints Church Ryde, 1 April 1891.
	Sectional drawings with window and door details, ink and wash on tracing paper (38cm $\times$ 54.6cm) inscribed '[?] Poole, J.M. Pletts, William Watts, Isaac Barton' and 'C.P. Leach'.
D.21	New Vestry All Saint's Church Ryde, 1 April 1891.
	Combined west external and internal elevation, ink and wash on tracing paper (37.8cm x 57.5cm) inscribed '[?] Poole, J.M. Pletts, William Watts, Isaac Barton' and 'C.P. Leach'.
D.22	New Vestry All Saint's Church Ryde, 2 January 1891.
	Ground plan, ink and wash on tracing paper (38.2cm x 56.3cm) inscribed '[?] Poole, J.M. Pletts, William Watts, Isaac Barton' and 'C.Pemberton Leach Architect'.
D.23	All Saint's Church, Queen's Road, Ryde, ca 1891-1894.
	Plan of new vestry, ink and wash on paper (38.8cm x 55.8cm).
D.24	All Saint's Church, Queen's Road, Ryde, 1 April 1891.
	Combined west external and internal elevation of new vestry, ink and wash on paper, (39cm x 55.7cm).
D.25	All Saint's Church Ryde IW Inch detail of Screen to Chancel Aisle, September 1884.
	Ink on paper (28.1cm x 38.1cm) signed 'C. Pemberton Leach'.
D.26	All Saint's Church Ryde IW Inch detail of Screen to Chancel Aisle, September 1894.
	Ink on paper (32cm x 38cm) signed 'C. Pemberton Leach'.

D.27	Plans for proposed additions to the Vicarage Ryde IW, ca 1891-1894.	
	Ink and wash on tracing paper (38.2cm x 55.4cm) signed 'C.P. Leach Architect'.	
D.28-D.32	LONDON ca 188	0s
D.28	Holy Trinity Church Stepney Plan, ca 1880s.	
	Ink and wash on paper (damaged) (46cm x 65.5cm) signed 'Arthur Blomfield, C. Pemberton Leach'.	
D.29	Holy Trinity Church Stepney Ground Plan as at present, ca 1880s.	
	Ink and wash on paper (41.4cm x 63cm).	
D.30	Holy Trinity Church Stepney, ca 1880s.	
	East and west elevations, ink and wash on paper (damaged) (41.8cm $\times$ 63cm).	
D.31	Holy Trinity Church Stepney, ca 1880s.	
	South elevation and cross section looking east, ink on paper (damaged) (41.8cm x $69.5$ cm).	
D.32	Holy Trinity Church Stepney, ca 1880s.	
	Longitudinal section, ink on paper (damaged) (41.7cm x 62.9cm).	
D.33-D.35	SURREY 18	97
D.33	Church at Shamley Green: Plan as at present, April 1897.	
	Ground plan, wash and ink on paper (38.8cm x 56.3cm) signed 'C. Pemberton Leach, Architect'.	

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D.34	Shamley Green Church: Plan shewing addition, April 1897.  Ground plan, wash and ink on paper (39cm x 56.7cm) signed 'Edward Mitchell, C. Pemberton Leach'.	
D.35	Church at Shamley Green. Proposed Additions <sup>1</sup> / <sub>8</sub> Scale, April 1897.  Elevations, wash and ink on paper (damaged) (37.2cm x 57.3cm) signed 'Edward Mitchell No. 2'.	
D.36, D.37	UNIDENTIFIED	nd
D.36	Design for a rood screen, nd.  Pencil and ink on paper (39.4cm x 56.5cm).	

Design for alter and west window, nd.

Pencil and ink on paper (damaged) (43cm x 53.4cm) signed 'C. Pemberton Leach'.

D.37

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**SECTION E** 

**ENGINEERING: NAVY, DOCKS & SHIPPING** 

E.1-E.48

This section contains a diverse range of material relating to various engineering aspects of the navy, docks and shipping. It includes a copy set of letters between Isambard Kingdom Brunel (1806-1859) and John Scott Russell (1808-1882) about the building of the *Great Eastern* steamship and a collection of specifications of works and associated documentation, formerly the property of M. Bennett, Engineer, relating to the development of docks and harbours in Edinburgh, Bristol and London.

A set of 18 mounted and framed lithographic prints and one printed chart relating to the laying of the transatlantic telegraph cable from Valentia Island, Ireland, to Newfoundland, Canada, between 1854 and 1865, are currently displayed on Level 3 of the Library. It is probable that the prints were also donated to the University by the Hollingworth family.

See also Section F and Section H.

E.1	TYNE COMMISSION
E.2-E.25	SS GREAT EASTERN
E.26-E.28	NAVAL ARCHITECTURE
F 29-F 48	DOCKS

## E.1 TYNE COMMISSION

1855

E.1

Seven draft versions bound with thread in card covers of Report of the Commissioners Appointed to Inquire into the Present State of the River Tyne, May 1855.

The report was commissioned in 1854 to examine the state of the River Tyne and to assess the impact of encroachments such as jetties, embankments and other works on tidal flow and navigation. Those appointed to carry out the inquiry were William Bowles, Sir John Bell, Robert FitzRoy (1805-1865), Robert Baynes Armstrong (1785-1869) and Isambard Kingdom Brunel (1806-1859).

A depositor note credits the item as the property of Isambard Kingdom Brunel; each version is initialled 'IKB' and annotated in pen and pencil.

E.2-E.25 SS *GREAT EASTERN* 1852-1880, 1983

This sub-section contains material relating to the SS Great Eastern.

See also L.9-L.16.

E.2-E.20 Typescript copies of transcribed correspondence, principally between J. Scott Russell and I. K. Brunel, relating to the conception, design and construction of the *Great Eastern* steamship, 1852-1880.

The transcripts were made by J. E. R. Hollingworth while the original letters, subsequently passed on to I. K. Brunel's grand-daughter, Lady Nobel, were in his possession. It is thought that the originals no longer survive (see *John Scott Russell*, G. S. Emmerson, 1977, p.303).

See also G.16.

E.2 1852.

E.3 1853.

E.4, E.5 1854.

Two folders.

E.6-E.9 1855.

Four folders.

E.10-E.14 1856.

Five folders.

E.15 1857.

E.16 1858.

E.17	1859.	E.21h	30 May 1855.
E.18	1861.	E.21i	30 May 1855.
E.19	1863.	E.21j	30 May 1855.
E.20	1880.	E.21k	30 May 1855.
E.21-E.24	78 black and white photographic prints, copies of originals held by the Smithsonian Institution, Washington, USA, showing the construction of the <i>Great Eastern</i> steamship, <i>ca</i> 1854-1857.	E.21I	No date, May 1855.
	Four folders.	E.21m	No date, May 1855.
E.21a-t	20 photographic prints, <i>ca</i> November 1854-May 1855.	E.21n	No date, May 1855.
E.21a	No date, <i>ca</i> November 1854.	E.21o	No date, May 1855.
E.21b	No date, <i>ca</i> December 1854-April 1855.	L.210	No date, may 1000.
		E.21p	No date, May 1855.
E.21c	No date, ca December 1854-April 1855.	E.21q	No date, May 1855.
E.21d	17 May 1855.	E.21 <b>q</b>	No date, May 1000.
		E.21r	No date, May 1855.
E.21e	17 May 1855.	<b>5</b> .4	
E.21f	17 May 1855.	E.21s	No date, May 1855.
	•	E.21t	No date, May 1855.
E.21g	23 May 1855.		

E.22a-s	19 photographic prints,19 June 1855-25 October 1855.	E.22n	21 September 1855.
E.22a	19 June 1855.	E.22o	21 September 1855.
E.22b	19 June 1855.	E.22p	21 September 1855.
E.22c	19 June 1855.	E.22q	20 October 1855.
E.22d	19 June 1855.	E.22r	20 October 1855
E.22e	20 June 1855.	E.22s	25 October 1855.
E.22f	No date, <i>ca</i> June 1855.	E.23a-s	19 photographic prints, 26 November 1855-30 November 1857.
E.22g	19 July 1855.	E.23a	26 November 1855.
E.22h	20 July 1855.	E.23b	26 November 1855.
E.22i	20 July 1855.	E.23c	19 December 1855.
E.22j	20 July 1855.	E.23d	19 December 1855.
E.22k	18 August 1855.	E.23e	23 January 1856.
E.22I	18 August 1855.	E.23f	23 January 1856.
E.22m	21 August 1855.	E.23g	No date, <i>ca</i> February 1856-October 1857.

E.24b	No date, ca November-December	1857.
E.24c	No date, <i>ca</i> November-December	1857.
E.24d	No date, <i>ca</i> November-December	1857.
E.24e	No date, <i>ca</i> November-December	1857.
E.24f	No date, ca November-December	1857.
E.24g	No date, ca November-December	1857.
E.24h	No date, ca November-December	1857.
E.24i	No date, ca November-December	1857.
E.24j	No date, ca November-December	1857.
E.24k	No date, ca November-December	1857.
E.24I	No date, <i>ca</i> November-December	1857.
E.24m	No date, ca November-December	1857.
E.24n	No date, <i>ca</i> November-December	1857.

E.23h	No date, ca February 1856-October 1857.	E.24b	No date, <i>ca</i> November-December 1857.
E.23i	No date, ca February 1856-October 1857.	E.24c	No date, <i>ca</i> November-December 1857.
E.23j	No date, <i>ca</i> February 1856-October 1857.	E.24d	No date, <i>ca</i> November-December 1857.
E.23k	2 November 1857.	E.24e	No date, <i>ca</i> November-December 1857.
E.23I	2 November 1857.	E.24f	No date, <i>ca</i> November-December 1857.
E.23m	3 November 1857.	E.24g	No date, <i>ca</i> November-December 1857.
E.23n	17 November 1857.	E.24h	No date, <i>ca</i> November-December 1857.
E.23o	17 November 1857.	E.24i	No date, <i>ca</i> November-December 1857.
E.23p	18 November 1857.	E.24j	No date, <i>ca</i> November-December 1857.
E.23q	30 November 1857.	E.24k	No date, <i>ca</i> November-December 1857.
E.23r	30 November 1857.	E.24I	No date, <i>ca</i> November-December 1857.
E.23s	30 November 1857.	E.24m	No date, <i>ca</i> November-December 1857.
E.24a-t	20 photographic prints, <i>ca</i> November 1857-January 1858.	E.24n	No date, <i>ca</i> November-December 1857.
E.24a	No date, ca November-December 1857.	E.24o	No date, <i>ca</i> November-December 1857.

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E.29-E.48

DOCKS

1875-1898

E.24p	No date, <i>ca</i> November-December 1857.	
E.24q	3 December 1857.	
E.24r	5 December 1857.	
E.24s	No date, <i>ca</i> November 1857-January 1858.	
E.24t	No date.	
E.25	Reprint entitled 'The <i>Great Eastern</i> Controversy: A Comment', R. A. Buchanan, <i>Technology and Culture</i> , <b>24</b> (1), January 1983.	
E.26-E.28	NAVAL ARCHITECTURE 1:	865
<b>E.26-E.28</b> E.26-E.28	NAVAL ARCHITECTURE 1:  The Modern System of Naval Architecture, J. Scott Russell, 1865.	865
	The Modern System of Naval Architecture, J. Scott Russell, 1865.  Three large volumes of technical text on ship building illustrated with deta	iled
E.26-E.28	The Modern System of Naval Architecture, J. Scott Russell, 1865.  Three large volumes of technical text on ship building illustrated with detadesigns for ships including the SS Great Eastern.	iled

L.23-L. <del>4</del> 0	50000	3-1030
	This sub-section contains material relating to docks and harbours in the and India.  See also H.1-H.26 and M.1-M.13.	he UK
E.29	Conditions and specification: New wharf and dock (Aberdeen Steam Navigation Company), Limehouse, London, UK, March 1875.	
E.30	1p printed proceedings with two attached diagrammatic drawings rela a committee appointed by the Government of India to consider engine proposals for Kidderpore Docks, Calcutta (now Kolkata), India, 12 Ma 1891.	eering
E.31	6pp manuscript entitled 'Schedules of Prices' setting out costings for to various docks in Liverpool, Cardiff and India, 1869-1892.	works
E.32-E.40	Leith Harbour and Docks, Edinburgh, Scotland, UK, 1892, 1893.	
E.32	Specification, conditions of contract, tender and schedule of prices: N dock, lock and graving dock, 1892.	ew
E.33	Specification, conditions of contract, tender and schedule of prices: P machinery for graving dock, 1892.	umping
E.34	Specification, conditions of contract, tender and schedule of prices: D gates for graving dock, 1892.	ock
E.35	Advance of money to contractor (quantities), 1893.	
E.36	Approximate bill of quantities for reclamation embankment, wet dock, graving dock and relative works (annotated), 1893.	

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E.37	1p typescript memorandum for contractors, 31 March 1893.
E.38	Specification, conditions of contract, tender and schedule of prices: Works at Newhaven Harbour (annotated), 1893.
E.39	Approximate bill of quantities: Works at Newhaven Harbour (annotated) with 3pp manuscript notes and calculations, 1893.
E.40	Plans and sections: New wet dock on east sands, 1892.
E.41	Plans and sections: Avonmouth dock extension, new entrance lock, railways and other works; Bristol new streets and widening of College Green, railways, Swing Bridge and new roads, Bristol, UK, 1893.
E.42	Specification, conditions of contract, form of tender and schedule of prices: Strengthening a portion of the Corporation Quay Wall, Stockton on Tees, County Durham, UK, May 1894.
E.43-E.46	Surrey Commercial Docks, Rotherhithe, London, UK, 1895, 1898.
E.43-E.46	Surrey Commercial Docks, Rotherhithe, London, UK, 1895, 1898.  Between 1895 and 1904 Greenland Dock, part of Surrey Commercial Docks, was expanded more than doubling its capacity and enabling it to accommodate large cargo ships. E. W. Hollingworth served as Resident Engineer under Sir John Wolfe Barry & Partners from 1900 to 1906.
E.43-E.46	Between 1895 and 1904 Greenland Dock, part of Surrey Commercial Docks, was expanded more than doubling its capacity and enabling it to accommodate large cargo ships. E. W. Hollingworth served as Resident
E.43-E.46 E.43	Between 1895 and 1904 Greenland Dock, part of Surrey Commercial Docks, was expanded more than doubling its capacity and enabling it to accommodate large cargo ships. E. W. Hollingworth served as Resident Engineer under Sir John Wolfe Barry & Partners from 1900 to 1906.
	Between 1895 and 1904 Greenland Dock, part of Surrey Commercial Docks, was expanded more than doubling its capacity and enabling it to accommodate large cargo ships. E. W. Hollingworth served as Resident Engineer under Sir John Wolfe Barry & Partners from 1900 to 1906.  See also H.6-H.8.
E.43	Between 1895 and 1904 Greenland Dock, part of Surrey Commercial Docks, was expanded more than doubling its capacity and enabling it to accommodate large cargo ships. E. W. Hollingworth served as Resident Engineer under Sir John Wolfe Barry & Partners from 1900 to 1906.  See also H.6-H.8.  Conditions, specification and tender: Dock extension, January 1895.  Form of agreement, specification, schedule of quantities and prices, and

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E.47 Contract drawings: Dock improvement (North Metropolitan Railway and

Canal Company), Limehouse, London, UK, March 1897.

E.48 Contract drawings: Dock extension (Caledonian Railway), Grangemouth,

Scotland, UK, June 1898.

SECTION F **ENGINEERING: RAILWAYS** F.1, F.2

This section contains a small amount of material relating to railways dating from 1848 and the early 1930s.

See also Section E. H.47-H.50, L.22, L.23 and M.14.

F.1 Coloured map entitled 'A Map of the United Kingdom Showing the Railways

Completed and in Progress' published by R. H. Laurie, London, 1848.

F.2 Notebook (unbound) containing thumbnail black and white photographic

prints and diagrams recording progress of London and North Eastern Railway (LNER) engineering works on the Southern Area New Southgate Bridge, North Circular Road, London, UK, compiled by J. E. R. Hollingworth,

January 1931-March 1932.

SECTION G	BIOGRAPHICAL MATERIAL RELATING TO THE HOLLINGWORTH FAMILY	G.1-G.16
(1873-1927) and Jo	s biographical material relating to the engineers Edward William ohn Edward Ronald Hollingworth (1905-1976). It includes lef appointment and correspondence relating to employment.	S .
	G.1-G.10 E. W. HOLLINGWORTH (1873-1927)	
	G.11-G.16 J. E. R. HOLLINGWORTH (1905-1976)	
G.1-G.10	E. W. HOLLINGWORTH (1873-1927)	1896-1921
	This sub-section contains material relating to the education, qual career of Edward William Hollingworth (1873-1927), a civil et attended Repton School, Derbyshire, UK, before studying Sciences at Pembroke College, University of Cambridge. After 1896 he was articled to Sir John Wolfe Barry and H. M. Brunel win partnership since 1878. He was subsequently chiefly engage and dock construction. He served as secretary to the Instit Engineers Sub-Committee on Tests.	ngineer, who Mechanical graduating in ho had been ed in railway
G.1	8pp manuscript notes entitled 'Hydraulics: Professor Ewing's Le Revision', May 1896.  Sir James Alfred Ewing (1855-1935) took up the post of Profess Mechanism and Applied Mechanics at the University of Cambrid	or of
G.2	Two letters addressed to E. W. Hollingworth from Sir John Wolfe relating to testimonials, 1904.	e Barry
G.3	Four letters relating to appointments and testimonials, 1906.	
G.4	Five typescript testimonials by Sir John Wolfe Barry relating to E Hollingworth, 1907.	E. W.

G.5	Five letters relating to appointments and testimonials, 1908.
G.6	Correspondence and papers relating to the appointment of E. W. Hollingworth as a temporary Engineering Inspector under the Local Government Board, January-February 1909.
G.7	Four letters and 1p typescript curriculum vitae relating to appointments and testimonials, 1909.
G.8	Two testimonials, February 1910.
G.9	1p typescript curriculum vitae, nd <i>ca</i> 1921.
G.10	Correspondence relating to the education, training and employment of E. W. Hollingworth's son, J. E. R. Hollingworth, 1923-1926.
	See also G.11-G.16.
G.11-G.16	J. E. R. HOLLINGWORTH (1905-1976) 1923-1973
G.11-G.16	J. E. R. HOLLINGWORTH (1905-1976)  1923-1973  This sub-section contains material relating to the education, qualifications and career of John Edward Ronald Hollingworth (1905-1976), the son of E. W. Hollingworth (1873-1927) and a civil engineer, who attended Epsom College, Surrey, UK, before being articled to C. J. Brown, Chief Engineer, London and North Eastern Railway (Southern Area). He was subsequently chiefly engaged in railway, dock and airfield construction but also served as Resident Civil Engineer with Esso Petroleum.
G.11-G.16	This sub-section contains material relating to the education, qualifications and career of John Edward Ronald Hollingworth (1905-1976), the son of E. W. Hollingworth (1873-1927) and a civil engineer, who attended Epsom College, Surrey, UK, before being articled to C. J. Brown, Chief Engineer, London and North Eastern Railway (Southern Area). He was subsequently chiefly engaged in railway, dock and airfield construction but also served as Resident
<b>G.11-G.16</b> G.11	This sub-section contains material relating to the education, qualifications and career of John Edward Ronald Hollingworth (1905-1976), the son of E. W. Hollingworth (1873-1927) and a civil engineer, who attended Epsom College, Surrey, UK, before being articled to C. J. Brown, Chief Engineer, London and North Eastern Railway (Southern Area). He was subsequently chiefly engaged in railway, dock and airfield construction but also served as Resident Civil Engineer with Esso Petroleum.

G.13	List of members of the Institution of Civil Engineers, 1 July 1931.
	J. E. R. Hollingworth was elected to associate membership of the Institute of Civil Engineers in February 1931.
G.14	Correspondence relating to J. E. R. Hollingworth's qualifications and employment, 1931-1952.
G.15	Various manuscript and typescript notes relating to qualifications, employment and career, <i>ca</i> 1936- <i>ca</i> 1962.
G.16	6pp typescript entitled 'The Hollingworth Collection of Brunel Letters' giving an account of how Brunel family correspondence came into the possession of E. W. Hollingworth and was subsequently transcribed by J. E. R. Hollingworth before being passed on to I. K. Brunel's grand-daughter, Lady Nobel, 6 May 1973.
	See also E.2-E.20 and K.38-K.67.

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## SECTION H ENGINEERING PROJECTS

H.1-H.56

This section contains material relating to various engineering projects with which E. W. Hollingworth and J. E. R. Hollingworth were involved during their careers.

See also Section E and Section F.

H.1-H.26	DOCKS
H.27-H.30	REINFORCED CONCRETE
H.31-H.43	TIDES
H.44-H.46	SEWERAGE
H.47-H.50	RAILWAYS
H.51, H.52	AIRCRAFT HEIGHT-FINDING APPARATUS
H.53-H.56	MISCELLANEOUS

# H.1-H.26 DOCKS 1875-1926

This sub-section contains material relating to work on docks and harbours carried out by E. W. Hollingworth.

See also E.29-E.48 and M.1-M.13.

H.1-H.5 Esquimalt Harbour, British Columbia, Canada, 1875-1886.

A graving or dry dock was constructed at Esquimalt Harbour between 1876 and 1887. Prior to its completion any Royal Navy vessel in need of hull repair at Esquimalt had to be taken to shipyards in Seattle, Washington, USA.

Since this work pre-dates E. W. Hollingworth's qualification as an engineer by many years it is not clear how this material came into his possession.

Specifications, tender documentation, contract and copy correspondence, 1875-1886.

Five folders.

H.6-H.8	Surrey Commercial Docks, Rotherhithe, London, UK, 1893-ca 1904.	H.15	1917.
	Between 1895 and 1904 Greenland Dock, part of Surrey Commercial Docks, was expanded more than doubling its capacity and enabling it to accommodate large cargo ships. E. W. Hollingworth served as Resident Engineer under Sir John Wolfe Barry & Partners from 1900 to 1906.	H.16	1918.
	Report, test results, newspaper cuttings, estimates for works and sixteen black and white photographic prints showing construction work in progress, 1893-1904.	H.17	1919.
	See also E.43-E.46.  Three folders.	H.18	9pp typescript (annotated) entitled 'Ramsgate Harbour Improvements', nd <i>ca</i> 1919.
H.9	Set of results relating to tensile tests observed by E. W. Hollingworth, 17, 24 January 1896.	H.19	Specification of Works, New Fishmarket, Royal Harbour of Ramsgate, 1919.
H.10	Plan showing a cross section of the London and South Western Railway coal barge jetty, Southampton Docks, 28 July 1909.	H.20	3pp typescript entitled 'Ramsgate Harbour: Scheme for Train Ferry' with 1p manuscript accounts and covering letter addressed to Admiral C. E. Monro, Board of Trade, 27 March 1919.
H.11	Manuscript notes and newspaper cuttings relating to various construction materials, 1912-1916.	H.21	Correspondence with the Committee of the Institution of Civil Engineers on Deterioration of Structures Exposed to Sea-Action, 1922-1923.
H.12-H.20	Royal Harbour of Ramsgate (Port of Ramsgate), Ramsgate, Kent, UK, 1914-1919.	H.22-H.24	Typescript working reports relating to various aspects of docks, harbour, wharf and pier construction and development outside the UK, 1924-1926.
	E. W. Hollingworth served as Harbour Engineer at Ramsgate from 1910.		Three folders.
H.12-H.17	Series of reports produced by the Ramsgate Harbour Engineer's Office for the Development Commission relating to the condition, maintenance and improvement of harbour facilities along the south coast of England in Dorset, Devon and Cornwall, 1914-1919.	H.25	1p typescript entitled 'Problems in Designing and Constructing Sea Defence Works' with covering letter, March-April 1925.
H.12, H.13	1914.	H.26	2pp typescript entitled 'The Suction Dredgers of the Mersey', 30 March 1926.
	Two folders.		
H.14	1915.		

H.27-H.30	REINFORCED CONCRETE	1910-1912	H.39-H.43	Correspondence, notes, black and white photographic prints, news cuttings and papers relating to J. E. R. Hollingworth's tidal research 1952-1976.	
	Correspondence, calculations, notes on experiments, reports papers relating to E. W. Hollingworth's work in connection to Civil Engineers Committee on Reinforced Concrete, <i>ca</i> 1910-	the Institution of		Five folders.	
	Four folders.		H.44-H.46	SEWERAGE	<i>ca</i> 1920s
H.31-H.43	TIDES	ca 1911-1976		This sub-section contains a small amount of material relating to wo W. Hollingworth on sewerage and sewage disposal.	rk by E.
	This sub-section contains material relating to work on tides, or and tidal streams from an engineering perspective undertake Hollingworth and J. E. R. Hollingworth.		H.44	9pp typescript report entitled 'Sewerage and Sewage Disposal', nd 1920s.	ca
	See also J.12, M.7 and M.12.				
	The presentation is chronological.		H.45	Straight line diagram entitled 'Circular Sewers & Pipes', nd ca 1920	)s.
H.31	Map, diagrammatic drawings, calculations, charts and notes Hollingworth's tidal research, <i>ca</i> 1911- <i>ca</i> 1925.	relating to E. W.	H.46	4 strips of card (approx. 33cm x 3cm) used to assist in the calculativelocity and discharge rates of pipes of varying profile and diamete 1920s.	
H.32	Ordinance survey map (extract) of St Ives Bay with annotatio Hollingworth recording harbour water depths, 14 April 1919.	ns by E. W.	H.47-H.50	RAILWAYS 1	928-1936
H.33	Letter of notification and promotional flyers relating to 'The Ti Engineer's Standpoint' by E. W. Hollingworth, 1923.	des from an		This sub-section contains material relating to work by J. E. R. Hollin for the London and North Eastern Railway (LNER).	ngworth
H.34	Diagrammatic chart entitled 'Rennell's Current: Diagram shows Set', E. W. Hollingworth, 1925.	ving Northward		See also Section F, L. 22, L.23, M.14 and M.15.	
			H.47	Printed map entitled 'LNER Southern Area: Kings Cross District', O	ctober
H.35-H.38	Correspondence and notes relating to E. W. Hollingworth's tid 1925-1926.	dal research,		1928.	
	Four folders.		H.48	Blueprint drawing entitled 'LNER New Southgate North Circular Ro Underline Bridge: Proposed Temporary Supports to Railway', 16 Ja 1931.	

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H.49	Set of 26 black and white photographic prints showing work on the removand replacement of the London North Eastern Railway Wood Green flyov railway bridge, London, UK, <i>ca</i> 1934.	
H.50	Printed notices relating to the movement of special passenger trains between Kings Cross to Wolferton, Norfolk, UK, London North Eastern Railway, December 1935, January 1936.	
H.51, H.52	AIRCRAFT HEIGHT-FINDING APPARATUS 1933-19	964
	Correspondence, notes and newspaper cutting relating to J. E. R. Hollingworth's work in connection to the development of a method of determining the height of an aircraft above the ground surface, 1933-196-	4.
	Two folders.	
H.53-H.56	MISCELLANEOUS 1910-ca 1	925
11.00-11.00	.010 00 1	020
11.00-11.00	This sub-section contains material relating to miscellaneous engineering projects undertaken by E. W. Hollingworth.	<b>320</b>
H.53	This sub-section contains material relating to miscellaneous engineering	320
	This sub-section contains material relating to miscellaneous engineering projects undertaken by E. W. Hollingworth.  Formal Admiralty acknowledgment of a letter sent by E. W. Hollingworth	
Н.53	This sub-section contains material relating to miscellaneous engineering projects undertaken by E. W. Hollingworth.  Formal Admiralty acknowledgment of a letter sent by E. W. Hollingworth relating to a drum for use in laying submarine mines, 14 February 1910.  2pp copy declaration relating to the invention by E. W. Hollingworth of	

SECTION J PUBLICATIONS & WRITING

ONS & WRITING J.1-J.12

This section contains published and unpublished works authored by E. W. Hollingworth (1873-1927). They range in date from 1905 to 1924, covering topics including reinforced concrete, tides, use of the slide rule and various aspects of biblical chronology.

J.1	6pp typescript entitled 'Examination of Parliamentary Plans and Sections' relating to railways, E. W. Hollingworth, 1905.
J.2	'The Hyksos and the Twelfth Dynasty', E. W. Hollingworth, <i>Proceedings of the Society of Biblical Archaeology</i> , <b>XXX</b> pp155-158, May 1908.  See also L.1-L.8.
J.3	'A Graphical Method of Calculating Gas-Engine Efficiencies', E. W. Hollingworth, <i>Minutes of Proceedings of the Institution of Civil Engineers</i> , <b>CLXXIII</b> (iii), 1908.
J.4	'Experimental Data in Regard to Beams and Columns of Reinforced Concrete', E. W. Hollingworth, Committee on Reinforced Concrete, Institution of Civil Engineers, 16 October 1909.  See also J.5, J.6 and J.8.
J.5	'Summary of Various Systems of Reinforced Concrete', E. W. Hollingworth, Committee on Reinforced Concrete, Institution of Civil Engineers, 28 February 1910.  See also J.4, J.6 and J.8.
J.6	Preliminary and Interim Report of the Committee on Reinforced Concrete, Institution of Civil Engineers, June 1910.

See also J.4, J.5 and J.8.

J.7	'The Book of Judges and the Date of the Exodus', E. W. Hollingworth, Proceedings of the Society of Biblical Archaeology, <b>XXXIII</b> pp46-50, February 1911.
	See also L.1-L.8.
J.8	Second Report of the Committee on Reinforced Concrete, Institution of Civil Engineers, 1913.
	See also J.4-J.6.
J.9	4pp typescript entitled 'National Economy' by E. W. Hollingworth, 14 September 1916.
J.10	'A Note on the Solution of Equations by Means of the Slide-Rule', E. W. Hollingworth, <i>Minutes of Proceedings of the Institution of Civil Engineers</i> , <b>CCII</b> (ii), 1917.
J.11	'The Date of the Tel Amarna Tablets', E. W. Hollingworth, <i>Proceedings of the Society of Biblical Archaeology</i> , <b>XL</b> pp100-103, June 1918.
	See also L.1-L.8.
J.12	'The Tides from an Engineer's Standpoint', E. W. Hollingworth, <i>Minutes of Proceedings of the Institution of Civil Engineers</i> , <b>CCXVII</b> (i), 1924.
	See also H.31-H.43.

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# SECTION K CORRESPONDENCE

K.1-K.67

This section contains two collections of correspondence. The first comprises the letters of J. E. R. Hollingworth (1905-1976) covering a range of topics relating to his research interests. The second is composed of transcriptions of letters sent and received by members of the Brunel family between 1812 and 1885.

K.1-K.37 J. E. R. HOLLINGWORTH (1905-1976)

K.38-K.67 BRUNEL FAMILY

# K.1-K.37 J. E. R. HOLLINGWORTH (1905-1976)

1934-1976

This sub-section contains letters received by J. E. R Hollingworth from various correspondents between 1934 and 1976. The topics covered reflect his diverse interests in the broad field of engineering history. Correspondents include libraries and museums in the UK and overseas, the SS *Great Britain* Project, the Royal Institution of Naval Architects, the Institution of Civil Engineers and the University of Bath.

See also G.11-G.16.

The presentation is chronological.

K.1, K.2 1934.

Two folders.

K.3 1935.

K.4 1936-1939.

K.5 1952-1958.

K.6	1959-1961.	K.35, K.36	1974.	
			Two folders.	
K.7-K.11	1962.			
	Five folders.	K.37	1975-1976.	
K.12	1963.	K.38-K.67	BRUNEL FAMILY 1812-1885	
K.13	1964-1965.			
K.14	1966.		This sub-section contains typescript transcriptions of letters sent and received by male members of the Brunel family in the course of their work as civil engineers. The transcriptions were made by J. E. R. Hollingworth during the early 1930s.	
			For letters relating to the SS Great Eastern see E.2-E.20.	
K.15	1967.		See also G.16.	
K.16	1968-1969.	K.38	Softback notebook inscribed on the spine 'I K. Brunel Letters I' containing a bound set of typescript copies of transcripts of letters sent and received by Marc Isambard Brunel (1769-1849) and his son Isambard Kingdom Brunel (1806-1859) relating to various engineering projects, 1812-1850.	
K.17-K.19	1970.		See also K.40-K.67.	
	Three folders.			
K.20, K.21	1971. Two folders.	K.39	Softback notebook inscribed on the spine 'I K. Brunel Letters II' containing a bound set of typescript copies of transcripts of letters sent and received by Isambard Kingdom Brunel (1806-1959) and his sons Isambard Brunel Junior (1837-1902) and Henry Marc Brunel (1842-1903) relating to various engineering projects, 1851-1880.	
			See also K.40-K.67.	
K.22-K.28	1972.		GGC disc N.40-N.07.	
	Seven folders.	K.40-K.67	Typescript copies of transcribed correspondence sent and received by members of the Brunel family relating to various engineering projects, 1812-1885.	
K.29-K.34	1973.		See also K.38, K.39.	
	Six folders.			
		K.40	1812.	

K.41	1813.	K.55	1853.
K.42	1815-1816.	K.56	1854.
K.43	1824.	K.57	1855.
K.44	1831.	K.58	1856.
K.45	1835-1837.	K.59	1857.
K.46	1841-1844.	K.60	1858.
K.47	1845.	K.61	1859.
K.48	1846.	K.62	1861-1867.
K.49	1847.	K.63	1870.
K.50	1848.	K.64	1872.
K.51	1849.	K.65	1873.
K.52	1850.	K.66	1874.
K.53	1851.	K.67	1880-1885.
K.54	1852.		

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# SECTION L RESEARCH L.1-L.57

This section contains material relating to the research interests of E. W. Hollingworth and J. E. R. Hollingworth. Father and son shared an enthusiasm for the history of civil engineering. Both men were also interested in an eclectic range of subjects of a broader historical nature. The notes, papers and original documents presented here record their thoughts, ideas and investigations.

DIDLICAL CLIDONOLOGY

L.1-L.3	BIBLICAL CHRONOLOGY
L.4-L.8	EGYPTOLOGY
L.9-L.16	SS GREAT EASTERN
L.17-L.21	SS GREAT BRITAIN
L.22, L.23	RAILWAYS
L.24-L.34	BRIDGES
L.35-L.45	ENGINEERS
L.46	DISC BRAKES FOR AIRCRAFT
L.47	IRON AND STEEL MAKING
L.48	STONEHENGE
L.49-L.51	WORLD WAR II
L.52-L.54	GHOSTS
L.55-L.57	MISCELLANEOUS

# L.1-L.3 BIBLICAL CHRONOLOGY

ca 1905-ca 1920

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Papers, notes, diagrams and correspondence relating to E. W. Hollingworth's interest in aspects of Biblical chronology, *ca* 1905-*ca* 1920.

See also J.2, J.7, J.11 and L.4-L.8.

Three folders.

## L.4-L.8 EGYPTOLOGY

1905-ca 1940

L.4-L.7 Notes, papers, calculations, drafts and correspondence relating to E. W. Hollingworth's interest in the history of ancient Egypt, *ca* 1905-*ca* 1906.

See also J.2, J.7, J.11, L.1-L.3 and L.8.

Four folders.

L.8 Papers, correspondence and notes relating to comments and additions to E.

W. Hollingworth's work on chronology and the history of ancient Egypt by

Colonel C. F. Milsom, ca 1940.

See also J.2, J.7, J.11 and L.1-L.7.

## L.9-L.16 SS GREAT EASTERN

1869-ca 1962

This sub-section contains material relating to J. E. R. Hollingworth's interest in the history of the *Great Eastern*, an iron-hulled steamship designed by Isambard Kingdom Brunel and built by John Scott Russell at Millwall Iron Works, London, UK, between 1854 and 1857.

See also E.2-E.25.

L.9 SS Great Eastern Log Book, 20 June-26 July 1869.

Used on a voyage from Sheerness, Kent, UK, to St Pierre, Newfoundland, Canada, for the submergence of telegraph cable between France and North America.

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L.24-L.34

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BRIDGES

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1831-1970

L.10	SS Great Eastern Log Book, 14 Februay-9 March 1870.		
	Used on a voyage from Bombay (Mumbai), India, to Jebbel Teer Tair Island), Yemen, for the submergence of telegraph cable betv Britain and India.		
L.11-L.16	Notes, transcriptions, newspaper cuttings, post cards, published papers and photographic prints relating to J. E. R. Hollingworth's research into the nistory of the SS <i>Great Eastern</i> , ca 1958-ca 1962.		
	Six folders.		
L.17-L.21	SS GREAT BRITAIN	1847-1973	
	Printed papers, notes, memorabilia and newspaper cuttings relating. Hollingworth's interest in the history of the <i>Great Britain</i> , a transpassenger steamship designed by Isambard Kingdom Brunel and in 1843, 1947-1973.	satlantic	
	Five folders.		
L.22, L.23	RAILWAYS	1846	
	This sub-section contains material relating to J. E. R. Hollingworth in the history of railways and railway engineering.	h's interest	
	See also Section F, H.47-H.50, M.14 and M.15.		
L.22	Observations on the Report of the Gauge Commissioners Preser Parliament (annotated proof), nd <i>ca</i> 1846.	nted to	
L.23	Observations on the Report of the Gauge Commissioners Preser Parliament, 1846.	nted to	

	This sub-section contains material assembled by J. E. R. Hollingworth relating to his interest in historic bridges.
	See also Section M.
L.24-L.27	Clifton Suspension Bridge, Bristol, UK.
L.24	Printed prospectus entitled 'Suspension Bridge Proposed to be Erected Over the Avon from Clifton Down', 20 April 1831.
L.25	Engraving of elevation drawings for the design of Clifton Suspension Bridge dated 1829 and 1836, nd <i>ca</i> 1840s.
L.26	Printed volume comprising 'Description of the Clifton Suspension Bridge' by William Henry Barlow and 'On the Use of the Suspension Bridge with Stiffened Roadway for Railway and other Bridges of Great Span' by George Biddell Airy, 1867.
L.27	The History of Clifton Suspension Bridge, Clifton Suspension Bridge Trust, (Eighteenth Edition) 1970.
L.28-L.30	Chepstow Railway Bridge, Chepstow, Monmouthshire, Wales, UK.
L.28	Elevation drawings relating to the reconstruction of Chepstow Bridge, British Railways Civil Engineering Department, 4 August 1961.
L.29	Souvenir brochure entitled 'Chepstow Bridge Reconstruction', 1962.
L.30	'The Chepstow Bridge', Welding and Metal Fabrication, December 1963.

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L.31-L.33	Royal Albert Bridge, Saltash, Cornwall, UK.		L.38-L.42	Isambard Kingdom Brunel (1806-1859).
L.31	Notes, transcriptions, copy black and white photographs and dia 1956-1959.	agrams, <i>ca</i>	L.38	Engraving showing Isambard Kingdom Bruca 1870.
L.32	'The Royal Albert Bridge, Saltash' John Hollingworth, <i>Proceedir Institution of Civil Engineers</i> , <b>11</b> ppN5-N7, December 1958.	ngs of the	L.39	Bound proof (annotated) entitled 'Life of Is comprising chapters 1-3, nd <i>ca</i> 1870.
L.33	9pp typescript entitled 'The Royal Albert Bridge, Saltash, 1859-C. Rolt, 1959.	1959', L. T.	L.40	Unbound proofs entitled 'The Life of Isamb Engineer' by Isambard Brunel, 1870.
L.34	7pp typescript draft entitled 'A Study of the History of Subaqueo Foundations', nd.	us Bridge	L.41	'The Isambard Brunels', Cynthia Jebb, Lac Institution of Civil Engineers, <b>50</b> pp1-14, So
L.35-L.45	ENGINEERS	1810-1981	L.42	'The British Hospital at Renkoi 1855', Davi 1981.
	This sub-section contains material assembled by J. E. R. Holling course of his research into the careers and achievements of ind engineers. It mainly comprises notes and papers but includes a	ividual	L.43-L.45	John Scott Russell (1808-1882).
	number of original documents.		L.43	37pp typescript entitled 'The Defence of Jo Emmerson, nd <i>ca</i> 1977.
L.35-L.37 L.35	Thomas Telford (1757-1824).  Report from Committee on Holyhead Roads with appendices (a	nnotated)	L.44	6pp typescript entitled 'John Scott Russell, other matters', A. M. Robb, nd.
L.33	1811.	iniotateu),	1.45	
L.36	Typescript transcript entitled 'Holyhead Road' comprising copies from the Committee on Holyhead Roads, 1810-1820.	s of reports	L.45	Notes, copy documents and black and whi
			L.46	DISC BRAKES FOR AIRCRAFT
L.37	Printed booklet entitled 'Telford Centenary Exhibition', British As the Advancement of Science, Aberdeen, Scotland, UK, Septem			Notes, correspondence, printed brochure a

L.38	Engraving showing Isambard Kingdom Brunel seated at his work desk, nd ca 1870.
L.39	Bound proof (annotated) entitled 'Life of Isambard Kingdom Brunel' comprising chapters 1-3, nd <i>ca</i> 1870.
L.40	Unbound proofs entitled 'The Life of Isambard Kingdom Brunel, Civil Engineer' by Isambard Brunel, 1870.
L.41	'The Isambard Brunels', Cynthia Jebb, Lady Gladwyn, <i>Proceedings of the Institution of Civil Engineers</i> , <b>50</b> pp1-14, September 1971.
L.42	'The British Hospital at Renkoi 1855', David Toppin, <i>The Arup Journal</i> , July 1981.
L.43-L.45	John Scott Russell (1808-1882).
L.43	37pp typescript entitled 'The Defence of John Scott Russell', George S. Emmerson, nd <i>ca</i> 1977.
L.44	6pp typescript entitled 'John Scott Russell, the <i>Great Eastern</i> and some other matters', A. M. Robb, nd.
L.45	Notes, copy documents and black and white photographic portrait, nd.
L.46	DISC BRAKES FOR AIRCRAFT 1935-1968

Notes, correspondence, printed brochure and newspaper cuttings relating to J. E. R. Hollingworth's interest in the history and development of disc brakes for aircraft, 1935-1968.

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L.47	IRON AND STEEL MAKING	ca 1969-1974
	30pp variously titled typescript notes on the history of iron an with envelope inscribed 'Haystack Boiler, 7 June 1974', <i>ca</i> 19	
L.48	STONEHENGE	1955-1974
	Notes, calculations, diagrams, guidebook and printed materia E. R. Hollingworth's interest in the prehistoric megalithic structure. Stonehenge, Wiltshire, UK, 1955-1974.	
L.49-L.51	WORLD WAR II	ca 1975-1976
	Notes, drafts, correspondence and map relating to J. E. R. H interest in various aspects of World War II, <i>ca</i> 1975-1976.	ollingworth's
	Three folders.	
L.52-L.54	GHOSTS	1958-1973
L.52	20pp manuscript draft entitled 'Footsteps in the Night or The Hazelgrove House, Somerset', John Hollingworth, nd.	Ghost of
L.53, L.54	Guidebook, photos, magazine cuttings and correspondence R. Hollingworth's interest in ghost stories, 1958-1973.  Two folders.	relating to J. E.

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L.55-L.57	MISCELLANEOUS	1825-1853
L.55	Printed paper (annotated) entitled 'Report on the Propose a Ship Canal between the Harbours of Fowey and Padsto I. Brunel, 29 June 1825.	
L.56	Manuscript paper entitled 'Sketch of a Plot of Ground at C in the Parish of Islington', comprising notes and a plan of Holloway and Park Lane, London, UK, nd ?ca 1840s.	
L.57	Report of the Committee on the Inundation of the Thames 16 June 1853.	s with an Appendix,

SECTION M	DRAWINGS & PLANS	M.1-M.20	M.4	Plan (46cm x 66cm) entitled 'Sutton Harbour and Docks Plymouth (3)', I. K. Brunel, 1845.
This section contains a number of historic drawings and plans belonging to the Hollingworth family. Covering a range of subjects, they include original documents produced by Marc Isambard Brunel (1769-1849) and his son, Isambard Kingdom Brunel (1806-1859) in the course of their civil engineering work.		bard Brunel	M.5	Plan (46cm x 67cm) entitled 'Plymouth Great Western Dock (7)', I. K. Brunel, 1845.
			M.6	Plan (46cm x 67cm) entitled 'Plymouth Great Western Dock (8)', I. K. Brunel, 1845.
	M.1-M.13 DOCKS			
	M.14, M.15 RAILWAYS M.16, M.17 SHIPS		M.7	Rolled series of three cloth-backed drawings and plans (84cm x 261cm) labelled '166 South Devon: Plan of Teignmouth Bar & Sands', Thomas C. Bell, 1847-1852.
	M.18-M.20 MISCELLANEOUS			Pen and ink with watercolour diagrammatic drawings entitled 'Sections of the Denn Point', 1847.
M.1-M.13	DOCKS 18	14-ca 1919		Pen and ink with watercolour plan entitled 'Teignmouth Bar in the County of Devon after the Denn Point had been washed away', 1847.
	DUCKS	514-Ca 1919		Pen and ink with watercolour plan entitled 'Teignmouth Bar in the County of Devon' showing sand formations between 8 January and 7 February 1852.
	This sub-section contains various drawings and plans relating to harbours in London, Devon and Cornwall.	docks and		A covering letter dated 26 February 1852 in which Thomas C. Bell suggests his drawings may be of interest to Mr Brunel is affixed.
See also E.29-E.48 and H.1-H.26.				See also H.31-H.43, J.12 and M.12.
M.1	Pen and ink with watercolour design (48cm x 30.5cm) entitled 'Differming the arch of the tunnel in His Majesty's Dockyard at Chath by Marc Isambard Brunel, 2 June 1814.		M.8	Pen and ink with watercolour plan (48cm x 80cm) entitled 'Comparative View of London Docks and Sutton Harbour and Docks Plymouth (1)', November 1852.
See also M.18.				
	Possibly part of Brunel's designs for a new steam-powered sawn canal system at the Royal Naval Dockyard, Chatham, Kent, UK, commissioned by the Admiralty in 1812.	nill and	M.9	Pen and ink with watercolour plan (46.5cm x 85cm) entitled 'Comparative View of London and Plymouth Great Western Docks', <i>ca</i> November 1852.
M.2	Pen and ink with watercolour plan (64cm x 95.5cm) entitled 'Berr Dock' signed by Marc Isambard Brunel, 6 January 1825.	nondsey	M.10	Two cloth-backed drawings relating to Keyham dockyard, Plymouth, Devon, UK, 1853, 1856.
				Pen and ink with watercolour plan (30cm x 43cm) entitled 'Keyham Docks (6)', July 1853.
M.3	Pen and ink with watercolour plan (71.5cm x 126cm) entitled 'No unidentified docks signed by Marc Isambard Brunel, 15 November			Pen and ink with watercolour cross-sectional drawing (21cm x 31.5cm) entitled 'Keyham Dock Yard Tunnel (6), 20 March 1856.

M.11 Pencil sectional drawing on tracing paper (53cm x 71cm) entitled 'Looe Harbour', E. W. Hollingworth, November 1918. M.12 Pencil drawing on tracing paper (53cm x 71cm) entitled 'Harbour of refuge enquiry north coast of Devon and Cornwall: Report by William Matthews CMG, 23 June 1906' ?plotting tidal currents and depths around St Ives, Cornwall, UK, E. W. Hollingworth, 22 April 1919. See also H.31-H.43, J.12 and M.7. M.13 Pencil plan with sectional drawings on tracing paper (53cm x 82.5cm) entitled 'Portlooe', E. W. Hollingworth, nd ca 1919. M.14, M.15 **RAILWAYS** 1846 See also Section F and H.47-H.50. Rolled untitled cloth-backed schematic drawing or permanent way plan M.14 (66cm x 154cm) of a section of railway line, nd. M.15 Bound series of 21 annotated sectional drawings and plans (74cm x 128cm) of railway bridges, brick culverts, cuttings and embankments inscribed on the front cover 'IKB: Standard Drawings' and labelled '590', 1846. M.16, M.17 SHIPS 1853, ca 1857 M.16 Pen and ink with watercolour drawing on cloth-backed tracing paper (70cm x 77cm) entitled 'Elevation & Sections of the Screw of the Adelaide and Victoria', 20 April 1853.

Black and white photographic print of a drawing (?from a publication) of the *Great Eastern* steamship entitled 'Practical Ship Building: Launching, Plate

105', nd ca 1857.

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M.17

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M.18-M.20	MISCELLANEOUS	ca 1814-1846
M.18	Pen and ink with watercolour schematic drawing (63cm x 9 piston and pipes, signed by Marc Isambard Brunel, nd <i>ca</i> 1 See also M.1.	
M.19	Printed engraving (29cm x 67.5cm) entitled 'Manoeuvres du 1768-1774' showing a cross section and plan of the bridge Paris, France, designed by Jean-Rodolphe Perronet, nd.	
M.20	The Bridge of the Santa Trinita over the Arno at Florence D Measured and Accompanied by Explanatory Remarks, Lew 1822.	