

MUSEUM OF SCIENCE AND INDUSTRY LIBRARY AND RECORD CENTRE

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The Manchester Museum of Science and Industry's Library and Record Centre has now been open for just over a year, but the archives in its strongrooms have been collected over several decades.

The nucleus of the collection was formed in the late 1960s when members of the History of Science department at UMIST set out to document and preserve the scientific and industrial heritage of the North-West. From the outset, the Museum has followed a policy of acquiring business records and trade literature directly relating to its object collections. Documents, drawings and photographs have often provided curators with the vital information needed to restore and interpret artefacts as diverse as steam engines, spinning mules and scientific instruments.

After the Museum opened on its present site, at Liverpool Road Station, in 1983, its scope was broadened to include such themes as social history and sanitation and these developments have been reflected in the Library's collections, particularly in the acquisition of secondary sources relating to the history of Manchester. While a suitable home for the archive was being developed at Liverpool Road, the collections were temporarily

accommodated at the Greater Manchester County Record Office, whose help and generosity at that time was much appreciated.

Although it has always been possible to study the archives by appointment, access has been greatly enhanced by the opening of the new Library and Record centre, housed in the basement of the Lower Byrom Street Warehouse and easily reached by lift from the Museum's main entrance.

Business records, engineering drawings and photographs generated by local industry represent the core of the collections. However, two collections cover a far wider geographical area. The Electricity Council archive contains records of electricity generation and its distribution throughout Britain and its use as a power source in industry and in the home. The archive contains film, posters and advertising material designed to promote electricity as a safe, versatile fuel and features early cookers, washing machines and other "labour saving" appliances on display in the National Electricity Gallery. Although national in scope, the archive contains a significant body of material relating to the Manchester region.



Boatyard workers, Castlefield, c.1890 (Abbott Collection)

The National Paper Collection contains books, journals and paper samples, some of the latter produced on machinery in the Museum's care. Despite its name, the collection does not confine itself to British history, taking in the development of papermaking in Europe, America and the Far East. Nevertheless, its global remit does not mean that local developments have been overlooked, as the collection contains some company histories and other references to papermaking in Lancashire and the North-West.

Engineering archives feature strongly in the Museum's collections. The machine tool makers, Craven Brothers of Reddish, are a good example, having left behind an extensive run of business records and photographs. Covering the period from 1860-1967, the records are a source of consistent information about finance and business strategy, both at home and in relation to its agencies in India and elsewhere. The firm's products are well represented in a series of trade catalogues and a complete run of the house journal, *Craven's Gazette*, has also been preserved.

Minutes of Directors' meetings and annual reports to shareholders survive as a virtually complete record from 1886-1959. Entries for 1886-7 find the firm gradually climbing out of an economic slump. The value of orders is growing, despite narrow profit margins and the board feels able to consider the installation of electricity and telephones at the works and, as one of several examples of charitable giving, resolve that:

*£2 to be sent to the Employees of Messrs J Simpson & Co Ltd, toward the Annual Banfeast.*¹

Industrial relations, however, soon take a turn for the worse. On 13 July 1897, the meeting discussed:

*Col Dyer's visit on Friday last to ask us to co-operate with the Federation of Employers in the present trade crisis (ie by locking out 25% of our workmen on account of the demand for a 48 hour week in London, in which case the other 75% would at once hand in their notice to cease work).*²

Members of the Amalgamated Society of Engineers in London had led a strike in support of a shorter working week (from 53 to 48 hours). The Employers Federation was determined to defeat the union by enforcing a lock-out throughout the industry. After some hesitation, Craven Brothers obeyed the Federation's call to arms. Accordingly, on 5 August, 51 trade union members were "discharged" and a further 202 downed tools in sympathy. The long, bitter lock-out that followed, virtually closed the works until January 1898, when the engineers returned to work on the employers' terms. Meanwhile, the board had cannily taken advantage of the lull in business to order a general stocktaking and valuation of the works — and despite the dispute, the director was able to announce a satisfactory increase in profits and dividends at the next Annual General Meeting.

A minute book of 1919 finds the directors of the Dukinfield turbine makers, Daniel Adamson, similarly embroiled in industrial unrest. At a meeting in September, it was announced that the entire foundry had been closed on account of a moulders' strike; an event uncannily coincidental with the installation of a new moulding machine at the works. By November, it was necessary to suspend engineering workers in other departments, due to lack of work but despite the enforced stoppage, the

board take comfort from their resolve: "When restarting, to get the men back on some piecework or bonus system".³

A problem of a different kind was raised on the retirement of a long standing employee, Mr Charles Bardsley. It was initially suggested that: "We should make some slight acknowledgement of the fact that Bardsley had been with the Firm for fifty years, say, a present of a month's salary".⁴ However, when, sometime later: "It was pointed out that there were several very old employees"⁵ the balance of opinion was decisively tipped in favour of an alternative proposal — that the firm should organise a dinner for Mr Bardsley and those of his colleagues who had served for over thirty years.

In addition to more comprehensive groups of engineering archives, the Centre houses several thousand technical drawings used in the manufacture of stationary engines and other products. There is also an interesting group of mill plans and elevations, which came from the Fine Cotton Spinners' Association. Although now sadly separated from the production records of which they once formed a part, engineering drawings are often of value in technical research. Drawings produced by the Rochdale engineers McNaught, have proved a useful resource in the restoration of a fine mill engine by the Ellenroad Trust at Milnrow.

While the great machines which powered the mills and weaving sheds of the region are well documented in the archive, records of textile manufacture are generally held elsewhere. An important exception is a group of documents relating to the early activities of Richard Arkwright. The Centre also holds a number of manuscript dye recipe books and also a fine group of fabric sample books produced by members of the Calico Printers Association, illustrating changes in textile design from 1795 to the 1940s.



Riveting a boiler (Beyer, Peacock Collection)

As the Museum is housed in the world's oldest surviving passenger railway station, it is appropriate that transport should be a recurring theme in the Centre's archives. Two locomotives built by the Gorton firm, Beyer-Peacock, are on display in the Power Hall. Both were restored using information obtained from the company's archives, an important body of production records whose physical volume is matched by their popularity with enthusiasts and modelmakers around the world. The firm enjoyed technical and commercial success, particularly in overseas markets, for more than a century, and records survive from the formation of the first partnership until the 1960s, by which time the firm had been fatally wrong footed by the obsolescence of steam.

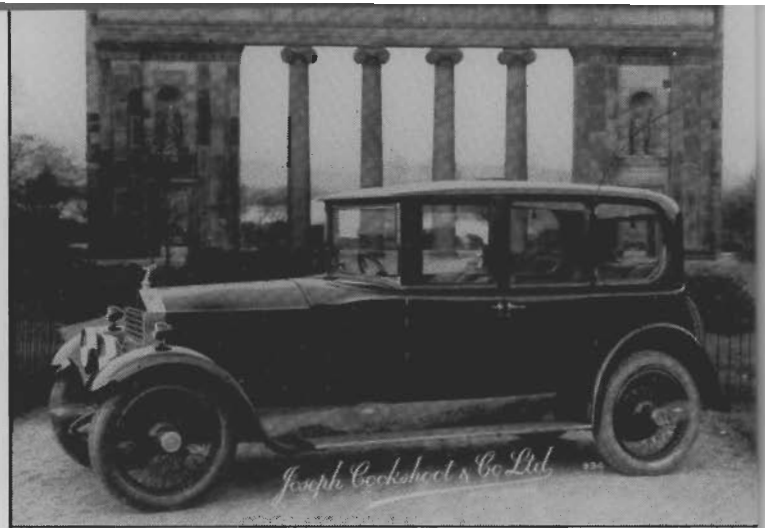
A measure of the scale of operations required to bring the early engines into production can be found in the company's first wage book.⁶ The first entry, in June 1854, lists a mere five staff, including the night watchmen. By the following year, the weekly enumeration of labourers, fitters and foundrymen covered five and a half closely written pages. For the clerk responsible for maintaining this ever lengthening record, the future must have held a promise of unrelenting tedium. However, relief was at hand: the entry for 17 August 1855 starts with a terse announcement

Workers' wages as per Time Book: £454 7s 8d⁷

and continues with a much truncated list, consisting only of foremen, clerks and draughtsmen. The Time Books have long since gone and with them the only comprehensive record of most of the firm's zealous employees. Historians and archivists thus dismayed by the firm's zealous commitment to administrative efficiency, can take comfort in the fact that pictorial records of the works and its products were consciously maintained from the start. Charles Beyer, a founding partner, was a member of the Manchester Literary and Philosophical Society, as was the pioneering photographer, James Mudd. In 1856, Beyer commissioned Mudd to make a photographic record of completed locomotives and the photographer, his son and their successor, Grundy, continued this work for over half a century. The result is one of the earliest archives of industrial photography in existence. Works photographs of locomotives, machine tools and other products, survive from every period of the firm's history, although ironically some of the later photography fails to match Mudd's work in clarity and definition. The photographic archive records the development of the site and its buildings, with many interior views of the engineering shops, particularly during the second World War when women are shown engaging in munitions work. A colourful series of works bulletins also survives from this period.

Further photographic collections show Crossleys' range of municipal buses, including a Manchester Corporation mobile canteen in Piccadilly Gardens and the Co-operative Wholesale Society's varied collection of delivery vehicles.

A more overt status symbol was the stylish limousine belonging to the High Sheriff of Lancashire and pictured outside the old Assize courts at Strangeways. This is one of many striking photographs in the archive of Joseph Cockshott & Co, a firm of coachbuilders which accelerated into the motor age by producing finely crafted bodies for cars powered by Rolls Royce and Bentley engines. Sales records reveal that these customised vehicles were favoured by local manufacturers, as "Major



Rolls Royce of 1924 (Cockshott Collection)

Peacock", Tweedale and Smalley and Craven Brothers were among the customers.

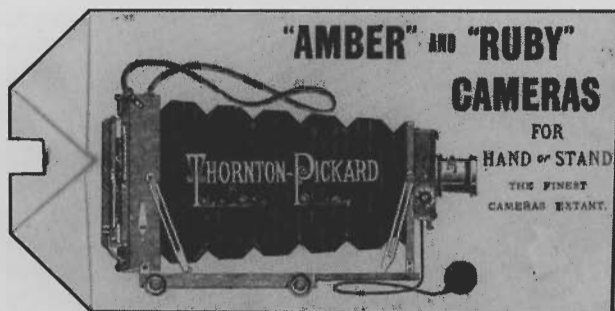
The collection contains carriage drawings and notebooks used by the firm's senior coach builder John Travis, as well as the apprenticeship agreement drawn up at the start of his long career with the firm. Mr Travis made a presentation on behalf of the staff to Joseph Cockshott on the fiftieth anniversary of the firm's foundation. A souvenir programme, adorned with a fanciful illustration of a coach and four, commemorates the workers' jubilee outing to Lymm, when after the presentation and a meal at the Plough Inn, the party was treated to a "musical entertainment" of solos, songs and recitations.⁸

The Cockshott company went on to open garages and showrooms throughout the region, acting as agents for Morris Motors and others. A business card of around 1907 shows the first garage, at the Great Northern Railway Arches, Deansgate, "open day and night" for petrol, oil, sundries and cars for sale or hire.⁹ The arches, at the junction of Deansgate and Great Bridgewater Street are still in use, as an ambulance station.

Another aspect of Castlefield's transport history is illustrated in the records of Frederick J Abbott Ltd, whose barges once regularly ferried consignments of newsprint, cloth and grain between Liverpool and Manchester. The firm had a warehouse in Stanley Street, Salford, and would use the facilities of Potato Wharf to load and deliver cargo. Photographs in the collection testify to the past importance of Castlefield's network of rivers and canals.

The archive houses a number of documents and photographs relating to the Manchester airmen, Alcock and Brown, and their daring flight across the Atlantic. More recent aerial adventures are recorded in the flight log books and papers of Jimmy Orrell, OBE, for many years chief test pilot for A V Roe & Co at their Woodford aerodrome. Jimmy Orrell flew many prototype aircraft and during the war tested over nine hundred Lancaster bombers, including some specially adapted for the 617 Squadron's "dam-busting" raid on Germany in 1943.

In addition to its archives, the Centre houses a large collection of trade literature, books and journals. Manufacturers' catalogues, manuals and advertising literature contain valuable information about industries and trades not otherwise represented in the archive, such as textile machinery, printing, computing and electronics. Among the earliest items in the collection are two beautifully illustrated catalogues of scientific instruments produced by Abraham of Liverpool in 1853 and in 1873 by J B Dancer "Optician by appointment to HRH the Prince of Wales". The sales catalogues of the



Label advertising Thornton-Pickard cameras

“photographic chemist” J T Chapman, are also handsomely illustrated with engravings of cameras and magic lanterns. His working library, of which the catalogues form a part, contains many important early texts on photographic processes. A more recent phase of the history of photography is documented by the Ilford collection of catalogues, packaging and house journals. A series of industry yearbooks and trade directories is constantly being strengthened by acquisition.

The Library collections are wider in scope, covering in more detail some of the themes addressed in the Galleries. Subjects as diverse as occupational costume and aircraft markings are represented. Among the older works in the collection are a first edition of Fairbairn’s *Treatise on Iron*, with an inscription to his son-in-law, J F Bateman, whose *History of the Manchester Waterworks* can also be found on the shelves. Modern books and journals line the shelves of the searchroom together with finding aids, consisting of archival handlists and card indexes for books and trade literature.

The Library and Record Centre welcomes museum visitors on Tuesday and Thursday afternoons and access is often possible by arrangement on other weekdays. Researchers who have made appointments to use the Centre are exempt from the Museum’s entry charge. A photocopying service is available and it is possible to order photographic prints and dyeline copies of some drawings. Enquiries, by telephone and letter, are also welcomed. **Library and Record Centre, Museum of Science and Industry, Liverpool Road, Castlefield, Manchester, M3 4JP. Tel: 061 832 2244. Open 10am-5pm, every day except 23, 24, 25 December.**

NOTES

- ¹ CB/M/1 Craven Brothers Directors minute book, 3 June 1897
- ² Ibid, 13 July 1897
- ³ EN/14/1/1 Daniel Adamson & Co Directors minute book, 26 November 1919
- ⁴ Ibid
- ⁵ Ibid, 27 January 1920
- ⁶ BP/WA/1 Beyer-Peacock Wage Book
- ⁷ Ibid, 17 August 1855
- ⁸ R1/7/5/2 Joseph Cockshoot & Co Jubilee picnic programme, 28 July 1894
- ⁹ TR1/6/9/3/1 Cockshoot archive: Business card for Deansgate garage c1907

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