

FRIENDS IN BUSINESS: RESEARCHING THE HISTORY OF
QUAKER INVOLVEMENT IN INDUSTRY AND COMMERCE

Helen Roberts

University of Hull, England

ABSTRACT

This paper is intended as an aid to those researching the history of Quaker involvement in industry and commerce, with a regional focus on Yorkshire. A selection of archives of businesses founded and run by Quakers, as well as of family and personal papers of Friends in business are surveyed here. Both the historical context and a summary of the surviving sources are given for each collection surveyed, with details of where the material is held. Examples have been chosen to represent the Quaker contribution to particular trades and industries, and in some cases, to promote collections which have recently been catalogued or are little known.

KEYWORDS

Yorkshire; Quakers; business; industry; trade; archives

This paper is based on a survey of business archives undertaken by the Yorkshire Quaker Heritage Project in preparation for a conference on researching the Quaker contribution to the Industrial Revolution in Britain.¹ The survey aimed to trace: 1) archives of businesses founded and run by Quakers over an extended period of time, as well as those which passed out of direct Quaker control at an early stage; and 2) personal and family papers of those Friends involved in business. The regional focus of the project meant that this survey was limited in scope to the three Yorkshire Ridings.

With a few notable exceptions, such as the Quaker chocolate dynasties, the religious affiliations of the founders or owners of a business can be obscure. Characteristics such as paternalism, employee welfare and model housing schemes, philanthropic work in the wider community, and the financial and family networks behind a firm, though distinctive, are not peculiar to Quaker businesses. Furthermore, many Friends in business operated in a manner indistinguishable from their non-Quaker counterparts. The National Register

of Archives (<http://www.hmc.gov.uk/nra/nra2.htm>) provides a number of online resources for business historians, including specially designed methods of searching for business archives, by business sector and geographical area. However without some prior knowledge of the Quaker contribution in this area, it is virtually impossible to wade through the amount of material available.

This is where the work particularly of Arthur Raistrick (1950), but also of Paul Emden (1939), David Burns Windsor (1980), David Jeremy (1984, 1988, 1998) and James Walvin (1997), can provide a useful framework. Based on these publications is the list of firms with Quaker connections maintained by the Library of the Religious Society of Friends (LSF); this also includes information taken from the *Quakerism and Industry* reports issued by the Quaker employers' conferences between 1918 and 1948 (1918, 1928, 1938, 1948). These sources can be supplemented by the various histories of Quakerism in different parts of Yorkshire which make reference to the occupations of local Friends. A good example would be H. R. Hodgson's work on Bradford, which provides sketches of the apothecaries, doctors, woollen merchants, worsted spinners, bankers and insurance agents who made up the Religious Society of Friends in that city (Hodgson 1926). The biographical dictionary of Friends in business and commerce during the nineteenth century by Edward Milligan should prove invaluable.²

Friends have been engaged in a wide range of industries and trades in Yorkshire since the late seventeenth century. These include banking and insurance, chemicals and pharmaceuticals, food and drink manufacture (such as cocoa and confectionery), mechanical engineering (including cranes, agricultural machinery and railway locomotives), metal processing and manufacture (mainly iron and steel), mineral extraction (principally lead, iron and coal mining), retailing (ranging from grocers to department stores), textiles (as both merchants and manufacturers) and transport (shipping and the development of canals and railways). In this paper, examples have been chosen to represent the Quaker contribution to each of these fields, which in many cases was pioneering. Benjamin Huntsman (1704-76) invented cast steel, revolutionising the cutlery industry; in the mid-eighteenth century several Yorkshire Friends were amongst the first to set up country banks, including Joseph Pease (1688-1788) in Hull and the Birkbeck family of Settle; William Dent Priestman (1847-1936) developed the internal combustion engine; Reckitt & Sons of Hull had a works council in place as early as 1906; and by the 1930s, Rowntree & Co. was 'an innovator in market research, product development and branding' (Fitzgerald 1995: 5). Other examples have been chosen as a means of promoting recently catalogued or little known archives. For each example, a short history of the business is combined with a summary of its surviving archives. These archives are dispersed throughout the region and beyond in local archive offices, university libraries and company archives. The papers of physicians and scientists are not covered by this article, nor are the records of Quaker schools or trusts (even though these may be run as businesses). A full list of the Quaker businesses identified by the project is provided by the location register (<http://www.hull.ac.uk/lib/archives/quaker>).

BANKING

BIRKBECK FAMILY OF SETTLE AND CRAVEN BANK, SKIPTON, 1791-1906

The Birkbecks were originally a yeoman family from Deepdale in the valley of Mallerstang, in Westmorland, who settled in Settle in the late seventeenth century. William Birkbeck (c.1679-1751) moved to the town and was in business as a woollen and general merchant by 1698. He was the first member of the family to become a Quaker. Out of the woollen business, basic banking services developed, such as making loans and issuing bills of sale. The family also acquired interests in cotton manufacture and owned mills at Linton, Aysgarth and Giggleswick from the late eighteenth century (Birkbeck 1900: 59-139). In 1791, William's grandsons William (1745-1805) and John (1747-1808) joined with a group of local merchants, solicitors and manufacturers to form the bank Birkbecks, Alcock & Co. Their partners were William Alcock of Settle, John Peart of Grassington, Joseph Smith, and William Lawson of Giggleswick. At that time it was common for private banks to issue their own bank notes, illustrated with a local emblem. The Craven heifer was used by the Birkbecks, endearing their notes to the farming population in the Dales. During the nineteenth century the partnership changed several times, with members of the Robinson family involved from 1833 onwards. In 1880, the bank was incorporated as Craven Bank Ltd and its Head Office moved from Settle to Skipton. At that time the bank had seven branches and ten sub-branches, and it continued to expand its branch network and reap increased profits until around the turn of the century. In 1906, unable to compete as an independent concern, it amalgamated with the Bank of Liverpool. The Bank of Liverpool joined with Martins Bank in 1918 and this in turn was taken over by Barclays Bank in 1968 (information supplied by Barclays Group Archives).

The archives of Craven Bank are now part of Barclays Group Archives, along with those of other Quaker banks in Yorkshire and south Durham, such as Bradford Old Bank, Joseph Pease & Co. of Hull, Leatham, Tew & Co. of Pontefract, and Jonathan Backhouse & Co. and J. & J. W. Pease, both of Darlington. The earliest items in the archive are a diary, possibly of William Birkbeck, for 1777 and some correspondence with customers for the years 1794 to 1797. There are partnership agreements for 1844, 1859 and 1868, and samples of bank notes spanning 1809 to 1891. The operation of the bank before incorporation is mainly documented by its financial records, which comprise ledgers and profit and loss accounts from the early nineteenth century onwards. Its corporate records (dating from 1880) include the memorandum and articles of association, minutes of the Board of Directors and of shareholders' meetings, annual reports and accounts and papers about the amalgamation with the Bank of Liverpool. The Birkbeck family papers are deposited at the West Yorkshire Archive Service, Leeds branch and include extensive personal and business correspondence for the late eighteenth and early nineteenth centuries (West Yorkshire Archive Service, Leeds branch, Acc 1428). Their activities as woollen

merchants, bankers and cotton manufacturers are well documented. There are also papers relating to the development of canals and railways in Yorkshire, especially the Leeds and Liverpool Canal, bankruptcies within the textile industry, and legal disputes over water rights. Correspondents include the Braithwaite family of Kendal, to whom the Birkbecks were related by marriage, and Friends such as William Tuke of York and Edmund Peckover of Bradford. Given that both business records and family papers survive, this collection would make an ideal case study of the emergence of an early country bank, within a network of textile interests bound together by ties of kinship and religion.

INSURANCE

**FRIENDS PROVIDENT PLC, BRADFORD AND LONDON,
LIFE ASSURANCE FIRM, 1832 TO DATE**

The Friends Provident Institution was established at a meeting at Ackworth School in December 1831, by a group of mainly Yorkshire Quakers, including Samuel Tuke (1784-1857), tea merchant of York, John Hustler (1768-1842), woolstapler and merchant of Bradford, James Ellis and his brother-in-law, John Priestman (1805-66), worsted spinners of Bradford, and Samuel Gurney (1786-1856), of Overend, Gurney & Co., bill brokers (Hodgson 1926: 40; Marwick 1958: 247-48). The Institution was registered under the Friendly Insurance Societies Acts to provide life assurance cover for members of the Religious Society of Friends, and 'those connected therewith by marriage, descent, religious profession or partnership in business' (Marwick 1958: 248). A capital fund to meet liabilities incurred in the early years was created by subscriptions from Friends in Yorkshire, London and Liverpool. Policies began to be issued in November 1832. The business operated from the offices at 67/69 Market Street of its first Secretary, the Bradford solicitor Benjamin Ecroyd. On his death in 1857, he was succeeded as Secretary by Joseph Dymond, who served until 1904. The head office moved to 45 Darley Street, Bradford, in 1862 and was in use until 1919. The tradition of holding annual meetings at Ackworth School continued until the 1880s, when they moved to London. By 1879, the Institution had funds of almost 1.5 million pounds and over 5,000 policies. Its funds had doubled by 1902 (Tregoning & Cockerell 1982: 1-32).

The Friends Provident Institution Act of 1915 incorporated the Institution as a mutual life office. At the same time the decision was taken to admit non-Friends. Three years later, on the initiative of the first general manager, Henry Tapscott, the company acquired Century Insurance Co. Ltd of Edinburgh, originators of permanent health insurance. The company then became known as Friends Provident & Century Life Office and the head office moved to London (Marwick 1958: 249; Tregoning & Cockerell 1982: 37-43). In 1974, the general insurance business was sold to Royal & Sun Alliance Group, and the company concentrated again on life assurance (Tregoning & Cockerell 1982:

123–28). Friends have historically had a strong influence on the direction of the company, with descendants of the founding families serving as chairmen and directors until the late twentieth century (Marwick 1958: 249–50; Tregoning & Cockerell 1982: 164–68).

The company is still in existence, as part of an international insurance business alliance, and operates under the name Friends Provident Plc. Archives for the period up to the early 1920s are held in storage by the company (Richmond & Turton 1997: 39–40; Cockerell & Green 1994: 140). The company does not run an archive service; access is therefore at its discretion and it does not have the resources to provide detailed advice to researchers. Material about its foundation includes the original prospectus issued in 1831, the guarantee bond of 1832 under which the capital fund was generated, and a progress report by Benjamin Ecroyd dated March 1832. Its early development is also well documented, with Board minutes dating from 1831, rules and regulations from 1832, reports and accounts from 1833 and actuarial records from 1835. There is a set (with some gaps) of the first 100 policies issued, beginning in November 1832 with a policy taken out by Thomas Backhouse on the life of his daughter Mary, as well as policy registers, lists of members, a claims register and a death register, all covering the first five decades. Photographs of chairmen, directors, company secretaries, and actuaries, and of the Bradford offices and their staff, have been assembled, along with specimens of the publicity material issued by the company between 1860 and 1919. Unusual items include designs for the company's official seal, required after incorporation in 1915. The standard history of Friends Provident makes extensive use of the archives and includes useful appendices enabling the extent of Quaker influence to be gauged (Tregoning & Cockerell 1982: 164–68, 182–87). There is a wealth of biographical and statistical information to be extracted from this archive about nineteenth and early twentieth century Friends, both those who were involved in running the business and those whose lives were insured by it.

CHEMICALS

RECKITT & SONS, OF HULL,

STARCH & PHARMACEUTICAL MANUFACTURERS, 1840 TO DATE

The founder of this firm was a Lincolnshire Friend, Isaac Reckitt (1792–1862), who moved to Hull in 1840 and bought a starch works situated to the east of Sutton Drain, along what is now Dansom Lane. His sons George (1825–1900), Francis (1827–1917) and James (1833–1924) were brought into the business, initially as commercial travellers, during the 1840s. George was made a partner in 1848 and around this time, the company began to diversify its products, the most important developments being the manufacture of laundry blue and black lead in the early 1850s. The company became known as Isaac Reckitt & Sons from 1852, when Francis became a partner, and a decade later, when Isaac

Reckitt died, the business was carried on by his three sons in partnership (Reckitt 1965: 2, 5, 10–11, 23, 28).

In 1868, Thomas R. Ferens joined the firm as a private secretary to James Reckitt, becoming Works Manager six years later. A private joint stock company was formed in 1879, known as Reckitt & Sons Ltd, which took over the assets of the Hull firm and its London Office. The company began to expand overseas, with the first branches opening in Sydney, Port Elizabeth in South Africa, and New York from the late 1880s. Early welfare activities included a sick club, a temperance society and a works cricket club. A factory was built on Morley Street, Stoneferry in 1883, which was used for the manufacture of ultramarine, the raw material for laundry blue. By this point, the driving forces behind the business were T. R. Ferens and James Reckitt, who took the decision to form a public company in 1888. In 1905, the company began to manufacture liquid metal polish, under the Brasso brand name, and in 1912 set up the Chiswick Polish Company, shoe and boot polish manufacturers (Reckitt 1965: 34, 37, 40–43, 55–56).

As Reckitt & Sons developed as a business, so too did its welfare work. A full-time welfare worker was first appointed in 1905, a Music Society formed and the setting up of a Works Council approved in 1906. In 1907, James Reckitt decided to establish a Garden Village for his workforce, and this opened a year later on a site off Holderness Road, comprising 600 properties with gardens, managed by The Garden Village (Hull) Ltd. Educational classes for young employees expanded during the 1910s, and a contributory pension scheme and a prosperity sharing scheme were both introduced in 1920 (Reckitt 1965: 59–61, 76–77). After the First World War, the company developed several new products, including bath cubes, Karpol (car polish), Windolene (window cleaner), Harpic (lavatory cleaner) and, most importantly, Dettol (germicide) in 1933. This marked the entry of the firm into the pharmaceutical trade (Reckitt 1965: 72–76, 83). In 1938, the company amalgamated with J. & J. Colman of Norwich, originally millers, and later manufacturers of mustard and starch, to form Reckitt & Colman Ltd. This managed the trading activities of the two companies. In 1954 a full merger occurred with the formation of Reckitt & Colman Holdings Ltd. The group lost its connection with the Reckitt family in 1970, when Basil Reckitt, great grandson of Isaac Reckitt and a director from 1937, retired as Chairman and from the Board. It merged with the firm Benckiser NV in 1999 to form Reckitt Benckiser Plc (Reckitt 1965: 87; information supplied by Reckitt's Heritage).

Reckitt Benckiser still has custody of the company archive at its Dansom Lane site in Hull and provides access, advice and finding aids for researchers through its Reckitt's Heritage service. The archive is very extensive and covers all the different aspects of running a major international company. Corporate records (dating from 1879) include memoranda and articles of association, Board minutes and minutes of directors' meetings, minutes of shareholders' meetings and of various committees, especially those concerned with exports and technical development. Amongst the financial records are series of ledgers, journals and cash books, including a private ledger kept by Isaac Reckitt for 1853 to 1860, and an

early account book for the Reckitt family, 1783 to 1813. Recipes, formulae and yield books, factory notebooks, research laboratory notebooks and research committee minutes are available for various products in the company range, including biscuits (manufactured until 1866), laundry blue, ultramarine, shoe polish, and disinfectants. These records are supplemented by an extensive collection of samples of packaging and display materials, advertising films and videos, which make a rich source for design students. There is a complete set of the company staff magazine (originally known as *Ours*) from 1907 to 1999 and miscellaneous personnel records, mainly for the company's shoe polish subsidiary, but also for its cannister works in Stoneferry, Hull. Unusual items include a volume of British plants preserved by Isaac Reckitt in 1815 and a photograph album of Hull Garden Village in 1910. A complete list of the acquisition and disposal of subsidiary companies, a history of the buildings on the Dansom Lane site and a history of the products manufactured by the firm are also available. The Brynmor Jones Library at Hull University additionally holds a series of cash books, account books and ledgers of Isaac Reckitt, documenting his early work as a wool merchant, miller and corn factor in Boston and Nottingham from 1818 until his move to Hull in 1840 (Brynmor Jones Library, University of Hull, DRA/617-629). The personal papers of the Reckitt family remain in private hands, as do the records of the various trusts set up by family members, both major gaps in the resources available.

ENGINEERING: MECHANICAL

PRIESTMAN BROTHERS, OF HULL, CRANE AND MECHANICAL GRAB MANUFACTURERS, 1870-1984

William Dent Priestman (1847-1936) was born at East Mount, Sutton, near Hull, into a Quaker family. He was the eldest son of Samuel Priestman, a former corn miller from Kirkstall, Leeds, who retired to Hull. In 1870 his father purchased an engineering concern for his son, known as Holderness Foundry, situated on Williamson Street, off Holderness Road. For the first three years, this was run as a partnership with Richard Sizer; from 1873, it was known as W. D. Priestman & Co., and William Dent's brother Samuel joined as manager and book-keeper (Bellamy 1965: appendix III B, 1-3; Priestman 1994: 5, 9). During its early years, the firm produced hand grabs, wall cranes, paint mills, oil presses and vertical steam engines; the most important development was that of the steam grab crane. Samuel became an equal partner in 1877 and the firm was re-named Priestman Brothers. The first orders for steam grab cranes came in the late 1870s and they were used in the construction of Withernsea Pier and for dredging Queen's Dock in Hull. A model was demonstrated by William Dent at the Sydney Exhibition in 1879, and agreements were reached with several overseas companies to manufacture the cranes under licence. A boom in sales occurred during the early 1880s, but by the end of the decade, an unfavourable economic climate encouraged the

firm to diversify (Bellamy 1965: appendix III B, 3-12; Priestman 1994: 11-12).

In 1884, William Dent purchased the patents for an internal combustion engine designed by Eteve-Hume, and began to experiment with vertical and horizontal engines, and different types of fuel. Demonstrations were made to the press in 1886 and a reliable model using electric ignition and lamp oil as fuel was produced by 1888; this was tested by the engineer Sir William Thompson. The engines were used on farms, in lighthouses, in collieries and for marine work. During the early 1890s, several competitors emerged in the oil engine market and this had an impact on Priestman's sales. Combined with the amount of money spent on experiments, this damaged the financial position of the company and it had to go into receivership in 1895 (Bellamy 1965: appendix III B, 13-17; Priestman 1994: 12-13, 23-24). The company was reconstituted as Priestman Brothers Ltd, under the chairmanship of Sir James Reckitt, with William Dent and Samuel Priestman as managers. Production of oil engines was dropped and the firm concentrated instead on grabs, steam cranes and excavators (Bellamy 1965: appendix III B, 18-21; Priestman 1994: 24, 26). It moved to a new site on Hedon Road after the Second World War and became a public limited company in 1961. It was acquired by The Steel Group of Sunderland in 1969, which was in turn bought by Acrow (Engineers) in 1972. Priestman Brothers was a wholly-owned subsidiary of this company until Acrow (Engineers) went into receivership in 1984 (Bellamy 1965: appendix III B, 22; information supplied by Hull City Archives).

Unfortunately the company archives, now held by Hull City Archives, are far from extensive and do not cover in any depth the period when the Priestman brothers were at their most innovative and influential in the company (Hull City Archives, DBPm). There are two patent books, but these cover only 1916 to 1935, that is, long after the major developments in grab and crane design and the internal combustion engine. The main strength of the collection is its staff and employment records, which include major series of works wages books, 1878 to 1942, manager's wage rate books, 1917 to 1960, and various personnel registers, record cards and forms, 1889 to 1980. Recently acquired by the City Archives are a set of letter books dating back to 1889, as well as job books and grab order books for the early twentieth century. As with Reckitt & Sons, the Priestman family papers are in private hands and it is not known whether these would fill any of the gaps in the company archives.

FOOD AND DRINK MANUFACTURERS

ROWNTREE & Co., YORK, CHOCOLATE AND CONFECTIONERY MANUFACTURERS, 1862-1988

In 1860, Henry Isaac Rowntree (1838-83) went to work for Tuke & Co., the Quaker tea dealers, and chocolate and cocoa manufacturers based in Castlegate, York. Two years later, he bought the cocoa, chocolate and chicory workshop from Tuke & Co. and set up an independent business. He acquired larger premises in

Tanner's Moat, employing a small workforce to produce about 12 cwt of cocoa a week. This was sold under the name of Tuke's Superior Rock Cocoa, later Rowntree's Prize Medal Rock Cocoa, but despite its popularity in York, sales were not sufficient to prevent the firm running into financial difficulties. Henry Isaac's brother Joseph (1836-1925) joined as a partner in 1869, bringing his capital and his book-keeping skills (Vernon 1982: 72-73; Fitzgerald 1995: 47-48). Under the name of Henry Isaac Rowntree & Co., the firm began to expand its product range, and improve its financial position. For example, the expertise of French confectioner Claude Gaget, who joined the firm in 1879, enabled the manufacture of pastilles and gums to begin, breaking a virtual French monopoly. The death of Henry Isaac in 1883 left Joseph in sole ownership and a new generation of Rowntrees joined the company (Vernon 1982: 84-88; Fitzgerald 1995: 56-58). A major development, following from the work of Cornelius Hollander in the mid-1880s, was mastery of the 'Van Houten' process in the manufacture of cocoa butter and cocoa powder. The result was Rowntree's Elect Cocoa, a product so successful that in 1892, a new factory was opened on a 29-acre site on Haxby Road to cope with the expansion of trade (Vernon 1982: 90-91, 102; Fitzgerald 1995: 58-59, 61).

During this period, what had been a small family concern developed into a large modern company, with an impact on relations between the paternalist Rowntree management and its workforce. By 1894 the number of employees had grown to around 900 and their work was organised into several production departments. To oversee the large numbers of young women and girls employed, a lady welfare officer was appointed. The company also introduced a sales team and began to advertise their products (Vernon 1982: 92-94, 97-98; Fitzgerald 1995: 64, 66-67, 69, 224). In 1897 Rowntree & Co. was incorporated as a public limited company, the first directors being John Wilhelm Rowntree, Benjamin Seeböhm Rowntree, Arnold Stephenson Rowntree, Francis Henry Rowntree, and John Bowes Morrell, and the Chairman, Joseph Rowntree. John Wilhelm retired through ill-health in 1899, but his brother Seeböhm was the first Labour Director and succeeded his father as Chairman in 1923. Arnold Stephenson took charge of sales and advertising, whilst J. B. Morrell was responsible for purchasing raw materials. Theodore Hotham Rowntree was appointed the first Company Secretary and T. H. Appleton the Factory Manager. These developments coincided with a doubling of cocoa consumption and the result was increased sales and profits (Vernon 1982: 120; Fitzgerald 1995: 69-73; Burg 1997: vi-vii).

After 1897 industrial welfare schemes were implemented in more systematic fashion. They included: an expansion of the number of welfare supervisors, the launch of the *Cocoa Works Magazine* in 1902, a suggestions scheme, a company doctor, savings banks, a medical club, a sick and funeral society (and later sick pay), numerous social clubs, the building of the model village at New Earswick in 1903, a pension scheme, company schools for employees under 17 years of age, an unemployment insurance fund and a profit-sharing scheme. Works councils were introduced at departmental level in 1916, followed by a Central Works Council in 1918, both in an attempt to head off the unionisation

of the workforce. Three trusts were also created in 1904, the Joseph Rowntree Village Trust (concerned with living conditions and especially New Earswick), the Joseph Rowntree Charitable Trust (which funded social surveys, adult education and activities of the Religious Society of Friends) and the Joseph Rowntree Social Service Trust (which engaged in social and political work which the charitable trust could not legally undertake) (Vernon 1982: 125-27, 147-50, 153-56, 164-69, 171-72; Fitzgerald 1995: 217-76).

The company was restructured in the 1920s into Finance, Technical, Production, Labour and Distribution Divisions, and it began to engage both in product development and marketing in a systematic way (Fitzgerald 1995: 201-209; Burg 1997: vii). This was in face of intense competition from other chocolate manufacturers and the wider economic crisis. The mass market for cocoa was in decline and Rowntrees was compelled to place greater emphasis on the development and promotion of its chocolate bars. The decision was also taken in 1931 to appoint directors on merit, rather than on purely family connections. During the 1930s a number of famous Rowntree brands were developed, including 'Black Magic', 'Aero' and 'Kit Kat' (Fitzgerald 1995: 277-345). A merger with the Methodist confectionery manufacturers John Mackintosh & Sons was completed in 1969 (Fitzgerald 1995: 489-501). The firm traded under the name of Rowntree Mackintosh until its takeover by the Swiss food giant, Nestlé, in 1988 (Fitzgerald 1995: 610).

The Borthwick Institute of Historical Research acquired the main company archive from Nestlé UK in 1992 and a comprehensive descriptive guide has been published (Burg 1997). Records survive documenting both the original firm of Henry Isaac Rowntree & Co. and its successor, Rowntree & Co. Early material includes price lists for Tuke & Co., memoranda and letter books of Henry Isaac and Joseph Rowntree, and an account book of Henry Isaac Rowntree. There are also series of balance sheets, costings, mixing and experiments books for various ingredients and products, stock books, and guard books of packaging and advertising designs, all dating from the 1860s onwards (Burg 1997: 3-11).

The archives of Rowntree & Co. are arranged according to the administrative divisions in place from the 1920s (Burg 1997: 15-132). Corporate records not only include memoranda and articles of association, and annual reports and accounts, but also the papers of several chairmen and directors, and minutes of Board committees. The main series of Board minutes remains in the custody of Nestlé UK. The Headquarters Division encompassed the Registrar, the Company Secretary, the Company Solicitor, an Organisation Office and a Staff Office. Its records include an extensive collection of title deeds, leases and agreements for property throughout Britain and overseas, patents and royal warrants, files concerning the Multi-Firm Agreements between Rowntrees and other chocolate manufacturers, and retail price maintenance in the confectionery industry, files about the formation of Rowntree & Co., research papers, mainly of William Wallace, concerning profit-sharing, and salaries books. The Finance Division produced profit and loss accounts and balance sheets, and also kept ledgers, journals and cash books. Its Costing Department kept cost books for

ingredients and finished products; those which survive cover creams, gums and almond products. A series of purchase books for ingredients are accompanied by the notebooks of J. B. Morrell on cocoa and sugar, and manuscript maps of estates in the West Indies producing bananas, cocoa, coconuts, limes and coffee. Within the Technical Division, a Drawing Office maintained registers of machine drawings, patterns and engineering drawings and the Research Group generated minutes and reports on gums, creams and milk chocolate. A history of the Chemical Department is also available. The Factory Manager's files of correspondence documenting his contacts within the confectionery industry are supplemented by records of the Fruit, Cake, Almond, Cream, Melangeur and Gum Departments, which cover a mixture of management, manufacturing and staffing concerns. There is a complete set of the *Cocoa Works Magazine* and minutes of the Departmental and Central Works Councils. Within the Distribution Division, annual reports and files of the Advertising Manager, papers of the Marketing Managers for Chocolate and Confectionery, Chocolate Assortments, Grocery, and Gums and Pastilles, and reports of the Consumer Testing Department have been kept. Finally there are also thousands of photographs (including factory and office scenes, shop displays and products) and an almost complete set of price lists and illustrated catalogues (Burg 1997: 212-13). Further resources can be found at the Joseph Rowntree Foundation Library, which holds personal papers of several family members, papers of William Wallace and John Bowes Morrell, and records of its own work in the housing sphere. There is huge scope for research here; one suggestion would be to compare the welfare work of Rowntree & Co. with that of Reckitt & Sons, and attempt an assessment of the impact on relations with their respective workforces, and of the balance between economic and ethical motivations for introducing such schemes.

METAL PROCESSING AND MANUFACTURING

BENJAMIN HUNTSMAN LTD, OF SHEFFIELD, STEEL MANUFACTURERS, 1751-C.1960

Benjamin Huntsman was born in Epworth, Lincolnshire, in 1704 into a Quaker family. By 1725, he was working as a clockmaker in Doncaster, where he remained for almost 20 years. Benjamin moved to Handsworth, near Sheffield, around 1744, and began to experiment with materials for the springs of clocks and pendulums. During the late 1740s, he perfected a process in which blister steel and shear steel were melted in crucibles of clay within a coke furnace. This produced more refined, harder metal, which could be widely used for tools and cutlery with fine, sharp edges. It was not until 1751 that Benjamin finally gave up clockmaking and moved to a new workshop on Worksop Road to pursue steel manufacture. The business moved to Attercliffe in 1770, and after Benjamin's death in 1776, his son William became proprietor (Hulme 1943-45: 37-40; Raistrick 1950: 200-202; Ashton 1951: 54-59). He was already established in business as a

button maker, in partnership with a member of the Asline family. William was brought up as a Friend, but left the Society after his second marriage in 1777.³ During the period until his death in 1809, overseas exports expanded, but despite the superior reputation of Huntsman steel, the business remained small and was not profitable. It was inherited by William's sons, John and Francis, and Francis in particular was responsible for turning it into a commercial success. The company was incorporated in 1918 and was still in existence in the late 1950s (Huntsman, 1930.)

Sheffield Archives holds such company records as have survived, which are few; records were acquired at different points in time from various sources (LD 1612-24; Hadfields collection, nos. 17, 24, 33, 41, 84, 87; MD 7171/1-12; MD 3738/41-43; Phc 373, 445). There is a set of ledgers for 1788 to 1966, early order books for 1797 to 1814 (recording orders of buttons, scissors, corkscrews, knives and spectacles), and an 1843 stock book for bar steel. A record book of tests conducted on steel from various firms, a plant register and a wages book all cover the first few decades of the twentieth century. Corporate records include minutes of meetings of directors and shareholders, registers of members, share transfers, directors and seals. Documentation within the archive of Huntsman's early work or the first few decades of the company's development is extremely limited (Ashton 1951: 56), with title deeds for properties in Doncaster and Attercliffe, and some correspondence being the only known survivals. The diaries of a number of European metallurgists who travelled the country in the mid eighteenth century provide an alternative source. Published editions include *Voyages Metallurgiques* by G. Jars (1774) and J. C. Fischer's *Tagebuecher* (1951). It is clear from this overview how easily a company archive can become dispersed and how surviving material can be hard to trace.

MINERAL EXTRACTION

PHILIP SWALE (C.1623-1687), OF HARTFORTH, LEAD MINING AND ESTATE MANAGEMENT

Robert Swale (1600-62) became a personal servant and general agent to Sir Thomas and Lady Phildelphia Wharton at Aske Hall around 1620. The Wharton family estates in Swaledale included Aske Hall, the manors of Aske and Healaugh, many farms and lead mines throughout Healaugh, and were managed by Robert, with the help of his son Philip, until his death in 1662. Philip took over his father's responsibilities on the Wharton estates, and during the late 1660s, began re-organising and unifying the Wharton mines, which he and Robert Barker of Chesterfield leased from Philip, Lord Wharton, (1613-96), from 1668. He also formed partnerships with Sir Thomas Wharton to manage mines in Ravensworth. He was assisted in this work by a group of local Friends, including Robert Barker, James and Ralph Fryer, and John Gosling (Raistrick 1975.1: 30-31; Raistrick 1982: 8-9, 19-20, 22-26. A decade later, he had developed 'a large

integrated group of mines and smelt mills with a highly organised transport and a commercial and accounting system to handle and dispose of the product' (Raistrick 1982: 31). Philip, who lived at Hartforth Hall, near Aske, was an early Quaker, as was his father. He was convinced by Thomas Taylor of Carleton and Richard Robinson of Countersett, and went on to settle Friends Meetings in Swaledale and Wensleydale. In co-operation with Francis Smithson and Robert Barker, he bought farms and land in Coverdale for the use of Friends, and set up schools and charities for apprenticing children and supporting poor Friends. Little is known of his education, but he acquired considerable legal skills, and was involved in settling several disputes over tenant rights and rents in Muker, Healaugh, Ravensworth and Gilling. On his death in 1687, his interests in mines in Craven and Swaledale passed to his executors, John Chaytor, Thomas Johnson, and Richard and Michael Robinson. Adam Barker succeeded him as manager of the mines (Raistrick 1975.2: 23-29, 105; Raistrick 1982: 9-10).

The Swale papers are held with the records of Richmond Monthly Meeting at North Yorkshire County Record Office (R/Q/R/9). A large proportion of Philip Swale's correspondence relates to the lead mines in Swaledale and to the Wharton family estates, covering the period from the late 1660s onwards. This is supplemented by deeds of partnership, accounts and rentals. Raistrick's work on lead mining in Swaledale is based largely on these papers (Raistrick 1982). There is a wonderful amount of detail about the management and development of the mines and smelting mills, the technical processes involved, the employment of lead miners, carriers and washers, and the methods of accounting. Swale's role as estate agent has not been studied in as much depth, although his correspondence with Lord Wharton is a rich source of information about farming, livestock, tenancy disputes and rents, improvements to paths, hedges and plantations, and estate finances. It seems clear that the management of the lead mines was intimately bound up with that of the estates generally. Another area for research is Philip Swale's convincement and activities as a first generation Friend, and how this related to his working life. His papers include correspondence with many Friends, particularly about their sufferings, and there are letters, deeds, accounts and receipts of his executors, and later, of the trustees of Philip Swale's charity, spanning the centuries to 1857, which document his legacy in the Dales.

RETAILING

WILLIAM ROWNTREE & SONS, DRAPERS AND DEPARTMENT STORE, c.1828-1965

The original drapery business at 43 Newborough Street in Scarborough was established by Dorothy Benson Wynne (1778-1846). She later married her head assistant, Isaac Stickney (1795-1847), and he took into partnership a former apprentice, William Rowntree (1806-1901), around 1828. The business was known as Stickney & Rowntree until Isaac's retirement in 1846. From the late

1840s, William gradually expanded the business, firstly by leasing nos. 41 and 42 Newborough Street, then by acquiring premises in Market Street for a cabinet-making department, as well leasing the Old Town Hall in St. Nicholas Street. His sons, William Stickney (b.1848), James Henry (b.1850) and Allan (b.1853) joined the family business, which became known as William Rowntree & Sons (Brynmor Jones Library, University of Hull, Fred Fletcher papers, DFF/3/11, 3/13 & DFF(2)/3/10, 5/10-11). A new building, with electric lighting throughout, was erected at nos. 33-39 Westborough in 1881 to accommodate what was by then a flourishing department store. As well as selling household goods, furniture, clothing, hats and millinery goods, fabric and carpets, Rowntrees also undertook removals, arranged funerals, dispatched dressmakers throughout the country and offered houses for rent or sale (North Yorkshire County Record Office 1993: 8-10). The windows of the shop were smashed during a riot in Scarborough in 1900, reflecting local antagonism to a meeting of the South African Conciliation League, organised by Joshua Rowntree (1844-1915), nephew of William Rowntree (Robson 1916: 111-12). The business remained in the family until 1965 and the shop was demolished in 1990.

At the time of its deposit at North Yorkshire County Record Office in 1975, the surviving archives of this department store comprised an account book for stocks and shares, sales and purchases accounts, a stock book, correspondence concerning the staff council and other papers, for the period 1870 to 1942 (ZSJ). A scrapbook containing samples of sale bills and promotional leaflets, dating from the store's first decade in its Westborough premises is available on microfilm (North Yorkshire County Record Office, MIC 2710). A narrative of William Rowntree's business trip to London in 1833 is in private hands, but a photocopy is held amongst the research papers of Fred Fletcher at the Brynmor Jones Library, University of Hull (DFF(2)/3/10).

TEXTILE MERCHANTS

ALDAM, PEASE, BIRCHALL & Co., OF LEEDS, STUFF MERCHANTS, PRE-1738-1839

The Benson family were cloth merchants in the Bramley and Armley areas of Leeds from at least 1698, when William Benson was described as such on his marriage to Susanna Elam of Halifax (Mortimer & Mortimer 1980: 195). He was an early member of Leeds Friends Meeting and formed part of a network of Quaker merchants in the city. His children included Gervase (1701-58), who was also in business as a cloth merchant by 1738, and William (b.1704). Gervase married Barbara, sister of John Aldam (1718-76), grocer and haberdasher of Leeds, in 1736. His son William was apprenticed to a Leeds cloth dresser in 1753, and then joined his uncle, John Aldam, in partnership in the cloth trade in 1760. His brother Thomas was taken into the firm in 1767, but after John Aldam's death, the partnership between the brothers was dissolved. In 1782, William took his other

brother, Gervase, into partnership instead. Gervase was originally a grocer, having purchased John Aldam's grocery business in 1765. The firm of Aldam, Pease, Birchall & Co. was established in 1799, when William and Gervase Benson joined with fellow stuff merchants John Heaton and John Pease. The partnership was regularly renewed, under several different guises, until 1839, when William Aldam retired and Edwin Birchall left the firm. William Benson III had inherited the Aldam family estate at Frickley, near Doncaster, and changed his name to Aldam. His son, also William, acquired the estate after his father's death in 1828 and this enabled him to retire from the cloth trade. A new firm by the name of Pease, Heaton & Co. was carried on by Thomas Benson Pease, his son Thomas, and John Heaton (information supplied by Doncaster Archives Department).

Doncaster Archives Department holds the family and business papers of William Aldam jnr and these have been recently catalogued (DD/WA/B1). Within this collection are ledgers of various types, stock books, partnership deeds and other records for several related concerns: the cloth merchanting business carried on by William Benson I and his sons Gervase and William II, 1738 to 1760; the grocery business of John Aldam, later sold to Gervase Benson II, 1745 to 1781; the cloth merchanting business of John Aldam, William Benson III, Thomas Benson and Gervase Benson II, 1760 to 1799; and the firm of Aldam, Pease, Birchall & Co., 1799 to 1839. The complexity of the partnerships between the various Quaker families involved in this trade (and in the wider textile industry) in Leeds is immediately obvious from these records. They included, over time, the Arthington, Cowell, Elam, Elbeck, Horner, Jowitt, Lupton and Wilson families, as well as those directly involved in Aldam, Pease, Birchall & Co. This would make an important extension to the study of the city's merchant community (Wilson 1971).

TEXTILE MANUFACTURERS

FORD, AYRTON & CO. LTD, OF BENTHAM, SILK SPINNERS, 1870-1970

This company of waste silk spinners was founded in Leeds in 1870 by the Quaker Thomas Benson Pease Ford (1846-1918), after completing his apprenticeship with the engineers Greenwood & Batley. He went into partnership with another Friend, William Harvey, under the name Ford & Harvey, and they operated in premises near the Albion Works, using machinery purchased from Greenwood & Batley. Seven years later, having outgrown this site, Low Mills, a former flax spinning mill in Bentham, was purchased. Not wishing to leave Leeds, William Harvey left the partnership and the business became known as Benson Ford & Co. In 1888 Thomas was joined in partnership by Edward Ayrton, and Ford, Ayrton & Co. was born (Pafford & Pafford 1974: 5-6). This became a private limited company in 1909. It was always a small concern, employing on average around 100 workers. Benson's son, Rawlinson Charles (1879-1964), began

working in the mill in 1897 and became joint manager in 1905. After the First World War, he was responsible for introducing an innovative profit-sharing and co-partnership scheme. Dividends for shareholders were limited to six per cent and the profits shared with the workforce, who also benefitted from non-contributory thrift, pension and sickness benefit funds. Workers were invited to become shareholders and from 1924, this entitled them to elect two employees to the board of directors. Furthermore, working hours were cut to 40 hours a week by 1960 (Pafford & Pafford 1974: 13-14, 48-59). These arrangements contributed to the economic success of the firm and gave it a distinctive ethos. The firm held out longer than all other British silk spinners against the combined pressures of overseas competition and the development of man-made fibres. When it went into voluntary liquidation in 1969 it was the only company in the country still engaged in silk spinning as its principal activity (Pafford & Pafford 1974: 16, 60-65). Throughout its existence, the silk spinning factory was the only industry in Bentham, and consequently closely connected with village life.

After liquidation in 1970, the company archive was deposited at West Yorkshire Archive Service, Leeds branch, and additional material has been added over the years (Acc 1556, 1837, 2005 & 2926). This is a comprehensive archive which covers the full 100 years of the spinning mill's existence. It is a rich source of information about the materials, costings, machinery, and technical processes involved in producing the spun silk. There are prices and yields of raw silk, particulars of the yarns produced, and order books, including volumes recording exports to agents in Calais and Lyon, and the orders placed by Ford, Ayrton for its yarn to be dyed. The set of around 350 plans and drawings is a wonderful resource for studying the technical development of the mill. After incorporation in 1909, series of minutes of directors' meetings and annual reports and accounts begin, as well as registers of members and share ledgers. Financial records include profit and loss accounts and balance sheets from 1922, balance books compiled by the dressing department for 1898 to 1955, private ledgers from 1871, and journals for the years 1876-1907 and 1954-70. The surviving correspondence includes files documenting Ford, Ayrton's relationship with two of its best customers, R. Pringle & Son Ltd and John Smedley Ltd, over several decades; these are supplemented by the 1957 agreement whereby Smedley ordered its silk yarn exclusively from Ford, Ayrton, in return for receiving priority for its orders. The history of this silk spinning mill would benefit from further exploration and comparison, both with other British silk spinners and with Quaker and non-Quaker firms engaged in co-partnership schemes, profit-sharing, workers' councils, and more radically, industrial common ownership.

TRANSPORT

JOHN GOOD & SONS, SHIP CHANDLER AND SHIPPING COMPANY, 1833 TO DATE

John Good was born in Scarborough in 1801 and was a seafarer for many years

before settling in Hull with his family in 1833. Here he set up in business as a ship chandler in premises in Salthouse Lane. He first came into contact with the Religious Society of Friends in the late 1820s and was admitted into membership in Hull in 1834. In 1839 the Good family moved to 19 High Street and the business grew in connection with the trade between Hull and the Baltic and Scandinavian countries. John began to purchase shares in a number of vessels, eventually purchasing his own schooner, the *Bothnia*. When he retired in 1864, he left a successful business to his sons Joseph and Thomas (neither of whom was a Quaker). He died in 1876 (Brynmor Jones Library, University of Hull, diary of John Good, DGO/31). The brothers joined with local Quakers Francis and James Reckitt in 1870 to form a steamship company, known as Good Brothers & Co. They acted as agents for a number of Finnish shipowners (later united as the Finland Steamship Company) who traded between Finland and ports along England's north eastern coast. In 1908 the company was incorporated under the name of John Good & Sons Ltd; members of the Good family were still involved as company directors in the late 1980s. Other operations undertaken by the firm included the shipment of coal, liner agency work, tanker handling and warehousing (anon 1972: 59-60).

The early company records were lost during the bombing of Hull during the Second World War. The remaining archive, which has recently been transferred to the Brynmor Jones Library at the University of Hull (DGO), does not fully reflect the history of a firm in business for around 170 years. There are some early diaries of John Good and his son Joseph for the period 1813 to 1888, which are particularly interesting for their accounts of John's travels through the Gulf of Bothnia to Sweden and Finland. For the period after 1908, there are series of private ledgers and minutes of meetings of directors and shareholders. The Finnish connections of the business are documented by lists and memoranda of agency vessels, detailing the voyages made by each vessel, a register of shipping compiled by the Finnish consulate in Hull from 1956 onwards, and lists of Finnish residents in Hull during the 1920s to the 1940s. There is also a file on the company amongst the research papers of Fred Fletcher at the Brynmor Jones Library, University of Hull (DFF(2)/3/7).

CONCLUSION

A business archive, even where it is comprehensive and accessible to researchers, does not stand alone as an historical source. Particularly in this case, where the focus is on the relationship between business activity and membership of a specific religious group. The motivations and ethical concerns of Friends may not come to light from such records; some will have kept their spiritual life separate from their business life, but more probably, it is simply in the nature of ledgers and order books and minutes not to record this dimension. The scope of research should also take in personal and family papers and records of the relevant Preparative and Monthly Meetings of the Religious Society of Friends.

Non-Quaker sources should not be forgotten; examples might include trade union records (where unionisation of a workforce was tolerated), records of local associations joined by Quaker businesspeople, and local government archives in cases where Friends held public office. Oral history work amongst employees of Quaker firms or residents of model villages, as well as use of local newspapers, could add other perspectives.

This paper has covered only a small proportion of the sources available for studying the contribution made by Friends to the economic development of the Yorkshire region. This is a subject which has already received some attention from business and Quaker historians; notwithstanding this, research could be taken forward using a number of different approaches. There are several general surveys of Friends in business, but none at a more detailed regional level. There are also histories of specific industries and trades which draw out Quaker connections, for example, Pressnell's work on country banking (Pressnell 1956) and Wagner's work on the chocolate and confectionery industry (Wagner 1987). Other sectors, such as textiles, the iron and steel industries, and the retail trade, where that contribution was just as important, would benefit from further study. Company histories, histories of Quaker business dynasties and biographies of individual Friends are many and various. However in many cases the principal published source is a short pamphlet produced to commemorate a company anniversary (such as Huntsman 1930), or a history written from the perspective of a family member (such as Pafford & Pafford 1974 or Reckitt 1965). There is scope here for the kind of critical approach which Fitzgerald has applied to Rowntree & Co. (Fitzgerald 1995). Several studies of the development of Quakerism in particular localities have provided insight into the economic activities of Meeting members (such as Hodgson 1926 and Allott 1965). A number of other Yorkshire cities, such as Sheffield and Hull, remain neglected. Finally, studies of family and financial networks, business culture, and attitudes to wealth amongst Friends have been developing over the last decade, and can often benefit from a local perspective. Friends gathered to worship and they gathered to do business; their prominence in business during the Industrial Revolution presents an obvious case study in the ongoing debate over religion and the rise of capitalism (for example, Jeremy 1988, 1998).

NOTES

- 1 This was held at the Borthwick Institute of Historical Research, University of York, England on 26 September 2001. The sources covered here are described in the project's online location register (<http://www.hull.ac.uk/lib/archives/quaker>), and are also summarised in the project's research guide (available from The University Archivist, Brynmor Jones Library, University of Hull, Hull HU6 7RX, England). The project was based at the University of Hull from August 1999 to July 2002, and its partners were Leeds University Library and the Borthwick Institute of Historical Research at the University of York. It was funded by the Higher Education Funding Council for England under the Research Support Libraries Programme.
- 2 In preparation at the time of writing.
- 3 It is not clear whether William was disowned or resigned. He broke with the Society after its

disapproval of his second marriage, to Agnes Haigh, a member of his mother's family, who were Anglican (anon 1920: 118; Hulme 1943-45: 40).

CONTACT DETAILS FOR REPOSITORIES

Barclays Group Archives, Dallimore Road, Wythenshawe, Manchester M23 9JA.
 Doncaster Archives Department, King Edward Road, Balby, Doncaster DN4 0NA.
 Friends Provident Plc, Secretariat Department, Pixham End, Dorking RH4 1QA.
 Hull City Archives, 79 Lowgate, Hull HU1 1HN.
 Archives & Special Collections, Brynmor Jones Library, University of Hull, Hull HU6 7RX.
 Joseph Rowntree Foundation Library, The Homestead, 40 Water End, York YO3 6LP.
 North Yorkshire County Record Office, County Hall, Northallerton, North Yorkshire DL7 8AF.
 Reckitt Benckiser, Reckitt's Heritage, Dansom Lane, Hull HU8 7DS.
 Sheffield Archives, 52 Shoreham Street, Sheffield S1 4SP.
 Borthwick Institute of Historical Research, University of York, St. Anthony's Hall, Peasholme Green, York YO1 7PW.
 West Yorkshire Archive Service, Leeds branch, Chapeltown Road, Sheepscar, Leeds LS7 3AP.

BIBLIOGRAPHY

- Anon
 1920 'Benjamin Huntsman and the Casting of Steel', *Journal of the Friends Historical Society* 17: 117-118
- Anon
 Oct./Dec. 1972 'Good Service Since 1833', *Yorkshire and Humberside Industrial Review* 2.4: 59-60.
- Alexander, D.
 1970 *Retailing in England during the Industrial Revolution* (London: Athlone Press)
- Allot, W.
 1965 'Leeds Quaker Meeting', *Thoresby Society Miscellany*, 14.1: 1-77.
- Ashton, T.S.
 1951 *Iron and Steel in the Industrial Revolution* (Manchester: Manchester University Press).
- Bellamy, J.M.
 1965 'Some Aspects of the Economy of Hull in the Nineteenth Century with Special Reference to Business History', unpublished PhD thesis, University of Hull.
- Birkbeck, R.
 1900 *The Birkbecks of Westmorland and their Descendants* (London: private).
- Burg, J.
 1997 *A Guide to the Rowntree and Mackintosh Company Archives 1862-1969* (York: University of York).
- Chapman-Huston, D.

- 1927 *Sir James Reckitt: a memoir* (London: Faber & Gwyer).
- Cockerell, H.A.L. & Green, E.
 1994 *The British Insurance Business: a guide to its history and records* (Sheffield: Sheffield Academic Press).
- Doncaster, S. & Priestman, J.D.
 1986 *The Priestmans of Thornton-le-Dale* (Thornton-le-Dale: private).
- Emden, P.H.
 1939 *Quakers in Commerce: a record of business achievement* (London: Sampson Low, Marston & Co.).
- Fischer, J.C.
 [1951] *Tagebuecher* (Schaffhausen; Georg Fischer).
- Fitzgerald, R.
 1995 *Rowntree and the Marketing Revolution 1862-1969* (Cambridge: Cambridge University Press).
- Grubb, I.
 1930 *Quakerism and Industry Before 1800* (London: Williams & Northgate).
- Hartley, W.C.E.
 1975 *Banking in Yorkshire* (Clapham: Dalesman Books).
- Heaton, H.
 1920 *The Yorkshire Woollen and Worsted Industries* (Oxford: Clarendon Press).
- Historical Manuscripts Commission
 1990 *Records of British Business and Industry 1760-1914: textiles and leather* (London: HMSO).
 1994 *Records of British Business and Industry 1760-1914: metal processing and engineering* (London: HMSO).
- Hodgson, H.R.
 1926 *The Society of Friends in Bradford: a record of 270 years* (Bradford: Percy Lund, Humphries & Co.).
- Hudson, P.
 1975 *The West Riding Wool Textile Industry: a catalogue of business records from the sixteenth to the twentieth century* (Edington: Pasold Research Fund).
 1986 *The Genesis of Industrial Capital: a study of the West Riding wool textile industry c.1750-1850* (Cambridge: Cambridge University Press).
- Hulme, E.W.
 1943-45 'The Pedigree and Career of Benjamin Huntsman, inventor in Europe of crucible steel', in *Transactions of the Newcomen Society*, 24: 37-48.
- Huntsman, Benjamin, Ltd
 1930 *A Brief History of the Firm of Benjamin Huntsman Ltd 1742-1930* (Sheffield: company).

- Isichei, E.
1970 *Victorian Quakers* (Oxford: Oxford University Press).
- James, J.
1968 *History of the Worsted Manufacture in England* (New York: Augustus Kelley).
- Jars, G.
1774 *Voyages Metallurgiques vol. I* (Lyon: private).
- Jeffreys, J.B.
1954 *Retail Trading in Britain 1850-1950* (Cambridge: Cambridge University Press)
- Jeremy, D.J., ed.
1984- *Dictionary of Business Biography: a biographical dictionary of business leaders active in Britain in the period 1860 to 1980* (London: Butterworths).
1988 *Business and Religion in Britain* (Aldershot: Gower).
1998 *Religion, Business and Wealth in Modern Britain* (London: Routledge).
- Marwick, W.H.
1958 'Some Quaker Firms of the Nineteenth Century', *Journal of the Friends Historical Society*, 48.6: 247-250.
- Mead, W.R.
1951 *John Good i Oesterbotten* (unknown: Finsk Tidskrift)
- Mortimer, R. S. & J.E., eds.
1980 *Leeds Friends' Minute Book 1692 to 1712* (Leeds: Yorkshire Archaeological Society).
- Mui, H. & L.H.
1989 *Shops and Shopkeeping in Eighteenth Century England* (London: Routledge)
- North Yorkshire County Record Office
no date *The Swaledale Estates of the Wharton Family in the Seventeenth Century* (Northallerton: North Yorkshire County Council).
1993 'W. Rowntree & Sons, Scarborough', *Miscellany* 1993, 8-10
- Pafford, E.R. & J.H.P.
1974 *Employer and Employed: Ford, Ayrton & Co. Ltd, silk spinners 1870-1970* (Edington: Pasold Research Fund).
- Phillips, M.
1894 *A History of Banks, Bankers and Banking in Northumberland, Durham and north Yorkshire* (London: Effingham Wilson).
- Pratt, D.H.
1985 *Quakers in the First Industrial Revolution: a study of the Quaker community in four industrial counties, Lancashire, York, Warwick and Gloucester, 1750-1830* (London: Garland).
- Pressnell, L.S.
1956 *Country Banking in the Industrial Revolution* (Oxford: Clarendon Press).
- with Orbell, J.
1985 *A Guide to the Historical Records of British Banking* (Aldershot: Gower).

- Priestman, J. D.
1994 *William Dent Priestman and the First Oil Engine* (Hull: University of Hull).
- Raistrick, A.
1950 *Quakers in Science and Industry* (London: Bannisdale).
1975 *The Lead Industry of Wensleydale and Swaledale* (2 vols.; Buxton: Moorland Publishing).
1982 *The Wharton Mines in Swaledale in the Seventeenth Century* (Northallerton: North Yorkshire County Council).
- Reckitt, B.N.
1965 *The History of Reckitt and Sons Limited* (Hull: A Brown).
- Richmond, L. & Turton, A.
1997 *Directory of Corporate Archives: a guide to British businesses which maintain archive facilities* (London: British Archives Council).
- Robson, S.E.
1916 *Joshua Rowntree* (London: Allen & Unwin)
- Shoosmith, H. & Priestman, P.D.
1944 *William Dent Priestman and the Development of the Oil Engine* (London: Diesel Engine Users Association).
- Tregoning, D. & Cockerell, H.A.L.
1982 *Friends for Life: Friends Provident Life Office 1832-1982* (London: Melland).
- Vernon, A.
1982 *A Quaker Businessman: the life of Joseph Rowntree 1836-1925* (York: Sessions).
- Wagner, G.
1987 *The Chocolate Conscience* (London: Chatto & Windus).
- Walvin, J.
1997 *The Quakers: money and morals* (London: John Murray).
- Wilson, R.G.
1971 *Gentlemen Merchants: the merchant community in Leeds 1700-1830* (Manchester: Manchester University Press).
- Windsor, D.B.
1980 *Quaker Enterprise: Friends in business* (London: Frederick Muller).

AUTHOR DETAILS

Helen Roberts was archivist to the Yorkshire Quaker Heritage Project during the period August 1999 to July 2002. She now works in the archives and special collections department of the Brynmor Jones Library, University of Hull.

Mailing address; Helen Roberts, Brynmor Jones Library, The University of Hull, Hull HU6 7RX, England. Email: H.E.Roberts@hull.ac.uk