

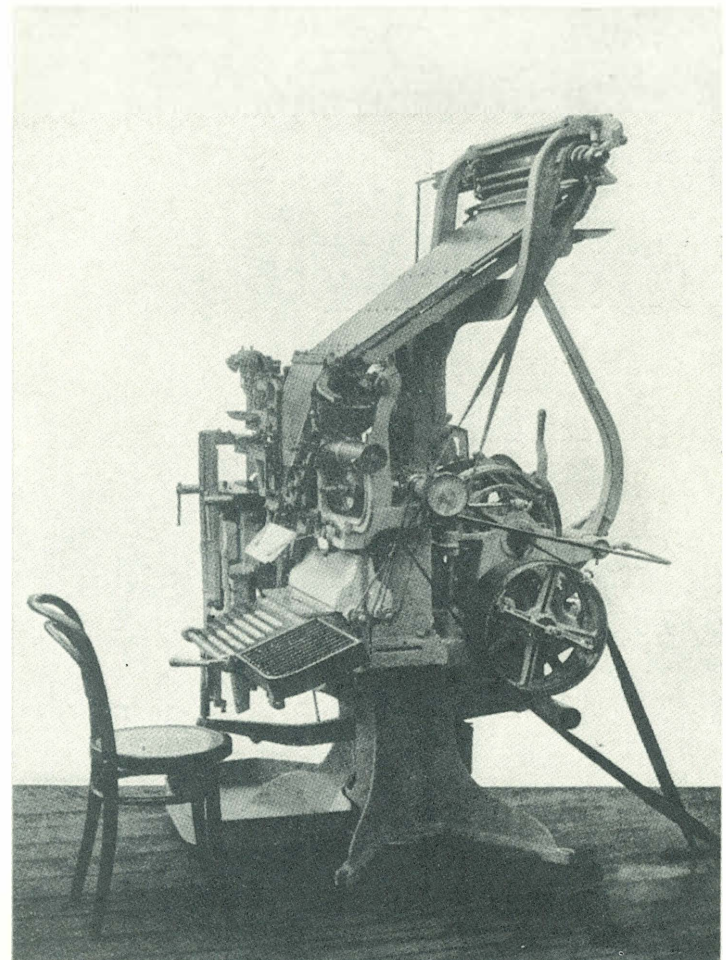
BRISTOL BRANCH OF THE
HISTORICAL ASSOCIATION
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PRINTING IN BRISTOL

A.P. WOOLRICH



BRISTOL BRANCH OF THE HISTORICAL ASSOCIATION
LOCAL HISTORY PAMPHLETS

Hon. General Editor: PATRICK McGRATH

Assistant General Editor: PETER HARRIS

Printing in Bristol is the sixty-third pamphlet to be published by the Bristol Branch of the Historical Association. Its author, Mr A.P. Woolrich, worked for some years for the Bristol United Press and for many years he has collected works produced by Bristol printers. He has written a number of articles relating to the industrial history of the city. His book on industrial espionage will be published shortly and his articles on the Hornblower-Maberley steam engine of 1805 and on John Farey and the Smeaton MSS have appeared in the *Transactions of the Newcomen Society*, vol. 56, 1986 and in *History of Technology* vol. 10, 1985. Although a number of studies have been made of particular firms, this is the first survey of the history of the printing industry in Bristol, and Mr Woolrich hopes it will encourage further research.

The Branch wishes to express its thanks to Miss Mary Williams, Bristol City Archivist, who read the manuscript and made a number of very helpful comments and suggestions. Mr Langley of the Central Reference Library and Mr Maby of the University of Bristol Library were extremely helpful with regard to the illustrations, and Mr Gordon Kelsey and the staff of the Arts Faculty Photographic Unit kindly arranged to take some of the photographs.

The illustration on the front cover is a photograph of an early linotype machine. It is taken from Edward Everard's *A Bristol Printing House*.

The Pamphlet Appeal Fund, which is designed to put the series on a sound financial basis, is still open and readers are invited to contribute. All donations, however small, will be of help. They should be sent to Peter Harris, 74 Bell Barn Road, Stoke Bishop, Bristol, BS 9 2DG. Cheques should be made payable to the Bristol Branch of the Historical Association.

The next pamphlet in the series will be by Dr Kenneth Morgan and will deal with the Bristol carriers in the nineteenth century.

A list of pamphlets still in print is given on the inside back cover. Pamphlets may be obtained from most Bristol Booksellers, from the shop in the City Museum, from the Porter's Lodge in the Wills Memorial Building and direct from Peter Harris.

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PRINTING IN BRISTOL



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PRINTING IN BRISTOL

In 1476 William Caxton set up the first printing office in England in the precincts of Westminster Abbey. During the next eighty years presses were founded in a number of other towns, including St Albans, Tavistock and Abingdon, as well as in the Universities of Oxford and Cambridge. According to the Rev. Samuel Seyer, writing in the early nineteenth century, a press was set up in Bristol Castle in 1546 and was 'used dayly for the honour of God.' Seyer's evidence is not satisfactory, and if there was such a press, none of its works has survived.¹

In 1557 the Stationers' Company was incorporated in London and given a monopoly of printing with extensive powers of control, and this was strengthened by the grants of privileges or copyrights to individual members of the Company. State regulation was made even more strict by the Star Chamber decrees of 1566 and 1586². After 1586 provincial printings ended abruptly, and apart from the two University presses, no printing was allowed except in London and its suburbs. At that time there were 21 printers owning 53 presses, and the Star Chamber decree forbade the establishment of any more. In 1615 by order of the Stationers' Company, the number of printers in London was limited to twenty-two, and in 1637 the number was reduced to twenty. The regulations

1. Samuel Seyer, *Memoirs Historical and Topographical of Bristol and its Neighbourhood*, 1821, vol. 2, p. 228. Under the year 1546, Seyer includes a quotation which he says is from a Ms Calendar and which reads 'Also in the same year, 1546, a press for printing was set up in the castle, which is used dayly for the honour of God.' Seyer concluded that printing religious tracts in favour of the Reformation was at first the printer's chief employment. The only reference he gives to his source is 'MS Calendars'.
2. For the Star Chamber decrees of 1566 and 1586, see G.R. Elton, *The Tudor Constitution*, 1965, pp. 105-107, 179-184.

concerning the limitation of printing in the provinces, the licensing of books and general control of the trade were reinforced.

The abolition of the Court of Star Chamber in 1641 and the outbreak of civil war in 1642 meant that the printing trade was for a time freed from restraint in a period of intense religious and political controversy. A host of presses sprang up in the provinces, but none is known in Bristol before 1643 when Christopher Barker, Printer to Charles I, set up the king's portable press. The first book known to have been produced, *A Forme of Common Prayer*, was printed in October or November 1643³. Barker produced at least a dozen further pieces between then and 1645 when he was forced to withdraw from the city when the Royalists surrendered it in September. It was not until fifty years later that another press was established in Bristol.

In 1695 Parliament relaxed the laws restricting printing in the provinces. The result was that William Bonny, a London printer, petitioned the Bristol Corporation to be allowed to set up a press in the city and asked to be admitted a free burgess to help his enterprise. In April of that year he was given permission to establish his press, but was not to sell books direct to the public, since this would harm local booksellers.

The first book Bonny produced was John Cary's *An Essay on the State of England*, 1695, and in the following year he printed for Cary a broadside *Proposals for better maintaining and employing the poor*.

Bonny also published the *Bristol Post Boy*, a weekly newspaper which appeared from 1702 until at least 1712. It is thought to have been the first English provincial newspaper, and the issue for 12 August 1704 (no.91) is the earliest surviving copy⁴.

Other printers soon followed Bonny⁵. One of the earliest was Samuel Farley who published the *Bristol Postman* from 1715 and at the same time founded newspapers in Exeter and Salisbury. Farley was a Quaker who founded a dynasty of Bristol printers. After his death, the business split into rival concerns and for a time there were two newspapers, *Felix Farley's Bristol Journal* and *Sarah Farley's Bristol Journal* managed by widowed sisters-in-law. Newspapers were at that time usually a single sheet folded once to make four pages. Almost all the editorial copy was lifted from the London newspapers with very little local news other than lists of admissions to the Infirmary and details of goods landed at the port. The advertisements contain a fascinating amount of information

about houses for sale, servants, tontines⁶, patent medicines, plays at the local theatres and a whole range of other activities. During the eighteenth century it was common for the proprietor of a newspaper to be a seller of medicines, the income from which helped offset the cost of producing the paper.

Bristol's newspapers were very widely distributed, mainly on horseback. The city was the centre of an extensive network of road and waterborne traffic, and the papers were regularly sold over most of southern England. For example, *Felix Farley's Bristol Journal* for 3 March 1792 has a list of newsagents extending over Devon and Cornwall, Dorset, Wiltshire, Somerset, Gloucestershire, Warwickshire, North and South Wales, London, Cheshire, and Liverpool. Newspapers were widely read since they passed from hand to hand and were available at inns and coffee houses.

Apart from books and newspapers, the eighteenth-century printer did a host of ephemeral work such as broadsides, proclamations, licences, certificates, posters, almanacs, trade cards, book plates and labels and wrappers for commodities.

The printing office at that time was a small affair, for the needs of the literate minority of the population were easily satisfied by the productions of an office where the proprietor did most of the work himself, using equipment which had changed little since the days of Caxton. The main feature was a wooden press about six feet high and six feet wide and about two feet deep. This enabled a sheet of paper to be accurately positioned over a block of inked type which was then slid beneath a stout wooden platen. This was pressed down by a large screw turned by a horizontal lever, forcing the paper on to the type and so picking up the impression of the letters. On all but the smallest jobs it was necessary to make the impression in two pulls, sliding the paper and type further under the platen before making the second one. The size of the paper and the speed with which it could be printed were limited by what could be conveniently handled by the pressman. Printing was a hand craft. No more than about 250 impressions an hour were possible for the pressmen.

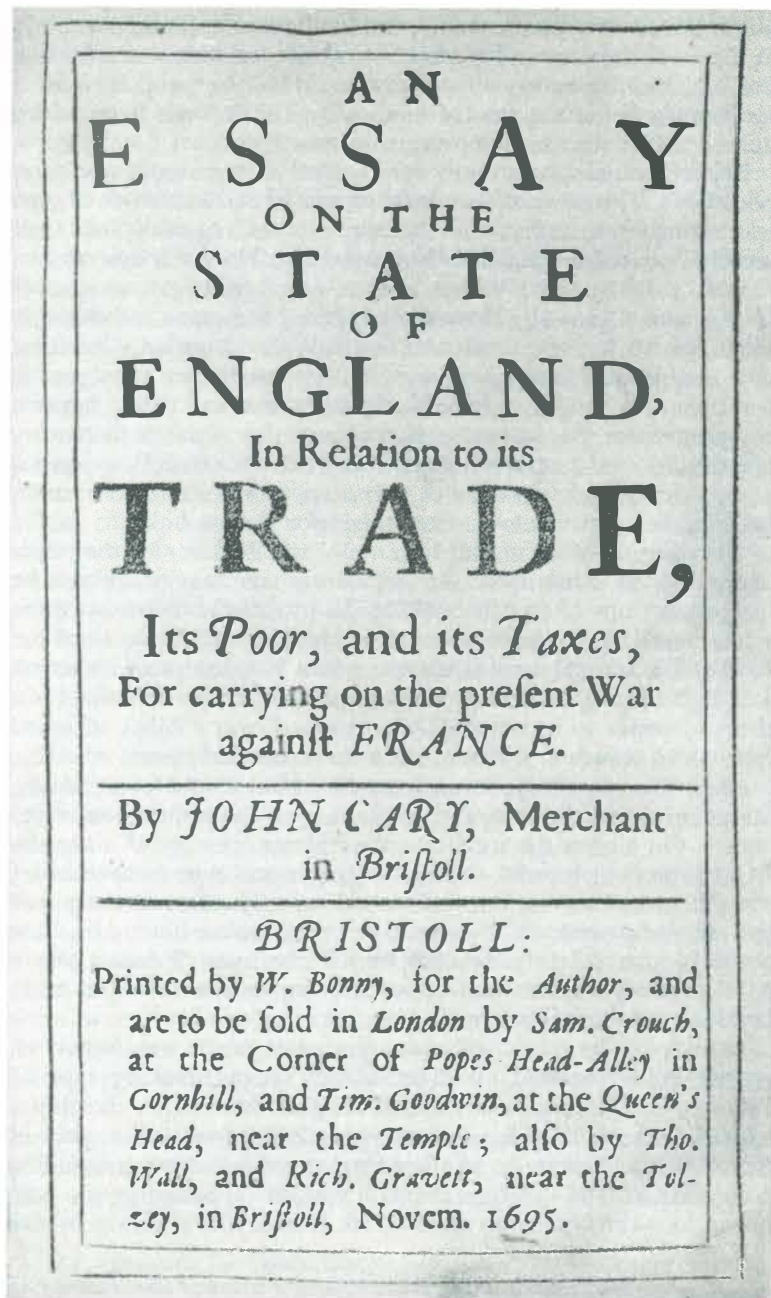
Many printers cast their own type, but much was imported, mainly from Holland. William Caslon began making type in London in 1725 and was the first English founder to develop a wholesale business. His success virtually stopped the import of Dutch type and encouraged other English manufacturers, including John Baskerville a Birmingham maker of japanned goods who began to make type from about 1750. Baskerville's success in turn

3. J.E. Pritchard, 'The earliest Bristol printed book', *Transactions of the Bristol and Gloucestershire Archaeological Society*, vol. 56, pp. 197-199.

4. This copy is in the Bristol Reference Library.

5. For work on the early history of Bristol newspapers, see p. 00.

6. A financial scheme by which subscribers to a common fund received an annuity which increased as other subscribers died until the last survivor received the whole sum.



The first book printed in Bristol by William Bonny from the copy in the University Library, Special Collections

encouraged Joseph Fry, founder of the chocolate firm, to go into partnership with William Pine, the Bristol printer, and they established a foundry in Bristol which operated from about 1764 to 1770 when it moved to London. Fry originally had his punches cut by a Birmingham craftsman, but ran into difficulties because he made his types on odd-sized bodies, which meant his customers could not use them.⁷ Once he had corrected this, his products were much sought after, and Fry's son, Dr Edmund Fry, later became one of the most highly regarded typefounders in the history of British printing.

William Pine holds an important place in the history of Bristol printing because of the excellent quality of his work. He was the printer of the *Bristol Gazette* from 1767, and in 1774 he produced a Bible in pearl type, then the smallest size made. He also printed the first published history of Bristol, William Barrett's *History and Antiquities of the City of Bristol*, 1789, a handsome quarto of over seven hundred pages with many folding plates.⁸

Printing offices in Bristol in the eighteenth century were not only small but most of them were short-lived. This is clear from the lists of Bristol printers given in Hyett and Bazeley's *Manual of Gloucestershire Literature*, 1895-1897, and Roland Austin's *Catalogue of the Gloucestershire Collection*, 1928, which print the first and last known dates of books printed by each printer. Few Bristol printers stayed in business for long, and if longevity is any measure of competence, they cannot have been very efficient.

The workshop organisation of the printers' chapels naturally lent itself to trade unionism.⁹ The chapels' customs and bye-laws included rules against swearing, fighting, abusive language and drunkenness and laid down penalties for dropping equipment, forgetting to snuff candles and being untidy. The penalty for breach of these customs was a small fine, known as a solace, and this performed a social as well as a disciplinary function, since it went into a weekly fund for chapel drink. New employees had to pay a fine on entry to the chapel as did apprentices at the various stages of their career, mainly when they were bound, received the freedom and, finally, when they were admitted as chapel members. A member also paid a fine when he married and when he became a

7. In Pennsylvania State Archives is a MS Diary of Joshua Gilpin. On 26 March 1796 Gilpin had a conversation with Dr Edmund Fry who told him something of his father's typefounding efforts. Gilpin was an American paper maker who toured Great Britain in 1795-1801 learning about British methods of paper making as well as collecting commercial intelligence.

8. Reprinted in 1982 by Alan Sutton Publishing Ltd, the printers of this pamphlet.

9. See p. 12 below.

father. Another feature of the trade was the annual Waygoose or feast provided by the master printer for his journeyman.

Little is known about the apprenticeship system or about the activities of the journeymen printers. In the eighteenth century, workmen's organisations in restraint of trade were illegal, but the breakdown of state regulation in the second half of the century left the workman practically unprotected. Journeymen's associations, ephemeral in character or disguised as friendly societies, may have developed in the larger printing centres at this time, but there is no evidence of genuine trade union activity until the very end of the century.

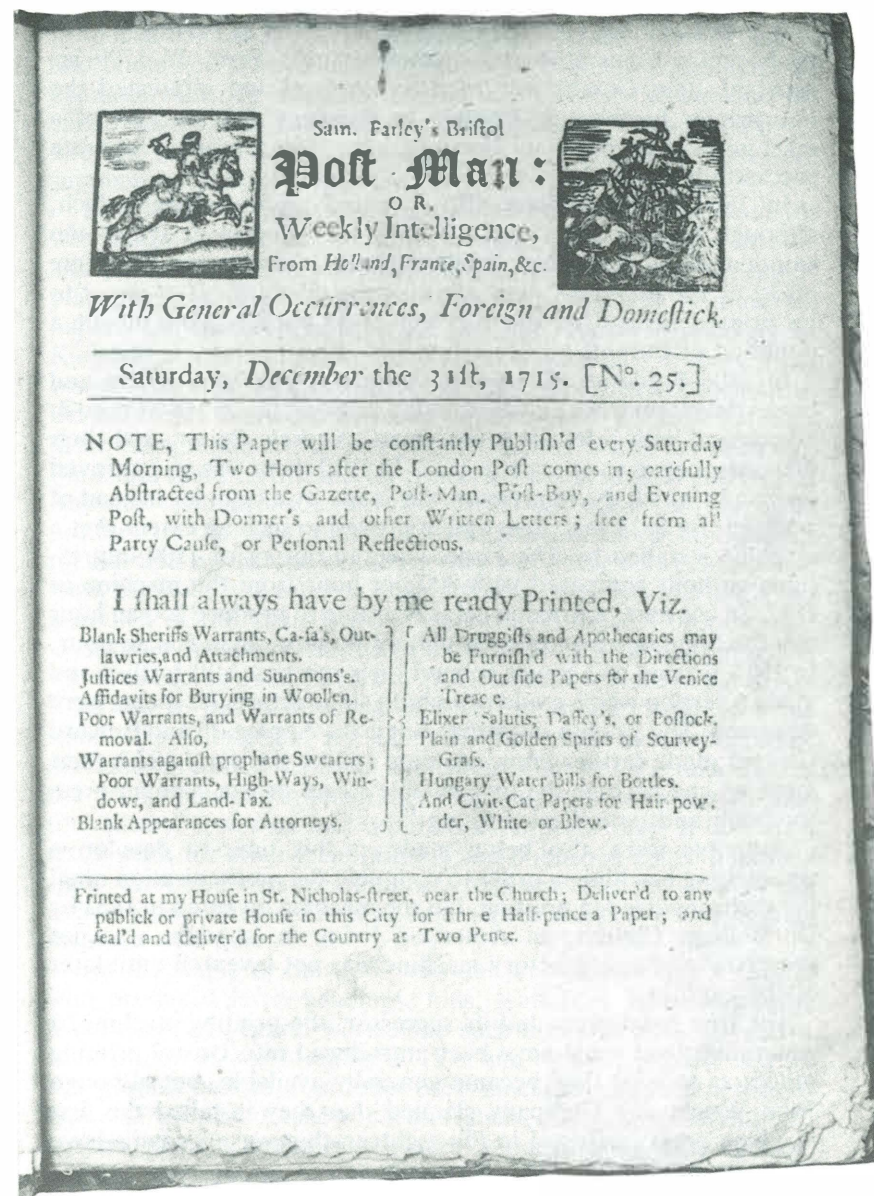
The later eighteenth century saw significant technical advances which had a profound effect on the craft of printing and the kind and scale of the work done. Some of these changes may be briefly noted here.

In 1774 the Swede, Carl Scheele, discovered chlorine and its bleaching properties. It was introduced first of all into the textile industries, but it was then adopted by Clement and George Taylor, paper makers of Kent, who were granted a patent in 1792, although there is evidence that the process was used in a Scottish paper mill a year earlier. The effect of this discovery was to make available a much larger source of raw material than had previously been possible, for until that time the production of white or cream paper for printing required first of all pure white rags. Bleaching meant that rags of almost any colour could now be used with little difficulty.

The art of stereotyping was discovered by a Scotsman named Ged in the early years of the eighteenth century, and in 1795 it was refined by a Frenchman, Firman Didot, whose process was perfected by Earl Stanhope in 1800. It enabled a cast to be made of complete formes of type and so allowed for the rapid reprinting of books being produced in some quantity, such as Bibles, novels and schoolbooks. It saved the cost of storing standing type and released it for another use. It also greatly reduced the wear on the type face and enabled it to be used for longer.

In 1798 the German Aloysius Senefelder invented lithography in which an image was drawn on a flat stone with a wax pencil. The stone was then wetted and finally inked. The ink was repelled by the damp parts and was held only by the portion drawn upon. Finally, the paper was pressed on to the stone so that the image could be taken off. The process was later refined. One of the earliest centres in Britain where it was practised was Bath because of the suitability of the local stone.¹⁰

10. Michael Twyman, 'The Lithographic Hand Press, 1796-1850', *Journal of the Printing Historical Society*, 1967, vol. 3, pp. 3-50.



An early Bristol Newspaper from a copy in Bristol Central Reference Library
Photograph by Arts Faculty Photographic Unit

A paper-making machine had been invented in France in 1795 by Nicholas Louis Robert of Essonnes near Paris. In 1799 his assistant John Gamble returned to England and interested the Fourdrinier brothers of London in financing the erection of a machine at Frogmore in Hertfordshire. This began to operate successfully in 1803.

In 1800 Earl Stanhope also invented an iron press which, although hand-operated and virtually the same in design as the wooden press of Caxton, exerted more pressure for the same effort by the pressman, thus allowing the whole sheet of paper to be printed instead of the two halves as earlier. This meant a doubling of output.

In 1806 Frederick Koenig, a German, came to England and began developing the first mechanical printing press. He worked in association with a fellow countryman, Andrew Bauer, and their first press began to operate in 1811. In 1812 there was an improved version in which the impression was made by a cylinder instead of a platen. By 1814 this press had improved to such an extent that a machine installed by *The Times* gave an output of 1100 impressions an hour compared with 800 per hour from the machine of 1812. In contrast, a wooden press was able to produce 250 an hour and the Stanhope iron press could not do more than 500 an hour. In 1816 Koenig and Bauer refined their machine still further and made a version which could print both sides before the sheets were delivered. The English inventors Augustus Applegath and Edward Cowper made further improvements and by the early 1820s their machine had become the first reliable steam-driven cylinder press for book and periodical printing.¹¹

Attempts were also being made at this time to develop a type-setting machine in order to complete the mechanisation of all the crafts involved in printing, but the machine invented in 1822 by Dr William Church, an American living in London, was not successful and a satisfactory machine was not invented until later in the century.

The iron hand press and its successor, the printing machine, a generation later must have been introduced into Bristol printing offices as soon as they became generally available, but although John Wright and Company claimed that they installed the first machine press in Bristol in the eighteen-thirties, no details have been discovered to establish priority.

The nineteenth century saw great changes in the kind of work done by local printers. The growth in the production of mass-

produced consumer goods like tobacco, chocolate, cocoa, corsets and boots and shoes meant the need for distinctive packaging to promote sales. In addition, the railway created the demand for cheap time tables and later on the need for cheap fiction to alleviate the boredom of long, slow journeys. All these needs were supplied by Bristol printers.

Typical of the firms which grew up to meet the new demands was James Mardon & Co. James Mardon came to Bristol in 1846 and joined his brother-in-law John Harris in business as copperplate printers. Their enterprise consisted largely in printing pin papers for Robert Charlton & Co, the Quaker pinmakers of Kingswood, who in turn supplied London wholesale drapers, all of whom had their own distinctive design. When Mardon came to Bristol, there were about twenty copperplate printers but only three lithographers. Mardon printed cheque books for Stuckey's Bank and share certificates for concerns like the Bristol and Exeter Railway. The firm's letterpress work was taken on by trade printers in the city. Later on, the firm acquired lithographic presses and by the end of the century was doing a vast amount of work for Wills, the tobacco manufacturers. By 1908 Mardon's was a branch of the giant British American Tobacco Corporation.

Another specialist firm was Lavars and Co of Broad Street. It was founded by John Lavars in 1838 in premises in Bridge Street. It moved to Broad Street in 1859 and to another address in the same street in 1879. By 1893 the firm had five lithographic machines as well as the usual letterpress plant and was undertaking the production of Parliamentary Plans such as accompanied Bills for railway, sewerage and waterworks undertakings. It did much trade work for other local printers and published maps in its own right. Among its publications was William Sanders' *Map of the Bristol Coalfield* issued in 1862 on nineteen sheets to a scale of four inches to the mile.

But the staple of the trade was the jobbing letterpress printer who produced letter-headings, bills, leaflets, labels and all the usual range of general work. One such firm was R.H. Clarke of Milk Street. It was founded in 1876 and by 1893 it possessed six lithographic presses, four letter press machines and several tons of type. It produced 'show cards, labels, calendars, catalogues, posters, plans, all manner of superb colour printing, tally making, paging, perforating, cutting. . .' In printed labels alone, it produced over two million a week. It had a substantial export market to Australia and South Africa and it had a branch in Cape Town.

Another such firm was Henry Hill of John Street. It was founded in Castle Street in 1836 and moved to John Street in 1868. There it carried out jobbing work until it was bought out by

11. [Stanley Morison], *Printing the Times*, 1953.

Mardon's for the sake of its machinery and plant to replace what had been lost in the Blitz in 1941.

During the nineteenth century, newspapers underwent considerable changes as new production methods were introduced. Until the eighteen-forties, the newspaper taxes effectively held back any growth, but these were finally repealed in 1855 in response to the demands of a more literate population. Faster production methods were now needed to keep pace with demand. A number of Bristol newspapers were still being produced in the same way as a century before, but from the 1860s onwards they either collapsed or were taken over by more modern-minded proprietors who introduced new methods.

The *Western Daily Press* was founded in 1858 by Mr P.S. Macliver and Mr Walter Reid and it was published from an office in Broad Street as a daily morning paper. The first press was hand-fed and non-perfecting, so that the sheets had to be hand-fed again to print the backs. The output of the press was some fifteen hundred to two thousand newspapers an hour. By 1908 the presses then used produced one hundred and twenty thousand copies of a four-page newspaper an hour. In 1858 all the typesetting was done by hand, but by the end of the century it was done mechanically.

Another major technical development which affected newspapers was the world-wide spread of the electric telegraph which allowed news to be transmitted speedily in contrast to the situation in 1858 when foreign despatches came by ship and could take weeks to arrive.

As the *Western Daily Press* grew, its offices became too small and in 1885 a new printing office was opened at the corner of St. Stephen's Street and Baldwin Street. The *Western Daily Press* also published the *Bristol Observer*, a weekly newspaper which began in February 1859, and the *Bristol Evening News* which began in May 1877 and which was the first daily evening newspaper in the West of England.

In 1858 when the *Western Daily Press* first appeared, Bristol had six weekly newspapers: the *Bristol Mercury*, the *Bristol Mirror*, the *Bristol Times and Felix Farley's Journal*, the *Bristol Gazette*, the *Bristol Advertiser* and the *Clifton Chronicle and Commercial and Market Circular*. It also had one monthly – the *Bristol Temperance Herald*. Later, some of these spawned daily newspapers, the *Mercury* having as its stable mate from 1860 the *Bristol Daily Post*. In 1865 the *Times* and the *Mirror* amalgamated to form the *Bristol Times and Mirror*. In 1908 Bristol had six daily papers – the *Western Daily Press*, the *Bristol Evening News*, the *Bristol Times and Mirror*, the *Bristol Evening Times*, the *Bristol Daily Mercury* and the *Bristol Echo*.

During the eighteenth century and the early part of the nineteenth century, most provincial printers produced books, but as the century advanced, this, like much else in the trade, became specialised. The firm of John Wright and Company was founded in 1825 by a Quaker, and the firm's first publications were of a religious nature. The company is reputed to have installed the first book-perfector printing machine in the west country in 1834. In 1853 it began publishing *Wright's Steam Packet and Railway Timetable*. Soon after, it published the first penny newspaper in Bristol – the *Bristol Telegraph*, and in 1870 it acquired the copyright of *Mathews' Bristol Directory*. From 1883 the firm began to specialise in medical publications with the issue of *The Medical Annual*, and in 1913 it began to print *The British Journal of Surgery*.

In the late nineteenth century the firm of Arrowsmith, which had been founded in 1854, was the country's largest publisher of railway bookstall novels. It published Anthony Hope's *Prisoner of Zenda* and *Rupert of Hentzau*, Jerome K. Jerome's *Three Men in a Boat* and *Three Men on the Bummel*, and George and Weedon Grossmith's *Diary of a Nobody*. But the greatest success the firm had was undoubtedly *Called Back* by Hugh Conway, the pseudonym of F.W. Fergus, a local auctioneer, which was first published in 1883 and which had sold more than 350,000 copies five years later. Arrowsmiths later published Conan Doyle, Chesterton, Belloc and Corelli, but nothing ever came near the success of Conway's shilling shocker.

One of the Bristol firms which grew with the need for attractive packaging was E.S. and A. Robinson. It had been established in 1844 as a stationer specialising in the supply of wrapping papers for the grocery trade. The business soon grew and began the manufacture of paper bags made by hand. Then a printing plant was added, and printing from engravings was quickly followed by lithography. By 1860 a bag-folding machine had been added. In that year the firm claimed that it stocked 200,000 reams of paper and that its machine-room contained thirteen lithographic presses and machines. By the end of the eighteen-eighties, the firm possessed five bag-making machines, and by 1902 this had risen to seventeen. Robinson's stockbook of about 1890 shows a wide range of illustrations which it could offer to grocers and other shopkeepers combined with their own name and address. Rival Bristol printers offered a similar service, but on a much smaller scale.

During the course of the nineteenth century many attempts were made to mechanise typesetting, and finally in 1885 the

linotype machine was introduced in America. By 1900 two hundred British newspapers were being composed on it, but it is not known which Bristol newspaper was the first to use it. In this machine, a set of matrices is assembled to make a line of text, and a slug of typemetal is cast from it bearing along one edge all the letters and characters involved. This avoids the need for casting and handling individual types, and since the slugs are melted down for re-casting once the printing has been done from them, a fresh newly-cast type face is continually produced.

In 1887 the Monotype machine was invented, but it was not brought into commercial use until 1897. In addition to producing perfect type each time, this has the facility for changing the typeface easily and enables the printer to offer his customers a wide choice without the need to keep many tons of type in stock. As in the linotype machine, when printing is finished the types can be melted down for re-use. Wright's installed a monotype machine in 1900 and claimed to be the first Bristol printer to do so.

As we have seen earlier, Trade Unionism in the printing industry began to be organised in the early part of the nineteenth century, and by 1826 an old-established society existed in Bristol. The Minutes and other papers relating to the Bristol Typographical Society from 1832 onwards are preserved in the Bristol Record Office.¹² All the main printing centres had their own print unions and were linked by the tramp-relief system by which money was provided to help striking or unemployed members to travel to another town where work might be had. The local unions also supervised the terms of apprenticeship, the exclusion of 'foreigners' or men who had not been apprenticed, and regulation of hours and wages. In addition, they operated as benefit societies, organising unemployment relief and sickness and burial funds. The local unions amalgamated in 1844 to form the National Typographical Association. Its south-western division was centred in Bristol.

Very few accounts of the life of a working printer in the nineteenth century have been written, but in *Tait's Edinburgh Magazine* from March 1851 to May 1852 there was serialised *The Working Man's Way in the World* by an anonymous author. It was published in book form in 1853. The author stated that he was apprenticed to a small printer in Bristol in 1819, and the first chapter describes his time there. It includes a vivid description of the city. A later chapter includes an account of the Bristol Riots of 1831 which he claimed to have witnessed. A genuine account of

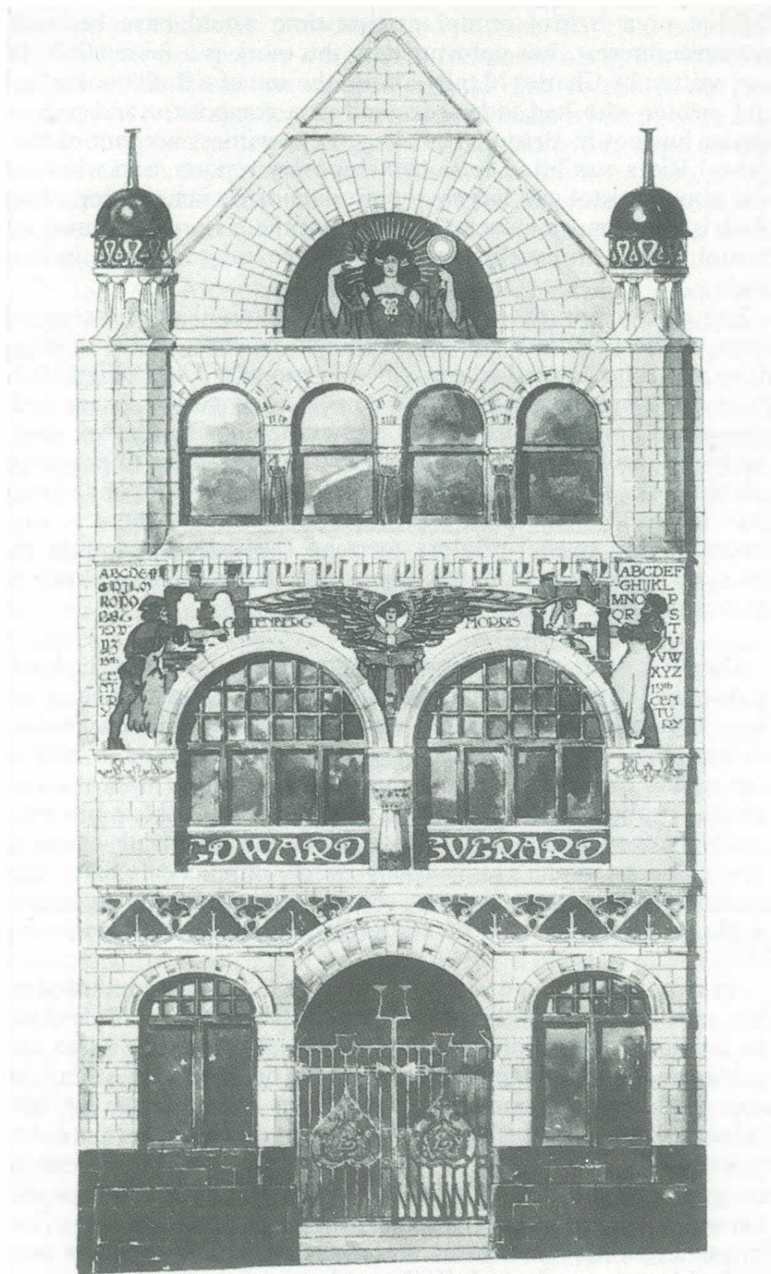
the life of a Bristol printer at that time would have been of immense interest, but unfortunately this work is a fabrication. It was written by Charles Manby-Smith, the son of a Bath bookseller and printer who had indeed trained as a compositor and proof-reader but not in Bristol. His alleged eye-witness account of the Bristol Riots was lifted from contemporary reports, and what he said about Bristol was largely the product of his imagination. The book is not of much value as a source for the history of printing in Bristol, but is an excellent account of general conditions in the trade.

The master-printers were not really organised until the early years of the twentieth century, although as early as 1814 Philip Rose and John Evans had combined to produce *The Printers' Job Price Book* by which work could be accurately costed. No record appears to have survived of the masters taking joint action over the friction caused by the change from the hand-press to printing-machine operations during the eighteen-thirties or over any of the later technical changes. It was not until 1890 that there is any record of the master-printers meeting together, apparently to discuss a wage claim from the unions. The Bristol Master Printers Association was formed in 1905.

The early years of the twentieth century did not witness the kind of technical developments which had occurred at the beginning of the nineteenth century, but it was a Bristolian, William Friese-Greene, the inventor of cinematography, who patented in 1898 a film-setting device by which letters were produced optically for printing purposes. Another of his inventions was inkless printing which involved the use of sensitised paper and electrically charged type. Friese-Greene's inventions were impractical with the technology of the time, but they sowed the seeds for the invention of photostetting and also of xerography from the late nineteen-forties.

An important change which occurred in the printing industry in the early twentieth century was the development of type-styles and the lay-out of the printed page. The revival of printing as an art had begun in the eighteen-forties when the original types of Caslon were re-discovered and used by Charles Whittingham of the Chiswick Press, but this revival did not get much further until the eighteen-nineties when there grew up a Private Press Movement, a reaction against the mediocrity and ugliness of much of the work that was being produced, particularly in the printing of books. The Private Press Movement was an important part of the Arts and Crafts Movement of which William Morris of the Kemscoth Press was a leading exponent. It is not clear how much this influenced printers in Bristol, but it is significant that when Edward Everard

12. Bristol Record Office 34463.



Edward Everard's printing works which can still be seen in Broad Street
 Photograph by Arts Faculty Photographic Unit from coloured illustration
 in *Edward Everard, A Bristol Printing House*

built his printing works in Broad Street in 1901 he had represented on its tiled facade printing as practised by Caxton and by William Morris and, by implication, by himself.

The event which brought stylistic changes into the general printing world was the famous Printing edition of *The Times* in 1912 and the publication of the short-lived magazine *Imprint* in 1913. These sowed the seeds of the typographical renaissance of the inter-war years. It was in Bristol in 1925 that Eric Gill first produced his world-renowned Gill-Sans on the fascia of Douglas Cleverdon's bookshop in Charlotte Street.

The inter-war period also saw radical changes in the ownership of Bristol's newspapers through the activities of Lord Rothermere and his waging of the notorious Press War in the late nineteen-twenties. Rothermere bought the *Bristol Times and Mirror* and closed it, creating a totally new newspaper, the *Bristol Evening World* with new offices in Colston Avenue. There was a spontaneous surge of opposition by Bristolians with the result that money was raised locally to found the *Bristol Evening Post* which was printed in an old leather warehouse in Silver Street, using second-hand machinery and equipment. The first issue appeared in 1932. For some years the newspaper was produced on a shoestring, helped by the financial support of its local backers and the untiring efforts of its staff.

The Second World War caused considerable havoc among the Bristol printing houses, many of which were situated in the older part of the city which was heavily bombed. Mardon's. and Robinson's, being large concerns, had their businesses spread over several sites and were extensively damaged, Mardon's alone losing ten of its thirteen factories and warehouses around Temple Gate. Ten of Mardon's staff were killed in the Blitz, and a further sixty-eight on active service or in the mines. Other printers who lost their plant and buildings were John Wright, Partridge and Love, St. Stephen's Printing Works, Bennett Brothers, W.B. Harris and Taylor Brothers.

After the war, some firms started again in the Bristol suburbs or moved further away into the surrounding countryside. John Wright went to a new works at Brislington, almost on the city boundary, and Partridge and Love moved out to Wick between Bristol and Bath. Mardon's and Robinson's were able to rebuild and move their works to more suitable sites in the inner suburbs, and Robinson's eventually formed part of the giant Dickinson-Robinson Group.

The post-war period is probably too close in time to be properly assessed historically, but some mention must be made of technical

changes which have affected Bristol printers and the work they do. There was a decline in hot-metal printing and a swing towards offset-printing methods. Photosetting began to be introduced and competed with hand composition, and later computerised typesetting began to be introduced for newspapers and bookwork with the aim of reducing the need for corrections. During the mid-1960s the Bristol United Press, which had been formed from the amalgamation of the *Bristol Evening Post*, the *Western Daily Press* and the *Bristol Evening World*, experimented with computer-assisted typesetting. The input to the linotypes was in the form of a punched paper tape, generated by a computer which calculated the line length and made spacing adjustments. The information was fed into the computer by another perforated paper tape generated by keyboard operators using tele-typesetting keyboards. The Bristol United Press was the first provincial printing firm to introduce successfully this method of production. In the late 1960s Bristol United Press designed a new printing office on the site of the old Beavis mineral water factory at the junction of Temple Way and Old Market Street. This was completed in the early 1970s and the most modern equipment was installed.

The late 1960s also saw the move of Everards from Broad Street to a purpose-built works at Warmley on the site of part of Champion's Brass Works. Sadly, almost as soon as the move had been completed, the building, and more importantly its contents, were damaged by the great flood which struck the neighbourhood in the summer of 1968, and the firm ceased trading shortly afterwards.

The latest development in Bristol printing has been the growth of copy shops as a result of the invention and spread of the photocopier. These permit the production of work like letterheads, leaflets and brochures, using photosetters and the small offset press developed for in-house printing by large commercial offices. More importantly, they do not require the highly-skilled labour needed in traditional letterpress methods.

An important aspect of printing in Bristol has been the number of companies manufacturing machinery specifically for it. The *Bristol Directory* for 1839 lists John Cox of Rose Street, Great Gardens, as a maker of printing presses, presumably iron ones, and from that time the city has had a number of engineering firms specialising in this kind of business. The firm of H.O. Strong was founded in 1877 and, amongst other products, it made label-cutting machines and manufactured punches used in cutting card for box-making. Strachan and Henshaw was founded by two men who had been apprenticed to a firm which made machines for producing 'satchel bags' for Robinson's and in 1920 it became a

BUT SOFT— *WE ARE OBSERVED!*

By HILAIRE BELLOC
WITH THIRTY-SEVEN DRAWINGS
By G. K. CHESTERTON



LONDON :: ARROWSMITH :: W.C.1

Title page of one of the Chester-Bellocs published by the Bristol printers
Arrowsmiths
Photograph by Arts Faculty Photographic Unit

subsidiary of Robinson's. Other firms making machinery were the Thrisell Engineering Company which made equipment for the cardboard box trade and Brecknell, Munro and Rogers who made printing machines.

There is obviously much more which might be written about Bristol's printing industry with all its ramifications, but here only a brief sketch is possible. Nothing has been said about local paper-making, tin-printing, the teaching of typography and printing in local colleges, the private presses of Bristol, trade type-setting of which Bristol has several highly important firms or about local publishing and bookselling. A great deal more work needs to be done on the different branches of the Bristol printing industry before a full-length history can be written. The outline given here may perhaps encourage further research particularly by those who have connections with the industry.

NOTE ON THE SOURCES

Two useful general histories of printing are S.H. Steinberg, *Five Hundred Years of Printing* (1955) and W. Turner Berry and H. Edmund Poole, *Annals of Printing* (1966). Two valuable articles on research into the history of provincial printing are P.C.G. Isaac and W.M. Watson, 'The History of the Book Trade in the North', *Journal of the Printing Historical Society*, 1968, vol. 4, pp. 11-32, and David Knott, 'Aspects of Research into English Provincial Printing', *ibid.* 1974, vol. 9, pp. 6-21.

The most important library devoted to printing history is the St. Bride Library, St. Bride Institute, Bride Lane, Fleet Street, London E.C.4. This is also the address of the Printing Historical Society.

Examples of the work of Bristol printers can be seen in the Bristol Reference Library as well as in the British Library and the Bodleian Library. They also have collections of Bristol-printed ephemera such as playbills and broadsides, as does the Theatre Collection in the University of Bristol.

Printing is one of the few trades where the products are usually marked with the printer's name and address. This is always the case with books and often with ephemera like posters. It is thus comparatively easy to trace the changes in the style of a particular printer and the way in which he introduced new designs. Printed bibliographies of local books such as Mathews' *Bristol Bibliography* (1916) are not initially helpful since the books are arranged by author, but it is possible with much patience to extract details of the books printed by particular firms. Recent developments in computerised bibliography have greatly reduced the amount of effort required. The *Short Title Catalogue* of the British Library has been put on a computer and it is comparatively easy to get a print-out of the products of an individual printer. Access to the service can be obtained from libraries with a BLAISE terminal. Further details can be obtained from the Blaise-Line Search Service, The British Library, Bibliographical Services Division, 7 Rathbone Street, London, WP1 2AL and from Computer Search Service, The Reading Room, Reference Division, the British Library, London, WC1B 3DG. It is planned to extend the catalogue into the nineteenth century, but it will be some time before this is done.

There is very extensive literature about printing, but comparatively little on Bristol's part in it. The following have been of use in writing this pamphlet:

- Tudor printers* F.A. Hyett, 'Notes on the first Bristol and Gloucester Printers', *Transactions of the Bristol and Gloucestershire Archaeological Society*, vol. 20, pp. 38–51.
- Civil War printing* J.E. Pritchard, 'The earliest Bristol printed book', *ibid.* vol. 56, pp. 197–199.
- Newspapers* Anon. *The Story of Bristol's Newspapers 1713–1934*, 1934.
Early Bristol Newspapers. Corporation of Bristol, 1956
 D.F. Gallop, 'Chapters in the History of the Provincial Newspaper Press', unpublished thesis. Copy in the Bristol Reference Library.
 John Lewis, *Printed Ephemera*, 1962.
- Ephemeral Printing* Talbot Baines Reed, *History of the Old-English Letter Foundries*, 1887 (new edition, 1952).
- Type founding*
- Trade Unions* A.E. Musson, *The Typographical Association*, 1954.
 I.C. Cannon, 'The roots of organisation among Journeymen printers', *Journal of the Printing Historical Society*, vol. 4, 1968.
 For working conditions, see also *The Working Man's Way in the World*, 1853, reprinted with an introduction by Ellic Howe, The Printing Historical Society, 1967, and Simon Nowell-Smith, 'Charles Manby-Smith, his family and friends, his fantasies and fabrications', *Journal of the Printing Historical Society*, vol. 4, 1968.
- Employers' Associations* Ellic Howe, *The British Federation of Master Printers, 1900–1950*, 1950.
 Mary Sessions, *The Federation of Master Printers, How it Began*, 1950.
- Histories of individual firms*
- Arrowsmith Anon. *1854–1954, Arrowsmiths*, 1955
- Clarke, Lavars, Hills Anon. *Ports of the Bristol Channel*, 1893
- Everard Edward Everard, *A Bristol Printing House*, 1902
- Mardon Anon. *Landmarks in the History of a Bristol Firm, 1824–1904*, 1918
 Anon. *Mardons during the War Years, 1939–1945*, 1946
 B.W.E. Alford, W.D. and H.O. Wills and the *Development of the U.K. Tobacco Industry*, 1973
- Robinson Bernard Darwin, *Robinsons of Bristol, 1844–1944*, 1945
 Michael Turner and David Vaisey, *Art for Commerce*, 1973 (facsimiles of stock designs of the 1880s)

Wright's

Anon. *Notes on printing, past and present: John Wright and Co.* n.d. various editions, c.1900
 Anon. *125 Years of printing and publishing*, 1950

The various trade journals are a mine of information about local firms. They contain many feature articles and advertisements, particularly for machinery made locally. *The British Printer* is particularly valuable for research into the history of printing.

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- 52 *Education and Apprenticeship in Sixteenth Century Bristol* by Jean Vanes. 80p.
- 53 *Isaac Rosenberg of Bristol* by Charles Tomlinson. 80p.
- 54 *Rowland Hill and the Bristol Post Office* by Daniel Briggs. 90p.
- 55 *The Prince's Theatre* by Don Carleton. 90p.
- 56 *The Voluntary Medical Institutions of Bristol* by C. Bruce Perry. 90p.
- 57 *Bristol and the Wine Trade* by Anne Crawford. 90p.
- 58 *The Bristol Medical School* by C. Bruce Perry. 90p.
- 59 *William Canynges (1402-1474)* by James Sherborne. £1.00.
- 60 *The Bristol Slave Traders* by David Richardson. £1.00.
- 61 *The Huguenots in Bristol* by Ronald Mayo. £1.00.
- 62 *Bristol and the Promotion of the Great Western Railway* by Geoffrey Channon. £1.00.
- 63 *Printing in Bristol* by A.P. Woolrich. £1.00.

Pamphlets may be obtained from the Bristol Branch of the Historical Association. Department of History, University of Bristol, or from Peter Harris. 74 Bell Barn Road, Stoke Bishop, Bristol 9. Please add 18p to cover cost of postage of one pamphlet and 5p for each additional one.

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