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A time of challenge and change: An analysis of Birmingham's industries
during the 'Great Depression' of 1873 to 1896

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ABSTRACT

The period from 1873 to 1896 saw an economic slowdown in the U.K. which so alarmed the Victorians that they called it the ‘Great Depression’. However, the suitability of this term has been questioned both by some contemporaries and historians who regarded it as an exaggeration. One reason for different views about the period is an absence of national data about levels of business profits and unemployment.

This paper focusses on the industries in a specific manufacturing centre, Birmingham, which allows a more detailed analysis of profits and unemployment than a national survey would allow. It first considers how the period was perceived at a national level, both by contemporaries and historians, in order to put Birmingham’s experiences into a wider context. It then analyses levels of profitability and unemployment in Birmingham’s industries, first generally and then in relation to two of its core manufacturing industries: guns and jewellery. Other changes which took place in the period, as Birmingham’s industries tried to adapt to changing economic conditions, are then analysed.

This paper shows that Birmingham suffered periods of severe distress between 1873 and 1896, with increased unemployment and reduced profits. However, the difficulties were not felt equally by all business sectors and workers. It concludes, therefore, that the term ‘great depression’ should not be applied uncritically to Birmingham’s industries in the period but neither should it be dismissed.

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I declare that this dissertation is my own, unaided work and that I have not submitted it, or any part of it, for a degree at the Open University or at any other university or institution. Parts of this dissertation are built on work I submitted for assessment in the A825 End of Module Assessment, particularly in the dissertation's Introduction and the section sub-titled 'Jewellery-making' in chapter three.

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Introduction

On 28 October 1885, two members of Birmingham's Chamber of Commerce, Henry Müller and Wyley Lord, gave evidence to a Royal Commission which had been appointed to 'inquire into the nature, extent, and probable causes of the depression now or recently prevailing in various branches of trade and industry'.¹ The depression, which Victorians called the 'Great Depression', was an economic downturn which would last from 1873 until 1896, and was a period when Britain's economic growth was slower than at any time since the industrial revolution.² The evidence given by Müller and Lord was at times confused and contradictory. They agreed, for example, that Birmingham's trade was depressed and that business profits had declined, but Müller thought that the volume of trade had remained the same whereas Lord thought that it had reduced.³ When asked if large numbers of Birmingham people were unemployed, Müller answered that 'Yes, it is the fact; but whether there are quite as many as they want to make out is a question'.⁴ This may have reflected the nature of the depression. Some businesses and workers undoubtedly suffered during the period. Only one per cent of the members of the societies of iron-founders and boilermakers were unemployed in 1872-1873, for example, but this had increased to twenty percent by 1879.⁵ However, a characteristic of the depression was an almost continuous fall in prices as a result of

¹ *Second Report of the Royal Commission Appointed to Inquire into the Depression of Trade and Industry*; 1886 [C.4715], pp. 25-39; *Final Report of the Royal Commission Appointed to Inquire into the Depression of Trade and Industry*; 1886 [C.4893], p. v.

² David Cannadine, *Victorious Century: The United Kingdom, 1800-1906* (London: Allen Lane, 2017), pp. 392-393.

³ *Second Report*, p. 25, para. 1511, and p. 27, paras. 1555 and 1556.

⁴ *Second Report*, p. 30, para. 1561.

⁵ Eric Hopkins, *Birmingham: The Making of the Second City, 1850-1939* (Stroud: Tempus, 2001), p. 72.

which the price of food purchased by a typical workman fell by thirty percent between 1877 and 1897, giving increased spending-power for those with steady incomes.⁶

The Royal Commission heard evidence from representatives from many parts of Britain and Ireland, including Dundee, Manchester, Sheffield, Nottingham, London and Belfast, showing the widespread effects of the depression.⁷ However, this dissertation focusses on the industries of the town (city from 1889) of Birmingham during the period from 1873 to 1896. A recently published history of Birmingham includes a chapter on its industrial history by Malcolm Dick, Director of Birmingham University's Centre for West Midlands History.⁸ Dick said that Eric Hopkins' 2001 history of the town included the most up-to-date overview of Birmingham's economy in the late nineteenth century and that detailed surveys by G.C. Allen (published in 1929) and the *Victoria County History* ('VCH') contained much additional information.⁹ Hopkins, however, used Allen's work as a key source and *VCH* contains detailed information on Birmingham's industries but does not focus on the 'Great Depression'. Allen's remains, therefore, the most comprehensive analysis of Birmingham's industries for the period. This dissertation uses a range of sources, including online sources which were not available to Allen,

⁶ Hopkins, p. 72.

⁷ *Final Report*, p. 123.

⁸ Malcolm Dick, 'The City of a Thousand Trades, 1700-1945', in *Birmingham, The Workshop of the World*, ed. by Carl Chinn and Malcolm Dick (Liverpool: Liverpool University Press, 2016), pp. 125-157.

⁹ Dick, p. 141; Hopkins, pp. 33-48; G.C. Allen, *The Industrial Development of Birmingham and the Black Country, 1860-1927* (London: George Allen and Unwin, 1929); W.B. Stephens, *A History of the County of Warwick, Volume VII: The City of Birmingham* (London: Victoria County History, 1964).

to provide a more up-to-date analysis of Birmingham's industries in the period, showing what happened and what the causes were.

Details of the sources used are given in each chapter, but a general observation should be made here. Two key factors in determining whether there was a depression in trade and industry between 1873 and 1896 are the levels of business profits (or losses) and unemployment. However, no reliable official statistics for either of these are available for the period. The only national profit records were maintained by the Inland Revenue, but they were designed to raise taxation, not to record business profits, and so, for example, they did not separate business profits from profits from land.¹⁰ No comprehensive statistics for unemployment were kept until the introduction of labour exchanges and unemployment insurance in the early twentieth century.¹¹ This lack of national information lends a particular value to the analysis of industries in a specific location as it allows the use of sources such as local newspapers and individual businesses records to show the effects of the depression on business profitability and unemployment.

After this introduction, the dissertation is divided into four chapters followed by a conclusion. Chapter one discusses the 'Great Depression' from a national perspective, considering both how it was seen at the time and the changing ways it has been interpreted by historians. Chapter two reviews Birmingham's industries

¹⁰ *Final Report*, p. xiv.

¹¹ Timothy J. Hatton, 'Unemployment and the Labour Market, 1870-1939', in *The Cambridge Economic History of Modern Britain, Volume II: Economic Maturity, 1860-1939*, ed. by Roderick Floud and Paul Johnson (Cambridge: CUP, 2004), pp. 344-373 (p. 347).

between 1873 and 1896 and the ways in which they were affected by the ‘Great Depression’. Chapter three focusses on the effects of the ‘Great Depression’ on two of Birmingham’s staple manufacturing industries: jewellery and guns. Finally, chapter four analyses ways in which Birmingham’s industries adapted to changing economic circumstances and the dissertation’s findings are summarised in a conclusion. An appendix provides a street plan of central Birmingham and a key which shows the locations of places referred to in the dissertation. The plan is dated 1924, but there were no significant changes to Birmingham’s principal streets between the late Victorian period and 1924.

The Great Depression took place against a background of wider changes which had important repercussions for industry, both nationally and in Birmingham. British industry faced increasing foreign competition, especially from America and Germany, at a time when overseas countries increasingly used tariffs to protect their domestic industries.¹² The impact of iron and steel technology on railways and steamships dramatically reduced transportation costs, leading to increasingly globalised trade.¹³ Larger factories and increased mechanisation devalued traditional skills and changed the relationship between employers and workers, which was also affected by increased trade union membership.¹⁴ Meanwhile legislation such as the

¹² Roderick Floud, *The People and the British Economy 1830-1914* (Oxford: OUP, 1997), p. 19; C. Knick Harley, ‘Trade, 1870-1939: From Globalisation to Fragmentation’, in *The Cambridge Economic History of Modern Britain, Volume II: Economic Maturity, 1860-1939*, ed. by Roderick Floud and Paul Johnson (Cambridge: CUP, 2004), pp. 161-189 (p. 172).

¹³ Harley, p. 163.

¹⁴ Hopkins, pp. 35-36 and 89; Floud, pp. 10 and 93.

Factories Act 1867 restricted the use of child labour and led to increased numbers of female workers.¹⁵

¹⁵ Hopkins, pp. 74-76.

Chapter 1: The national context of the ‘Great Depression’

Chapter one analyses the national context of the Great Depression from two perspectives. It first considers how it was reported at the time and then analyses the ways in which it has been viewed by historians. The first part uses three types of contemporary source: articles in *The Times*, *The Manchester Guardian* and *The Economist*; four longer articles written during the period; and the report of the Royal Commission which investigated the depression and published its results in 1886.¹ The second part is a survey of the main historiography for the period. The key secondary source is S.B. Saul’s 1969 book *The Myth of the Great Depression 1873-1896*, still considered by Malcolm Dick in 2016 to provide a critical examination of the period.²

Contemporary views

The contemporary press for the period from 1873 to 1896 frequently used the term ‘Great Depression’ to describe British industry at the time. The contexts in which the term was used show several aspects of how the Victorians, or at least the people who wrote for the papers, perceived the effects of the depression on industry in the developed world. First, although they focussed primarily on British industry, they realised that the depression was not confined to Britain. An article in *The Economist* in 1874, for example, said that ‘The depression in our home iron trade has been

¹ *Final Report of the Royal Commission Appointed to Inquire into the Depression of Trade and Industry*; 1886 [C.4893].

² S.B. Saul, *The Myth of the Great Depression, 1873-1896* (London: Macmillan, 1969); Malcolm Dick, ‘The City of a Thousand Trades, 1700-1945’, in *Birmingham, The Workshop of the World*, ed. by Carl Chinn and Malcolm Dick (Liverpool: Liverpool University Press, 2016), pp. 125-157 (p. 156).

preceded by similar great depression both in America and on the Continent which still continues’, and an article in the same publication in 1878 said that ‘The copper mining industry in South Australia is reported to be passing through a period of great depression ...’³ Second, although there were references to Scotland and South Wales, they regarded the depression as largely confined to particular industry sectors in northern England and the English midlands. In 1876 and 1877, for example, *The Times* reported that there was great depression in Birmingham’s jewellery and gun trades and in 1878 that there was great depression and distress in Birmingham’s wrought-nail trade, while in 1884 it carried several reports of great depression in the north-east shipbuilding industry.⁴ Third, a number of pieces referred to the hardships the depression was placing on the unemployed. For example, an 1877 letter in *The Times* from the Vicar of Aberdare in South Wales asked for help to support starving people suffering fearful distress as a result of the stoppage of all local ironworks and in 1895 *The Manchester Guardian* reported the great hardship suffered by people who were unemployed as a result of the closure of the largest cotton mill in Macclesfield, with many on the verge of starvation.⁵ However, some writers were already showing a degree of scepticism about the depression, with a *Times* editorial in 1878 claiming that people focussed too much on a few prominent industries which were suffering, such as cotton and iron, and incorrectly assumed that other industries were also suffering.⁶ It suggested that the depression in the cotton and iron industries was caused, respectively, by over-production and lack of demand, and that these factors did not apply to industry more generally. In any case,

³ *The Economist*, 18 April 1874, p. 470; 2 February 1878, p. 123.

⁴ *The Times*, 27 March 1876, p.6; 1 January 1877, p. 7; 16 April 1877, p. 7; 25 June 1877, p. 9; 21 January 1878, p. 7; 1 March 1884, p. 13; 7 April 1884, p. 7; 16 April 1884, pp. 11 and 15; 15 November 1884, p. 11.

⁵ *The Times*, 31 December 1877, p. 10; *The Manchester Guardian*, 9 January 1895, p. 6.

⁶ *The Times*, 27 December 1878, p. 7.

it said, cotton and iron had endured difficulties in the past and recovered. While acknowledging that some industries and individuals were in distress, it called for the depression not to be exaggerated.

This scepticism was also reflected in two pieces written by Robert Giffen, a Scottish economist and statistician whose career included being Chief of the Board of Trade's statistical department.⁷ In an 1877 essay he said that the main characteristics of the depression of the last few years were its universality, with Austria, Germany, Russia, the United States and South America having all suffered deep distress, and, contrary to general perceptions, the lightness of its effects on English industry and wages.⁸ He acknowledged that the value of Britain's export trade had declined over the period but said that this was partly due to a fall in prices and that, in any case, many of the country's manufactures were for home consumption rather than for export.⁹ He also said that in every depression for the last half century it had been claimed that British industry was threatened by foreign competition without any serious permanent effect on trade.¹⁰ Then in an 1885 article he said that Britain had, since 1873, suffered two separate depressions, rather than a continuous depression, the first from 1873 to 1879 and the second which had started in 1882 or 1883 and was still continuing.¹¹ However, the current depression was, he claimed, no more severe than many previous ones and may not even be called a depression were it not for

⁷ A.C. Howe, 'Giffen, Sir Robert (1837-1910)', *Oxford Dictionary of National Biography*, online edn (Oxford: OUP, 2004) <<http://www.oxforddnb.com.libezproxy.ac.uk>> [accessed 2 July 2018]

⁸ Robert Giffen, *Essays in Finance*, 3rd edn (London: George Bell, 1882), pp. 108-109 and 118.

⁹ Giffen, *Essays*, pp. 115 and 121.

¹⁰ Giffen, *Essays*, p. 126.

¹¹ Robert Giffen, 'Trade Depression and Low Prices', *The Contemporary Review*, 47 (1885), 800-822 (p. 803).

falling prices.¹² He acknowledged that business profits had been reduced but nonetheless considered that the scope of the depression was limited and that the UK as a whole remained prosperous.¹³

David Wells accepted the existence of a depression in two articles which he wrote in 1887 for *The Contemporary Review*.¹⁴ Wells was an American who was, in Michael Perelman's view, the most important economist in the US government.¹⁵ In the articles, he discussed the causes of the depression in both Britain and the wider world, describing it as an 'almost universal and extraordinary economic disturbance which has prevailed since 1873, and bids fair in a greater or lesser extent to continue ...'¹⁶ He attributed the depression mainly to the developments of the latter part of the nineteenth century, including the increased use of machinery and developments in transport and communications.¹⁷ He agreed with the Trades Union Congress that over-production was also a cause, as it led to declining prices and the reduction or elimination of profit, but considered that this would automatically correct itself in due course.¹⁸ Despite the depression, however, trade, when measured by quantities rather than values, had, he said, not reduced because falling prices had allowed consumption to increase.¹⁹

¹² Giffen, Trade Depression, pp. 804 and 806.

¹³ Giffen, Trade Depression, pp. 805, 806 and 813.

¹⁴ David A. Wells, 'The Great Depression of Trade: A Study of its Economic Causes: I', *The Contemporary Review*, 52 (August 1887), 275-293; David A. Wells, 'The Great Depression of Trade: A Study of its Economic Causes: II', *The Contemporary Review*, 52 (September 1887), 381-400.

¹⁵ Michael Perelman, 'Retrospectives: Schumpeter, David Wells and Creative Destruction', *The Journal of Economic Perspectives*, 9 (1995), 189-197 (p. 190).

¹⁶ Wells, Great Depression: II, p. 381.

¹⁷ Wells, Great Depression: I, pp. 277-278, 282-283 and 286-288.

¹⁸ Wells, Great Depression: II, pp. 381-385.

¹⁹ Wells, Great Depression: II, p. 385.

The Royal Commission, which investigated the extent, nature and probable causes of the depression was unable to reach a firm conclusion about its severity. They heard a great deal of evidence that the country's trade and industry was suffering from depression, with business profits reduced or eliminated and unemployment increasing.²⁰ However, statistical information, some of which was provided by Robert Giffen, did not support these findings. Production levels had continued to increase and the combined amount for property and profits assessed to UK income tax in 1884 and 1885 was much greater than in any previous year.²¹ The combined figures included income from land and property as well as business profits, but it was still difficult to see how the figures reconciled with a trade and industry depression.²² Some evidence said that workers were suffering from insufficient or irregular employment, but other evidence said that their conditions had materially improved during the last ten or fifteen years.²³ The Commissioners concluded that the sense of depression among manufacturers was due to a broad reapportionment of business income, with more going in wages and less in profits.²⁴ However the uncertainty was reinforced by a group of Commissioners who issued a minority report saying that the main report did not adequately recognise the severity and extent of the depression, and that most industries were in a depressed state.²⁵

²⁰ *Final Report*, p. x.

²¹ *Final Report*, pp. xi and xiv.

²² *Final Report*, p. xiv.

²³ *Final Report*, pp. x-xi.

²⁴ *Final Report*, pp. xv and xxi.

²⁵ *Final Report*, p. xliii.

Historiography

During the first few decades of the twentieth century, history text-books accepted that a Great Depression of trade and industry had started in 1873, but considered that it had ended in 1886 rather than 1896.²⁶ In 1934, however, H.L. Beales published an article which challenged this view.²⁷ He considered that the ‘melancholy’ period lasted from 1873 to 1896, and that, while it was given a unity by consistently falling prices and profits were meagre, it was not a period of permanent depression.²⁸ Beales identified three separate slumps, lasting from 1873-1879, 1882-1886 and 1890-1896, with two intervening periods of recovery.²⁹ The defining features of the 1873-1896 period were, he said, rapid industrialisation in countries outside the UK, leading to what was seen as an invasion of the home market, further British industrialisation, mechanisation and greatly increased productivity.³⁰ He concluded that ‘Great Depression’ was an unsuitable term for the period; it was, instead, a period of progress in circumstances of great difficulty.³¹

The next major contribution was published by A.E. Musson in 1959.³² He agreed with Beales that ‘Great Depression’ was an unsuitable label because, while prices fell by about forty per cent over the period, almost every other economic index showed an upward trend.³³ Britain’s overall production and export trade continued

²⁶ H.L. Beales, ‘Revisions in Economic History: I, The “Great Depression” in Industry and Trade’, *The Economic History Review*, 5 (1934), 65-75 (p. 65).

²⁷ Beales, p. 67.

²⁸ Beales, pp. 67-68 and 70.

²⁹ Beales, p. 70.

³⁰ Beales, pp. 73-75.

³¹ Beales, pp. 73 and 75.

³² A.E. Musson, ‘The Great Depression in Britain, 1873-1896: A Reappraisal’, *The Journal of Economic History*, 19 (1959), 199-228.

³³ Musson, Reappraisal, pp. 199 and 203.

to expand, although at a slower rate than previously as foreign tariffs and competition increased, but, due to the inadequate statistics for the period, it was not clear whether profit margins fell.³⁴ He accepted that unemployment increased but said that, overall, the working classes' standard of living improved.³⁵ In three articles in the 1960s, Musson exchanged views on the rate of Britain's industrial growth during the 1873-1896 period with a colleague at Manchester University, D.J. Coppock.³⁶ The articles highlight the incomplete nature of statistics for the period for factors such as income per head of population and the different interpretations that this can produce: Musson considered that Coppock was interpreting the evidence in a way which exaggerated the economic slowdown, while Coppock thought that Musson's interpretation was too optimistic.³⁷

In 1969, S.B. Saul published a seminal work whose title described the idea of a Victorian 'Great Depression' as a myth, and in which he said that the sooner the expression was banished from historical literature the better.³⁸ He said that the level of unemployment was vital to the question of whether there was a depression and pointed to the unsatisfactory nature of the evidence for unemployment levels as no national figures were available.³⁹ He acknowledged that unemployment during 1874-1895 was higher than in the preceding and succeeding periods, but said that

³⁴ Musson, Reappraisal, pp. 210-213 and 222.

³⁵ Musson, Reappraisal, pp. 201 and 205.

³⁶ A.E. Musson, 'British Industrial Growth during the "Great Depression" (1873-96): Some Comments', *The Economic History Review*, 15 (1963), 529-533; D.J. Coppock, 'British Industrial Growth during the "Great Depression" (1873-96): A Pessimist's View', *The Economic History Review*, 17 (1964), 389-396; A.E. Musson, 'British Industrial Growth, 1873-96: A Balanced View', *The Economic History Review*, 17 (1964), 397-403.

³⁷ Musson, 'Some Comments' p. 533; Coppock, pp. 389 and 395-396; Musson, Balanced View, pp. 398 and 402.

³⁸ Saul, p. 55.

³⁹ Saul, p. 30.

wages continued to grow and took an increasing share of industrial profits.⁴⁰ Britain, he said, retained a wide lead in many industrial sectors, including cotton textiles and heavy machinery.⁴¹ He concluded that modern research had destroyed once and for all the idea that there was a late Victorian ‘Great Depression’ in any unified sense for, while the last quarter of the nineteenth century was a watershed for Britain as foreign competition increased and the rate of growth slowed, this process probably started before 1870 and certainly continued after 1900.⁴²

An unpublished 1996 doctoral thesis by Jonathan Fraenkel took a less dismissive view of the ‘Great Depression’.⁴³ Fraenkel highlighted the lack of reliable data about late Victorian industrial performance, saying that Company Law did not require the submission of profit and loss accounts until 1948 and that the Inland Revenue did not record either gross or net profits between 1870 and 1914.⁴⁴ He also explained that historians’ best estimates of unemployment levels for the period were based on trade unions’ records of unemployed members, but that these were biased towards heavy industry, such as shipbuilding, whose workers constituted a disproportionate number of trade union members at the time.⁴⁵ He said that the available information pointed to 1873-1896 being characterised by a series of peaks and troughs with price deflation, declining profitability and substantially increased unemployment, especially during the economic troughs.⁴⁶ He considered that

⁴⁰ Saul, pp. 31 and 33.

⁴¹ Saul, p. 46.

⁴² Saul, p. 54.

⁴³ Jonathan Fraenkel, ‘Growth and Slowdown: Profitability, Growth and Output in Britain 1873-1973’ (unpublished doctoral thesis, University of Sussex, 1996).

⁴⁴ Fraenkel, pp. 142 and 150.

⁴⁵ Fraenkel, pp. 174-175.

⁴⁶ Fraenkel, pp. 175 and 308.

writers such as Beales and Saul had been unduly influenced by the depression of the 1920s and 1930s.⁴⁷

In 1997, Roderick Floud put the ‘Great Depression’ into a wider social and economic context.⁴⁸ Britain’s was, he said, a precarious society in which the alternation between boom and slump could greatly alter the employment prospects of a population who had little opportunity to save against a rainy day.⁴⁹ In the engineering industry, for example, where workers had to serve a seven year apprenticeship, it was the custom, as late as the 1890s, that men could be fired at any meal break without compensation.⁵⁰ The introduction of machinery into many trades in the later nineteenth century led to the devaluation of skills and even the disappearance of whole industries, such as the Black Country’s wrought-nail industry which collapsed in the 1880s and 1890s due to competition from machine-made nails.⁵¹ Changing fashions could devastate once prosperous trades; the late Victorian fashion for simplicity in dress, for example, was an important contributory factor in the decline of Birmingham’s button trade.⁵² In addition, fears of increasing foreign competition were pervasive in the last decades of the nineteenth century.⁵³

Saul’s doubts about whether 1873-1896 was a distinct, unified period were echoed in 2007 by Martin Daunton, who concluded that, while the period had some

⁴⁷ Fraenkel, p. 202.

⁴⁸ Roderick Floud, *The People and the British Economy 1830-1914* (Oxford: OUP, 1997).

⁴⁹ Floud, p. 7.

⁵⁰ Floud, pp. 33-34.

⁵¹ Floud, p. 10; G.C. Allen, *The Industrial Development of Birmingham and the Black Country, 1860-1927* (London: George Allen and Unwin, 1929), pp. 272-273.

⁵² Floud, p. 10; Allen, pp. 247-248.

⁵³ Floud, pp. 19-20.

applicability to prices, 1873 and 1896 were not turning points for other trends.⁵⁴ He considered that any depression was limited, adversely affecting industrialists whose profits were squeezed but benefiting wage earners who gained from falling prices.⁵⁵ Finally, in a recent history of the UK in the nineteenth century, David Cannadine has somewhat rehabilitated the concept of the ‘Great Depression’ which he described as a global phenomenon, affecting both Europe and the United States.⁵⁶ Between 1873 and 1896, British economic growth was, he said, slower than at any time since the industrial revolution, British manufacturers feared that their principal markets in Europe and the United States would be cut off by foreign tariffs while their unprotected domestic market seemed to be flooded by cheap foreign goods, and there were several periods of high unemployment.⁵⁷

Summary

There is a range of opinions about the severity, and in some cases the existence, of the ‘Great Depression’, among both contemporary commentators and later historians. However, four general comments can be made. First, there was real concern at the time, as expressed for example in newspaper articles, that British industry suffered a serious economic downturn in the later part of the nineteenth century. Second, this concern was not shared by all commentators, but the most dismissive comments tend to have been made by those, such as Giffen and Saul, who took an academic, statistics-based approach to the period, whereas the greatest

⁵⁴ Martin Dauntton, *Wealth and Welfare: An Economic and Social History of Britain, 1851-1951* (Oxford: OUP, 2007), pp. 170 and 172.

⁵⁵ Dauntton, pp. 170-172.

⁵⁶ David Cannadine, *Victorious Century: The United Kingdom, 1800-1906* (London: Allen Lane, 2017), pp. 393-394.

⁵⁷ Cannadine, pp. 392-394.

expressions of concern tended to be made by those who were directly involved in industry, such as those who gave evidence to the Royal Commission, and who knew what was happening in their own localities. Third, a lack of reliable statistics for business profits and levels of unemployment makes analysis of the period difficult and, to some extent, subjective. Finally, there is general agreement that increasing foreign competition was changing the environment in which British industry operated in the period.

Chapter 2: Birmingham's industries in the 'Great Depression'

In the late eighteenth century, Edmund Burke described Birmingham as 'the city of a thousand trades'.¹ The phrase highlights the diverse nature of Birmingham's commerce and industry but at their heart was the production of goods made in a variety of metals, often using raw materials from the neighbouring Black Country.² By the second half of the nineteenth century Birmingham's four core manufacturing industries were the production of brass goods, guns, buttons and jewellery.³ Although larger factories were beginning to emerge, employing more than 150 people and using powered machinery, most production units were very small, employing only a handful of people and relying on manual skills and hand-tools rather than powered machines.⁴ Small businesses often used merchants known as factors to supply raw materials, distribute finished products and provide financial assistance during the production process.⁵ By 1881, Birmingham had a population of 400,774, including 119,938 working males and 60,209 working females.⁶

In his recent summary of Birmingham's economic history, Malcolm Dick referred only briefly to the great depression, describing it as a recession 'when changing

¹ Malcolm Dick, 'The City of a Thousand Trades, 1700-1945', in *Birmingham, The Workshop of the World*, ed. by Carl Chinn and Malcolm Dick (Liverpool: Liverpool University Press, 2016), pp. 125-157 (p. 125).

² Dick, p. 125; Eric Hopkins, *Birmingham: The Making of the Second City, 1850-1939* (Stroud: Tempus, 2001), pp. 10-12.

³ Hopkins, p. 34.

⁴ G.C. Allen, *The Industrial Development of Birmingham and the Black Country, 1860-1927* (London: George Allen and Unwin, 1929), pp. 113-115.

⁵ Allen, p. 115.

⁶ *Census of England and Wales 1881 Volume III*; 1883 (C.3722) (hereafter *Census 1881*), pp. 255-262, (194,540 - 45,691 - 28,911 = 119,938; 206,234 - 116,892 - 29,133 = 60,209).

tastes, declining incomes and foreign competition affected demand for jewellery, brass items, buttons and guns'.⁷ In his more detailed survey, Eric Hopkins felt that it was misleading to describe the period from 1873 to 1896 as the 'Great Depression'.⁸ Nonetheless, he acknowledged that Birmingham's industries suffered during the period from a slackness of trade, falling prices, increased unemployment, reduced exports and increased foreign competition.⁹ He identified the jewellery and gun trades as suffering particularly badly, with the former being the most depressed of all Birmingham's trades up to 1886 before staging a recovery and the gun trade losing more than half its workforce during the second half of the nineteenth century.¹⁰ These two trades are analysed in chapter three but first this chapter analyses Birmingham's industries in the period more generally, looking particularly at unemployment and business profits. It first uses three sources to review Birmingham's industries: local newspapers, reports of the Chief Inspector of Factories and Workshops and a record of the minutes of the Birmingham Chamber of Commerce. In the absence of official unemployment figures, these are important sources in understanding the distress caused by unemployment as well as tracing the effects of the depression on business profits. It then analyses the experiences of four individual businesses to show how their profits were affected by the depression.

Review of Birmingham's industries

Press reports suggest that 1876 was the first year in the 1873-1896 period when Birmingham's industries began to suffer from difficult trading conditions. However,

⁷ Dick, p. 143.

⁸ Hopkins, p. 33.

⁹ Hopkins, pp. 35-36.

¹⁰ Hopkins, pp. 35 and 37.

although some industries were said to be depressed, such as guns, jewellery and iron tubes, trading was usually described as very dull or exceptionally quiet rather than depressed.¹¹ Reports for 1877 said that workers were becoming affected, with some unemployed and a large number working part-time, but that there was not yet serious distress among the workforce.¹² By December 1878, however, poor trading conditions were said to be responsible for a lamentable amount of poverty and distress in Birmingham, with people who had been unemployed for months forced to sell their possessions to survive.¹³ While Birmingham was not as badly affected as some other towns, its work-people were nonetheless suffering from a vast amount of real distress with the most fortunate only working part-time and even skilled workers unable to find any employment.¹⁴ On 17 December, Birmingham Council met to discuss the situation and concluded that ‘the distress now prevailing is exceptionally severe and widely spread, and that public relief has become absolutely necessary’.¹⁵ A relief fund was set up and a meeting of its organising committee on 6 January 1879 reported that, in the past few days, financial relief had been given to about 7,500 cases and several soup kitchens had been opened.¹⁶ The problems were thought to be caused not only by the ‘long-continued depression of trade’ but also by a severe winter which restricted outdoor working.¹⁷ Relief continued throughout January and February, and when the relief fund was wound up in March the organising committee reported that relief had been granted to 105,165 families, representing 494,731 people, although they did not say how many different families

¹¹ *The Birmingham Daily Post*, 12 February 1876, p. 6; *Aris’s Birmingham Gazette*, 12 August 1876, p. 6.

¹² *Post*, 6 November 1877, p. 4; *Aris*, 17 November 1877, p. 7.

¹³ *Post*, 16 December 1878, p. 4.

¹⁴ *Post*, 17 December 1878, p. 4.

¹⁵ *Post*, 18 December 1878, p. 4.

¹⁶ *Post*, 7 January 1879, p. 4.

¹⁷ *Post*, 9 January 1879, p. 4.

and people this comprised.¹⁸ The newspaper reports were confirmed by the Factory Inspector's report for 1879 which said that there was extreme depression in almost every industry in Birmingham, the relief fund was feeding thousands of unemployed artisans and labourers and many respectable men were glad to sweep the streets for small remuneration with which to buy food.¹⁹ It was not until 1880 that a gradual growth of business was reported in most of Birmingham's hardware trades, although even then substantial unemployment remained.²⁰

The Birmingham Chamber of Commerce's annual 'state of trade' reports for 1882, 1883 and 1884 said that the volume local industries' trade was generally satisfactory, although profits were poor due to increasing competition.²¹ However, by autumn 1884 the position was again deteriorating, with Birmingham's staple industries beginning to reduce their workforces.²² In January 1885, *The Birmingham Daily Post* published a letter in which the writer said that he had, that morning, witnessed poor artisans anxiously scanning the situations vacant columns in local papers.²³ An analysis of the *Post's* situations vacant section for the day on which the letter was written, 12 January, shows only seventeen vacancies for adult men in Birmingham's manufacturing industries, with most other vacancies either specifying women or young people or being in sectors such as retail.²⁴ On 15 January an estimated 4,000 unemployed men paraded through Birmingham to draw attention to the distress in

¹⁸ *Post*, 11 March 1879, p. 5.

¹⁹ *Chief Inspector of Factories and Workshops (hereafter CIFW) Report, October 1878-79; 1880* [C.2489], pp. 35-36.

²⁰ *Aris*, 24 July 1880, p. 6; *Post*, 18 September 1880, p. 6.

²¹ G. Henry Wright, *The Chronicles of the Birmingham Chamber of Commerce, A.D. 1813-1913* (Birmingham: Birmingham Chamber of Commerce, 1913), pp. 295, 300-301 and 306.

²² *Post*, 25 October 1884, p. 6.

²³ *Post*, 13 January 1885, p. 5.

²⁴ *Post*, 12 January 1885, p. 3.

the town.²⁵ *The Birmingham Daily Post* was in no doubt that the unemployment was due to slack trade in local manufacturing industries, rather than bad weather, and affected both artisans and labourers.²⁶ On 17 January Birmingham's Mayor set up a fund to provide work for the unemployed.²⁷ A stone-breaking yard was opened which, during the next month, provided an average three days' work for some 2,200 different men and bodies such as the Baths and Parks department gave work to about 200 more men.²⁸ Other independent organisations gave out soup and bread, with Birmingham's Vegetable Market distributing 700 loaves and 2,600 gallons of soup in its first week of operation.²⁹

In autumn 1885 the local press reported a series of meetings and demonstrations by Birmingham's unemployed asking for a relief fund to be set up, but the authorities did not consider that the position was sufficiently serious.³⁰ However, in February 1886 the Mayor accepted that the 'exceptional distress occasioned by the long continued depression in trade' justified setting up a fund to provide food and fuel for those who were suffering.³¹ By the end of March, a reduction in applications for relief coincided with a break-up of the frost, suggesting that the unemployment was partly due to bad weather rather than the depression, although the fund was not wound up for a further four months.³²

²⁵ *Post*, 16 January 1885, pp. 4 and 5.

²⁶ *Post*, 19 January 1885, p. 4.

²⁷ *Post*, 19 January 1885, p. 5.

²⁸ *Post*, 10 February 1885, p. 4.

²⁹ *Post*, 24 January 1885, p. 5.

³⁰ *Post*, 11 September 1885, p. 3; 18 September 1885, p. 7; 22 September 1885, p. 6.

³¹ *Post*, 24 February 1886, p. 5; 26 February 1886, p. 4.

³² *Post*, 27 March 1886, p. 5; 20 July 1886, p. 4.

In January 1887, the annual report of the Birmingham United Legal Friendly Burial Society described 1886 as ‘one of very great depression in almost every branch of industry, and great distress had prevailed amongst the working classes of which the society was very largely composed’.³³ However, by September 1887, the Birmingham Board of Guardians reported that the town’s industrial condition was now better than a few years previously, and that the depression did not ‘press very heavily just now upon the working classes’, although prices were low and business profits often reduced to vanishing point.³⁴ The improvement was confirmed by the Factory Inspector’s report for 1887, which said that, while some industries such as gun-making remained in extreme depression, Birmingham’s industries generally had enjoyed a revival during the preceding twelve months.³⁵ Three years previously (the report was published in 1888), the Inspector had been a member of a committee which ‘passed several hours daily considering the cases of a stream of half-starved men in terrible destitution from want of employment’ but that now no able-bodied unemployed men were seeking poor relief.³⁶

The improvement continued for the next few years, with Birmingham’s Chamber of Commerce reporting an increase in the volume of Birmingham’s trade in 1888 and a considerable and profitable improvement in its staple industries in 1889.³⁷ By the end of 1889, Birmingham’s Mayor claimed that trade was so good that many industries were struggling to recruit labour.³⁸ By the end of 1891, however, trade

³³ *Post*, 26 January 1887, p. 5.

³⁴ *Post*, 8 September 1887, p. 4.

³⁵ *CIFW Report, October 1886-87; 1888* [C.5328], p. 45.

³⁶ *CIFW Report, 1886-87*, p. 46.

³⁷ Wright, pp. 335 and 342.

³⁸ *Birmingham Daily Gazette*, 5 December 1889, p. 3.

was reported to be unusually quiet, and the Factory Inspector's report for 1892 said that Birmingham's trade had been very depressed throughout the year.³⁹ In January 1893 Birmingham's Public Works Committee decided that, although the number of unemployed was not large in relation to the city's population, teams of two hundred at a time would be organised to clear snow from the streets.⁴⁰ By the following winter it was reported that employment was fairly good in most Birmingham trades and that there was 'no exceptional amount of distress through want of work in Birmingham', although the city's hardware trades remained in a very languid state.⁴¹ The Factory Inspector's report for 1894 said that there was little or no improvement in Birmingham's trade with most local industries completely stagnated.⁴² However by 1896 it was reported that 'at every company meeting the directors talk of an improvement of trade' and the Birmingham Chamber of Commerce said that an air of cheerfulness pervaded most branches of local industry with very encouraging prospects for 1897.⁴³

Individual businesses

In *The Myth of the Great Depression*, Saul said that he had been discussing a macroeconomic question related to the economy as a whole, but that specific industries and firms must be examined if questions about the period were to be answered fully.⁴⁴ The records of four Birmingham businesses are examined here as examples of how the 'great depression' was experienced by individual undertakings.

³⁹ *Post*, 19 December 1891, p. 6; *CIFW Report, 1891-92; 1893-94* [C.6978], p. 107.

⁴⁰ *Post*, 16 January 1893, p. 4.

⁴¹ *Post*, 26 December 1893, p. 4; 19 January 1894, p. 4; 27 January 1894, p. 6.

⁴² *CIFW Report, 1894; 1895* [C.7745], p. 218.

⁴³ *Birmingham Mail*, 9 March 1896, p. 2; Wright, p. 392.

⁴⁴ S.B. Saul, *The Myth of the Great Depression, 1873-1896* (London: MacMillan, 1969), p. 52.

As Eric Probert has observed, the survival of business records which pre-date the 1930s is not high, and the number and range of available records for Birmingham's industrial businesses are not sufficient for them to be treated as necessarily representative of its industries in the 'great depression'.⁴⁵ They tend to be for larger firms which employed bookkeepers. Nonetheless, they allow more generalised understandings of the period to be tested against the experiences of actual businesses.

Richard Cadbury Gibbins and Company was established in 1869 as engineers and crane-makers; figure 3.1 is an advertisement from 1870 which shows the range of its products.⁴⁶ Their main premises were in Berkley Street, but in 1873 they opened a second site in nearby Sherborne Street.⁴⁷ These locations, and others in central Birmingham referred to in this paper, are shown on the street plan in the appendix. Gibbins' surviving records, which comprise two ledgers, are particularly valuable as they include detailed profit and loss accounts for 1870-1900, covering the 'great depression' period and the years immediately before and after.

⁴⁵ Eric D. Probert, *Company and Business Records for Family Historians* (Birmingham: The Federation of Family History Societies, 1994), p. 7.

⁴⁶ Graces Guide to British Industrial History <https://www.gracesguide.co.uk/Richard_C._Gibbins_and_Co> [accessed 9 July 2018]; Birmingham Archives and Heritage, Birmingham (hereafter BAH), Richard Cadbury Gibbins and Company: private ledger 1870-1886 (MS 665), private ledger 1887-1900 (MS 787).

⁴⁷ BAH, MS 665.

Figure 2.1: Richard Cadbury Gibbins and Company, 1870 advertisement (Source: Graces Guide⁴⁸)

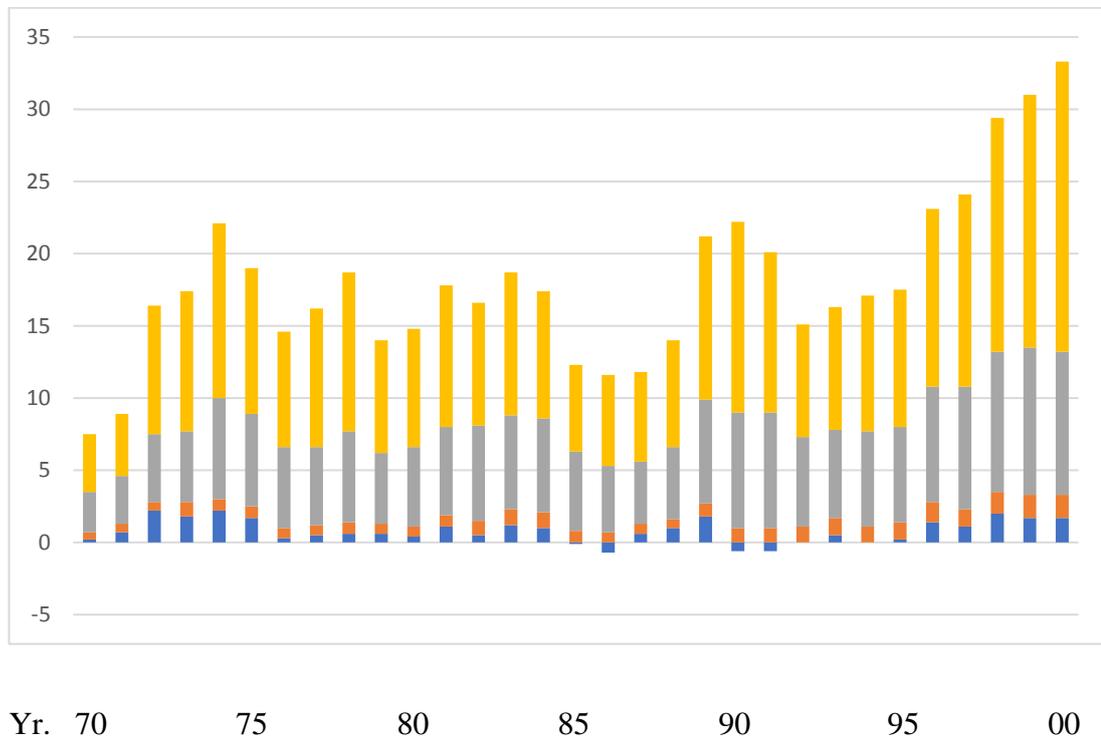
IMAGE REDACTED

Figure 2.2 shows the company's annual results for the years from 1870 to 1900. The top of each column represents sales for the year, the yellow shading is cost of sales (mainly materials and power), grey is wages and salaries, orange is other expenses and blue is net profit or loss.

⁴⁸ Graces Guide to British Industrial History
<https://www.gracesguide.co.uk/Richard_C_Gibbins_and_Co> [accessed 16 December 2018].

Figure 2.2: Richard Cadbury Gibbins and Company: Annual results, 1870-1900
 (Source: Birmingham Archives and Heritage, Birmingham (BAH)⁴⁹)

£000



The company's sales follow the pattern outlined in part one of this chapter, with reductions starting in the mid-1870s, mid-1880s and early 1890s. Its net profits in most years between 1876 and 1895 were very small, averaging only 2.65 percent of sales, with losses in the mid-1880s and early 1890s. Wages and salaries averaged 35.24 percent for the period as a whole, but averaged 43.65 percent in 1885-1886, giving some support for the Royal Commission's view (see chapter one) that wages were taking a higher proportion of business income.

⁴⁹ BAH, MS 665 and 787.

Ralph Heaton and Sons was established in 1829 and was run by the Heaton family until 1889 when a limited company, The Mint, Birmingham, Limited, was established to take over its business.⁵⁰ It was based in Icknield Street, Birmingham and manufactured coins, claiming to be the largest private mint in the world, machinery for making coins, and various brass and copper goods.⁵¹ The business's available records include a ledger which gives its trading accounts for the years 1882 to 1888, the years immediately before it became a limited company, together with newspaper reports of its profits from 1889 to 1894.⁵² However, the profits were reported not for periods of twelve months each, but for varying periods ranging from nine months to forty-five months. Table 2.1 below shows the net profit for each period, together with the average profit per month, calculated by dividing the profit for each period by the number of months in the period.

⁵⁰ *Post*, 27 March 1889, p. 6.

⁵¹ *Post*, 27 March 1889, p. 6.

⁵² BAH, Ralph Heaton and Sons, ledger 1881-1888, MS 1010/4.

Table 2.1: Ralph Heaton and Sons/The Mint (Birmingham) Limited: Net profits for 1882-1894 (Source: BAH and *The Birmingham Daily Post*)⁵³

Period	Profit/(loss) for period - £	Length of period in months	Profit/(loss) per month - £
1.1.82-31.3.83	1,246	15	83
1.4.83-31.12.83	(7,102)	9	(789)
1.1.84-31.3.85	(4,871)	15	(325)
1.4.85-31.12.88	27,071	45	602
1.1.89-31.3.89	1,069	3	356
1.4.89-31.12.89	1,500	9	167
1.1.90-31.12.90	13,503	12	1,125
1.1.91-31.12.91	11,893	12	991
1.1.92-31.3.93	6,788	15	453
1.4.93-31.3.94	5,502	12	458

Heaton's business also suffered in the mid-1880s, making losses in the two years to 31 March 1885. However, in the early 1890s, when other businesses were suffering, its profits were especially good. This may have been due to an order for 3,125,000 silver coins for Hong Kong which it received in autumn 1889.⁵⁴

Nettlefolds was one of Birmingham's biggest companies, employing about 3,000 people by 1914.⁵⁵ It had several divisions, including a steel-works in South Wales, but its main activity was the production of wood-screws for the building trade at

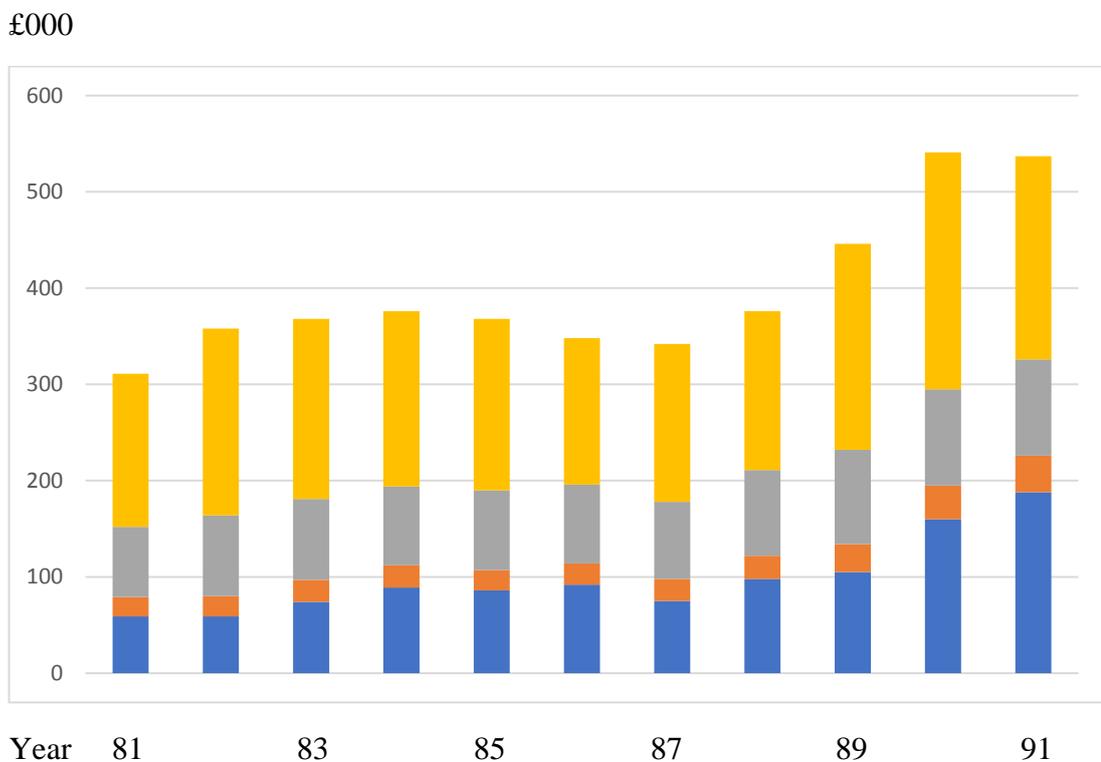
⁵³ BAH, MS 1010/4; *Post*: 21 February 1890, p. 6; 14 March 1891, p. 6; 3 March 1892 p. 6; 31 May 1893, p. 6; 26 June 1894, p. 6.

⁵⁴ *Post*, 28 September 1889, p. 6.

⁵⁵ Hopkins, p. 39.

several sites in and around Birmingham.⁵⁶ In 1880 it became a public limited liability company.⁵⁷ Its available records include a private ledger which gives trading accounts for its screws division from 1881 to 1891, and these are summarised in figure 2.3. The colour coding for the columns is the same as for Gibbins.

Figure 2.3: Nettlefolds Limited: Trading accounts, screws division, 1881-1891 (Source: BAH)⁵⁸



The figures include the mid-1880s when Gibbins and Heaton both made losses, but Nettlefolds appears to have been unaffected by the depression. One reason was that, after the 1870s, Britain's building industry stopped following normal business cycles and became influenced by the ratio between home and overseas investment which,

⁵⁶ Edgar Jones, *A History of GKN, Volume 1: Innovation and Enterprise, 1759-1918* (Basingstoke: Macmillan, 1987), p. xxxiii.

⁵⁷ Jones, p. xxxiii.

⁵⁸ BAH, Nettlefolds Limited, private ledger – screws 1881-1891 (MS 298/1/6).

for example, gave a small peak to housebuilding in 1889.⁵⁹ In addition, Nettlefolds' size and the funds raised by its flotation allowed it to eliminate domestic competition by buying its rivals, such as the Birmingham Screw Co, and to enter into a cartel arrangement with competitors in France, Belgium and Germany to avoid a price war.⁶⁰

Perry and Company was also a large company, employing about 1,500 people by 1914.⁶¹ It became a limited company in 1876, manufacturing pens in Lancaster Street.⁶² Its annual profits for 1876 to 1894, as published in the local press, are shown in figure 2.4. The figures should be treated cautiously because, as Julian Mason has observed, businesses' published results can be misleading as they are 'the result of a refining process involving both adjustments and selective omissions'.⁶³ Nonetheless it seems clear that, as with Nettlefolds, Perry was not significantly affected by the depression. Two reasons for this were that Birmingham's pen manufacturers, including Perry, enjoyed a near monopoly on pen production in the 1880s, with practically no rivals either domestically or on the Continent, and the spread of education gave a steadily rising demand for pens.⁶⁴

⁵⁹ Jones, pp. 211-212.

⁶⁰ Jones, pp. 200 and 230-231.

⁶¹ Hopkins, p. 39.

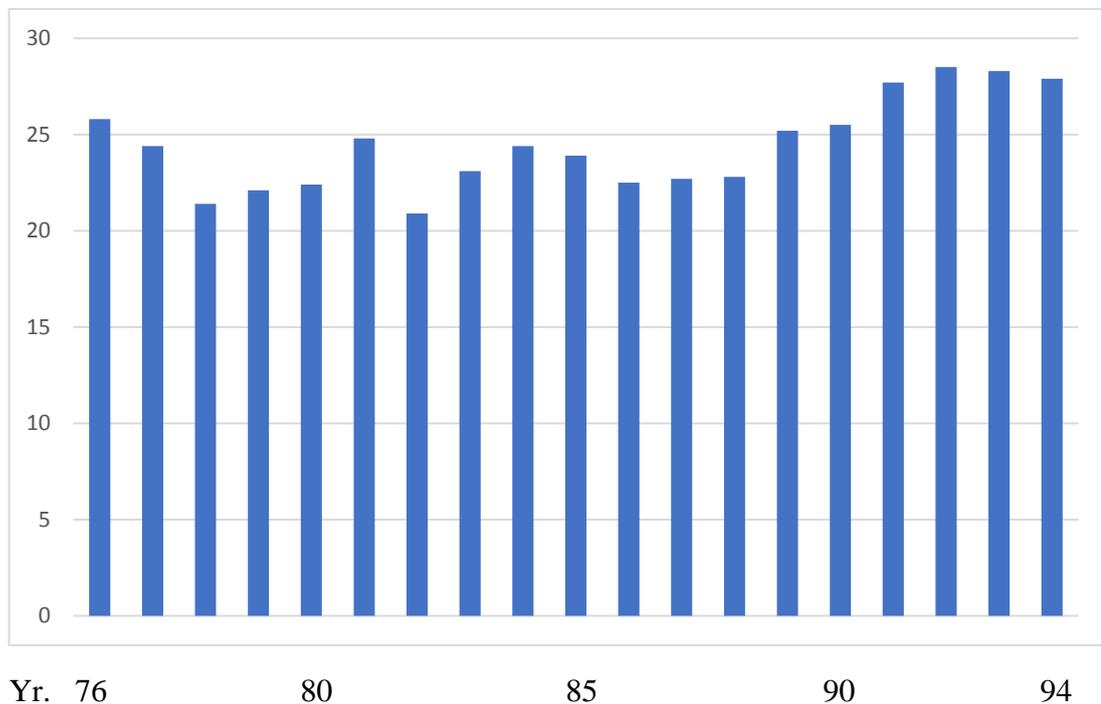
⁶² *Return of Names, Places of Business, Date of Registration, Nominal Capital and Number of Shares of Joint Stock Companies, June 1875-76; 1876 (443)*, p. 44, no. 670.

⁶³ Julian Mason, 'Accounting Records and Business History', *Business History*, 24 (1982), 293-299 (p. 293).

⁶⁴ Allen, pp. 224-225.

Figure 2.4: Perry and Company: Net profits before dividends, 1876-1894 (Source: *The Birmingham Daily Post*)⁶⁵

£000



Summary

The differing results for the four businesses summarised in this chapter show the difficulties of making generalised statements about the effects of the great depression on Birmingham's industries. However, newspaper and Factory Inspector's reports of distress among Birmingham's unemployed, details of relief programmes to help relieve the distress, and reports of trade stagnation, show that Birmingham's industries suffered three periods of depression between 1873 and 1896, from 1877-1880, 1884-1887 and 1892-1894, with intervening periods of recovery, which broadly follows the national pattern described by Musson in chapter one. However,

⁶⁵ *Post*, 21.2.77, p. 6; 16.2.78, p. 6; 17.2.79, p. 6; 16.2.80, p. 6; 23.2.81, p. 6; 14.2.82, p. 6; 14.2.83, p. 6; 19.2.84, p. 6; 21.2.85, p. 6; 16.2.86, p. 6; 15.2.87, p. 6; 14.2.88, p. 6; 12.2.89, p. 6; 18.2.90, p. 6; 17.2.91, p. 6; 16.2.92, p. 6; 22.2.93, p. 6; 12.2.94, p. 6; 11.2.95, p. 6.

it is important to put the distress reported in Birmingham into context. As explained above, for example, in January 1885 an estimated 4,000 unemployed men paraded through Birmingham but this represented only 3.34 percent of the male work-force.⁶⁶

⁶⁶ *Post*, 16 January 1885, pp. 4 and 5; *Census 1881*, pp. 255-262.

Chapter 3 – Gun and jewellery making

Chapter three analyses the fortunes of two of Birmingham's staple manufacturing industries, guns and jewellery. Both were seriously affected by the depression, and this chapter analyses the extent and the different causes of their difficulties.

Gun-making

Birmingham's gun-making comprised two distinct branches: military and sporting. Until the 1860s, both types of gun were made almost entirely by hand in small workshops which were concentrated in an area to the north of the town centre.¹ Master gun-makers financed and co-ordinated production of the components between more than forty occupational categories, and the parts were assembled into the finished product by a 'setter-upper'.² Sporting guns continued to be made in this way, but in the 1850s the Government had decided that all small-arms (rifles and pistols) for the British military should, in future, be made by machine and have interchangeable parts and this method was adopted by the Royal Small Arms Factory at Enfield, London.³ In response several Birmingham gun-makers combined in the 1860s to form the Birmingham Small Arms Co. (BSA) which set up a factory in

¹ Roger Lumley, 'The American System of Manufactures in Birmingham: Production Methods at the Birmingham Small Arms Co. in the Nineteenth Century', *Business History* 31 (1989), 29-43 (p. 29); Eric Hopkins, *Birmingham: The Making of the Second City, 1850-1939* (Stroud: Tempus, 2001), pp. 13 and 34.

² Lumley, p. 29.

³ Lumley, p. 29.

Small Heath, east Birmingham, to make guns by machine with interchangeable parts so that they could continue to supply Britain's military.⁴

Allen considered that the great depression was disastrous for gun-making in Birmingham.⁵ In his history of the Birmingham gun trade, David Williams blamed its decline on mechanisation, which eroded the value of traditional craft skills, competition from Belgium and the United States, and barriers such as America's protectionist McKinley Tariff.⁶ Birmingham's gun trade is examined here by first analysing three quantitative sources: the numbers of gun barrels 'proved' in Birmingham, censuses and historical directories.

Figure 3.1 shows the numbers of gun barrels tested (proved) at the Birmingham Proof House in each year from 1870 to 1900, as reported at the annual meetings of the members of Birmingham's gun trade. Sales for 1870 and 1871 were inflated by the Franco-Prussian war and the number of barrels proved in Birmingham is not exactly the same as the number of guns made as it excludes rifles made for the British Government which proved its own weapons.⁷ Nonetheless, despite a temporary recovery in the early 1880s, Birmingham's gun trade appears to have declined significantly in the period, from 756,000 barrels proved in 1873 to 324,000 proved in 1896. The members of Birmingham's gun trade attributed this reduction mainly to increased gun production in Belgium, whose workers were prepared to

⁴ Lumley, pp. 29 and 39.

⁵ G.C. Allen, *The Industrial Development of Birmingham and the Black Country, 1860-1927* (London: George Allen and Unwin, 1929), p. 220.

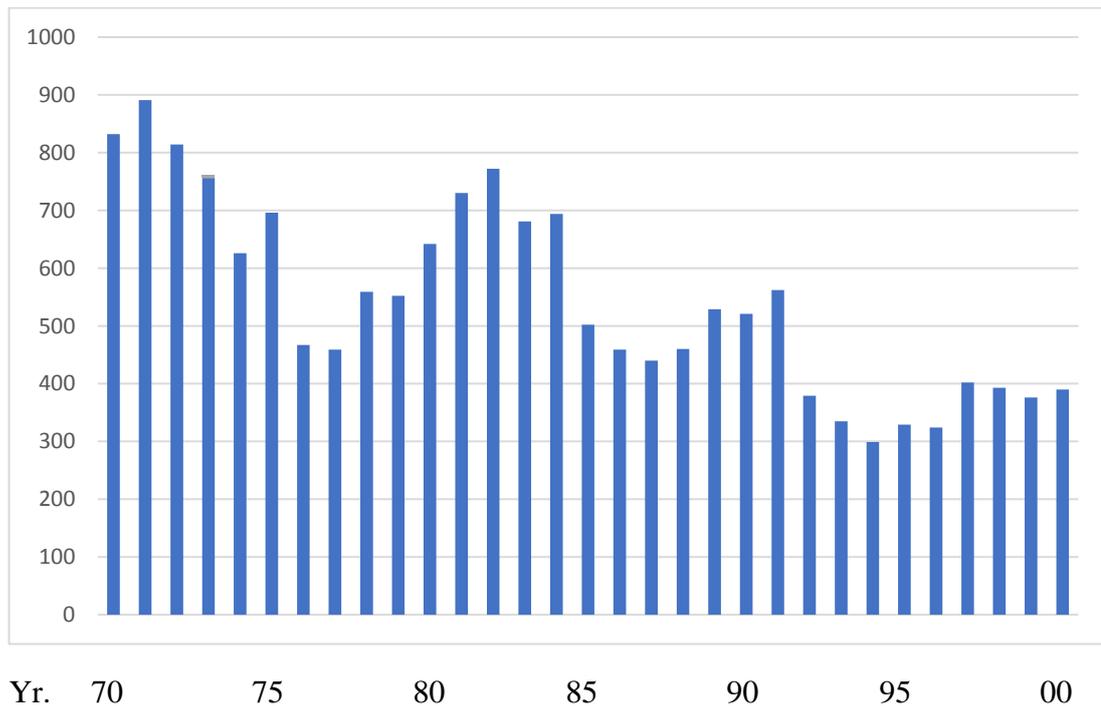
⁶ David Williams, *The Birmingham Gun Trade* (Stroud: Tempus, 2004), p. 140.

⁷ *Post*, 8 May 1873, p. 6; 2 May 1894, p. 4.

work longer hours for less pay than those in Birmingham.⁸ In 1871 the number of proofs in Birmingham exceeded those in Liège in Belgium by 36 percent but by 1881 the figures had reversed.⁹

Figure 3.1: Numbers of gun barrels ‘proved’ in Birmingham, 1870-1900 (Source: Local newspapers)¹⁰

1000s of barrels



The decline is also reflected in a reduction in the numbers of people recorded in the decennial censuses as being employed in Birmingham’s gun trade as shown in table 3.1. The census figures should be treated cautiously as information was not presented consistently from one census to the next. The 1871 census only showed

⁸ *The Birmingham Daily Post (hereafter Post)*, 6 May 1886, p. 6; 7 May 1890, p. 4; 2 May 1894, p. 4; *Sheffield Independent*, 5 May 1897, p. 6.

⁹ *Post*, 4 May 1881, p. 6.

¹⁰ *Post*, 8.5.73, p. 6; 5.5.75, p. 7; 2.5.77, p. 7; 5.5.80, p. 6; 4.5.81, p. 6; 6.5.85, p. 6; 6.5.86, p. 6; 8.5.89, p. 7; 6.5.91, p. 6; 2.5.94, p. 4; 2.5.1900, p. 7; *Birmingham Mail*, 3.5.84, p. 2; 5.5.96, p. 3; *Sheffield Independent*, 5.5.97, p. 6; *Birmingham Daily Gazette*, 8.5.1901, p. 2.

occupations for Birmingham’s inhabitants who were aged twenty and above, the 1881 census did not specify an age range and the censuses for 1891 and 1901 showed the occupations of those aged ten and above. The censuses from 1871 to 1891 showed separately several branches of arms manufacture but the 1901 census showed ‘arms’ as a single category. Subject to this, the figures show a twenty-eight percent reduction between 1871 and 1901, almost all of which occurred between 1871 and 1881.

Table 3.1: Numbers employed in Birmingham’s gun trade, 1871-1901 (Source: Decennial censuses)¹¹

Year of census	Numbers of people employed
1871	4920
1881	3601
1891	3903
1901	3533

A decline is also indicated by the numbers of gun-making businesses recorded in historical directories for 1872 and 1896. These figures should also be viewed cautiously as directories only show the numbers of businesses, not their size. However, the reduction in firms listed from 593 in 1872 to 355 in 1896 supports the conclusion that gun-making in Birmingham suffered a serious decline in the great depression period.¹²

¹¹ *Census of England and Wales (hereafter Census) 1871 Volume III; 1873 [C.872], pp. 333 and 337; Census 1881 Volume III; 1883 [C.3722], p. 258; Census 1891 Volume III; 1893-94 [C.7058], p. 267; Census 1901 (63 Vict. c.4) County of Warwick; 1902 [Cd. 1175], p. 60.*

¹² *The Post Office Directory of Birmingham, Staffordshire, Warwickshire and Worcestershire, 1872* (London: Kelly, 1872), pp. 414-417; *Kelly’s Directory of Birmingham, Staffordshire, Warwickshire and Worcestershire, 1896* (London: Kelly, 1896), pp. 682-683.

This decline was also reflected in the local press. In 1876, Birmingham's newspapers began to report a serious depression in the gun trade, with military gun-making said to be at a standstill.¹³ By 1877, both branches of gun-making were reported to be very depressed, with thousands of military rifles stock-piled and available at a fraction of their cost.¹⁴ The trade continued to be very depressed in 1878, with a lack of Government orders for military guns, even though the Enfield factory was in full operation, and business in cheap sporting guns had 'drifted now entirely to Belgium'.¹⁵ The Factory Inspector's report for 1879 said that there had been 'little doing for several years' in the military branch, but in 1880 he was able to report improved sales of sporting guns. The improvement, particularly in sporting guns for the American market, continued in the early 1880s, confirming the trend shown by the increased number of barrels being proved. In 1881 there was 'no scarcity of employment among the makers of cheap guns for the American market', in 1882 gun-makers were 'well employed for the American market', and in 1883 gun-makers were 'mostly busy for the United States market'.¹⁶ However, by 1884 the sporting gun branch had become exceedingly quiet, with some men put on short-time working, and the military branch was short of orders.¹⁷

When giving evidence in 1885 to the Royal Commission investigating the depression, Birmingham's representatives said that Birmingham's gun trade had

¹³ *Post*, 1 July 1876, p. 6; 29 July 1876, p. 6.

¹⁴ *Post*, 28 April 1877, p. 6; 27 October 1877, p. 6; 17 November 1877, p. 6; 29 December 1877, p. 6.

¹⁵ *Post*, 11 May 1878, p. 6; 3 August 1878, p. 6.

¹⁶ *Post*, 12 March 1881, p. 4; 28 January 1882, p. 6; 2 June 1883, p. 6.

¹⁷ *Post*, 21 June 1884, p. 6; 19 July 1884, p. 6.

declined greatly.¹⁸ Its production of high-class sporting guns was, they thought, unaffected, but the Enfield factory was taking a large part of the military gun market, makers of military guns were struggling to compete with large American factories and Belgian manufacturers were taking a large share of the market in cheaper guns.¹⁹ By 1887 the gun trade was reported to be exceptionally depressed, owing mainly to a lack of American demand for cheap guns, and the Birmingham factory inspector's report for 1887 claimed that over half the workers in the industry were unemployed with most of the rest working short-time.²⁰ The Inspector's report for 1888, however, said that unemployment in the gun trade was much reduced and, for the next few years trade was reported to be generally steady, described as fairly active and in most cases busy, although American sales were affected by the new McKinley tariff on imported goods.²¹ In 1893, however, the sporting gun trade was again said to be very depressed and employees at a government factory in Sparkhill, Birmingham were only working part-time.²² At the end of 1895, when Birmingham's general industrial depression was coming to an end, it was reported that the loss to Belgian competitors of the American trade in cheap guns was causing numbers of Birmingham gun-makers to seek alternative employment.²³

¹⁸ *Second Report of the Royal Commission Appointed to Inquire into the Depression of Trade and Industry*; 1886 [C.4715], p. 26, para. 1532.

¹⁹ *Second Report*, p. 26, paras. 1534, 1536, 1540 and 1541.

²⁰ *Post*, 10 September 1887, p. 6; *Chief Inspector of Factories and Workshops (hereafter CIFW) Report, October 1886-87*; 1888 [C.5328], p. 46.

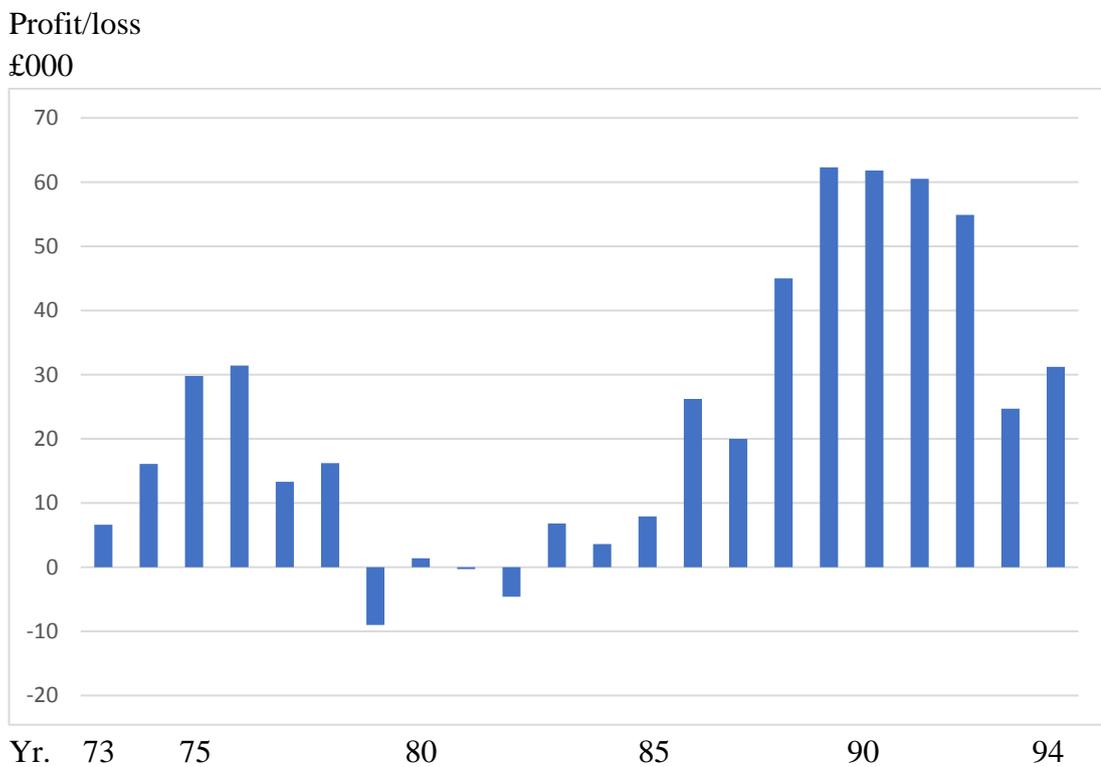
²¹ *CIFW Report, October 1887-88*; 1889 [C.5697], p. 127; *Post*, 9 February 1889, p. 6; 8 August 1891, p. 6.

²² *Post*, 30 September 1893, p. 6;

²³ *Post*, 31 December 1895, p. 4.

BSA was Birmingham’s main producer of military guns in the great depression period.²⁴ Its annual accounts for the years 1873-1887 (except 1883 and 1886) are available in Birmingham Archives and Heritage, Birmingham (hereafter BAH) and its profits for the remainder of the period were reported in *The Birmingham Daily Post*. Its profits and losses are shown in figure 3.2.

Figure 3.2: BSA: Net profits/losses, 1873-1894 (Source: BAH; *The Birmingham Daily Post*)²⁵



BSA made modest profits from 1873 to 1878 and losses or small profits from 1879 to 1885. Its profits then improved to a peak in 1889-1892 before falling back again.

The Directors’ Report for 1879 explained that the main factory at Small Heath had

²⁴ Williams, pp. 96-98.

²⁵ BAH, Smythe Etches and Co., annual reports of the Birmingham Small Arms Company, 1873-1887, MS 3375/1/35/2; *Post*, 6.9.83, p. 6; 19.8.86, p. 6; 29.8.88, p. 6; 28.8.89, p. 6; 27.8.90, p. 6; 26.8.91, p. 6; 24.8.92, p. 8; 24.8.93, p. 6; 30.8.94, p. 6.

been at a standstill for ten months due to a shortage of orders and the 1880 report said that the shortage was continuing and that the company had started using its unused machinery to make bicycles.²⁶ The 1881 report said that the directors had hoped the company would receive a more ‘liberal share’ of Governments orders but this had not happened, and the 1882 report blamed the loss on the heavy cost of maintaining the factory and disappointing bicycle sales.²⁷ By 1889, however, the directors reported full employment on production of the Martini-Henry rifle and in 1891 it began to make its successor, the Lee-Metford magazine rifle.²⁸ Profits for 1893 were reduced because production at Small Heath had to be suspended while machinery was prepared for the mark II Lee-Metford rifle but orders for these from the British War Department kept Small Heath busy throughout 1894.²⁹

Few records are available for Birmingham’s sporting-gun makers. However, two sales ledgers are available for James Carr and Sons, St. Mary’s Row which include its sales for 1891 to 1897. Its annual sales are listed in table 3.2, and they suggest that the company avoided the depression of the early 1890s in the sporting-gun trade, showing that not all businesses were affected in the same way.

²⁶ BAH, MS 3375/1/35/2.

²⁷ BAH, MS 3375/1/35/2.

²⁸ *Post*, 28 August 1889, p. 6; 26 August 1891, p. 6.

²⁹ *Post*, 24 August 1893, p. 6; 30 August 1894, p. 6.

Table 3.2: James Carr and Sons: Annual Sales 1891-1897 (Source: BAH)³⁰

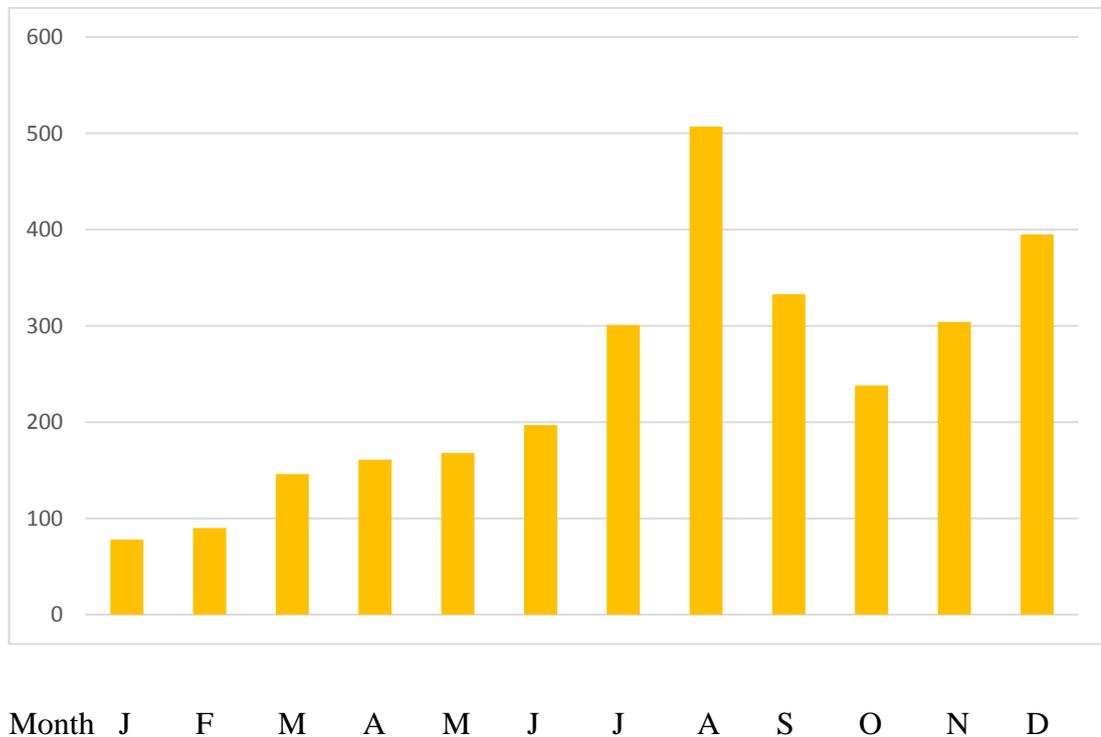
Year	Annual sales - £
1891	2,588
1892	3,023
1893	2,974
1894	3,002
1895	3,069
1896	2,537
1897	3,225

Carr's average monthly sales over the period, shown in figure 3.3, demonstrate the sporting-gun trade's seasonal nature, based around the domestic shooting season which began in August. This shows the vulnerability of the trade to an unexpected downturn. In order to spread production over the year, gun-makers would have to manufacture guns in the first half of each year for sale in the second. This would cause difficulties if sales proved to be less than expected as the manufacturers would have incurred costs making guns which they could not sell

³⁰ BAH, James Carr and Sons, sales ledgers 1891-1897 MS 88/1-2.

Figure 3.3: James Carr and Sons: Average monthly sales 1891-1897 (Source: BAH)³¹

Sales - £



Jewellery-making

In 1886 Birmingham hosted a meeting of the British Association, and a handbook was produced to give its members information about the town including details of its jewellery trade.³² It estimated that 14,000 to 16,000 people in Birmingham actively worked in the trade, and that 40,000 to 50,000 people locally were dependent on it.³³

Production was mainly in one area, just to the north-west of the town centre, and although there were some large businesses there were also many ‘garret-masters’

³¹ BAH, MS 88/1-2.

³² John Bragg, ‘Jewellery’, *Handbook of Birmingham* (1886), pp. 187-191.

³³ Bragg, p. 188.

employing one, two or three people.³⁴ Use of the hand-operated lathe, draw bench, die stamp and press was increasing but skilled workmanship continued to be very important.³⁵ Manufacturing jewellers sold their products to middle-men, of whom there were about fifty in Birmingham, who sold them on to retailers.³⁶

In his 1887 report, the Factory Inspector said that Birmingham's jewellery trade had probably suffered more than any other from the depression of the last few years.³⁷

Shena Mason, in her history of jewellery making in Birmingham, agreed that the trade suffered a serious depression from 1875 to 1884, but said that the second half of the nineteenth as a whole saw a huge expansion in Birmingham's jewellery production.³⁸

Tables 3.3 and 3.4 give quantitative information about Birmingham's jewellery trade. Table 3.3 shows the numbers of people working in the 'goldsmith, silversmith, jeweller' category in the decennial censuses from 1871 to 1901 and table 3.4 shows the number of businesses listed in historical directories for 1872 and 1896 for the main branches of the jewellery trade, defined for this purpose as the branches for which at least thirty businesses were listed in at least one of the years.

³⁴ Bragg, p. 188.

³⁵ Bragg, p. 190.

³⁶ Bragg, p. 191.

³⁷ *CIFW Report 1886-87*, p. 48.

³⁸ Shena Mason, *Jewellery Making in Birmingham, 1750-1995* (Chichester: Phillimore, 1998), pp. 71 and 75.

Table 3.3: Numbers employed in Birmingham as goldsmiths, silversmiths and jewellers, 1871-1901 (Source: Decennial censuses)³⁹

Year of census	Males employed	Females employed	Total employed
1871	3394	621	4015
1881	5423	2331	7754
1891	4077	1450	5527
1901	5239	2767	8006

Table 3.4: Numbers of jewellery businesses in selected sectors in 1872 and 1896 (Source: Historical directories)⁴⁰

Branch	1872	1896
Chasers (engravers etc)	56	60
Goldsmiths	33	37
Gold etc chain makers	50	41
Jewellers	436	396
Jewellery factors etc	54	40
Lapidaries (gem workers)	32	9
Ring makers – gold etc	20	45
Silversmiths	49	69
Totals	730	697

The census figures show that the numbers employed doubled between 1871 and 1901. This is more than can be accounted for by the increase in Birmingham's population, which is discussed in chapter four, and supports Mason's view that Birmingham's jewellery trade expanded in the second half of the nineteenth century. However, the figures at both 1881 and 1891 are substantially higher than the 1871 figure which does not support Mason's claim that the industry suffered a serious depression between 1875 and 1884. The directories' figures show some changes for particular branches, such as silversmiths which increased by forty-one percent, but

³⁹ *Census 1871 Volume III*; 1873 [C.872], pp. 335 and 338; *Census 1881 Volume III*; 1883 [C.3722], p. 262; *Census 1891 Volume III*; 1893-94 [C.7058], p. 271; *Census 1901 (63 Vict. c.4) County of Warwick*; 1902 [Cd. 1175], p. 61.

⁴⁰ *Post Office Directory of Birmingham, 1872*; *Kelly's Directory of Birmingham, 1896*.

the total figures show a small reduction between 1872 and 1896, rather than the increase which Mason's comments would suggest. The discrepancy may be partly explained by the nature of Birmingham's jewellery trade. In his analysis of the trade, Bragg said that the names of many jewellery garret-masters did not appear in directories which would not, therefore, reflect changes in their numbers.⁴¹ Setting up in the jewellery trade required only 'a leather apron, a few tools, a blowpipe, and a bench set at the top of the house, where the light was strongest, together with a few gold sovereigns', and these modest requirements may have allowed jewellery workers to keep their tools when work was scarce and to continue to regard themselves as 'jewellers' for census purposes.⁴² While the figures do not altogether support Mason's analysis, therefore, they do not necessarily prove it to be wrong.

In 1875 the local press reported what appears to have been a rapid deterioration in Birmingham's jewellery trade which, by May, had 'rarely been in so hopelessly depressed a state as at present'.⁴³ In 1876 the trade was reported to remain in a 'very languid state', with one leading firm reported to have reduced its workforce from 120 to twenty during the previous twelve months, and at the end of the year jewellers were 'still in a very bad way' due both to business stagnation and business failures in the sector.⁴⁴ An example of the potential effects of business failures on Birmingham's jewellery manufacturers was reported in 1875, when a Canadian

⁴¹ Bragg, pp. 187-188.

⁴² Francesca Carnevali, 'Golden Opportunities: Jewelry Making in Birmingham between Mass Production and Speciality', *Enterprise & Society* 4 (2003), 272-298 (p. 277), adapted from J.S. Wright, 'The Jewellery and Gilt Toy Trades', in *The Resources, Products and Industrial History of Birmingham and the Midland Hardware District*, ed. by Samuel Timmins (London: Robert Hardwicke, 1866), pp. 452-462 (p. 454).

⁴³ *Post*, 29 May 1875, p. 6.

⁴⁴ *Post*, 18 March 1876, p. 6; 30 December 1876, p. 6.

wholesale jeweller, most of whose creditors were in Birmingham, failed with net liabilities of £7,500.⁴⁵ In December 1877, the *Birmingham Daily Post* analysed Birmingham's jewellery trade for the preceding twelve months.⁴⁶ Most jewellers had, it said, been working short hours, many had no work at all and others had looked to other industries for work. It attributed this to the wider depression which had reduced the demand for luxuries, including jewellery, jewellery that was being sold often comprised cheap, machine-made items and silver jewellery had largely replaced gold. In 1878, the jewellery trade was reported to be 'unexceptionally gloomy', with failures among retailers and wholesalers causing difficulties for manufacturers.⁴⁷ The trade continued to be generally depressed in 1879, with a scarcity of orders and prices 'ruinously low', although there were signs that the market for silver jewellery was improving.⁴⁸ The Factory Inspector's report for 1879 confirmed that Birmingham's jewellery trade had been characterised by 'great and exceptional dullness' during the past two years.⁴⁹

During the next few years, newspaper reports said that Birmingham's jewellery trade continued to be generally quiet.⁵⁰ Then in 1885 the *Birmingham Daily Post* published an article on 'The Depression in the Jewellery Trade' which described its state as deplorable.⁵¹ It said that average manufacturers were paying no more than three days wages each week and that two to three hundred unemployed men were

⁴⁵ *Post*, 23 October 1875, p. 6.

⁴⁶ *Post*, 19 December 1877, p. 4.

⁴⁷ *Post*, 9 February 1878, p. 6.

⁴⁸ *Post*, 17 May 1879, p. 6; 13 September 1879, p. 8.

⁴⁹ *CIFW Report, October 1878-79; 1880* [C.2489], p. 17.

⁵⁰ *Post*, 6 November 1880, p. 6; 24 September 1881, p. 6; 9 September 1882, p. 6; 8 September 1883, p. 6.

⁵¹ *Post*, 27 July 1885, p. 4.

being supported by provident-society funds. One manufacturer was reported to have reduced its workforce from 200 to forty-five during the preceding three years and another from fifty to six. The main causes of the trade's difficulties were thought to be the general economic depression and over-production due to the increasing use of machinery. Two years later several of Birmingham's jewellery manufacturers met to discuss the industry's continuing depression and claimed that thousands were unemployed because it had become unfashionable to wear ornate jewellery.⁵² They decided to seek the help of the Princess of Wales to make jewellery fashionable again and she selected pieces of Birmingham-made jewellery for morning wear.⁵³ Later that year the jewellers decided to form an association to represent their collective interests, revive the trade and, as discussed in chapter four, establish a jewellery school.⁵⁴

1887 proved to be a turning point for Birmingham's jewellery manufacturers. The Factory Inspector's report for 1888 said that they had 'more occupation than for years past' and his 1889 report said of Birmingham's jewellery industry that 'there is more doing now than there has been for the last nine or ten years.'⁵⁵ The death of Queen Victoria's grandson, the Duke of Clarence, in 1892 temporarily checked the demand for jewellery, but by 1895 it was reported that several jewellery firms were working overtime and none were working short-time.⁵⁶

⁵² *Post*, 19 May 1887, p. 6.

⁵³ *Post*, 16 July 1887, p. 6.

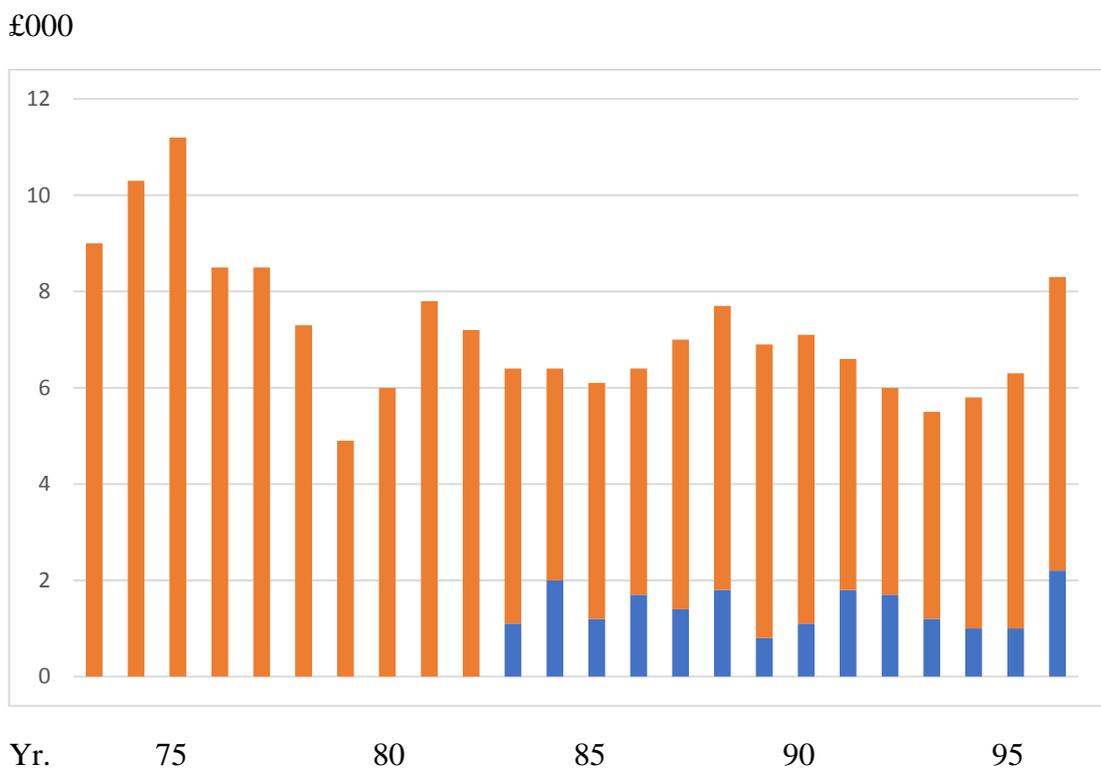
⁵⁴ *Post*, 4 August 1887, p. 5.

⁵⁵ *CIFW Report 1887-88*, p. 137; *CIFW Report October 1888-89; 1890* [C.6060], p. 32.

⁵⁶ *Post*, 23 January 1892, p. 6; 16 October 1895, p. 5.

Birmingham Archives and Heritage contains few business records for Birmingham’s manufacturing jewellers. The most complete are for Joseph and Colbran Wainwright of Warstone Lane which include its sales for the years 1873 to 1896 and its profits for 1883 to 1896. These are shown in figure 3.4. The top of the orange columns shows sales and the blue shows profits.

Figure 3.4: Joseph and Colbran Wainwright: Sales 1873-1896 and profits 1883-1896 (Source: BAH)⁵⁷



Wainwright’s sales fell by more than half between 1875 and 1879, from £11,244 to £4,937, but they quickly recovered and from 1881 to 1891 they were between £6,146 and £7,832. They dipped again in the early 1890s. However, the business made profits in every year for which figures are available. The figures show that

⁵⁷ BAH, Joseph Wainwright and Colbran J. Wainwright, account books 1873-1896, MS 2717/1/1/1-2.

Wainwrights' business suffered in the depression of the late 1870s, but that their sales and profits were broadly constant for the rest of the period.

Summary

The analyses of Birmingham's gun and jewellery trades show that both suffered in the great depression but for different reasons. The fortunes of the military gun trade depended on government decisions on where to place orders, the development of new weapons and orders placed in times of war. The sporting-gun trade suffered as a result of increasing foreign competition and overseas tariffs. However, the difficulties in the jewellery trade were caused by changing fashions and the health of the economy. The jewellery trade proved itself to be adaptable by, for example, forming a jewellers' association and succeeded as the economy improved. Although the gun trade had adapted to changing circumstances in the 1860s forming BSA, and diversified into cycles in the 1880s, the trade failed to adapt to foreign competition by, for example, matching Belgian wage rates and suffered a permanent decline.

Chapter 4: Changes to Birmingham's industries

The period from 1873 to 1896 was a time of change for Birmingham. Slums in the town centre were cleared to make way for Corporation Street, planned to resemble a grand Parisian Boulevard, and Birmingham embarked on a major programme of civic building, including the Council House, City Museum and Art Gallery and Victoria Law Courts.¹ In 1889 it acquired city status and in 1891 its boundaries were extended to incorporate the neighbouring districts of Harborne, Balsall Heath, Saltley and Ward End.² The population within its pre-1891 boundaries grew from 343,787 in 1871 to 448,252 in 1901, an increase of 30 percent, and the 1891 additions gave Birmingham a total population in 1901 of 522,204.³ This was also a period of change for Birmingham's industries. New industries developed, such as cycle production, the service sector expanded, industrial premises began to increase in size and more mechanisation was introduced into production processes.⁴ Female labour was increasingly used in place of men's, while the use of child labour was restricted by legislation such as the 1867 factory and workshop acts.⁵ The trade union movement expanded and workers enjoyed a reduction in their working hours with a nine hour day beginning to replace the existing ten hour day.⁶ This chapter focusses on three aspects of the changes to Birmingham's industries: the

¹ Dennis Smith, *Conflict and Compromise: Class Formation in English Society 1830-1914* (London: Routledge, 1982), p. 226; W.B. Stephens, *A History of the County of Warwick, Volume VII: The City of Birmingham* (London: Victoria County History, 1964), pp. 43-57.

² Stephens, pp. 4-25.

³ Stephens, pp. 4-25.

⁴ Eric Hopkins, *Birmingham: The Making of the Second City, 1850-1939* (Stroud: Tempus, 2001), pp. 36, 38 and 42.

⁵ Hopkins, p. 36.

⁶ Hopkins, pp. 69 and 78.

development of new engineering industries, the increasing percentage of female workers and the establishment of a school for workers in the jewellery trade.

New industries

The new industries which developed in Birmingham during the great depression period fell into two broad categories: engineering industries, which developed out of the town's existing metal-working tradition, and food and drink production which previously had little presence.⁷ The main development in the food and drink industry was the expansion of Cadbury Brothers' chocolate production following its relocation from central Birmingham to the town's outskirts in 1879.⁸ Allen attributed this expansion to Birmingham's central location, which made it an ideal distributing centre for the domestic market, and the large local population which was itself an important market.⁹

This section focusses on developments in Birmingham's engineering sector. In his analysis of local industry which, despite being published in 1929, remains the most detailed survey of local industries at this time, G.C. Allen highlighted three Birmingham industries which either started or developed significantly during the period from 1873 to 1896: the manufacture of cycles, electrical apparatus and weighing and measuring apparatus.¹⁰ A fourth industry, car production, was not significant until restrictions on the use of cars on public roads were removed in

⁷ G.C. Allen, *The Industrial Development of Birmingham and the Black Country, 1860-1927* (London: George Allen and Unwin, 1929), pp. 293 and 308-309.

⁸ Allen, pp. 308-309.

⁹ Allen, p. 310.

¹⁰ Allen, pp. 292-307.

1896.¹¹ The three industries developed for different reasons: before this period, the use of cycles was limited to athletes, but a number of inventions, such as spoked wheels and pneumatic tyres, allowed cycles also to be used for business and pleasure and by the military; the production of electrical apparatus grew rapidly after the formation of the Birmingham Electrical Supply Company which began to install an electrical supply for the city's central area in 1890; and the increase in the production of weighing and measuring apparatus followed changes to commercial practices and legislation such as the 1887 Checkweighing Act.¹² However, they all used Birmingham's existing metal-working skills to make composite products consisting of many separate parts.¹³

This chapter uses three principal types of source to analyse the growth of the three industries: the decennial censuses from 1871 to 1901, historical directories and newspapers. As explained in chapter three, it is important to take account of the ways in which censuses and directories presented information. The 1881 and 1891 censuses, for example, had a category for 'Bicycle, Tricycle, Maker, Dealer', but the 1901 census included cycles in 'Cycle and Motor Manufacture'.

Table 4.1 shows the numbers of people occupied in the cycle, electrical apparatus and weighing and measuring apparatus industries as recorded in the decennial censuses from 1871 to 1901. The figures for cycles and electrical apparatus confirm that these industries were not present in Birmingham in 1871 but increased rapidly

¹¹ Allen, p. 297.

¹² Allen, pp. 293-294, 304 and 306-307; *The Birmingham Daily Post*, 30 August 1890, p. 4.

¹³ Allen, p. 313.

over the next thirty years although, as explained above, the 1901 figure for cycles should be treated with caution as it includes cars. The trend is less clear for weighing and measuring apparatus, where the numbers occupied more than doubled in the twenty years to 1891 but fell back in the next ten years.

Table 4.1: Numbers of people occupied in selected Birmingham industries, 1871-1901 (Source: Decennial censuses)¹⁴

Year	Cycles	Electrical apparatus	Weighing and measuring apparatus
1871	0	0	452
1881	125	60	736
1891	1,987	248	1,020
1901	6,145*	974	916

*This figure includes both cycles and cars.

Table 4.2 shows the numbers of businesses in each of the three sectors as shown in historical directories at four-yearly intervals. The numbers show similar patterns to those from the censuses, with cycles and electrical apparatus rising substantially during the period, and weighing and measuring apparatus almost doubling between 1872 and 1888 before beginning to reduce.

¹⁴ *Census of England and Wales (hereafter Census) 1871 Volume III; 1873 [C.872], pp. 332-338; Census 1881 Volume III; 1883 [C.3722], pp. 255-262; Census 1891 Volume III; 1893-94 [C.7058], pp. 264-271; Census 1901 (63 Vict. c.4.) County of Warwick; 1902 [Cd. 1175], pp. 60-61.*

Table 4.2: Numbers of businesses in selected Birmingham industries (Source: Historical directories)¹⁵

Year	Cycles	Electrical apparatus	Weighing and measuring apparatus
1872	0	1	31
1876	6	2	48
1880	29	2	45
1884	63	9	51
1888	76	8	59
1892	158	23	57
1896	261	33	53

Newspaper reports about the cycle industry confirmed its rapid progress. In 1880 it was reported that manufacturers were turning to making cycles as this appeared to offer a large and profitable field for using their existing machinery during the depression and, in the same year, Birmingham's main producer of military guns, BSA, began making cycles as it was suffering from a lack of orders for guns and its machines could be adapted to cycle production.¹⁶ Figure 4.1 is an 1882 advertisement for one of its cycles which said that its cycles featured the latest improvements and that they were machine made and interchangeable, two of the characteristics of its gun-making which are referred to in chapter three.

¹⁵ *The Post Office Directory of Birmingham, Staffordshire, Warwickshire and Worcestershire, 1872* (London: Kelly, 1872), pp. 359-489; *Francis White & Co.'s Commercial and Trades Directory of Birmingham, 1876, Volume 2* (Sheffield: Francis White, 1875), pp. 1486-1815; *Kelly's Directory of Birmingham, 1880, Commercial, Trades and Official* (London: Kelly, 1880), pp. 466-635; *Kelly's Directory of Birmingham and Smethwick: Trades, 1884* (London: Kelly, 1884), pp. 543-738; *Kelly's Directory of Birmingham, 1888* (London: Kelly, 1888), pp. 591-792; *Kelly's Directory of Birmingham, 1892, Part Three: Trades* (London: Kelly, 1892), pp. 537-730; *Kelly's Directory of Birmingham, Staffordshire, Warwickshire and Worcestershire, 1896* (London: Kelly, 1896), pp. 589-794.

¹⁶ *Post*, 17 April 1880, p. 6; 4 September 1880, p. 6;

Figure 4.1: 1882 advertisement for a BSA bicycle (Source: Graces Guide)¹⁷

IMAGE REDACTED

By 1882, the cycle trade had become one of Birmingham's most active industries, with all manufacturers fully employed.¹⁸ In 1883 and 1887 cycle makers were reported to be very busy, with more cycles being made in Birmingham in 1887 than ever before.¹⁹ By 1891 business was going so well that some manufacturers had introduced a night-shift and the best manufacturers were struggling to cope with the demand.²⁰

¹⁷ Graces Guide to British Industrial History <https://www.gracesguide.co.uk/BSA:_Bicycles> [accessed 26 November 2018].

¹⁸ *Post*, 9 September 1882, p. 6.

¹⁹ *Post*, 17 February 1883, p. 6; 19 May 1883, p. 6; 16 April 1887, p. 6; 4 June 1887, p. 6.

²⁰ *Post*, 4 April 1891, p. 6; 16 May 1891, p. 6.

The first press reports about the manufacture of electrical light apparatus in Birmingham appeared in 1882 and 1883, with several chandelier makers starting to produce electric lights and fittings, but there were few further reports on the industry during the 1880s.²¹ There were many more reports in the 1890s, including an 1890 reference to an active demand for electric-light fittings in connection with the local development of electric lighting, which supports Allen's view that the formation of the Birmingham Electrical Supply Company was a catalyst for growth.²² The rate of growth appears, however, to have been more variable than for cycles. In 1891, electric-light fittings manufacturers were reported to be generally very busy, but in 1892 there was only 'a little more business stirring' in the industry.²³ However, in 1894 electric-light fittings were in 'rapidly growing request' and by 1895 most manufacturers were 'well employed'.²⁴

Unlike cycles and electricals, weighing machine production was already an established Birmingham industry in 1873. The sector suffered during the depression, especially in the mid-1880s, with manufacturers complaining in 1885 of a 'general slackness of trade' and in 1886 that trade 'continues exceedingly dull', and in 1887 it was reported that there was 'no general improvement to be noted in the weights and scales branch, in which trade for some considerable time past has been exceedingly depressed'.²⁵ However, the 1885 Weights and Measures Act, which required all

²¹ *Post*, 2 December 1882, p. 6; 27 January 1883, p. 6.

²² *Post*, 18 October 1890, p. 6; Allen, p. 304.

²³ *Post*, 4 July 1891, p. 6; 26 March 1892, p. 11.

²⁴ *Post*, 13 January 1894, p. 6; 31 December 1894, p. 5; 13 April 1895, p. 6; 12 October 1895, p. 6.

²⁵ *Post*, 24 October 1885, p. 6; 30 January 1886, p. 6; 8 January 1887, p. 6.

commercially used weighing instruments to be checked by weights and measures inspectors, gave a major boost to the industry.²⁶ By July 1890, makers of weights and scales were reported to be busier than they had been for many years, repairing scales so that they complied with the Act.²⁷ This increased activity continued throughout 1891, with manufacturers reported to be very busy, and most of 1892, when they were struggling to keep pace with demand.²⁸ By September 1892, however, work from this source was beginning to fall and by 1894 the industry was reported to be not very active.²⁹ It seems, therefore, that the increased activity in the weights and measures sector was due more to the requirements of government legislation than to a general commercial demand. The lack of expansion in the 1890s shown by the censuses and directories suggests that the increased activity utilised unused capacity in existing businesses rather than creating new businesses.

Female workers

Another change which took place in Birmingham's industries during the period was an increase in the female percentage of the workforce.³⁰ Hoskins suggests two reasons for this: women's wages were typically only about half men's, and women replaced child labour which had been increasingly restricted by legislation such as the Factories' Act 1867, the Workshops' Act 1867 and the Education Act 1880.³¹

²⁶ *Bill for Amending Law relating to Weights and Measures 1889* (136), clause 1(1).

²⁷ *Post*, 5 July 1890, p. 6; 12 July 1890, p. 9.

²⁸ *Post*, 14 March 1891, p. 6; 28 November 1891, p. 6; 21 May 1892, p. 11.

²⁹ *Post*, 10 September 1892, p. 6; 7 July 1894, p. 6.

³⁰ Hopkins, pp. 36 and 76.

³¹ Hopkins, pp. 74 and 76.

In his 1887 report, the Factories' Inspector gave his observations on the employment of women and young people in Birmingham. He said that there had been a very considerable increase in female labour employed in the jewellery trade, and that this was tending to keep men's wages down.³² Workers in the button trade were mainly women and this was practically the only Birmingham business in which half-timers, children who divided their time between work and school, were still employed.³³ The use of power-driven machinery was, he said, increasing daily, which allowed the substitution of female and youthful labour for skilled artisans in many trades.³⁴ The advantages of this to employers are shown by details of respective wage levels given in the report. In the wire nail trade, for example, women were paid about 10s per week, substantially less than male labourers who received 15s to 20s per week.³⁵ Women working in the paper bag trade earned an average of 10s per week, but girls aged between thirteen and sixteen received an average of only 3s 9d per week.³⁶ The report pointed out that there was an advantage in large numbers of women being employed as it at least gave their families some income if their husbands were out of work.³⁷

Figures 4.2 and 4.3 show the percentages of the workforce who were female in eight of Birmingham's industries, calculated from the occupations' data in the decennial censuses for 1871, 1881, 1891 and 1901. Figure 4.2 gives the information for Birmingham's four staple manufacturing industries: brass, buttons, jewellery and

³² *Chief Inspector of Factories and Workshops (hereafter CIFW) Report October 1886-87; 1888 [C.5328], p. 48.*

³³ *CIFW Report 1886-87, p. 49.*

³⁴ *CIFW Report 1886-87, p. 50.*

³⁵ *CIFW Report 1886-87, p. 49.*

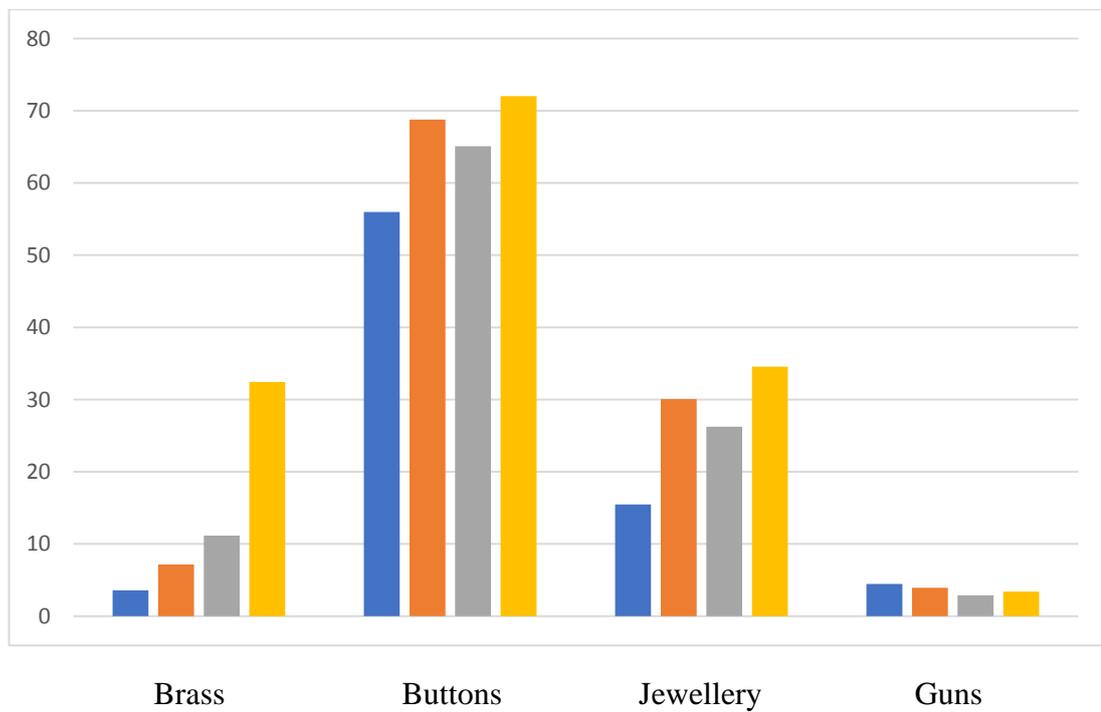
³⁶ *CIFW Report 1886-87, p. 49.*

³⁷ *CIFW Report 1886-87, p. 52.*

guns, and figure 4.3 gives the information for four of its other leading manufacturing industries: watches and clocks, weighing and measuring apparatus, nails and steel pens. In each case the blue column gives the percentage for 1871, orange 1881, grey 1891 and yellow 1901.

Figure 4.2: Percentage of females in the workforce in Birmingham's four staple industries in the years 1871, 1881, 1891 and 1901 (Source: Decennial censuses)³⁸

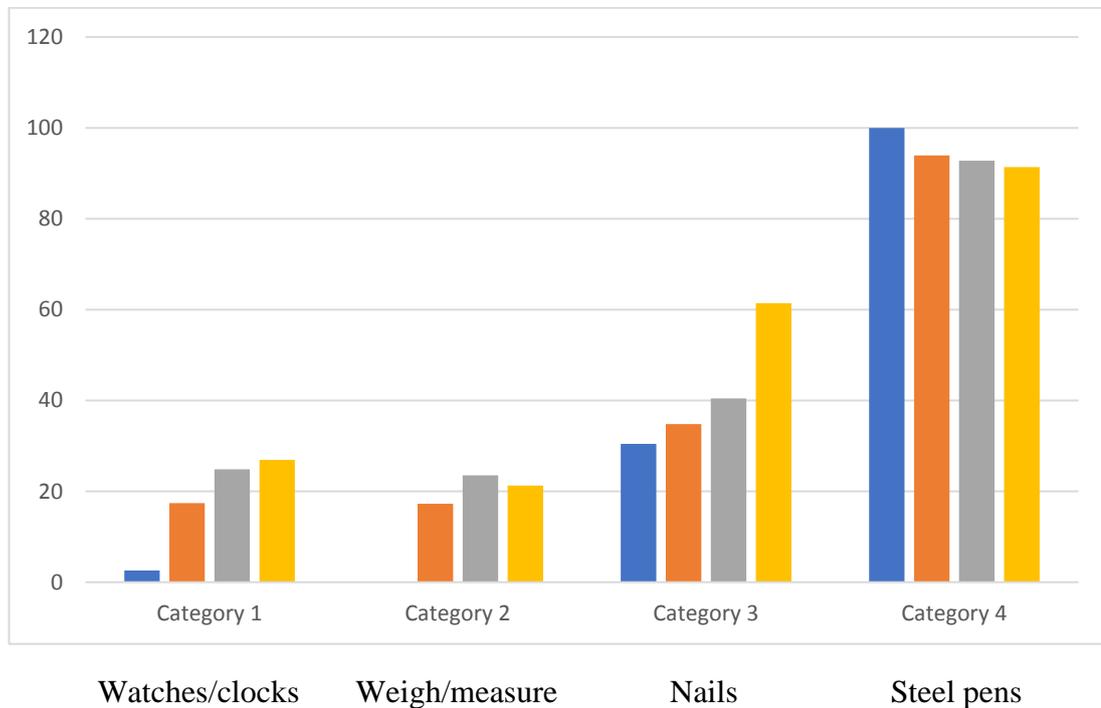
Percentage



³⁸ *Census 1871*, pp. 332-338; *Census 1881*, pp. 255-262; *Census 1891*, pp. 264-271; *Census 1901*, pp. 60-61.

Figure 4.3: Percentage of females in the workforce in four Birmingham industries in the years 1871, 1881, 1891 and 1901 (Source: Decennial censuses)³⁹

Percentage



The individual figures should be treated cautiously because, as explained in the ‘new industries’ section of this chapter, information about occupations was not always categorised in the same way in each census. Nonetheless the figures show two striking features of female employment in Birmingham’s industries: first the percentage of females in the workforce varied greatly between different industries, and second in six of the industries there was a clear upward trend in the female percentage. The two exceptions were the gun trade, in which the female percentage was below 5 percent in each year, and steel pen manufacture, in which the female percentage declined slightly but was always above 90 percent.

³⁹ *Census 1871*, pp. 332-338; *Census 1881*, pp. 255-262; *Census 1891*, pp. 264-271; *Census 1901*, pp. 60-61.

The 1893 *Royal Commission on Labour* included a report which highlighted the lack of variety in women's work in Birmingham's manufacturing industries and which helps to explain the positions shown in figures 4.2 and 4.3.⁴⁰ Women's work was, it said, largely restricted to using hand-operated presses, which were essentially the same in the pen, button and umbrella trades.⁴¹ This helps to explain the high proportion of females which the censuses show to have been employed in making buttons and steel pens. During the depression period, the hand-operated press became increasingly used in the production of jewellery and brass-ware, which is reflected in the increasing percentage of females in those industries.⁴² The press was not, however, used in gun-making which remained an almost exclusively male industry.⁴³

Jewellery school

In August 1887, a large group of Birmingham's jewellery manufacturers met to discuss the prospects for their industry and the possibility of acting together to revive the trade from its current depression.⁴⁴ They agreed to form an association to represent their joint interests and decided that one of its first objects should be the artistic and technical education of jewellers.⁴⁵ In autumn 1888, the association opened a jewellery school in temporary accommodation provided by the

⁴⁰ *Royal Commission on Labour Reports on Employment of Women; 1893-94* [C.6894-XXIII], p. 52.

⁴¹ *Royal Commission on Labour*, p. 52.

⁴² Allen, p. 230.

⁴³ Allen, p. 167.

⁴⁴ *Post*, 4 August 1887, p. 5.

⁴⁵ Birmingham Archives and Heritage, Birmingham (hereafter BAH), Records of the British Jewellery and Giftware Federation, 19th cent. – 20th cent. (hereafter BJGF), Minutes of the General Committee, volume 1, p. 94, insert, p. 5 (MS 1646/1); *Post*, 4 August 1887, p. 5; 9 September 1887, p. 4.

Birmingham Municipal School of Art before moving to permanent premises two years later in the heart of Birmingham's jewellery quarter, just outside the city centre.⁴⁶ The school's opening followed a review by the Association of several schools in Continental Europe which ran courses for jewellers, comparing their syllabuses and the ways in which they were run.⁴⁷ The school shared its new premises with a branch of the art school, so that students could learn both the artistic and practical aspects of jewellery making, so that 'taste and technical skill, design and execution, will go hand in hand, and students will be taught not only the principles of ornament as applied to jewellery, but how to reduce them to practice'.⁴⁸ The jewellery school was comprehensively equipped with the most up-to-date machinery, including a set of jewellers' rolls, which reduced the thickness of metal, a turning-lathe for teaching toolmaking, and wire-drawing machines, together with two furnaces, a portable hearth and a polishing-lathe for enamelling, alloying and colouring metal.⁴⁹ At the school's opening, the hope was expressed that it would revolutionise the training, ability and standing of jewellery workers, giving them a thorough knowledge of their craft and the pleasure of designing and making beautiful objects.⁵⁰ The school was the first of its kind in Britain and only the fifth in Europe.⁵¹

⁴⁶ *Post*, 3 September 1888, p. 5; 26 January 1889, p. 7; 5 September 1890, p. 4; BAH, BJGF, Minutes of the General Committee, volume 1, pp. 212-213.

⁴⁷ BAH, BJGF, Report on foreign technical schools by Mr. Levi (1890) (MS 1646/585).

⁴⁸ *Post*, 19 September 1890, p. 4.

⁴⁹ *Post*, 19 September 1890, p. 5.

⁵⁰ *Post*, 8 November 1890, p. 5.

⁵¹ Shena Mason, *Jewellery Making in Birmingham, 1750-1995* (Chichester: Phillimore, 1998), p. 84.

The Factory Inspector's report for 1891 gave details of a visit he had made to the school.⁵² There were, he said, between 250 and 300 students on the school's books of whom about 160 were working on the evening of his visit. All of the students were employed in jewellers' workshops and the fees of 3s per session were paid equally by their employers and the jewellers' association. The school was open each evening, except Saturday, from 6.30 to 8.30 and, if necessary, the students were released early by their employers so that they could attend. The Inspector praised the school's premises, equipment and staff and expressed the belief that it would raise the artistic taste and technical skill of Birmingham's jewellers. The school's students soon achieved success at national level, winning a bronze medal in the 1892 examinations of the City and Guilds of London Institute and silver medals in 1893 and 1894.⁵³ The school has continued to teach jewellery students into the twenty-first century, from the same premises, as part of Birmingham City University.⁵⁴

Summary

The examples in this chapter show the willingness and ability of Birmingham's industries to adapt to meet the challenges and opportunities that the great depression period presented. The makers of guns and chandeliers adapted their production to take advantage of the opportunities offered by developments in cycles and electrics and the producers of weighing machines ensured that they benefited from changes in government legislation; manufacturers addressed the difficulties caused by the loss of child labour and need to reduce costs by recruiting female workers; and members

⁵² *CIFW Report, October 1890-91; 1892* [C.6720], p. 30.

⁵³ BAH, BJGF, Art and Technical Schools Committee Minutes, pp. 16, 59 and 99 (MS 1646/38).

⁵⁴ Birmingham City University School of Jewellery <<https://www.bcu.ac.uk/jewellery>> [accessed 1 October 2018].

of the jewellery trade put aside their competitive instincts to establish a jewellery school for their mutual benefit. This flexibility helped Birmingham to weather the storms of the great depression better than other regions, such as the neighbouring Black Country, and to lay the foundations for its future economic success.⁵⁵

⁵⁵ Allen, p. 212.

Conclusion

Summary

This dissertation has analysed Birmingham's industries during the period from 1873 to 1896 which the Victorians called the 'Great Depression'. The most detailed analysis of Birmingham's industries for the period was published by G.C. Allen as long ago as 1929. This paper has used a range of sources, including sources that were not available to Allen, to ascertain what happened in Birmingham's industries in the period and what the causes were.

Chapter one examined the period at a national level in order to put Birmingham's experiences into context. It showed that the use of the term 'great depression' to describe the period was already contentious in Victorian times and that historians have continued to debate both the use of the term and the extent of the late Victorian economic slowdown. One reason for their disagreement has been the lack of data for business profits and unemployment levels which can, to a certain extent, be addressed by studying the period at a local level.

In view of the diverse nature of Birmingham's industries, it is not practical to examine every industrial sector, and so the dissertation has combined an overview of its industries with a more detailed analysis of two specific sectors and three aspects of industrial change. Chapter two showed that there were several occasions in the period when the authorities were sufficiently concerned about distress among

Birmingham's unemployed that relief for them was organised in the form of work and food. However, the peak periods of distress were in winter, and cold weather, which restricted outdoor working, appears to have been one of the causes of distress. The numbers who received relief appear to have represented only a small proportion of Birmingham's working population which suggests that the distress, while very serious for those affected, may not have been widespread. The records for four individual businesses illustrate the different extents to which companies were affected by the depression, with some apparently not affected at all. Chapter three analysed two specific manufacturing industries: guns and jewellery. Both suffered during the depression but for different reasons and with different outcomes. Gun-makers were unable to get sufficient government contracts for military guns and struggled to deal with increasing foreign competition, exacerbated by an unwillingness on the part of workers to match their Belgian competitors' long working hours and low wages. The industry suffered permanent decline. For jewellery manufacturers, however, the depression proved to be a temporary setback, caused by changing fashions and the effects of the depression generally, within a longer period in which the trade expanded greatly. Finally, chapter four considered three ways in which Birmingham's industries adapted to changing circumstances, using its traditional metal-working skills to move into new product areas and develop existing ones, adapting to changing legislation by recruiting more female workers and improving workers' skills by setting up a jewellery school.

Further research

Chapters three and four suggest two alternative approaches to further research into Birmingham's industrial history for the great depression period. Chapter three analysed gun and jewellery making, and one approach would be to analyse other industry sectors such as Birmingham's other two staple industries, brass products and buttons, whose industrial history has been less researched than guns and jewellery. An alternative, and perhaps more valuable, approach would be to build on the work in chapter four in analysing the changes which took place during the period. Although it was the economic slowdown of 1873-1896 which alarmed the Victorians and caused the period to be called the 'Great Depression', the longer term importance of the period was arguably not the depression but the ways in which Birmingham's industries adapted to meet the challenges of a changing world as the industrial dominance which Britain had enjoyed since the industrial revolution was increasingly challenged by competitors such as Germany and the United States. In addition to the three aspects of change discussed in chapter four, research could include the emergence of a consumer society, the expansion of the retail sector and service industries, such as accountancy, the increased use of powered machinery and changing working conditions, including the effects of wider trade union membership.

Conclusion

The dissertation began by referring to the sometimes confused and contradictory evidence given by Birmingham's two representatives to the Royal Commission investigating the trade and industry depression of the later nineteenth century. As the dissertation has shown, however, their evidence reflected the uncertainty caused

by a lack of data about profit and unemployment levels for the period and the different experiences of both businesses and workers, particularly in view of Birmingham's diverse industrial base. Some local firms, such as Gibbins, suffered reduced sales and made losses in some years whereas others, such as Nettlefolds, appear to have been unaffected. Some workers experienced severe distress, but they appear to have been a small proportion of the overall workforce. Although gun and jewellery making were two of Birmingham's hardest hit industries, they provide examples of a willingness to change in order to survive, with BSA beginning to make bicycles and jewellers opening a technical school to raise standards. In conclusion, therefore, this dissertation shows that the term 'great depression' should not be used uncritically to describe Birmingham's industries between 1873 and 1896, as it fails to reflect the range of their experiences, but also shows that Saul went too far in calling for the expression to be banished from historical literature, because for some businesses and workers the depression was very real.

Appendix

Figure A1: Central Birmingham street plan (Source: <www.antiquaprintgallery.com> [accessed 11 December 2018])

IMAGE REDACTED

Appendix (continued)

The references shown below are to the squares on the central Birmingham street plan.

Chapter two:

Richard Cadbury Gibbins and Company:

- Berkley Street – C4
- Sherborne Street – C2-C3

Ralph Heaton and Sons, Icknield Street – B2

Perry and Company, Lancaster Street – A6

Chapter three:

Gun-making area – located between Loveday Street (A5-A6) and Slaney Street (A5-B5)

James Carr and Sons, St. Mary's Row – A5

Jewellery-making area – located in the area around St. Paul's – A4

Joseph and Colbran Wainwright, Warstone Lane – A3-A4

Chapter four:

Birmingham Council House, Colmore Row – B5. The City Museum and Art Gallery were adjacent to the Council House.

Victoria Law Courts, Corporation Street – B6

Corporation Street – B5-B6

Jewellery School, Vittoria Street – A4

BIBLIOGRAPHY

PRIMARY SOURCES

Manuscripts

Birmingham Archives and Heritage, Birmingham:

James Carr and Sons, sales ledgers 1891-1897 (MS 88)

Joseph Wainwright and Colbran J. Wainwright, account books 1873-1896 (MS 2717)

Nettlefolds Limited, private ledger – screws 1881-1891 (MS 298/1/6)

Ralph Heaton and Sons, ledger 1881-1888 (MS 1010/4)

Records of the British Jewellery and Giftware Federation, 19th cent. – 20th cent. (MS 1646)

Richard Cadbury Gibbins and Company, private ledger 1870-1886 (MS 665)

Richard Cadbury Gibbins and Company, private ledger 1887-1900 (MS 787)

Smythe Etches and Co, later Lee Crowder and Co, solicitors of Birmingham, annual reports of the Birmingham Small Arms Company 1873-1887 (MS 3375)

Government Sources

Decennial Censuses:

Census of England and Wales 1871 Volume III; 1873 [C.872]

Census of England and Wales 1881 Volume III; 1883 [C.3722]

Census of England and Wales 1891 Volume III; 1893-94 [C.7058]

Census of England and Wales 1901 (63 Vict. c.4.) County of Warwick; 1902 [Cd. 1175]

Reports of the Chief Inspector of Factories and Workshops:

Chief Inspector of Factories and Workshops Report, October 1878-79; 1880 [C.2489]

Chief Inspector of Factories and Workshops Report, October 1886-87; 1888 [C.5328]

Chief Inspector of Factories and Workshops Report, October 1887-88; 1889 [C.5697]

Chief Inspector of Factories and Workshops Report, October 1888-89; 1890 [C.6060]

Chief Inspector of Factories and Workshops Report, October 1890-91; 1892
[C.6720]

Chief Inspector of Factories and Workshops Report, October 1891-92; 1893-94
[C.6978]

Chief Inspector of Factories and Workshops Report, 1894; 1895 [C.7745]

Other Government Sources:

Bill for Amending Law relating to Weights and Measures; 1889 (136)

Final Report of the Royal Commission Appointed to Inquire into the Depression of Trade and Industry; 1886 [C.4893]

Return of Names, Places of Business, Date of Registration, Nominal Capital and Number of Shares of Joint Stock Companies, June 1875-76; 1876 (443)

Royal Commission on Labour Reports on Employment of Women; 1893-94 [C.6894-XXIII)

Second Report of the Royal Commission Appointed to Inquire into the Depression of Trade and Industry; 1886 [C.4715]

Newspapers

Aris's Birmingham Gazette

Birmingham Daily Gazette

Birmingham Mail

Sheffield Independent

The Birmingham Daily Post

The Manchester Guardian

The Times

Magazines

The Economist

Other Printed Sources

Historical Directories:

Francis White & Co.'s Commercial and Trades Directory of Birmingham, 1876, Volume 2 (Sheffield: Francis White, 1875)

Kelly's Directory of Birmingham, 1888 (London: Kelly, 1888)

Kelly's Directory of Birmingham, 1880, Commercial, Trades and Official (London: Kelly, 1880)

Kelly's Directory of Birmingham, 1892, Part Three: Trades (London: Kelly, 1892)

Kelly's Directory of Birmingham and Smethwick: Trades, 1884 (London: Kelly, 1884)

Kelly's Directory of Birmingham, Staffordshire, Warwickshire and Worcestershire, 1896 (London: Kelly, 1896)

The Post Office Directory of Birmingham, Staffordshire, Warwickshire and Worcestershire, 1872 (London: Kelly, 1872)

Other Printed Sources:

Bragg, John, 'Jewellery', *Handbook of Birmingham* (1886), 187-191

Giffen, Robert, *Essays in Finance*, 3rd edn (London: George Bell, 1882)

Giffen, Robert, 'Trade Depression and Low Prices', *The Contemporary Review*, 47 (1885), 800-822

Wells, David A., 'The Great Depression of Trade: A Study of its Economic Causes: I', *The Contemporary Review*, 52 (August 1887), 275-293

Wells, David A., 'The Great Depression of Trade: A Study of its Economic Causes: II', *The Contemporary Review*, 52 (September 1887), 381-400

Wright, J.S., 'The Jewellery and Gilt Toy Trades', in *The Resources, Products and Industrial History of Birmingham and the Midland Hardware District*, ed. by Samuel Timmins (London: Robert Hardwicke, 1866), pp. 452-462

SECONDARY SOURCES

Books

Allen, G.C., *The Industrial Development of Birmingham and the Black Country, 1860-1927* (London: George Allen and Unwin, 1929)

Cannadine, David, *Victorious Century: The United Kingdom, 1800-1906* (London: Allen Lane, 2017)

- Daunton, Martin, *Wealth and Welfare: An Economic and Social History of Britain, 1851-1951* (Oxford: OUP, 2007)
- Dick, Malcolm, 'The City of a Thousand Trades, 1700-1945', in *Birmingham, The Workshop of the World*, ed. by Carl Chinn and Malcolm Dick (Liverpool: Liverpool University Press, 2016), pp. 125-157
- Floud, Roderick, *The People and the British Economy 1830-1914* (Oxford: OUP, 1997)
- Harley, C. Knick, 'Trade, 1870-1939: From Globalisation to Fragmentation', in *The Cambridge Economic History of Modern Britain, Volume II: Economic Maturity, 1860-1939*, ed. by Roderick Floud and Paul Johnson (Cambridge: CUP, 2004), pp. 161-189
- Hatton, Timothy J., 'Unemployment and the Labour Market, 1870-1939', in *The Cambridge Economic History of Modern Britain, Volume II: Economic Maturity, 1860-1939*, ed. by Roderick Floud and Paul Johnson (Cambridge: CUP, 2004), pp. 344-373
- Hopkins, Eric, *Birmingham: The Making of the Second City, 1850-1939* (Stroud: Tempus, 2001)
- Jones, Edgar, *A History of GKN, Volume 1: Innovation and Enterprise, 1759-1918* (Basingstoke: Macmillan, 1987)
- Mason, Shena, *Jewellery Making in Birmingham, 1750-1995* (Chichester: Phillimore, 1998)
- Probert, Eric D., *Company and Business Records for Family Historians* (Birmingham: The Federation of Family History Societies, 1994)
- Saul, S.B., *The Myth of the Great Depression, 1873-1896* (London: Macmillan, 1969)
- Smith, Dennis, *Conflict and Compromise: Class Formation in English Society 1830-1914* (London: Routledge, 1982)
- Stephens, W.B., *A History of the County of Warwick, Volume VII: The City of Birmingham* (London: Victoria County History, 1964)
- Williams, David, *The Birmingham Gun Trade* (Stroud: Tempus, 2004)
- Wright, G. Henry, *The Chronicles of the Birmingham Chamber of Commerce, A.D. 1813-1913* (Birmingham: Birmingham Chamber of Commerce, 1913)

Articles

- Beales, H.L., 'Revisions in Economic History: I, The "Great Depression" in Industry and Trade', *The Economic History Review*, 5 (1934), 65-75

- Carnevali, Francesca, 'Golden Opportunities: Jewelry Making in Birmingham between Mass Production and Speciality', *Enterprise & Society*, 4 (2003), 272-298
- Coppock, D.J., 'British Industrial Growth During the "Great Depression" (1873-96): A Pessimist's View', *The Economic History Review*, 17 (1964), 389-396
- Lumley, Roger, 'The American System of Manufactures in Birmingham: Production Methods at the Birmingham Small Arms Co. in the Nineteenth Century', *Business History*, 31 (1989), 29-43
- Mason, Julian, 'Accounting Records and Business History', *Business History*, 24 (1982), 293-299
- Musson, A.E., 'British Industrial Growth, 1873-96: A Balanced View', *The Economic History Review*, 17 (1964), 397-403
- Musson, A.E., 'British Industrial Growth during the "Great Depression" (1873-96): Some Comments', *The Economic History Review*, 15 (1963), 529-533
- Musson, A.E., 'The Great Depression in Britain, 1873-1896: A Reappraisal', *The Journal of Economic History*, 19 (1959), 199-228
- Perelman, Michael, 'Retrospectives: Schumpeter, David Wells and Creative Destruction', *The Journal of Economic Perspectives*, 9 (1995), 189-197

Theses

- Fraenkel, Jonathan, 'Growth and Slowdown: Profitability, Growth and Output in Britain 1873-1973' (unpublished doctoral thesis, University of Sussex, 1996)

Websites

- Antiqua Print Gallery <<https://www.antiquaprintgallery.com>> [accessed 11 December 2018]
- Birmingham City University School of Jewellery <<https://www.bcu.ac.uk/jewellery>> [accessed 1 October 2018]
- Grace's Guide to British Industrial History <<https://www.gracesguide.co.uk>> [accessed 9 July 2018]
- Howe, A.C., 'Giffen, Sir Robert (1837-1910)', *Oxford Dictionary of National Biography*, online edn (Oxford: OUP, 2004)
<<https://www.oxforddnb.com.libezproxy.ac.uk>> [accessed 2 July 2018]