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**The Structure of Industry in London,
1775-1825**

by David Barnett, MA

**Thesis submitted to the University of Nottingham
for the degree of Doctor of Philosophy, May, 1996**



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Abstract

This study sets out a quantitative overview of the economy of London during the period 1775 to 1825. A database has been constructed from the extant London Fire Office registers of 31,000 businesses trading either in the periods 1769–1777 or 1819–1825, and in a few cases in both. Represented are over 1300 separate trades covering the entire spectrum of manufacturing, construction, wholesale and retail distribution, transport and the service sector. To complement this data, use has also been made of trade directories, bankruptcy files, trade card collections, Census data and contemporary literature on London trades, including career guides.

In order to analyse trends over this period, the database uses a version of the modern Standard Industrial Classification modified by the author. The 1300 separate trades are grouped into 101 sectors within seven main divisions of the economy. The database includes the name(s) of the proprietors of the business, the address, the trade and details of the risks insured. From this it has been possible to present statistical evidence on a number of areas of controversy about the role of London during the Industrial Revolution. It is shown that London remained a major manufacturing centre throughout the period. It has also been possible to exemplify in detail the impact of the 18th century consumer revolution by charting the expansion and increasing diversity of the wholesale and retail distribution sectors. Finally, the importance of the role of service industries in the economy of London has been established, with special reference to transport and catering.

Acknowledgements

This thesis would not have been possible without the computer expertise of my son-in-law, Jonathan Birkett. As a member of the pre-computer generation, I could not have coped without his ever ready willingness to help and advise. I am also grateful for the help of the staff of the Guildhall Library, and the many other libraries I used, over the many months during which I was gathering the mountains of data on which it is based.

Above all, this thesis would never have happened without the initial inspiration and unflinching subsequent advice, guidance and enthusiastic support of my supervisor, Professor Stanley Chapman. Finally, it most certainly would never have been written without either the constant support of my family or the patience and understanding of my wife during the several years in which it took up so much of my time. It is my greatest pleasure to dedicate it to her.

1 Introduction

Speaking in New York in 1925, Calvin Coolidge, 30th President of the United States, said "The chief business of the American people is business". A century earlier it would have been just as true to have said that of London. Roy Porter's most recent study of London has a quotation from Southey which might well have applied to New York a century later,

"I happened to go into a pastrycook's shop one morning and inquired of the mistress why she kept her window open during this severe weather – which I observed most of the trade did. She told me, that were she to close it, her receipts would be lessened forty or fifty shillings a day – so many were the persons who took up buns or biscuits as they passed by and threw their pence in, not allowing themselves time to enter. Was there ever so indefatigable a people!"¹

For Roy Porter, London "Between the two Elizabeths, between 1570 and 1866 to be more precise...was to become the world's greatest city."² This is, perhaps, a trifle exaggerated. Indeed he goes on to make the same point himself. It can certainly be argued that as late as 1700, London, though long one of Europe's major cities, was of no particular pre-eminence compared with, say, Vienna, Paris, Amsterdam or Madrid. What is beyond doubt is that by 1800 it had become not only the largest city the world had ever seen, but also far and away the largest single business centre and market of the world's first industrial economy.

The pre-eminent background factor to the period of this study is political stability. Although more than half the period was dominated by far flung wars on a grand, almost world-wide, scale, the American war of the late 1770s and the far greater French Revolutionary and Napoleonic wars of 1793 to 1815, and some examples of enormous internal unrest, witness the Gordon riots in the earlier part of the period and the Peterloo massacre and the events surrounding it in the latter part, it is still true to say that the half century from 1775 to 1825 was characterised by a basic political stability.

If this was the political background, the determining economic factor was size. The half century from 1775 to 1825 saw the economy of Britain transformed by industrialisation. London became the largest, and in absolute terms, the fastest growing city the world had ever seen. Its population more than doubled between 1750, when it was estimated as 676,000 and the fourth census of 1831, when it was 1,503,000. It is worth noting that by 1831 London already had a population greater than or equal to the capital cities of eight of the other current and prospective 14 European Community nations.

In the period of this study, it was the wonder of the western world. Roy Porter quotes a typical comment from the Prussian visitor Moritz; "How great had seemed Berlin to me when first I saw it from the tower of St Mary's and looked down on it from the hill at Templehof, how insignificant it now seemed when I set it in my imagination against London!"³

If, in Peter Earle's happy phrase, London in the 17th and early 18th centuries was "A City full of people",⁴ how much more so was it when the population had more than doubled a century later. The question immediately arises as to what the urban economy of the world's first modern city of over a million people, centred in the world's first industrialised national economy, looked like. How did the economy of London change to encompass its enormous growth? What goods were required to satisfy the demands of such a population, and where were they produced? How far was it not just a market for the manufactures of others, but a major manufacturing centre in its own right? How far had it moved from its earlier characterisation as a centre for luxury crafts and trades? What services were required? What was its commercial topography? What did all these people actually do? This study attempts to answer some of these questions for the period 1775–1825.

The starting point for this study is the paucity of work in depth and detail on

business, trade and industry in London during the last quarter of the 18th century and the first quarter of the 19th when so much was happening to transform the British economy. On the one hand there is the traditional view of the economy of London set out by Dorothy George as long ago as 1925 and still much quoted,

"the direct results of what is called the Industrial Revolution were not conspicuous there. Its expansion was not comparable with that of the newer towns of the north, its share of the population of the country declined, its share of the urban population declined still more."⁵

This has been seriously disputed in the present decade. Leonard Schwartz has reasserted the importance of London, albeit in rather tentative terms. Although he talks of the early 19th century as a "second heroic age of expansion", the first being from 1500 to 1650, he nevertheless describes most of his period as marking a lull in its growth.⁶ Martin Daunt goes much further in stating that "London was the single most important industrial centre in the country."⁷ Roy Porter also questions the earlier view, in his case quoting Fernand Braudel: "The Capital Cities would be present at the forthcoming industrial revolution, but in the role of spectators. Not London but Manchester, Birmingham, Leeds, Glasgow and innumerable small proletarian towns launched the new era." It is difficult to argue with Porter's response on general common sense grounds.

"This is too crude. For one thing, Industrial Revolution or not, the capital hardly lagged in technology and innovation. Late eighteenth-century London had more steam engines than Lancashire...As late as 1850 London's manufacturing output was still unrivalled in Britain, for the obvious reason that the capital's vast population created unsurpassed demand. And the nation's industrial economy was profoundly dependent upon the capital's imports, transport and communications, wholesale and retail networks, finance skills and its service sector more generally. Historians have sometimes written about London's reliance upon 'service' employment as if that meant the capital was somehow less 'productive' than other regions – parasitic in fact. But this is a false assumption. The truth is that...the service sector contributed no less to economic activity than manufacturing..."⁸

This study does not seek to add to the sometimes emotive debate about London's relative role in the national economy. Rather it seeks to provide a far more comprehensive statistical and factual base from which quantitative, rather than emotive, judgements may be derived. It takes an overview of the economy of London,

trade by trade, industry by industry, business by business, from the smallest to the largest, and even district by district.

The unique source of data for this study is the tens of thousands of individual fire insurance policies issued by the Sun and other fire offices and held in the Guildhall Library in London. These insurance records have been comparatively little used by economic historians and certainly not in any systematic or comprehensive way. A further important source of data has been provided by a systematic use of the extant London trade directories of the period.

The scale of the opportunity this provides can be simply exemplified. Dorothy George discusses in depth only three trades and Leonard Schwartz only four to illustrate their theses on the economy of London during the late 18th and early 19th centuries. Discussion of these trades is confined to the descriptive and no hard data is given. This study goes much further. Analysis of the Sun and other contemporary fire office registers identifies some 1324 different trades in the earlier and later parts of the half century covered by this study. Some are only minor variations on others but it is worth noting that a contemporary, George Dodd, observed in 1843 that "Whoever were to attempt to classify all the trades and occupations of London...would perhaps be somewhat startled to find it amount to something like thirteen or fourteen hundred..."⁹ The most comprehensive London trade directory of the period, Pigot's *London and Provincial New Commercial Directory*, identifies over 900 trades. In addition, the various contemporary career guides used in this study list over 700. Even when aggregated for the purposes of analysis in this study, data is separately identified for over a hundred major trade or industry groupings.

2 Sources of Data

Fire Office Registers

The major source used in this study for in-depth data on the multiplicity of businesses serving both London and the country and world beyond is the surviving records of the contemporary London fire offices held in the Guildhall Library of the Corporation of the City of London. The first fire insurance companies were established in London in the latter years of the 17th century, a generation after the Great Fire of 1666.

Cockerell and Green mention a first fire office established "at the backside of the Royal Exchange" in about 1681 as well as the Friendly Society established in 1683.¹

The Guildhall Library holds the records of over 40 London based insurance companies or subsidiaries which were involved in insuring property against fire. The first was the Hand in Hand Fire and Life Insurance Society established in 1696. Within a quarter of a century this had been followed by establishment of the Sun Fire Office in 1710 and the Royal Exchange in 1720. During the late 18th and early 19th century a number of others followed, including the Globe, British, Imperial, County, Atlas, Protector, Guardian, Alliance, Law Union and Rock, London and Lancashire, London Assurance and Phoenix. From London, their business spread throughout the Kingdom. Generally speaking, all types of property could be insured, with the exception of property not subject to fire risk or connected with unacceptably hazardous trades.

By a very large margin, the most complete series of fire policy registers which survive is for the Sun Fire Office. The Guildhall Library holds 1262 volumes covering the period 1710 to 1863. For the Royal Exchange there are 173 volumes covering the periods 1753–59 and 1773 to 1883. For the Hand in Hand, 160 volumes survive for the period 1696 to 1865. Additionally, from the early 1820s there are a few volumes for the Globe and London Assurance. Each volume records details of up to about 1800 individual policies, which suggests that over two and a half million policies may be recorded in all.

For the period covered by this study, all extant policies are utilised whichever fire office is involved. However, for the earlier part of the period only the Sun registers are relevant since it had a virtual monopoly of insuring industrial and commercial property for most of the 18th century. The situation is quite different by the latter years of the first quarter of the 19th century. Although the very large majority of surviving policies utilised for this study are still those issued by the Sun, significant numbers issued by the Royal Exchange, Globe, London and Hand in Hand are also relevant.

Whichever the fire office, the registers contain very much the same data. For the purposes of this study, the key information is policy number; date of issue; name; status; address and trade of policy holder; and, type and value of property insured. Many policies are, of course, for private property. Nevertheless, about half the London policies are for businesses and record the insurance of commercial property, both working and fixed capital.

At their simplest, the policies may record only the value of stock and/or goods and/or utensils for the business. Many policies also record the value of industrial and commercial buildings such as warehouses, storehouses, workshops, counting houses, mill houses, brew houses, sugar houses, engine houses, distilleries, wharves, laboratories and manufactories. Also sometimes shown are the value of a steam engine or other plant equipment and machinery. On occasion the stock is described, for example, oil, coal, flax, hemp, cotton, wool, tallow or timber. In the building trades values are often recorded for property under construction.

Two examples of a very simple kind of policy are those issued to Joseph Hubert on 12 October 1820 and Bernard McKen of Cripplegate on 4 October 1821,

972415 Joseph Hubert of Pedlars Acre, Westminster Road,
 Lambeth, Floor Cloth Manufacturer
 On his Stock and Utensils in his now Dwelling House

only situate as aforesaid (no manufacturing therein),
Brick and Timber, Two Thousand Pounds £2000²

983743 Bernard McKen of No 5 Grasshopper Court,
Whitecross Street, Cripplegate, Manufacturer of
Plasters and Merchant
On his household goods, wearing apparel, printed
books & plate in his now dwelling house only situated
as aforesaid, brick, one hundred pounds 100
Stock & utensils therein only three hundred pounds 300
£400³

Two very different and much more detailed policies were those issued on 14 May 1821
and 29 November 1821 respectively to Robert and Arthur Pott and Augustus
Applegarth,

980534 Robert Pott & Arthur Pott of New Bridge Street,
Southwark, Vinegar Manufacturer
On Mr Purson's Dwelling House & Counting House
one building situate aforesaid marked A One Thousand
Six Hundred Pounds 1600
Sheds, Warehouses, Liquor Backs, Cooperage, Stables
all communicating near B Five Thousand Pounds 5000
Stock Utensils therein only Eighteen Thousand Pounds 18000
Four Stoves or Cockle House adjoining near C Four
Thousand Five Hundred Pounds 4500
Stock Utensils therein only Nine Thousand Pounds 9000
Brewhouse separate E Four Thousand Pounds 4000
Stock Utensils therein only Nine Thousand Pounds 9000
Steam engine with machinery belonging therein only
Four Hundred Pounds 400
Coalhole adjoining near marked F One Hundred Pounds 100
Stables, Coachhouses, Harness Room and Lodging
Room with Fireplaces and Stoves therein only Eight
Hundred Pounds 800
Private Brewhouse and Shed D Six Hundred Pounds 600
Stock & Utensils therein only Four Hundred Pounds 400
Gates, Rails and Fences on the same premises Two
Hundred Pounds 200
Two Lodges in equal proportion Two Hundred Pounds 200
£57,300

The above letters refer to a plan deposited in this office⁴

985736 Augustus Applegarth of the Duke Street, Stamford
Street, Printer
On Buildings situate as aforesaid & described on a
Plan deposited in this office, viz A Counting House
One Hundred and Fifty Pounds 150
B Dwelling House One Hundred and Fifty Pounds 150
C Warehouse Seven Hundred Pounds 700
Stock & Utensils therein only Two Thousand Pounds 2000
D Foundry & Picking Room Two Hundred Pounds 200
Stock & Utensils therein only Two Hundred and Fifty
Pounds 250
E Machine Steam Engine House & Printing Office Three

Hundred Pounds	300
Steam Engine & Machinery included therein only One	
Thousand Pounds	<u>1000</u>
	£4750 ⁵

Insured Values

The early history of the major fire offices and the methods they used are well documented by Cockerell and Green⁶, Clive Trebilcock⁷, D T Jenkins⁸ and others⁹.

A major issue, dealt with at length in all the above studies is the extent to which the late 18th and early 19th century policies valued accurately the property insured. Jenkins deals with this issue at great length and discussion of the problem below relies very heavily on his assessment of the various arguments. On the one hand, he argues that

"There seems little reason to doubt the accuracy of most of the information contained in the copy policies. There was little reason for proposers to falsify the basic information they supplied to the underwriters...But there is uncertainty about the meaning and accuracy of the values cited in the policies...there is, at present, no unanimity about the extent to which the values specified for insurance purposes represent true values."¹⁰

Only in very exceptional cases did fire offices themselves value, or have valued, the property proposed to them for insurance. The value of the risk was set by the proposer. In theory, the value reflected the replacement cost of property. Payment of loss was made on this basis. Only when a claim was made were values checked, and even then only where large losses were involved. However, in a period of substantially rising prices, significant differences must inevitably arise between historic cost and replacement cost.

Jenkins discusses at length the factors which could have created both overvaluation of replacement cost and, rather more likely in practice, undervaluation. He argues convincingly that higher premium and duty charges would have discouraged much overvaluation other than in consciously fraudulent situations, and no doubt these were as common in that age as in any other. However, he does make the point that fraud

would have been particularly difficult in the case of fixed capital such as buildings and machinery. Overvaluation might also arise in cases of fluctuating stock, as for example with warehousemen or merchants. In practice, a kind of blanket cover was evolved and Jenkins argues that,

"Generally one must assume that proposers of insurance of stock would attempt to value their warehouse contents at a figure that represented the normal or usual value of the stock they held, or even perhaps at a maximum possible value."¹¹

Undervaluation could arise by accident, especially during a period of rising prices. Fire offices did encourage their clients to revalue their risks and Jenkins quotes a Sun Fire Office handbill of 1807,

"The Managers of the Sun Fire Office having taken into consideration the very great advance that has taken place in the price of every kind of building material, feel it a duty they owe their friends whose policies are of long standing to remind them of the considerable loss they would sustain in case of fire by their buildings being undervalued and to inform those persons who may be inclined to increase their present insurances that no charge will be made for increasing the sums, where the policies amount to £300 or upwards."¹²

Another potential cause of accidental undervaluation might arise from a failure to immediately update additions to stocks in those businesses where new stocks were acquired very frequently. In this case, however, there is plentiful evidence that policies were altered meticulously as stock changes took place.

Deliberate undervaluation might arise for a multitude of reasons, perhaps most commonly from a simple desire to minimise premiums and duty rates. In the case of buildings, undervaluation might result from belief that some part of the property would always be salvageable or that only the mortgage on the building need be covered. In all these cases, except perhaps the first, it is much less likely that deliberate undervaluation would apply to plant, equipment, stocks, utensils and goods which comprise much the greater part of the capital insured by most businesses in the period 1775–1825.

Finally, it is necessary to review the debate initiated by Trebilcock who argues that fire offices inhibited risks being insured to their full value.¹³ Conversely, Cockerell and Green take the view that fire offices require maximisation of premiums and encourage insurance to the full value of the risk.¹⁴ Dickson implies a similar viewpoint.¹⁵

Trebilcock is adamant that the Phoenix required clients to share the risk from its inception, that its underwriters ensured that this happened, and that this was usual practice with other fire offices. In other words, it was generally understood that the proposer always shared the risk to be insured.¹⁶ Jenkins accepts that the late 18th and early 19th centuries were a period of evolution and change in underwriting principles, but argues in some detail that the evidence for Trebilcock's contention is both insubstantial and contradictory. He does allow that there are special problems arising from insured values of very large and/or hazardous property. All fire offices imposed risk limits on, and charged higher premiums for, property classified as 'hazardous' or 'doubly hazardous', as opposed to the most frequently applicable 'common' category. In the case of very large and valuable properties, these were accepted in some cases for full cover, though often at higher rates of premium. In other cases, cover was obtained from more than one fire office.¹⁷ Throughout the period of this study, examples are to be found of businesses insuring with more than one fire office. Sometimes as many as five or six are referred to in a given policy. Cockerell and Green quote the example of the Albion Flour Mill in Blackfriars which was insured in 1786 for £41,000 by five fire offices, all of whom paid up in full when it was destroyed by fire in 1791.¹⁸ Many other instances are to be found in the database created for the purpose of this study. Jenkins concludes that,

"Thus for very large industrial property and that of a particularly hazardous nature, it would be safer to assume that insured values underestimate the total risk. However Trebilcock's stricture that most industrial property is affected by this problem is too pessimistic, through its overestimate of the average size and value of industrial property in this period. Surely only relatively few types and numbers of large and hazardous industrial property would have had its insurance cover limited in this way."¹⁹

Certainly, this conclusion is borne out by the data on which this study is based. The average commercial capital insured was only £672 in the period 1769–1777, and,

more significantly, the median £200. For the period 1819–1825, the equivalent average figure had risen to £1512, although the median was still only £320. For the earlier period, the number of businesses insuring a commercial capital valued at over £1000 was 2132 out of 16,699, that is 12.8%; for the later, it was still only 3254 out of 14,022 or 23.2%. It is also instructive to consider the very recent research of Robin Pearson. He has shown that for the textile industries, the financial burden was small, with insurance costs largely balanced by sums paid back in claims.²⁰

For all these reasons, it is assumed for the purposes of this study that the values shown in the policy registers for fixed and/or working capital are a valid guide to the size of the individual business concerned. Certainly, an important consideration suggested by Jenkins has the ring of pragmatic truth and may, perhaps, serve as a final word,

"Premium income seems to have been an important consideration...Likewise commission was the important consideration for the agent. It was in his interests, financially, to encourage his client to insure fully even if the underwriters had reservations about such a practice."²¹

Duration of Policies

Another key issue in making use of the data contained in the fire insurance registers is the duration of the policy. Dickson states that policies were normally issued for one year and quotes the Sun's Secretary who in 1796 informed the Secretary to the Treasury that it was the normal practice of policy-holders to renew each year and to change the actual scope of their policy every seven years, "for it was supposed the Sun Fire-Office had 100,000 Policies in force, & that the Office issue about 15,000 Annually, which multiplied by 7 gave 105,000."²²

Jenkins also states that "Generally the fire offices would allow a policy to run for up to seven years",²³ quoting the fact that some Royal Exchange policies are marked as running for this period. However, throughout the period of this study, the minutes of

the Sun Fire Office make it clear that the period of insurance could vary at the behest of the proposer and that discounts were available on premiums for those insuring for a period greater than a year. An 1832 policy in the Guildhall Library Trade Card Collection, apparently utilising a form of words unchanged for many years, states that "Persons may insure for more Years than One, and in such Cases there will be a Discount allowed of 5 per Cent per Annum...for every Year except the First."²⁴ Policies for periods shorter than a year were also not uncommon, most usually for three or six months. At the other extreme, Dickson quotes an example in 1822 of the Sun agreeing to quote a premium rate for a fire policy for life.²⁵ More importantly, what the database created for the purpose of this study clearly demonstrates is that in practice policies for individual businesses in the period might be taken out for almost any reasonable period.

Utilising the Fire Office Registers

For the purposes of this study a comprehensive database has been built up to record the name and address of the proprietor or proprietors of every business for which a record exists in the fire office registers, the description of the business, and the details and insured values of all fixed and/or working capital.

Although the seven year rule referred to above would seem to have very limited validity in practice, a seven year period has been adopted as the basis for extracting data for as full as possible a sample of London businesses. For the seven year period 1819 to 1825 this provides a complete count for the Sun, Royal Exchange and Hand in Hand because the relevant registers are fully extant and in good condition. However, the coverage of businesses, as opposed to policies taken out by private individuals, of the Royal Exchange, and especially the Hand in Hand, is very limited. For the Globe and London Assurance Fire Offices the coverage is rather fuller, but their registers survive only for 1823–25 and 1821–23 and 1825 respectively. For the earlier part of

the period covered by this study, the coverage is rather different. Apart from the Sun, only the Royal Exchange and Hand in Hand were in existence in the 1770s, and the Sun had a virtual monopoly of industrial and commercial business. Although some Sun policies refer to joint insurance for industrial and commercial property with the Royal Exchange, and even other fire offices, there are no surviving records. Thus, for this period reliance has to be solely on the Sun. Another problem is that for some years, principally 1770 and 1773, the majority of registers have been rendered unusable by damp. Even for 1772 and 1774 significant numbers of policies are inaccessible for this reason. Fortunately, however, the extant records for 1769, 1771 and 1775 are very full and certainly contain far larger numbers of policies than those available for the 1820s. This is because the Sun had so much greater a proportion of the business than fifty years later. Even so, to further broaden the sample for the earlier period, data has also been extracted for the year 1777, for which particularly large numbers of policies are contained in the registers. 1776 was not used because very few registers have survived. The overall result is that, despite the existence of complete Sun records for the period 1819–25 and the additional, if limited, records for the other four fire offices, the number of businesses for which relevant data can be extracted is lower than that for the period 1769–1777, despite the inaccessibility of many of the records for several of those years. Overall the figures are 14,022 for the 1820s and 16,699 for the 1770s.

Before discussing in detail the format adopted in creating a computerised database for London businesses from the policy records in the fire office registers, it is necessary to look at some of the major difficulties encountered in recording the data.

For the period 1775–87, Jenkins mentions the major difficulties facing his team.²⁶ Legibility is cited as the most substantial problem. One cause of illegibility is deterioration of the registers. As noted above, this makes some of those for the early 1770s completely unusable. Fortunately this is not a problem for the 1820s. On the

other hand, handwriting is more legible in the 1770s. In both periods, many different hands are to be found, with very different styles and using different conventions. Spelling also varies widely, including that of both names and addresses.

The format of addresses can vary widely. Sometimes only a district is recorded, especially for some of the then outer districts of London, as in the case of Chelsea or Islington. For the period 1769–77, there is not yet any consistency in the use of street numbers. Sometimes these are recorded and sometimes they are not. By the 1820s they are more usually recorded.

In practice, the single most common cause of difficulty in recording data from the registers is the sheer carelessness of the clerks in recording information in the first instance, not perhaps surprising given that as early as the 1770s the Sun employed nine clerks in its policy department and personnel changed from time to time.²⁷

The significance of these difficulties in accessing the policy information lies in its subsequent entry on to a computerised database. Since to process the data by individual business requires a unique identification code for each business, it is necessary to identify different policies in the registers for the same business. The number of different policies recorded in the Sun registers in particular for a single business over even a very limited period of years can be enormous. The extreme example is William Landell and Sons, a very large-scale corn factor and lighterman of 40 Thomas St, Horsleydown. Between 1819 and 1825 the company took out 189 separate policies with the Sun, the minimum number being 13 in 1824, the maximum 47 in 1820. During that period many other businesses took out scores of separate policies and, although a less frequent occurrence during the earlier period, it was far from uncommon.

An example like William Landell and Sons presents no problem because in the case of

every individual policy entry the registers record identically the name, address and trade. However, this consistency was far from always the case and therein lies the major problem in entering information on to the database from the policy registers.

Many and varied are the problems encountered,

Property for the same business may be insured at different addresses in different policies. Thus, for example, Thomas Smith, a corkcutter at 49 Little Eastcheap, has another policy covering stock and utensils in Union St, Tooley St.²⁸

In other cases, the same address may be intended, but a street number shown in one case and not in another. Sometimes, too, obvious errors arise like '42' becoming '24' or '142'.

Common personal names may arise for common trades but with an incomplete address which makes it difficult to know whether the same or a different business is referred to. For example, there may or may not be more than one John Smith, butcher in, say, Whitechapel Rd. It is impossible to know if no street number is given.

Names may be spelt differently in different policies for the same business as with 'Smith' or 'Smythe'. Sometimes, too, it is difficult to judge whether, say, 'Burton' and 'Barton' are the same when the trade is common and the address incomplete.

Where multiple trades are shown, their order may change from one policy to another. Victualler and turner in one policy may become turner and victualler in another.

In other cases, quite different trades are shown for the same proprietor in different policies. For example, Andrew Kurtz of 4 Thamesbank has policies in 1819 as an acid and water colour manufacturer and brimstone refiner and as a vinegar maker.²⁹ In 1820 he had another policy, jointly with Abraham Mann and George Tobbs, as a colour manufacturer, but at 12 Bond Court, Walbrook.³⁰

An example of great variety in the description of name and trade is a business described in three separate policies in 1819 as Dyster, Culverwell and Co, skin brokers and leather factors of 42 Lime St.³¹ In 1820 it is described in one policy as Dyster and Co, merchants,³² also of 42 Lime St, and in another as Dyster, Culverwell and Co, skin broker and leather factor of Leadenhall Market.³³ Another example is George Frederick Urling and Co. In 1819 the business is described in one Sun policy as a dealer in lace at 142 Cheapside and in another as a lace manufacturer at an unnumbered address in the Strand.³⁴ In 1820 the business is also shown as a lace manufacturer in the Strand, but this time at number 392.³⁵ Finally, in 1821 the

number changes to 147 Strand in two separate policies.³⁶

Nevertheless, it cannot be over-stressed that, despite the difficulties in reading, interpreting and recording the information contained in the fire office registers for the period 1775–1825, the large majority of policies are perfectly legible, are readily interpreted and the data contained in them can be regarded as both accurate and reliable.

In aggregate, the data provide a unique picture of the economy of London during the last quarter of the 18th century and the first quarter of the 19th. Particularly invaluable is the fact that not only can this picture be built up separately for all industries and trades, but it also provides the means of analysing changes between the earlier and later parts of the period.

The database

The computerised database created both to record and to process data from the policy registers relies on every individual business having a unique identification code. This is a 12 character alpha-numeric code utilising the industrial classification, address and name of the proprietor(s) of the business. The first four characters are numeric and comprise the standard industrial classification for the business derived from the description of the main trade or industry contained in the policy register. The next three characters are also numeric and are taken from the street number, using '000' where the number is absent. The remaining five characters are alphabetic. The first three are the first three letters of the road, street, court etc, or of the district where no other information is given in the address. Finally, the last two characters of the identification code are taken from the first two letters of the surname of the proprietor. Where more than one proprietor is named, the first name on the register is used.

As an example, for William Brant, a Bedstead Maker of 5 Baldwins Gardens, the identification code is '4670005balbr': '4670' is the SIC for furniture making; '005' is the street number; 'bal' are the first three letters of Baldwins Gardens; and, 'br' are the first two letters of the proprietor's surname.

Also entered in full on to the database are the name and address shown on the policy. There are then nine data fields for analysis. These are as follows,

- Location
- Maximum Capital
- Minimum Capital
- Capital Type
- Main Activity
- Subsidiary Activity
- Proprietor
- Date
- Number of Years

For location, the alphabetic codes used are EC, E, N, NW, W, WC, SW and SE. These are derived from the location of the contemporary addresses as applied to the eight geographical groupings of postal districts used in London for over a century. For example, a business located in Cheapside would be coded 'EC', one with an address in Spitalfields would be given the location code 'E'. Where the address no longer exists, its precise location has been established by reference to three contemporary sources recently republished by the London Topographical Society. These are John Lockie's *Topography of London*, originally published in 1813;³⁷ John Rocque's map of 1747, published as *The A to Z of Georgian London*,³⁸ and William Faden's 1813 version of Horwood's map, published as *The A to Z of Regency London*.³⁹

Maximum capital is the numeric value of the commercial capital shown in the policy, that is to say either fixed or working capital, where only one is shown, or the sum of both where both are shown. The designation 'maximum' refers to cases where an individual business has policies in different years for different amounts. Into this field

is entered the value of the largest commercial capital insured for any one year. For example, if a business shows stock and utensils insured for £1500 in 1820 and £1000 in 1823, the figure entered in this field will be £1500. Conversely, the minimum capital field is used only where there are figures for a run of years and will represent the lowest value recorded, that is £1000 in the example above. It should be noted that where a policy in one year is solely for working capital and that in a subsequent year solely for fixed capital, or vice versa, the two are added together for entry into the maximum capital field.

The type of capital field records whether the commercial property insured is working, fixed or both. The numeric codes used in this field are 1, 2 and 3 respectively. Thus, insured values of stock would be coded '1', a steam engine house would be coded '2', both in the same policy would be coded '3'.

In the main activity field is entered the four character numeric standard industrial classification code. Where more than one trade or industry is designated, the subsidiary activity field will have entered the SIC code for the other trade or trades shown. Where a policy for a multi-activity business shows separate details of capital for more than one of the various trades concerned, each is given a separate entry on to the database.

For the proprietor field a single numeric character is used to designated whether it is a single male '1', a single female '2', a single male plus a single female '3', more than one male '4', more than one female '5', or a mixture of male and female with more than one of either '6'.

The date field shows whether the policy or policies derive from the period 1769-77, 1819-25 or both. The single character numeric codes are 1, 2 and 3 respectively. Into the number of years field are entered the actual number of years for which policies

are to be found in the registers. Thus, for example, in the case of William Landell and Sons mentioned above, the entry would be '7'.

Finally, the database incorporates a further large alpha-numeric comments field into which are entered the actual policy register description of the business, the actual years for which policies are to be found, the policy number(s), values and details of the property insured, cross references to insurance with other fire offices where known and any other comments of interest.

Other Sources of Data

Bankruptcy Commission Files

The Public Record Office hold some 1500 Bankruptcy Commission files for the 1820s. These have been sampled as a source of both complementary and supplementary data to that described above. Unfortunately, virtually none survive for the 1770s. The Bankruptcy Acts emphasised that bankruptcy procedures applied primarily to 'traders': although in practice a large number of occupations gained recognition both in the statutes and as a result of decisions by courts hearing appeals in doubtful cases. It appears however that potential bankrupts not infrequently took the precaution of qualifying as 'traders' by engaging in some minor trading description. In practice, 278 different trades are represented in the 1517 files for the period 1820-31.

The Bankrupt was given 42 days in which to make a full disclosure of his estate (5 Geo II C 30), though this could be extended. The statement of a bankrupt's affairs presented at his final examination came to be called a bankrupt's balance sheet. This should show debts owed by him (and proved before the Commissioners) and debts owed to him. It also contained estimates or actual statements of the amount of capital that had been put into the business and the remaining assets, and earnings (or

other income), losses and expenses over a period of years – there was no uniform time period – it could vary from two years to over twenty years. The aim was to see whether debts owed, plus capital and income, roughly equalled debts to the bankrupt plus his assets, losses and expenses. If they did not it might indicate that the bankrupt had not handed over all his assets.

Most bankruptcy files do contain this balance sheet, an example of which is set out below.

Balance Sheet of Charles Ackroyd and William Rowles
Carpenters & Builders of King St, Long Acre

Bankrupts Dr	£	s	d	Bankrupts Cr	£	s	d
To Amount of Debts, owing by the Bankrupts	2638	7	1½	Amount of Good Debts, due to the Estate	915	2	8½
Capital	3000			Do. Bad	4018	9	9¼
Profits of Business, during 11¼ Years	8812	18	6¾	Do Doubtful	2499	12	4½
Receiv'd Rent, from various persons during the above period	1425				7433	4	10¼
Receiv'd of Wm Tucker Esq (for an Annuity of £60 pr annum, on 3 Lives secured on Leasehold property)	600			Property(excl. of Debts) taken or to be taken by the Assignees	305		
Receiv'd a Premium with an Apprentice	100			Losses	260		
	£16576	5	8¼	Expences	8578	10	
					£16576	5	8¼

Property included household furniture £220, stock in trade £60 and fixtures £25. Losses included Loss by falling of a house, 213 High Holborn, £95. Expenses included rents, household expenses, wearing apparel £787.10.00, schooling for children £30, medicines and medical attention £159.06.03, servants wages £107.10.00, Clerks wages £45.05.00, premiums, taxes etc.⁴⁰

From this it will be seen that it is possible to derive data on capital employed in a business, profits made over a given period and, in some cases, details of persons employed. The first of these sets of data is complementary to that derived from fire insurance records and the other sets supplement those records. Obviously, businesses which end up before the Bankruptcy Commission cannot be regarded as typical.

However, David Alexander argues that bankruptcy was a comparatively commonplace occurrence during this period and by no means necessarily indicated untypical

businesses.⁴¹

A one in three random sample of Bankruptcy Commission files for the period 1820–31 yielded 403 with usable 'bankrupt's balance sheets'. The data from these has been entered on to a database similar to that described above for the fire office registers. The only differences are that the identification code is the PRO B3 file number, the location code is excluded as are the minimum capital and number of years fields. Additional fields are for profit and property, both of which record those balance sheet figures.

Contemporary Descriptions of Trades

Obvious though it may seem, it is necessary to establish exactly what contemporaries understood as the major activities and characteristics of the many different trades and industries in London during the period of this study. There are a number of major sources. Bankruptcy Commission files usually have a description of the trade or industry of the individual business concerned, some times very brief, but sometimes quite detailed. A much larger and more varied source are the several thousand documents to be found in the so-called 18th and early 19th century tradecard collections in the Guildhall Library and British Museum. The Guildhall collection is entirely for London and most of the Heal collection at the British Museum are also for London. The collections include tradecards, invoices, handbills, receipts, advertisements and even menus. Many contain detailed descriptions of the activities of the businesses concerned.

For detailed descriptions of particular trades and industries, there are a number of valuable contemporary sources. One such source is the many guidebooks for parents and guardians published in the 18th and 19th centuries. These appear to have been intended as potential career guides and vary enormously in the level at which they

are pitched. Probably the most famous is also one of the earliest and the most comprehensive, Campbell's *London Tradesman* published in 1747. Many more such guides were published in the first 30 years or so of the 19th century. Innumerable editions appeared of the anonymous *Book of Trades*, subtitled "Familiar Descriptions of the most Useful Trades, Manufactures, and Arts, practised in England And the manner in which the Workmen perform their various Employments". The 1820 edition covered 53 trades and the 1827 described 78. However, the descriptions of trades are aimed at children as are those in the anonymous *Little Jack of All Trades* of 1823 and *Cabinet of Useful Arts and Manufactures* of 1825.

Conversely, very useful indeed in its comprehensive descriptions of various trades is the also anonymous *Book of English Trades and Library of the Useful Arts* of 1824. Of a different nature, but also a useful source is T Mortimer's *General Commercial Dictionary*, first published in 1809 and in augmented editions in 1819 and 1823. Rather later is N Whittock and others' *Complete Book of Trades*, first published in 1837 and, with more limited but greater in-depth coverage, George Dodd's *Days at the Factories, Series I – London* of 1843.

For the period of this study, a systematic analysis has been made of all these descriptions of trades and industries by standard industrial classification.

Estimates of Capital Required to set up in Business

A number of the parents and guardians' guides referred to above give comprehensive listings of the capital required to set up in business in individual trades. Campbell is one of the best known and earliest although an anonymous publication entitled *A General Description of All Trades* was also published 1747 and contains a similar set of estimates. A little later, in 1761, J Collyer published his estimates in *The Parents and Guardians' Directory*. Then in 1786, G Kearsley published his *Table of Trades*.

Finally, in the 19th century were published two much more comprehensive listings, Mortimer's in the 1819 and 1823 editions of his *General Commercial Dictionary* and Whittock in the 1837 edition of his *Complete Book of Trades*. Again these have been systemtically analysed by standard industrial classification to enable direct comparison to be made with actual capital values insured in the fire policies.

Employment

Reliable estimates of employment for the period of this study are difficult to find. For individual businesses there are occasional references to be found in contemporary sources, but these are very few. In the Bankruptcy Commission files, 67 out of 403, contain references to numbers of employees of the business in the supporting papers to the bankrupt's balance sheet.

The 1831 Census contains a detailed count of employment in London but it is restricted to males over 20 years of age and employed in "Retail Trade, or in Handicraft". For the rest there are only total numbers employed in agriculture, manufacture, the professions and as labourers or servants. The first comprehensive count for London is contained in the 1841 Census report. It has been severely criticised but it does contain figures for some 722 trades. From this source, average number of employees per business can be estimated by using the numbers of businesses shown for the same trades and industries in the exactly contemporary 1841 *Post Office Directory*. Finally, the 1841 Census has been used in two Centre for Metropolitan History projects to construct a database of employees in individual businesses in the textile marketing area and central business district of the City. For 1841, this yields employment data for 35 warehouses and 12 other businesses.

3 Classification of Trade and Industry in London

Financial and economic planning, and monitoring the performance of business, trade and industry in Britain since the end of the Second World War, have required reference to a Standard Industrial Classification (SIC), the first version of which was introduced in 1948. Subsequently, it was updated in 1958, 1968 and 1980. Such a basic point of reference is equally necessary if meaningful analysis is to be attempted of the complex trends and developments in business, trade and industry in the period of this study and for London as an economic entity.

A description of and the use for for such a tool for economic analysis is set out in the Central Statistical Office publication *Standard Industrial Classification: Revised 1980*,

"The United Kingdom economy is made up of a wide range of economic activities through which goods are produced or services rendered by firms and other organisations. For analytical purposes, economic activities of a similar nature may be grouped together into 'industries', for example into agriculture, motor vehicle manufacture, retail distribution, catering, national government service. A system used to group activities in this way is described as an industrial classification. 'Industry' in this context is not restricted to extractive or production activities but extends to the provision of goods and services of all kinds.

Such a classification usually starts with a small number of broad groups of activities which are then subdivided into progressively narrower groups so that the classification can be used with varying amounts of detail for different purposes. Thus a broad group 'Transport and communication' may be subdivided first into the different modes of transport (road, rail, water, air) and communications (postal services, telecommunications) and these in turn into smaller subdivisions such as road haulage, bus and coach services, etc."¹

Such a tool is as necessary for analysis of business, trade and industry in London in the last quarter of the 18th century and the first quarter of the 19th as it is for the British economy as a whole in the last few years of the 20th. In practice, for the period 1775–1825, contemporaries simply listed trades and industries alphabetically, where they attempted any classification at all. Certainly this is true of both the London trade directories of the time, and of the many career guides published for parents and guardians. Only Campbell attempted a very partial classification of trades

in 1747. Even this attempts only to link some peripheral trades to the main trade on which they are dependent.²

Nevertheless, It has been found possible to use successfully a modern standard industrial classification to analyse the economy of Industrial Revolution Britain. The *Abstract of British Labour Statistics* published by the then Department of Employment and Productivity in 1968 presents employment and labour market data for each Census of Population from 1841 onwards analysed by 1948 SIC categories.³

For the purposes of this study, it is proposed to classify business, trade and industry in London during the period 1775–1825 in accordance with a slightly modified version of the 1980 SIC. There are, of course, problems. Indeed, many of these problems are still inherent in the use of the SIC for analysis of the contemporary economy. The principal problems, then as now, arise from the difficulties of distinguishing between manufacturing, craft production and customised or bespoke production; the difficulty of classifying businesses with highly diversified activities across several, or even numerous, different trades; and the perennial difficulty of distinguishing between retail and wholesale distribution.

In practice, the 1980 classification is particularly suitable for adaptation for the period 1775–1825, as compared with the three earlier modern versions, Thus,

"A number of different factors have been taken into account in the classification. They include the nature of the process or of the work done, the principal raw material used, the type or intended use of goods produced or handled, and the type of service rendered."⁴

Another advantage of the 1980 version is that, unlike earlier versions, it draws a distinction wherever possible between principals and agents. Thus, in the case of distributive trades, dealers buying or selling on behalf of others are classified separately from the wholesalers who actually take ownership of the goods in which they deal. This is a particularly relevant distinction for the period of this study.

All versions of the SIC produced since 1948 contain numerous new technologies which neither existed nor had any equivalent in the period 1775–1825. However, to put it the other way around, it is also true that every trade or industry found in late 18th and early 19th century London still exists today and can be identified in the 1980 SIC.

The 1980 SIC is subdivided progressively into Divisions, Classes, Groups and Activities. Businesses, trades and industries in London in the period of this study are to be found in all ten 1980 Divisions, in 31 of the 60 Classes and in 117 of the 222 Groups. With the progressive de-industrialisation of modern London, it is probable that a smaller proportion of industrial classifications is found now than 200 years ago. As will be seen, the 1980 'Activities' headings are modified for this study so that no direct comparison can be made. This is because their detail makes them too 20th century orientated to be useful as a tool of analysis for the earlier period. This means that in practice, three of the four progressive sub-divisions of the 1980 SIC are used for analysis of business, trade and industry in London in the period 1775–1825. There are ten main Divisions,

- 0 Agriculture, forestry and fishing
- 1 Energy and water supply
- 2 Extraction of minerals and ores other than fuels; manufacture of metals, mineral products and chemicals
- 3 Metal goods, engineering and vehicles
- 4 Other manufacturing industries
- 5 Construction
- 6 Distribution, hotels and catering, repairs
- 7 Transport and communication
- 8 Banking, finance, insurance, business services and leasing
- 9 Other services

These ten main divisions are so broad that they are used in this study only for very generalised analysis. In practice, application to the period 1775–1825 makes use mainly of 'Classes' and 'Groups'. These are exactly as found in the 1980 SIC except for some minor changes of wording to make better sense of late 18th and early 19th century technology and terminology.

In detail, the modified SIC used in this study for business, trade and industry in London in the period 1775–1825 is set out below. The two and three digit numerical classifications for 'Classes' and 'Groups' are taken directly from the 1980 SIC; the four digit classifications are based on 1980 'Activities' but have been considerably modified for the purposes of this study.

- 01 Agriculture & horticulture
 - 010 Agriculture & horticulture
- 17 Water supply
 - 170 Water supply
- 22 Metal manufacturing
 - 223 Drawing, cold rolling & cold forming of steel
 - 224 Non-ferrous metals
- 24 Manufacture of non-metallic mineral products
 - 241 Structural clay products
 - 242 Cement, lime & plaster
 - 245 Stone working
 - 246 Abrasive products
 - 247 Glass & glassware
 - 247.1 Glass
 - 247.2 Glassware
 - 248 Ceramics
- 25 Chemicals
 - 251 Industrial chemicals
 - 251.1 Dyes
 - 251.2 Other
 - 255 Paints, varnishes & printing ink
 - 255.1 Paints & varnishes
 - 255.2 Inks
 - 256 Specialised chemical products
 - 257 Pharmaceutical products
 - 258 Soap & toiletries
 - 258.1 Soap
 - 258.2 Perfume
 - 259 Specialised chemical products for household use
 - 259.1 Wax and tallow
 - 259.2 Cleaning materials
- 31 Manufacture of metal goods
 - 311 Foundries
 - 313 Bolts nails etc & metals treatment
 - 313.1 Metals treatment
 - 313.2 Nails etc
 - 316 Finished metal goods
 - 316.1 Implements & tools
 - 316.2 Household goods
 - 316.3 Other
- 32 Mechanical engineering
 - 323 Textile machinery
 - 324 Machinery for food related industries
 - 325 Construction & mechanical handling equipment
 - 328 Other machinery & mechanical equipment
 - 328.1 Engines
 - 328.2 Other

- 329 Ordnance, small arms & ammunition
 - 329.1 Guns
 - 329.2 Ammunition
- 36 Ship & vehicle building
 - 361 Shipbuilding & repairing
 - 365 Other vehicles
 - 365.1 Coachbuilding trades
 - 365.3 Wheelwrights
- 37 Precision instruments and medical equipment
 - 371 Measuring, checking & precision instruments & apparatus
 - 371.1 Mathematical instruments
 - 371.2 Other
 - 372 Medical equipment
 - 373 Optical precision instruments
 - 374 Clocks, watches & other timing devices
- 41/2 Food, drink & tobacco manufacturing
 - 411 Organic oils
 - 412 Slaughtering of animals & production of meat products
 - 414 Processing of fruit & vegetables
 - 416 Grain milling
 - 418 Starch
 - 419 Bread, biscuits & flour confectionery
 - 420 Sugar
 - 421 Chocolate & sugar confectionery
 - 423 Miscellaneous foods
 - 424 Spirit distilling
 - 426 Wines, cider & perry
 - 427 Brewing & malting
 - 428 Soft drinks
 - 429 Tobacco
- 43 Textile manufacturing
 - 431 Woollens & worsted
 - 432 Cotton & silk
 - 434 Spinning & weaving of flax & hemp
 - 435 Jute
 - 436 Hosiery & other knitted goods
 - 437 Textile finishing
 - 437.1 Dyeing & bleaching
 - 437.2 Callendering & hot pressing
 - 437.3 Dressing
 - 437.4 Other
 - 438 Carpets & other textile floor coverings
 - 439 Miscellaneous textiles
 - 439.1 Hair
 - 439.2 Ribbon, lace & trimmings
 - 439.3 Other
- 44 Manufacture of leather & leather goods
 - 441 Leather tanning & dressing & fellmongery
 - 442 Leather goods
 - 442.1 Saddles & harnesses
 - 442.2 Luggage
 - 442.3 Other
- 45 Manufacture of footwear & clothing
 - 451 Footwear
 - 453 Clothing, hats & gloves
 - 453.1 Clothing
 - 453.2 Hats
 - 453.3 Other

- 455 Household & other made-up textiles
- 456 Fur goods
- 46 Furniture & timber
 - 461 Sawmilling & planing
 - 463 Builders' carpentry & joinery
 - 464 Wooden containers
 - 465 Other wooden articles (except furniture)
 - 466 Cork articles, basketware, brushes & brooms
 - 466.1 Cork
 - 466.2 Basketware
 - 466.3 Brushes
 - 467 Furniture
- 47 Paper, printing & publishing
 - 471 Manufacture of paper & board
 - 472 Paper & board products
 - 475 Printing & publishing
 - 475.1 Printing
 - 475.2 Publishing
- 49 Other manufacturing
 - 491 Jewellery & coins
 - 492 Musical instruments
 - 494 Toys & sports goods
 - 495 Miscellaneous manufacturing industries
 - 495.1 Pens, pencils, quills
 - 495.2 Other
- 50 Construction
 - 500 General construction & demolition
 - 501 Construction & repair of buildings
 - 503 Installation of fixtures & fittings
 - 504 Building completion work
 - 504.2 Painters & glaziers
 - 504.3 Paperhanging & plastering
 - 504.4 Other
- 61 Wholesale distribution
 - 611 Agricultural raw materials, live animals & textile raw materials
 - 611.1 Hops
 - 611.2 Corn
 - 611.3 Other cereals
 - 611.4 Livestock
 - 611.5 Leather & skins
 - 611.6 Textile raw materials
 - 611.7 Other
 - 612 Fuels, ores, metals & industrial materials
 - 612.1 Coal
 - 612.3 Metals
 - 612.4 Other
 - 613 Timber & building materials
 - 615 Household goods, hardware & ironmongery
 - 615.1 Glass & ceramics
 - 615.3 Ironmongery & hardware
 - 615.4 Oils & paints
 - 616 Textiles, clothing, footwear & leather goods
 - 616.1 Clothes
 - 616.2 Textiles
 - 616.3 Footwear
 - 616.4 Other
 - 617 Food, drink & tobacco
 - 617.1 Meat, fish & poultry

- 617.2 Grocery & provisions
- 617.3 Beer, wine & spirits
- 617.4 Fruit & vegetables
- 617.5 Tobacco
- 617.6 Other
- 618 Medical & chemists' goods
- 619 Other & general wholesale distribution
 - 619.1 Merchants
 - 619.2 Stationery & books
 - 619.3 Other
- 62 Dealing in scrap & waste materials
- 622 Dealing in scrap materials
- 63 Commission agents
- 630 Commission agents
 - 630.1 Agricultural raw materials
 - 630.2 Textiles & textile raw materials
 - 630.3 Food & drink
 - 630.4 Household goods
 - 630.5 General
 - 630.6 Other
- 64/5 Retail distribution
- 641 Food
 - 641.1 Meat (incl. poultry) & meat products
 - 641.2 Bakery
 - 641.3 Fruit & vegetables
 - 641.4 Fish
 - 641.5 Drink
 - 641.6 Grocery & provisions—grocers & cheesemongers
 - 641.7 Grocery & provisions—chandlers
 - 641.8 Grocery & provisions—dairy & other
- 642 Confectioners, tobacconists, newspapers, wine, beer & spirits
 - 642.1 Beer & cider
 - 642.2 Wine & spirits
 - 642.3 Confectionery
 - 642.4 Tobacco
 - 642.5 Newspapers
- 643 Chemists
- 645 Clothing
 - 645.1 Tailors & dressmakers
 - 645.2 Slopsellers
 - 645.3 Corsets & stays
 - 645.4 Hats, hosiery & gloves
 - 645.5 Haberdashery, lace & trimmings
 - 645.6 Fabrics & fur
 - 645.7 Multiple specialism clothing & textile retailers
 - 645.8 Umbrellas, parasols & walking sticks
 - 645.9 Other new & used ready made clothing retailers
- 646 Footwear & leather goods
 - 646.1 Footwear
 - 646.2 Leather goods
- 647 Furnishing fabrics & household textiles
- 648 Household goods, hardware & ironmongery
 - 648.1 Hardware & ironmongery
 - 648.2 Oils, candles & paints
 - 648.3 Cutlery & plated goods
 - 648.4 Furniture
 - 648.5 Ceramics & glass

- 648.6 Pictures & prints
- 648.7 Music & musical instruments
- 648.8 Other
- 648.9 General (Brokers of household goods)
- 653 Books & stationery
 - 653.1 Books
 - 653.2 Stationery
- 654 Other specialised non-food retail distribution
 - 654.1 Coal & fuel
 - 654.4 Jewellery
 - 654.5 Flowers, plants, seeds etc.
 - 654.6 Pets & feedstuffs
 - 654.7 Other
- 656 Mixed retail businesses
- 66 Hotel & catering
 - 661 Eating places
 - 662 Public houses
 - 665 Hotels
- 72 Inland transport
 - 722 Transport of passengers by road
 - 722.1 Stable keepers
 - 722.2 Hackney coaches
 - 723 Transport of goods by road
 - 726 Inland water transport
- 74 Sea transport
 - 740 Sea transport
 - 740.1 Shipowners
- 77 Storage
 - 770 Storage & warehousing
 - 770.2 Granary keeping
- 81 Financial services
 - 815 Credit institutions
 - 815.1 Pawnbrokers
- 83 Professional & technical services
 - 831 Activities ancillary to banking & finance
 - 834 House & estate agents
 - 834.1 Surveyor
 - 837 Technical services
 - 839 Professional services
 - 839.1 Appraiser
 - 839.2 Auctioneer
- 92 Sanitary services
 - 921 Refuse disposal & sanitation
 - 923 Cleaning services
- 96 Public services
 - 969 Public services
 - 969.1 Lighting
- 97 Artistic & recreational services
 - 976 Artistic services
 - 977 Libraries, museums etc
 - 979 Sport & recreational services
- 98 Personal services
 - 981 Laundries & dyers
 - 982 Hairdressing, beauty treatments & public baths
 - 989 Other personal services
 - 989.1 Funeral services

As stated above, one of the principal problems with any industrial classification is

distinguishing between wholesalers and retailers in any given sector of the distributive industry. This is no less true for the last quarter of the 18th century and the first quarter of the 19th than it is now. In many cases, indeed, it is not a meaningful distinction at all in practice. For the period of this study, businesses are assumed to be predominantly retail unless either described in the insurance registers as wholesale or there is compelling evidence in the individual policy to place it in the wholesale category. Examples of the latter are John Kittermaster and Samuel Bostock. The first is shown as a Fishmonger in a Sun policy of 1775, but it may be inferred that the business is wholesale because the address is Billingsgate, a warehouse is insured for £200 and his stock and utensils are valued at £800, very many times greater than the normal working capital insured by a fishmonger.⁵ In the case of Samuel Bostock, a Cheesemonger of 105 Borough in 1777, it can be assumed that the business is wholesale because stock, utensils and goods are insured for £3000 and are shown as being held in his warehouse.⁶

Another problem is that for many of the distributive trades in the period 1775 to 1825, it is difficult to distinguish between retail, or for that matter wholesale, businesses in the modern sense, and actual production of the articles for sale. In many cases there was no such distinction. Here, the convention which has been adopted is that where no contemporary distinction is drawn and no specific indication is given in the policy register of production processes, the business is treated as primarily falling within the distributive sector. Where there is an indication of bespoke production, this too is treated as a distributive trade (in line with the modern SIC). Where there is some production process, but also distribution, this too is classified as distribution. Only where there is a clear indication that the production process is paramount, is it treated as falling within the appropriate manufacturing sector.

Yet another problem with which economic statisticians have wrestled without complete success over the last fifty years, is that of distinguishing between the terminologies of

industrial classification and those of occupational classification. In essence, the problem is finding terms which differentiate between an occupation and the trade or industry within which that occupation is employed.

There is no problem where occupations involve such general transferable skills as manager, clerk, commercial traveller, salesman, porter or labourer. However, where the commonly used term is equally applicable to a trade or industry, to a craftsman, to the proprietor or proprietors of a business, or to the business itself – for example, cabinet maker, butcher, saddler or draper – no simple or universal terminology has ever evolved to avoid the ambiguity. Thus, cabinet maker could mean a craftsman, employed or self-employed, or the proprietor or proprietors of the business, or the business itself.

The modern solution is to describe the trade or industry concerned as either cabinet making or furniture manufacturing in the case of cabinet maker. For the other examples above, the terminology might be food retail distribution (meat) for butcher, manufacture of leather and leather products (saddler) or retail distribution – textiles (draper). None of these is readily accessible or generally recognised, not least in those industries or trades concerned. In practice, the 1980 SIC uses both sets of terms, acknowledging that, for example, cabinet maker or baker can denote either occupation, or industry or trade. For SIC purposes, the terms are applied to the individual business, whatever the status of the proprietor, even if he or she is self-employed.

No late 18th or early 19th century source makes any distinction in terminology between occupation or craft on the one hand, and trade or industry on the other. This has led many historians to assume that the fire office registers use such terms occupationally or to designate a craftsman. Again using the example of 'cabinet maker'; the term when found in a policy has been taken as designating a craftsman.

However, for the purposes of this study, the term is taken to be descriptive of the business and the trade or industry within which that business is to be classified.

Clearly such apparently occupational terms as those ending in 'er' or 'man', such as carpenter, linen draper, shipbuilder, oilman, carman or warehouseman cannot be taken to designate simply a tradesman where a fire insurance policy describes fixed and working capital insured for many hundreds or thousands of pounds. This applies to both fire office registers and the other contemporary sources used for this study.

Three examples illustrate the justification for adopting this convention. Peter Mestaer of New Hermitage St, Wapping is shown in a 1769 Sun policy as a Shipwright, but with wharves and industrial buildings insured for £1500 and stock, utensils and goods for £950.⁷ In 1770, George Seddon of London House, Aldersgate St is described as a Cabinet Maker, but insured his workshop and warehouse for £2500, sawpits for £250 and stock and utensils for £2600.⁸ A final example is Emma Hargrave of Pall Mall, described in 1771 as a Milliner, but with stock and utensils insured for the substantial sum of £700.⁹

In practice, such terms are taken as describing the business, and therefore its industrial classification, whether it is a self-employed person, a sole proprietor, a partnership, or a company. No distinction is made in the terminology describing an individual business in the fire office registers between any of these forms of proprietorship. Thus, the term 'cabinet maker' is applied equally to a self-employed person in the case of John Benjamin Osborne, 6 West St, Soho who in 1820 insured tools to the value of £10,¹⁰ a sole proprietor in the case of Charles Judson, 37 Little Alie St, who in 1819 insured stock and utensils valued at £2140,¹¹ a partnership in the case of Deacon and Davis, 35 Piccadilly, who in 1819 insured stock and utensils for £2000,¹² or a company in the case of Henry Russell and Co, 67 St Martins Lane, who took out policies every year but one between 1819 and 1825 for stock and utensils up to the value of £4000 and a manufactory insured for £500.¹²

4 Total Numbers of London Businesses

From the Sun and other fire office registers for the periods 1769–77 and 1819–25, records have been created on the database for 16,699 and 14,022 individual businesses respectively. The first question which arises, therefore, is what proportions do these totals represent of the total number of businesses in London at the beginning and end of the half century from 1775 to 1825.

The problem is readily solved for the latter part of the period. For the 1820s there are a number of trade directories which list businesses in London by trade or industry, though their coverage varies enormously. For example, Kent's *Original London Directory* for 1818 lists just under 22,100 "Merchants and Traders of London and Parts Adjacent". The *Post Office Directories* for 1825 and 1826, which are simply alphabetical lists of names and addresses rather than commercial directories of trades, give 20,000 names.¹ A considerably greater coverage is provided by Pigot and Co's *London and Provincial New Commercial Directory* for 1822–23 which lists 32,400. However, for the purposes of this study, it is the 1826–27 edition of Pigot² which is used as the most comprehensive list of businesses in London by individual trade and industry for the 1820s. It lists alphabetically just over 48,000 names and addresses for an area with boundaries very similar to those for the Metropolis in the 1811, 1821 and 1831 Censuses. Although a few businesses are listed for areas outside, such as Stratford and Tottenham, a sample analysis shows that these account for less than one per cent of the total.

Contemporaries made little distinction in trade lists between the professions and trades and businesses proper. However, for the purposes of this study, analysis of business, trade and industry in London during the period 1775 to 1825, generally excludes the professions. Most parts of the medical profession are excluded, the most numerous being surgeons and physicians, but also dentists and veterinary surgeons. However, apothecaries and opticians, who were more nearly trading businesses, are included.

Also excluded totally are the legal and teaching professions, teaching establishments, the financial professions (including accountants), financial institutions, banks and insurance companies. The other major professions, such as architects, are also excluded, together with artists of all kinds.

Self-employed tradesmen employing fixed and/or working capital are included as businesses for the purposes of this study, as indeed they are for modern economic statistical classification purposes.

Fortunately, it is quite easy to make these exclusions from Pigot and Co's *London and Provincial New Commercial Directory* 1826–27. There is some, but remarkably little, double counting: some multi-activity businesses are listed under more than one heading. Less fortunately, although Pigot also includes an alphabetical list of individual businesses, which cross-refers to the trade list and is described as an "alphabetical list of all the names which appear under the several trade heads", there are numerous errors and omissions in the cross-reference which makes it unreliable as a total count. However, it does show businesses which appear under more than one trade heading and this can be used to adjust the count by trade and industry to a total of individual businesses.

For the purposes of this study, the total number of businesses shown in the trade count is 48,002. This is after adding back in public houses (3,545) and "hotels, inns, taverns etc. (including coffee houses)" which are shown separately. Also shown separately and added back in to the total are carriers (829) and 300 in smaller categories or included in the unclassified miscellaneous list of names received too late for classification.

The alphabetical list identifies those businesses which appear under more than one trade classification. In total, the classification by trade includes 1,957 instances.

Although it has been noted that the alphabetical and trade counts cannot be reconciled in detail, it is reasonable to assume that the total number of businesses in London in the mid 1820s was 48,002 less 1957, say just over 46,000 in round figures.

For the 1770s there is nothing remotely like the comprehensive count of businesses provided by Pigot for the 1820s. P J Atkins identifies only one classified trade directory for the period. This was T Mortimer's *Universal Director* published in 1763 which in Part II classifies some 1,100 businesses by 74 manufacturing trades and in Part III lists 2,800 other businesses, of which 1365 are merchants.³

Atkins lists total counts for 19 other directories for the period 1760 to 1780. Although Kent's Directories rather grandly claim to contain "An Alphabetical List of Companies, Persons in Public Business, Merchants, and other eminent Traders in the Cities of London and Westminster, and Borough of Southwark", the fullest listings are only for 5,800 businesses in the 1775 and 1780 editions. J Osborn's *Compleat Guide to all Persons Who Have Any Trade or Concern with the City of London, And Parts Adjacent* lists 7,000 names in 1774, 6,500 in 1770 and 6,000 in 1765, but only 5,900 in 1777. Similar numbers are given by W Harris in his *London Register of Merchants and Traders* which lists 6,500 names and addresses of businesses in 1775. The largest count is contained in Andrew's *New London Directory* of 1780 which lists 7,800 businesses, compared with 6,500 in his 1775 edition and only 5,100 in 1769.⁴

Clearly, the largest count of 7,800 can only be a fraction of the total number of businesses in London at the beginning of the last quarter of the 18th century. The nature of the very partial coverage can be exemplified by a careful study of one trade directory for the 1770s. Kent's Directory for 1774⁵ lists 5,106 businesses. Analysing these by the modified standard industrial classification used for the purposes of this study shows that it concentrates overwhelmingly on merchants, factors and brokers. These account for 1,582 out of 5,106 businesses, that is just under 31%.

These same businesses account for only just under 5.5% of the businesses classified in Pigot for 1826–27. Kent also gives a reasonable count for a few retail businesses, particularly drapers, haberdashers, mercers and hosiers, and also grocers and cheesemongers. On the other hand, manufacturing industries account for only 1,151 businesses compared with nearly 14,700 in Pigot. The reason for the low count overall is not hard to find. There are no entries at all, or only very insignificant numbers, for such major trades as carpenters, cork, basketware and brush trades, printers, building and construction, carmen and carriers, pawnbrokers and personal services such as laundering, hairdressing and undertaking. Numerically even more significant, Kent lists virtually no butchers, bakers, chandlers, tailors, dressmakers and milliners, boot and shoemakers or victuallers, coffee and eating houses. Together these trades and industries account for 15,747 businesses in Pigot, which is 32.8% of the total.

From the very inadequate evidence it is very difficult to estimate the total number of businesses in London in the 1770s. However, an attempt can be made. Heal in his *London Furniture Makers, 1660–1840*⁶ and Maxted in *The London Book Trades, 1775–1800*⁷ combed virtually every source except the fire office registers. For the period 1760 to 1780, Heal lists 526 businesses and Maxted 995. These figures are respectively 37.2% and 35.6% of the total listed in Pigot half a century later. On the other hand, Kent's Directory for 1774 lists 1582 merchants, factors and brokers which is just over 60% of the total in Pigot (2624). Taking these three groupings for the 1770s together, they represent 45.4% of the equivalent numbers in Pigot. If that percentage is applied across the whole spectrum of trade and industry it would give an estimate for the 1770s of about 21,800 businesses. This is clearly far too low.

Another approach would be to base an estimate on the total population served by London businesses in the 1770s compared with the known proportions for the 1820s. There must be grave reservations about such an approach, but it might be justifiable at least for the retail trades. A reasonable estimate of London's population in, say,

1775 would be between 750,000 and 800,000. For 1775 it would lie between 1,350,000 and 1,400,000. This would give a range of population increases from just over 86% to just under 69%. Pigot lists 24,041 businesses in the various retail and wholesale distribution trades in 1826–27. The percentages above applied pro rata to the 1770s would give an estimate of between 12,900 and 14,200 such businesses in, say, 1775. The likelihood is that the figure would be nearer the higher end of the range because individual businesses would be able to cope with greater numbers of potential customers as the population increased. Thus, an estimate of about 14,000 would not seem unreasonable.

At this point, it has to be noted that the recent study of shops and shopkeeping in 18th century England by H C and L H Mui points to a total of 21,603 "retail shops" in the London Bills of Mortality and the parish of Marylebone in 1759.⁸ This is derived from the excise enumeration carried out for potential tax gathering purposes. On the face of it, this provides an accurate base for calculating numbers of businesses in the retail sector, and one confirmed by the younger Pitt's enquiry of 1797 which identified 22,017.⁹

However, both these figures seem astonishingly high when compared to the count of 20,041 in Pigot for 1826/27, by which time London had expanded considerably in area and doubled in population compared with 1759. The answer would seem to lie in the fact that the excise enumerators would almost certainly have counted as a shopkeeper anyone who did any retail business. In the second half of the 18th century this would have included wholesalers, victuallers and such trades as pawnbrokers and undertakers, as well as virtually all the small craft and manufacturing industries. Pigot in 1826/27 lists 20,041 retail businesses and 4000 wholesalers, but also some 15,350 businesses in manufacturing and other trades which would have had some involvement in retailing, but which are classified elsewhere for their main activity in

this study. In other words, retail and wholesale distribution proper cover just over 24,000 out of about 39,500 businesses which would probably have had at least some involvement in "shopkeeping", that is just over 60%. If that proportion is applied to the 1759 excise calculation of 21,603, it suggests a figure of about 13,150. This is very close to the estimate of 14,000 above.

Using the 1774 Kent figure for merchants, factors and brokers and the Heal and Maxted figures for the furniture and book trades as a proportion of the Pigot totals for those businesses (i.e. 45.5%) and applying it to trades and industries other than retail distribution, but excluding merchants, factors and brokers, the furniture and book trades, and catering, would give an estimate of just over 6,500 businesses. To this can be added the actual figures for merchants, brokers, factors and the furniture and book trades, rounded up to, say, 1,750, 750 and 1,000 respectively. Topped up with an estimate of at least 3,500 victuallers, coffee and eating house keepers and the like based on the very full coverage provided by the Sun registers for the period 1769-77, this would suggest an estimate of the total number of businesses in London in the 1770s of about 30,000, made up as follows,

Retail and Wholesale Distribution	14,000
Merchants, Factors and Brokers	1,750
Furniture Trades	750
Book Trades	1,000
Catering Trades	3,500
Manufacturing, Building and other trades	9,000

It is, therefore, proposed to use 46,000 as the estimate of total businesses in London in the 1820s and the very broad brush estimate of 30,000 as the figure for the 1770s. This means that the database for this study, with 16,699 individual businesses for the period 1769-77 and 14,022 for 1819-25, represents 55.7% and 30.5% of all London businesses.

5 London Defined: Geography, Demography and Topography

Geography

For the purposes of this study, London is defined geographically within the boundaries used for the Metropolis in the three Censuses of 1811, 1821 and 1831. These defined London as the City within and without the walls, Westminster, Southwark, shown separately for the first time in 1831, the out-parishes of Middlesex and Surrey within the London Bills of Mortality, and the out-parishes of Middlesex without the Bills of Mortality. The former included the parishes of St Andrews, Holborn, Old Artillery Ground, St Mary Magdalen, Bermondsey, St Matthew, Bethnal Green, St Botolph, Aldgate, Charterhouse, Christchurch, Spitalfields, part of St Clement Danes, St James and St John, Holborn, part of Duchy of Lancaster, Ely Place, St Giles and St George, Bloomsbury, St George in the East, Glass House Yard, St John, Hackney, St Mary Islington, St Katherine near the Tower, St Mary Lambeth, St Ann, Limehouse, St Luke Middlesex, St Mary, Newington Butts, Rolls Liberty, St Mary, Rotherhithe, Saffron Hill and Hatton Garden, St John the Baptist Savoy, part of St Sepulchre, St Paul, Shadwell, St Leonard, Shoreditch, St Dunstan, Stepney, Tower Liberty, Tower Old Precinct, St John Wapping, and St Mary Matfelon, Whitechapel; the latter included St Lukes, Chelsea, Kensington, St Marylebone, Paddington and St Pancras.

These boundaries are virtually identical to those used by the contemporary cartographer William Faden for his 1813 third edition and updating of Richard Horwood's *Map of the Cities of London and Westminster* originally published in 1799. The 1813 edition is reproduced, with a full place name index, as *The A to Z of Regency London*.¹ The 1813 boundaries are very little changed from the original 1799 edition or those used by John Roque whose 1745 map has also been reproduced in a modern format.² Faden's map in the 1813 version differs from the Census boundaries only in extending slightly further to the south and, particularly, to the south east to include Deptford, and to the north east towards Stratford le Bow.

For the purposes of topography, this study predominantly uses Horwood in the 1813 Faden version which means an area some seven miles across from west to east and just under 3½ miles from north to south, an area of nearly 25 square miles. To the north, the line stretches from Regents Park in the west through Somers Town, St Pancras, Pentonville, Islington, Hoxton, Bethnal Green, Hackney and Globe Town and on to the River Lea at Stratford le Bow (modern Bow) in the east. The western boundary stretches southwards from Regents Park, through St Marylebone and Paddington to Hyde Park and down through Kensington to the Thames at Chelsea. To the east, the boundary is the River Lea and the loop of the Thames to the east of the Isle Of Dogs. The southern boundary is a line from Vauxhall Bridge to, but not including, Deptford. For some points of detail for the earlier part of the period, Roque's 1747 map is referred to.

The 1811 to 1831 Census definitions of the Metropolis are also broadly those used by the contemporary London trade directories, including Pigot's *London and Provincial New Commercial Directory* for 1826/27.

Population

London's predominance in the British economy in the century or so immediately prior to the Industrial revolution was based at least in part on its enormous population relative to the rest of the country. Subsequently, too, population growth was highly important in defining changes in business, trade and industry in the capital during the period 1775–1825. In fact, London's demographic predominance altered relatively little during that period, despite the enormous upsurge in population in the new industrial areas of the Midlands, the north of England, South Wales and central lowland Scotland.

At the beginning of the period of this study, in the early 1770s, the population of

England and Wales has been variously estimated as between 7.052 million and 7.428 million. The first national census in 1801, taken in the very middle of the period of this study, gave an actual population for England and Wales of 8.893 million. Taking the mid-point of the 1770/71 estimates, say 7.24 million, gives an increase in population of 1.653 million, or 22.8% over 30 years. Over the next 30 years, census returns from England and Wales showed an increase in population from 8.893 million in 1801 to 10.164 million in 1811, then to 12 million in 1821 and to 13.897 million in 1831. This was an increase of 5.004 million in total, or 56.3%, nearly two and a half times the rate of growth in the previous 30 years.

Estimates of the pre-census population of London contained in the *Abstract of Answers and Returns to the 1821 Census*³ show no change in the population of London during the first half of the 18th century. In 1700 the population was estimated as 674,350 and in 1750 as 676,250. However, by the 1801 census London's population had grown to 864,845. This was an increase of over 188,500, or 27.9% in the second half of the 18th century. Thereafter, the population of London increased to 1,009,546 in 1811, to 1,225,694 in 1821, and to 1,471,941 in 1831. Thus, the total growth in population from 1801 to 1831 was over 607,000, an increase of 70.2%. It will be seen that this increase was 13.9 percentage points, or 24.7% greater than that for England and Wales as a whole. Indeed, if London's population is subtracted from that of England and Wales, the increase from 1801 to 1831 is only 54.7% compared with 70.2% for London, a difference of 15.5 percentage points or 28.3%.

At the beginning of the 1760s, the total population of England and Wales was estimated as between 6.48 million and 6.736 million. Taking a mid-point of 6.608 million and a population of London in 1750 as 0.674 million, it would appear that the population of London in the middle of the 18th century represented just over 10% of the total population of England and Wales. The 1801 census showed that this proportion had declined slightly to 9.7% after which it increased to 9.9% in 1811, to

10.2% in 1821, and to 10.6% in 1831.

Another indication of the predominance of London in the population of late eighteenth and early nineteenth century Britain is its size relative to other towns and cities at a time when the new industrial conurbations were expanding at their fastest. The 1801 census showed no other town with a population even approaching 100,000. London, with a population of just under 865,000 had more than ten times that of the next largest town, Liverpool with 82,000. Only five other towns had over 50,000; Glasgow with 75,000, Manchester with 75,000, Birmingham with 71,000, Bristol with 61,000 and Leeds with 53,000. Indeed, the population of London equalled the next 28 largest towns in the country put together.

By 1831, the population of London had grown to 1,471,941. By that year, the populations of both Liverpool and Glasgow had increased to 202,000 and there were four other towns with over 100,000, Manchester (182,000), Birmingham (144,000), Leeds (123,000) and Bristol (104,000). All of these had grown at a faster rate than London. Nevertheless, it is still the fact that London had more than seven times the population of the next largest town and that the absolute difference was over one and a quarter million. Despite the rapid pace of industrialisation in the Midlands, north of England, South Wales and central Scotland, London's population still equalled that of the next 16 towns in the kingdom.

The population of London did not grow at the same rate everywhere. The metropolis was spreading rapidly outwards during this period. Even so, there were great increases in population in many inner areas, as well as in the rapidly expanding districts on London's outer edges. The *Abstract of Answers and Returns of the 1821 Census* estimated a virtually static population for London during the first half of the 18th century. However, within that population great changes were occurring. Principal amongst these was the decline in the population of the City, both within and without

the walls, although especially the former. The population of the City within the walls declined by 52,300 (37.5%) and without the walls by 11,700 (17%). Compensating for this were increases in the population of Westminster and the out-parishes.

	<u>1700</u>	<u>1750</u>
City (within the walls)	139,000	87,000
City (without the walls)	69,000	57,300
Westminster	130,000	152,000
Out-parishes (within bills of mortality)	326,900	357,600
Out-parishes (without bills of mortality)	9,150	22,350
TOTAL	674,350	676,250

From 1801 onwards, the censuses give much more accurate and detailed statistics of population changes within London, particularly Part I of the 1851 Census⁴ which uses recognisably modern district designations rather than the earlier parish boundaries. The table below sets out the statistics for the 1801, 1811, 1821 and 1831 censuses using the 1851 district designations. Those districts outside the 1831 definition of the Metropolis set out above are excluded. Even so, the totals do not correspond precisely with those for the Metropolis using the earlier definition.

Within the central district (defined as the City, St Giles, St Lukes, East London, West London, the Strand, Clerkenwell, and Holborn), the population grew from 285,284 in 1801 to 355,502 in 1831, an increase of 70,218 or 24.6%. This was a far lower rate of growth than for London as a whole (70.2%), although even by 1831 this was still the most heavily populated area of the Metropolis, a distinction it had lost to the eastern districts by 1841. Within these central districts, the population of the City continued to decline. In 1801 it was 64,515 but by 1831 it had fallen to 57,080. All other central districts, with the exception of West London, showed increases. In the case of Clerkenwell, the population more than doubled from 23,396 to 47,634. Substantial increases were also recorded in St Giles and St Lukes.

All the northern districts included in the 1831 definition of the metropolis showed very substantial increases, in some cases more than three fold. The most heavily populated

district was Marylebone where the population increased by 58,224 (91%) from 63,982 in 1801 to 122,206 in 1831. The Pancras district increased at an even faster rate, over three-fold, from 31,779 in 1801 to 103,548 in 1831. An even greater proportionate increase occurred in Islington, from 10,212 to 37,316.

To the west, the main increases were in Kensington and Westminster. The former increased its population by 30,516 (149.1%) from 20,465 to 52,981; the latter by 22,294 (86.1%). There was also a large increase in St George's, Hanover Square, from 38,440 to 58,209, and a nearly three fold increase, from 11,604 to 32,371, in Chelsea.

The largest concentration of population, apart from the central districts, was in the eastern districts of Shoreditch, Bethnal Green, Whitechapel, Stepney, Poplar and St George's in the East showed an increase in population of 152,101 (85.1%) from 178,635 to 330,736. All districts showed substantial increases. The largest were Stepney with 37,533 (107.5%) from 34,909 to 72,442; Shoreditch with 33,798 (97.2%) from 34,766 to 68,564; and, Bethnal Green with 39,708 (178%) from 22,310 to 62,018. The population of Poplar increased three-fold from 8,278 to 25,066.

Excluding those districts which did not fall within the 1831 definition of the Metropolis, the southern districts covered Southwark (the three parishes of St Saviour's, St Olave's and St George's), Bermondsey, Newington, Lambeth and Rotherhithe. In 1801 these districts had a population of 136,935. By 1831 this had grown to 266,499, an increase of 129,564 (94.6%). Within these districts, far and away the largest increase was in Lambeth, by 59,871 (213.9%). Newington also saw a three-fold increase, from 14,847 in 1801 to 44,526 in 1831

Set out in full, the population statistics for those 1851 London districts falling within the 1831 definition of the Metropolis are as follows,

	<u>1801</u>	<u>1811</u>	<u>1821</u>	<u>1831</u>
Western districts	158291	179484	211564	252761
Northern districts	120165	156142	215459	297597
Central districts	285284	306022	339576	355502
Eastern districts	178635	222703	271323	330736
Southern districts	136935	169260	214348	266499
Total	879310	1033611	1252270	1503095
<u>Western Districts</u>				
Kensington	20465	28791	36205	52981
Chelsea	11604	18262	26860	32371
St George's, Hanover Square	38440	41687	46384	58209
Westminster	25883	29817	39403	48177
St Martin's in the Fields	27437	26834	28893	23970
St James, Westminster	34462	34093	33819	37053
<u>Northern Districts</u>				
Marylebone	63982	75624	96040	122206
Pancras	31779	46333	71838	103548
Islington	10212	15065	22417	37316
Hackney	14192	18920	25164	34527
<u>Central Districts</u>				
St Giles's	36502	48536	51793	52907
Strand	35054	36788	41474	42015
Holborn	34618	36492	41263	42696
Clerkenwell	23396	30537	39105	47634
St Luke's	26881	32545	40876	44642
East London	35831	34663	37606	38311
West London	28387	29360	30038	28217
City	64615	57101	57421	57080
<u>Eastern Districts</u>				
Shoreditch	34766	43930	52966	68564
Bethnal Green	22310	33619	45676	62018
Whitechapel	57202	62672	68932	64141
St George in the East	21170	26917	32528	38505
Stepney	34909	42017	52289	72442
Poplar	8278	13548	18932	25066
<u>Southern Districts</u>				
St Saviour, Southwark	25529	26399	30147	31711
St Olave, Southwark	18816	17753	19390	20021
St George, Southwark	22293	27697	36368	39769
Bermondsey	17169	19530	25235	29741
Newington	14847	23853	33047	44526
Lambeth	27985	41644	57638	87856
Rotherhithe	10296	12114	12523	12875

Topography

The recently published *London History Atlas* has a picturesque, if rather exaggerated,

description of the difference between London at the beginning of the 18th century and a century and a quarter later at the end of the period covered by this study,

"In 1700 an observer who climbed the gallery around the dome of St Paul's Cathedral would have been able to view London in its entirety. Pastures and scattered farms extended from Lamb's Conduit Fields to the distant hilltop hamlets of Hampstead and Highgate; isolated clusters of buildings at Covent Garden, Lincoln's Inn and Leicester Fields stood in the midst of fields; Hyde Park and St James Park were surrounded by open countryside. An insistent impression of London at this time would have been its rusticity. Within the City itself gardens and orchards lay behind taverns and City company halls, in the Inns of Court and around hospitals, schools and almshouses...London looked as if it were made up of 150 villages, each centred upon its own church, inn, market place, great house and rows of cottages...

By the end of the 18th century the built-up area covered more than twice as much land as at the beginning, and social segregation had advanced to an even greater extent. Surveying a panorama from the dome of St Paul's in the early 19th century, it would have been difficult to discern the edge of the urban area. Not only had fog and smoke impaired visibility but ribbons of houses and inns stretched along many roads to the far horizon. Everywhere fields were marked out as building plots and new pits were dug for gravel and brick earth. Daniel Defoe recalled a time when Brick Lane, in Spitalfields, 'had been a deep dirty road, frequented by Carts fetching Bricks that way from Brick-kilns' in fields at Whitechapel. Like hundreds of other country lanes it became a well-paved city street. The New Road, constructed in the middle of the 18th century to by-pass the northern fringes of the built-up area, was reported fifty years later to be 'skirted on both sides with houses' for much of its length. To the South, St George's Fields were rapidly being covered with buildings.

The most remarkable change that came over London during the 18th century were the planning and building of separate residential districts for the rich in the West End and an exodus of middle-class residents from much of the City and from the East End. From the Strand north to Holborn, respectable families were moving out."

Furthermore,

"In 1700 London was not only abominably insanitary, having no main drainage, no publicly provided collections of household refuse and utterly inadequate supplies of clean water, but it lacked many other basic services. It had no public transport, no street lighting, no minimum standards of paving, no paid police force, no fire brigade and no restrictions on the sale of liquor, tobacco or dangerous drugs.....By the end of the Napoleonic Wars, steps had been taken to improve sanitation. street lighting, paving, policing and public open spaces."⁵

Put more objectively, London during the 18th century expanded over a larger area and at a faster rate than at any time in its previous history. Although new building advanced unevenly in different directions from the City, and inevitably booms alternated with troughs in the construction industry, there was a steadily increasing demand for new houses from both rising commercial prosperity and the huge increases

in population noted above from the middle on the 18th century onwards. Private landowners led the way in promoting building developments, together with City livery companies, the Church the Crown and charitable institutions.

The development of the West End as an area of fine squares and streets for the residence of the rich and fashionable was led by the landowners of a comparatively few great estates. By the 1730s Mayfair was already laid out. From the early 1760s to the outbreak of war with France thirty years later came the golden age of Georgian architecture with such developments as the Adelphi, Piccadilly, Berkeley Square, Cavendish Square, Portland Place and Fitzroy Square.

While the rich moved west, the poor crowded into districts forming a belt around the City, principally St Giles, Clerkenwell, Spitalfields, Bethnal Green, Whitechapel and Wapping. As early as the 1780s a visitor to England was remarking "the East End, especially along the shores of the Thames consists of old houses; the streets there are narrow and ill-paved...The contrast between this and the West End is astonishing."⁶

After the Napoleonic wars there was another construction boom from 1816 to 1826. Indeed, this was one of the two major booms of the entire 19th century. To the west of the Metropolis, this included the development of Tavistock Square, Gordon Square and Belgravia. Even more significantly for business, trade and industry, the industrial areas of the Metropolis were expanding rapidly. Not only were the Port of London and its associated riverside districts transformed by massive dock and warehouse developments, but streets of small dwellings to house their employees spread over the East End and in districts south of the Thames. At the same time, new housing developments sprang up to the north in, for example, Hackney and Islington, and to the west in Kensington and Chelsea.

Horwood's map in its first edition of 1799, has been estimated to cover about 110,000 houses. By the time of the last edition in 1819, it covered about 150,000. This was an increase of 36.4% over a twenty year period during which the census returns, for 1801 and 1821 show a population growth of 41.7%.⁷

One of the most significant developments of the period was the expansion of London's docks. Throughout the 18th century, London's maritime trade had increased steadily. Not least in importance was the enormous amount of coastal traffic entering the Thames. During the second half of the 18th century, there was built only one new enclosed dock, the Brunswick Dock in 1790. By 1800 London still had only some 18 acres of enclosed dock and there was severe overcrowding in the Pool of London between the Tower and London Bridge. By 1813 the area of enclosed dock had increased ten-fold to almost 180 acres. The London Docks downstream from the Tower were first opened in 1801. They were accompanied by the building of massive warehousing complexes in Wapping. The West India Docks were opened in 1803, the Commercial Rd having been completed in 1800. Again this was accompanied by new blocks of warehouses. By 1807 had come the East India Docks at Blackwall, and an extended East India Dock Rd, the Surrey Commercial Docks, connected to the river by the Grand Surrey Canal, and the Wapping basin. All these quickly became longer term focal points for the development of business, trade and industry in the second half of the period covered by this study. In the short term, the developments required a huge labour force, greatly increasing the demand for cheap housing in the East End and south of the river. Thus, the different editions of Horwood's map show that between 1799 and 1813 there were 1500 houses added to the area around the Commercial Rd, which had been completed in 1800, in the parish of St George in the East.⁸

London's enormous population growth in the period of this study depended to an ever increasing degree on road transport for its supply of food, fodder and fuel, to carry people to work and to link the capital with the provinces. By the middle of the 18th

century there had been substantial improvements in the road network radiating outwards from London accomplished by the then new turnpike trusts. Within the built up area of the Metropolis, traffic congestion was already the major problem. There were some road widening and improved surfacing schemes, but the major improvement was the New Road built in 1756–1761 to by-pass the City to the north. South of the Thames, the major improvements were St George's Circus, Westminster Bridge Rd and Blackfriars Rd. The period of this study also saw the number of bridges crossing the Thames double. In addition to London Bridge, there was a crossing only at Putney prior to 1750. In the second half of the 18th century new bridges were opened at Westminster in 1750 and Blackfriars in 1769. Thereafter, new bridges had to wait for the completion of the Napoleonic wars when Vauxhall Bridge was completed in 1816, Waterloo in 1817 and Southwark in 1819. All required new approach roads which in their turn became focal points for trade and industry.⁹

To feed London, human beings and livestock, required the total efforts of a surrounding countryside about ten miles in diameter. There were some three dozen markets dealing in different commodities, such as Smithfield (meat), Covent Garden and Borough (fruit and vegetables), Spitalfields (vegetables), Billingsgate (fish), Leadenhall (meat, fish, poultry, herbs, plants and provisions and Bermondsey (hides and leather). All these, too, were centres of business, trade and industry.

Finally, it should be noted that the period of this study saw significant public building in London. During the war years Government offices in Whitehall, Newgate Prison, docks, naval yards and barracks were all built or added to. Somerset House is a major example of public building from the period and work began on the British Museum and the National Gallery. The period also saw the first dedicated shopping streets and covered shopping arcades such as Woburn Walk, St Pancras and Burlington Arcade. The Theatre Royal, Haymarket was built in 1820–1821.¹⁰

6 The Changing Structure of Industry in London

The records for individual businesses extracted from the fire office registers for the purposes of this study provide an overview of the economy of London during the last quarter of the 18th century and the first quarter of the 19th. Set out below are individual analyses based on the aggregated data for each trade or industry, or grouping of closely related trades and industries.

As has been seen, the proportions of businesses represented by fire office records are 55.7% for the 1770s and 30.5% for the 1820s. These percentages represent the samples on which this study is based. For the later period, it is also possible to identify the sample size for the major groupings of trades and industries. The table below sets out the numbers of businesses for which records have been derived from fire office registers for 1819–25, the number shown in Pigot and Co's *London and Provincial New Commercial Directory* for 1826/27, and the percentage the former represents of the latter.

SIC	Industry/Trade	1820s Policies	Pigot	1820s as % of Pigot
22	Metal manufacturing	12	58	20.7
24	Manufacture of non-metallic products	37	356	10.4
25	Chemicals	166	388	42.8
31	Manufacture of metal goods	244	1241	19.7
32	Mechanical engineering	87	386	22.5
361	Shipbuilding	51	217	23.5
365	Coachbuilding	138	567	24.3
374	Clocks & watches	158	627	25.2
37	Precision instruments/medical equipment	45	261	17.2
41/2	Food, drink & tobacco manufacturing	231	626	36.9
43	Textile manufacturing	427	1224	34.9
44	Manufacture of leather & leather goods	266	983	27.1
45	Manufacture of footwear & clothing	215	1139	18.9
46	Timber etc	439	2318	18.9
467	Furniture	511	1718	29.7
47	Paper, printing & publishing	305	1291	23.6
49	Other manufacturing	238	1124	21.2
50	Construction	511	2056	24.9
61	Wholesale distribution	662	2387	27.7
6191	Merchants	356	1370	26.0
62	Dealing in scrap & waste materials	21	86	24.4
63	Commission agents	164	1254	13.1
	Retail Distribution			
641	Food	2344	7371	31.8

642 Confectionery, wine, beer, spirits, tobacco etc.	278	1407	19.8
643 Chemists	184	929	19.8
645 Clothing	1715	4663	36.8
646 Footwear & leather goods	311	1723	18.0
647 Furnishing fabrics & household textiles	29	144	20.1
648 Hardware/ironmongery/household goods	788	2528	31.2
653 Books & stationery	351	1186	29.6
654 Other specialised non-food	340	1154	29.5
66 Hotels & catering	1725	3863	44.7
72 Inland transport	196	1403	14.0
81 Financial services	77	245	31.4
83 Professional & technical services	17	120	14.2
92/8 All other services	209	370	56.5

Records extracted from fire office registers for 1819–25 represent over 10% of the number of businesses included in Pigot in every sector, over 20% in most sectors, and over 30% in nearly one-third. The highest proportions are in chemicals, food, drink and tobacco, textiles and furniture manufacturing; in clothing, hardware, ironmongery and household goods retailing; and, in the catering trades and a number of services. In individual industries of particular importance, the highest proportion was sugar refining, where there are policies for 65 out of 88 businesses recorded in Pigot, or 74%.

No such comprehensive calculation of the size of the sample can be made for the 1770s. However, it is possible for three sectors of considerable importance. For furniture making, it has already been noted that Heal's *London Furniture Makers, 1660–1840* lists 526 businesses for the period 1760–80.¹ There are fire office records for 510 for the period 1769–77 alone, suggesting that this represents the large majority of all businesses in the industry. Similarly, Maxted in *The London Book Trades, 1775–1800* lists 995 businesses, many of these only for the period after 1780.² Fire office registers for 1769–77 provide records for just over 500 businesses in the same range of trades. Thus, the count may be taken as representing well over half the total number of businesses, and probably around two-thirds. Finally, it has been noted that Kent's Directory for 1774 has a very full count of merchants, 1582 in total. The Sun Fire Office registers provide data for 450, that is nearly 30% of the number

listed in Kent. However, the proportion is almost certainly much greater than that because Kent often lists as 'merchant' businesses designated otherwise in the fire policies and counted under different trades. For example, Kent often describes wine merchants simply as 'merchants' and the database for this study includes 368 of these for the period 1769–77.

The aggregated data for all businesses in London in the two periods 1769–77 and 1819–25 are set out below,

	1770s	1820s	
No. of Businesses Total	16699	14022 Pigot 1826/7 46045	
by Size of Capital (£)			
100 and under	5270	3001	
101–500	7328	5859	
501–1000	1969	1908	
1001–5000	1804	2474	
5001–10000	225	449	
over 10000	103	331	
by Proprietor			
Male	14041	11235	
Female	1161	905	
Multiple Male	1247	1671	
Multiple Female	140	97	
Mixed	110	124	
by Location			
E	2785	2716	
EC	5136	4441	
W	2417	1947	
WC	3543	2147	
N	119	278	
NW	12	207	
SE	1779	1683	
SW	908	603	
by Type of Capital			
Working	15131	12140	
Fixed	514	484	
Both	1054	1398	
Size of Maximum Capital (£)			
Average	All	672	1510
	Female Only	261	291
Median	All	200	320
	Female Only	100	140
Highest		45700	167000
Lowest		5	2
Average No of Employees (1841)			11
Years of Entry 1	14533	10306	

2	1687	2470
3	338	803
4	93	265
5	34	111
6	11	44
7	2	23
8	1	

In both periods, the very large majority of businesses in London insured working and/or fixed capital valued at £500 or less. However, the proportion did reduce from 75.4% in the 1770s to 63.2% in the 1820s. Most of this reduction was for businesses with capital of £100 or less, the proportion of which fell from 31.6% to 21.4%.

Conversely, the proportion of businesses with capital valued at over £1000 nearly doubled, rising from 12.8% in the 1770s to 23.2% in the 1820s. For businesses valued at over £5000, the proportion rose from 2.0% to 5.6%.

The large rise in the value of insured capital can also be seen from the 125% increase in average size from £672 in the 1770s to £1510 in the 1820s. The median value also increased, from £200 to £320, a smaller but more significant increase of 60%. The largest capital value insured in the 1770s was £45,700; in the 1820s, it was £167,000 and there were 34 other businesses which insured capital valued at over £50,000.

The proportion of businesses with female proprietors fell very slightly, from 7.8% in the 1770s to just over 7.1% in the 1820s. Just under one per cent of businesses in both periods had a mix of male and female proprietors. In both periods, the average value of capital insured by businesses the proprietors of which were women was much lower than for all businesses. In the 1770s it was £261 compared with £672; in the 1820s the differential was even greater, £291 compared with £1512. Median values were closer: £100 compared with £200 in the 1770s and £140 compared with £320 in the 1820s.

The very large majority of businesses in both periods showed only one proprietor in the fire policy, 91% in the 1770s and 86.5% in the 1820s. In the 1770s, the

designation "and company" is very rarely encountered; in the 1820s it is to be found on 431 policies.

In terms of location, about two-thirds of all businesses in both periods were to be found in the City or just to the east or west, that is the later EC, E and WC postal districts.

Just over 90% of businesses in the 1770s insured only working capital and only a slightly smaller proportion (86.6%) in the 1820s.

The large majority of businesses took out a policy in only one year, 87% in the 1770s and 73.5% in the 1820s. However, this leaves a significant minority which took out policies in two or more of the years 1769–77 or 1819–25. It must be remembered that there was a discount to be had for insuring for a period of more than one year, and that the discount increased with the length of the period over which the policy applied. Periods of five years or more were by no means uncommon. This means that policies encountered in only two different years could together encompass a period of up to about ten years or more. It follows, therefore, that the proportions of businesses taking out policies in more than one year, 13% in the 1770s and 26.5% in the 1820s, suggest that up to about one in eight and a quarter respectively may have had a longevity of up to about ten years or more. Although based on a limited number of trades and covering only certain of the years covered by this study, it is worth noting that the Index of Craftsmen held at the Museum of London Library and derived from the Sun Fire Office registers does throw some additional light on the question of longevity of individual businesses. A 5% random sample of the data held in the Index yielded 2891 individual businesses of which 172, or just under 6%, definitely continued trading for 20 years or more and 58, or just over 2%, for 30 years or more. These were far from always businesses on a very substantial scale. Of those surviving for 30 years or more, less than 40% ever insured capital valued at more than £1000.

Indeed, Edward, and later Elizabeth Hurles, wireworkers of 38 Great Tower St had a run of policies from 1781 to 1813 not one of which was for fixed or working capital valued at more than £40.³

Average employment in all businesses derived from the 1841 Census and Post Office Directory was 10.7.

The percentages for all the above tabulations are set out below,

	1770s	1820s
No. of Businesses by Size of Capital (£)		
100 and under	31.56	21.40
101-500	43.88	41.78
501-1000	11.79	13.61
1001-5000	10.80	17.64
5001-10000	1.35	3.20
over 10000	0.62	2.36
by Proprietor		
Male	84.08	80.05
Female	6.95	6.45
Multiple Male	7.47	11.92
Multiple Female	0.84	0.69
Mixed	0.66	0.88
by Location		
E	16.68	19.37
EC	30.76	31.67
W	14.47	13.89
WC	21.22	15.31
N	0.71	1.98
NW	0.07	1.48
SE	10.65	12.00
SW	5.44	4.30
by Type of Capital		
Working	90.61	86.58
Fixed	3.08	3.45
Both	6.31	9.97
by Years of Entry		
1	87.02	73.50
2	10.10	17.62
3	2.02	5.73
4	0.56	1.88
5	0.20	0.79
6	0.07	0.31
7	0.01	0.16
8	0.01	

Agriculture and Horticulture

7.1 Cowkeepers and Market Gardeners

The aggregated data for the 1770s and 1820s for market gardeners and cowkeepers (SIC 0100) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	25	63
by Size of Capital (£)			
100 and under		8	6
101-500		14	38
501-1000		2	14
1001-5000		1	4
5001-10000			1
by Proprietor			
Male		24	57
Female			3
Multiple Male		1	1
Mixed			2
by Location			
E		9	16
EC		1	6
W		1	12
WC			8
N		2	
NW			2
SE		7	8
SW		5	11
by Type of Capital			
Working		13	33
Fixed		3	6
Both		9	24
Size of Maximum Capital (£)			
Average	All	273	536
	Female Only		629
Median	All	205	280
	Female Only		486
Highest		1160	6250
Lowest		20	20
Years of Entry			
	1	21	46
	2	3	11
	3	1	3
	4		3

Although the necessity of a regular supply of milk means that there must have been large numbers of cowkeepers in London throughout the period of this study, very few seem to have been recorded in any of the contemporary sources of statistics.

Christopher Hibbert mentions that as late as the 1880s there were still 700 licensed

cowhouses in London, from which milk sellers, or milkmen, bought in order to sell to the public.¹ However, there are fire insurance policies for only 56 in the 1820s, and for only five in the 1770s. Pigot lists only seven in 1826/27 and the Post Office Directory for 1841 none at all. On the other hand, the 1841 Census contains 2764 persons whose employment is described as cowkeeper or milkseller.

Within this industrial grouping are also included market gardeners, usually described by contemporaries simply as 'gardeners', and nurserymen. There are fire insurance policies for 20 in the 1770s and seven in the 1820s. Pigot lists 41. That it is not always easy to distinguish between the terms 'cowkeeper' and 'gardener' is exemplified by Thomas Keeton of Jamaica Level, Jamaica Row, Bermondsey who, in 1819, is described as 'Gardener' but amongst whose insured commercial property is a barn and cowhouse valued together at £590.²

Few contemporary descriptions of cowkeepers exist but in his tradecard of about 1780, E Miller of Brewers Green, Westminster describes himself as a "Purveyor of Genuine Milk & Cream".³ Similarly, the 1776 tradecard of Martha Prokter and Lydia Edwards of Marylebone Lane says "Asses Milk to be Sold. Also Fine Red-Cows Milk & Goats Milk to be Sold."⁴ That this was still an agricultural pursuit is shown by the handbill circulated by W Gibbons, a cowkeeper of Swan Yard, Blackman St, Southwark, who in 1783 complained that "...by reason of a Combination enter'd into by several Milk-Carriers, his Servant has been taken into Custody, and had before the Sitting Magistrates at Guildhall, for suffering his Cows to get upon the Foot pavement, which at Times it is impossible to prevent, and on that Account he finds himself under the disagreeable Necessity of discontinuing the bringing his Cows into the City."⁵

A fuller contemporary description exists for a gardener in the 1824 edition of *The Book of English Trades* which under that heading says "Market-Gardeners...raise

vegetables and fruit, which they expose for sale in markets and other places...within a few miles of the metropolis, there are supposed to be about 5000 acres of land constantly cultivated for the supply of the London markets with garden vegetables, exclusive of about 800 acres cropped with fruit of various kinds, and about 1700 acres cultivated for potatoes."⁶

It is difficult to draw many conclusions from the small numbers of businesses for which data can be derived from the fire office registers. Most were small. In the 1770s, 88% of businesses had capital insured for £500 or less; in the 1820s, the proportion was 70%. The average capital insured rose from only £273 in the 1770s to the still modest figure of £536 in the 1820s. The median values rose less, from £205 to £280.

In the 1770s, only one business had an insured capital valued at over £1000. This was John Moul of Limehouse, a cowkeeper who in 1775 insured working capital valued at £1160.⁷ In the 1820s, there are extant policies for five businesses with capital insured to the value of over £5000. The largest is for the Great Western Dairy of Westminster valued at £6250 in 1825.⁸ Other comparatively large policies were for Samuel Jackson of Great Sutton St, Clerkenwell who in 1821 insured commercial property valued at £2390,⁹ and Mary Carty of 29 John St, Edgware Rd who took out a policy for £1250 in 1819.¹⁰

A large proportion of the policies included valuation of fixed capital, usually in the form of cowsheds or barns. Examples in the 1820s were William Mawbey, a cowkeeper of John St, Kent Rd who in 1820 insured stock, utensils and livestock for £500, a cowhouse for £200, a slaughterhouse for £50 and sheds and stables for £125,¹¹ and William Cossey, a cowkeeper of Gough St, Grays Inn lane who in 1825 insured stock and utensils for £1060, a cowhouse for £60, a dairy for £30, a measuring house for £50, and a group of stables, coach houses, hay lofts and

cowhouses for £1000.¹² In 1770, John Johnson, a cowkeeper of Dog Row, Bethnal Green insured a cowhouse and barn for £150, as well as stock and utensils for £200.¹³

Amongst gardeners, examples of fixed capital insured are John Mandeno of 12 Hollybush Lane, Bethnal Green who in 1819 insured stables and sheds for £200 and a market stall for £50, as well as stock and utensils for £790.¹⁴ In 1774, Andrew Moffett of Grange Rd, Southwark insured stock and utensils for £300 and hothouses for £250.¹⁵

There are no 18th century estimates of capital required to set up in business as a cowkeeper, but Mortimer gives a range of £300–£600 in 1819 and Whittock £100–£1000 in 1837. There are more estimates for a market gardener. Both the 1747 sources estimate £100–£500, Kearsley gives a range of £100–£300 in 1786, Mortimer £150–£300 and Whittock £100–£500.¹⁶ All these estimates are very close to the median values of insured capital for both the 1770s and 1820s.

In the 1820s, 27% of businesses took out policies in more than one year. This implies that over a quarter of businesses could have had a longevity of that order.

The only conclusion which can be drawn from the small number of businesses in this sector for which data are available is that, as for most London trades, size increased significantly over the period 1775–1825 as measured by the value of capital insured.

Manufacturing

7.2 Metal Manufacturing

The aggregated data for the 1770s and 1820s for manufacturers of ferrous and non-ferrous metals (SICs 2230 and 2240) are summarised and tabulated below,

		1770s	1820s		
No. of Businesses	Total	10	12	Pigot 1826/7	58
by Size of Capital (£)					
	100 and under	2	1		
	101-500	6	5		
	501-1000		5		
	1001-5000	2	1		
by Proprietor					
	Male	9	9		
	Multiple Male	1	3		
by Location					
	E	1	2		
	EC	8	9		
	WC	1			
	SE		1		
by Type of Capital					
	Working	7	7		
	Fixed		1		
	Both	3	4		
Size of Maximum Capital (£)					
	Average All	418	563		
	Median All	225	550		
	Highest	1620	1115		
	Lowest	30	40		
Average No of Employees (1841)			33		
Years of Entry					
	1	10	9		
	2		2		
	3		1		

These are not major trades in London in the period 1775-1825. Pigot lists only 58 businesses and the 1841 *Post Office Directory* only 50. Very few examples are to be found in the fire office registers and the data extracted from them is too little for meaningful analysis. Amongst the handful of businesses are lead casters and smelters and various refiners. There are no businesses of any great size, the highest insured capital being only £1620 in the 1770s and £1115 in the 1820s.

7.3 Glass, Glassware and Ceramics

The aggregated data for the 1770s and 1820s for manufacturers of glass, glassware and ceramics (SICs 2471, 2472 and 2480) are summarised and tabulated below,

	1770s	1820s
No. of Businesses Total	35	21 Pigot 1826/7 103
by Size of Capital (£)		
100 and under	5	7
101-500	16	7
501-1000	2	1
1001-5000	10	4
5001-10000	2	
over 10000		2
by Proprietor		
Male	29	15
Female	1	
Multiple Male	5	6
by Location		
E	6	3
EC	11	6
W	2	4
WC	10	4
N		1
SE	6	3
by Type of Capital		
Working	30	15
Both	5	6
Size of Maximum Capital (£)		
Average All	1044	3286
Median All	400	385
Highest	6400	35290
Lowest	20	20
Average No of Employees (1841)		
		9
Years of Entry		
1	27	17
2	4	2
3	2	1
4	1	1
6	1	

These were not predominantly London trades and, of course, of the two major London ceramics manufacturers of the 18th century, Bow was located outside the area covered by this study¹ and Chelsea was already in its final days by the beginning of the period of this study.² Many of the papers in the English Ceramics Circle Transactions give a full picture of the industry outside London, where most production was located.³ Nevertheless, Pigot does list 103 businesses in glass, glassware and ceramics manufacture in 1826/27. Fire office registers contain 35 such businesses in

the 1770s, but only 21 in the 1820s. The latter figure is 20.4% of the number in Pigot. Despite the comparatively small number of businesses, there were a significant number of trades involved. Pigot lists two glass manufacturing trades (SIC 2471), four glassware manufacturing trades (SIC 2472) and nine ceramics manufacturing trades (SIC 2480); the equivalent numbers of separate trades for which fire policies survive are ten, five and seven. For both sources, the largest numbers are plate glass manufacturers (2471), bottle, cut glass, shade and lustre manufacturers (2472) and potters (2480).

The range of activities covered by these trades are well described, if in common-place terms, in a number of contemporary sources. An invoice of 1808 from John Blades of 5 Ludgate Hill, a Glass Manufacturer, describes his products as a "Variety of Ornamental & Useful Glass, both Cut and Plain".⁴ W G Cave, a Glass Cutter and Manufacturer of Cut Glass is more specific in a tradecard which states "Girandoles, Lustres, etc, Glass Engraver, Chemical Stopperer, Lustres altered, cleaned and repaired, Glass Made & Cut to any Pattern, in a few days, Merchants, Captains, Silversmiths & Tavern Keepers supplied..."⁵ Another wide range of activities is described by a manufacturer of china, glass and earthenware. The 1820 tradecard of Lawrence Dorgan of 18 Minories promises "Arms, Crests, & Cyphers elegantly enamelled on China & Engraved on Glass. Routs supplied with China, Glass etc. Lustre Work Cleaned, altered or Exchanged."⁶

The size of business does not seem to have altered much over the period 1775–1825. Indeed, although few conclusions can be drawn from such small numbers, the median value of capital insured fell from £400 in the 1770s to £385 in the 1820s. This is more significant than the increase in the average size of capital, from £1044 to £3286, which is due to two very large policies in the 1820s.

In both the 1770s and 1820s the large majority of businesses insured capital valued at

£500 or less, 60% and 66.7% respectively. However, there were a handful of very large businesses, especially in the 1820s. Thus, in 1821 Shakespeare Reed and George, William and Charles Wainwright, plate glass manufacturers of Upper East Smithfield insured fixed and working capital valued at £35,920 in 1821.⁷ William McNamara, also a plate glass manufacturer of Upper East Smithfield, insured fixed and working capital valued at £18,250 in 1819.⁸ Although there were no businesses of such a size in the 1770s, Richard Russell Senior and Junior, glass manufacturers of Well St, Wellclose Square, insured fixed and working capital valued at £6400⁹ in 1771 and Thomas Wilkinson, a potter of 258 Wapping New Stairs insured working capital valued at £5900, both in 1771 and 1775.¹⁰ As a comparison, the Bow works was insured for £2500 in 1760 and 1761 and Chelsea for £8560 in 1775.¹¹

In both periods the overwhelming majority of businesses had solely male proprietors. They were mainly located in the City or in the districts immediately to the east and west, with a few south of the Thames in Southwark.

Nearly 86% of businesses in the 1770s and over 71% in the 1820s insured only working capital. Nevertheless, the exceptions do show a very wide range of fixed capital valuations. Shakespeare Reed and George, William and Charles Wainwright, in addition to stock and utensils valued at £10,800 and glass at £4200, insured warehouses and a glasshouse for £7920, a steam engine for £1400, a steam engine house for £600 and assorted other industrial buildings for £4000.¹² William McNamara insured stock and utensils for £6050, warehouses and a counting house for £4600, a glass store for 3200, a steam engine house for £400, a steam engine and other machinery for £1400, a grinding and polishing shop for £2000 and other industrial buildings for £600.¹³ These were huge sums. On a smaller scale in the 1820s, Green and Pellatts, glass manufacturers of the Falcon Glasshouse, Holland St, Blackfriars, insured stock, utensils and materials for £2200, their manufactory for £1000 and machinery for £500 in 1824.¹⁴ Smaller still, Henry Abel Bingham, a potter of Princes

St, Lambeth in 1825 insured stock and utensils for £200 and a clay shed for £100.¹⁵

Examples from the 1770s are Robert Vigne, James Neave, Robert Winscote and John Walker, glass bottle manufacturers of Gravel Lane, Southwark, who in 1774 insured stock and utensils for £3500, glass for £200 and a manufactory for £900,¹⁶ and Daniel Cox and Daniel Hearne, glassblowers also of Gravel Lane, Southwark and in 1774, insured stock and utensils for £1000 and a glasshouse for £400.¹⁷ Finally, Richard Russell Senior and Junior, already mentioned above, insured glasshouses for £1300, warehouses for £1700 and a millhouse for £600 in 1775 and stock and utensils for £2800 in 1777.¹⁸

Contemporary estimates of the capital required to set up in business tend to give values rather higher than those actually encountered. Only Kearsley in 1786, with a range of £100–£500 and Mortimer in 1819 with £100 to £1500, give a lowest estimate of under £1000 for a potter. The anonymous source for 1747, Collyer in 1761 and Whittock in 1837 all start at £1000 and the latter's range goes up to £10,000. For no other trade in this grouping is there a run of figures. For glassmaking, Kearsley estimates £1000–£10,000 and Whittock £300–£2000, again on the high side compared with actual insured values.

The 1841 Census and *Post Office Directory* show 132 manufacturers of glass and glassware, employing 1153 people. There were also 76 ceramics manufacturers who employed 337 people.

There are data for too few businesses to draw any further conclusions or to identify any changes over the period covered by this study, the main point being that this was not a significant London-based industry.

7.4 Other Non-Metallic Mineral Products

The aggregated data for the 1770s and 1820s for manufacturers of other non-metallic products (SICs 2410, 2420, 2450 and 2460) are summarised and tabulated below,

No. of Businesses	Total	1770s	1820s	Pigot 1826/7	253
by Size of Capital (£)					
100 and under		30	16	5	
101-500			14	3	
501-1000			3	4	
1001-5000			1	4	
by Proprietor					
Male			28	16	
Female			1		
Multiple Male			1		
by Location					
E			3	4	
EC			7	3	
W			8	3	
WC			5	1	
SE			7	3	
SW				2	
by Type of Capital					
Working			23	9	
Fixed			3	2	
Both			4	5	
Size of Maximum Capital (£)					
Average	All		274	741	
Median	All		200	625	
Highest			1400	2100	
Lowest			20	20	
Average No of Employees (1841)					
Years of Entry	1		25	13	
	2		3	3	
	3		1		
	5		1		

Although Pigot lists 253 businesses in these classifications, there are very few, especially in the 1820s, for which policies exist in the fire office registers. The main trades involved are brick and tile makers (SIC 2410), cement and plaster of Paris makers (2420), stone workers (2450) and makers of abrasive products, such as emery (2460).

Few conclusions can be drawn from the above data. In the 1770s just under 87% of businesses had capital insured to a value of £500 or less and only one to a value of

over £1000. The average capital insured was only £288 and the median value £200. There are too few data for any meaningful analysis to be attempted for the 1820s, although it may be noted that the average value of capital insured was £741 and the median value £525.

There were a number of interesting individual businesses in both periods. In the 1820s, the largest business for which fire insurance records are extant is Thomas Piper, a mason of 41–2 Little Eastcheap who insured capital valued at £2100.¹ Businesses which insured both fixed and working capital are exemplified by Arnold Goodwin, a plaster of Paris manufacturer of 67 Great Guildford St, Borough, who in 1819 insured stock, utensils and livestock for £550 and two manufactories for £600,² David Hill, a stone potter of 15 Vauxhall Terrace, Vauxhall, who in 1819 insured stock and utensils for £1150 and a warehouse, storehouse and manufactory for £850,³ and Robert Davis, an emery manufacturer of Joiner St, Southwark, who in 1819 insured a mill and warehouse for £150 and in 1821 stock and utensils for £500.⁴

The largest businesses for which fire office records are extant in the 1770s was the famous artificial stone maker, Eleanor Coade, of Bridge Row, Lambeth, who in 1769 insured stock and utensils for £700 and in 1771 for £1400.⁵ She was one of the most remarkable businesswomen of the era; indeed, her career spanned the entire period of this study. Born in Exeter in 1733, she came to London and in 1766 described herself as a linen draper and in 1768 as a merchant. In 1769, Daniel Pincot had acquired a business at King's Arms Stairs, Narrow Wall, Lambeth making artificial stone ornaments. By 1771 Eleanor Coade was advertising herself as the proprietor. In 1775, she bought another manufactory in Knightsbridge which she sold four years later. She published her famous *Descriptive Catalogue of Coade's Artificial Stone Manufactory* in 1784 and by 1799 the fame of her products was such that she could open Coade's Gallery in Westminster Bridge Rd and publish a guide to its "Exhibition of Artificial Stone." She died in 1821. The business was acquired by William Croggon and,

although he was declared bankrupt in 1833, it had survived for 64 years.⁶

An emery manufacturer in Joiner St, Southwark was John Pennill who insured stock and utensils for £460, a millhouse for £90 and a shed for £30.⁷ In 1771, William Weston, a brick and tilemaker of Grays Inn Lane, insured stock and utensils for £200 and tile kilns for £100,⁸ and in 1775, William Tyler, a mason and statuary of Vine St, Golden Square, insured stock and utensils for £50 and his workshop for £150.⁹

The contemporary sources of estimates of capital required to set up in business all give a range of figures for brickmakers. With the exception of Kearsley in 1786, all give either or both a starting figure of £100 or a top estimate of £500. These figures are consistent with the data above. However, Kearsley appears out of line with a much wider range of £400-£5000.

7.5 Paints, Varnishes, Inks and Dyes

The aggregated data for the 1770s and 1820s for manufacturers of paints, varnishes, inks and dyes (SICs 2511, 2512, 2551 and 2552) are summarised and tabulated below,

		1770s	1820s
No. of Businesses Total		30	32
by Size of Capital (£)			
100 and under		2	1
101-500		10	6
501-1000		13	12
1001-5000		6	11
5001-10000			1
over 10000			1
by Proprietor			
Male		29	20
Female		1	
Multiple Male			12
by Location			
E		8	7
EC		12	10
W		2	
WC			3
N		1	
SE		7	7
SW			3
by Type of Capital			
Working		21	18
Fixed		1	1
Both		8	13
Size of Maximum Capital (£)			
Average	All	865	1642
Median	All	600	1000
Highest		4180	10410
Lowest		50	100
Average No of Employees (1841)			2
Years of Entry			
	1	24	16
	2	6	11
	3		4
	5		1

Pigot lists 176 businesses in London in 1826/27 within the industries manufacturing dyes (SIC 2511), other industrial chemicals (2512), paints and varnishes (2551) and inks (2552). There are also small but significant numbers of such businesses for which data has been derived from the fire office registers, 30 in the 1770s and 32 in the 1820s. The latter represents 18.2% of the number listed by Pigot.

Ten dye making trades are represented in the records derived from the fire office registers, eight industrial chemicals manufacturing trades and eight paint, varnish and ink manufacturing trades. Individual trades to be found in the period 1775-1825 include annato, blue, black, indigo, orchil, verdigris, acid, bone and pearl ash, potash, spirit colouring, colour and water colour, varnish, whitelead, turpentine and printing ink manufacturers and refiners of brimstone and saltpetre.

Campbell set out the relationship between colour making and colour in 1747: "The Colour-Man buys all manner of Colours uncompounded: He is, in some shape, the Apothecary to the Painter; as he buys the simple colours and compounds some of them; He grinds such as require grinding...There are some others employed in preparing Colours, such as, in making Powder-Blue, Commonly called Prussian Blue...The work is chiefly carried on in the Borough of Southwark...There are some who prepare that beautiful Colour called Carmine...There are Works at Whitechapel, and some others of the suburbs, for making of White and Red Lead, with the rest of the Preparations of that the work is performed by Engines, Horses and Labourers..."¹

Although Campbell's 'engines' were not, of course, steam engines, the London manufacturing trades were early to adopt steam power, and to a considerable degree. Prior to Watt's invention of the rotative steam engine in 1781, they were mostly confined to pumping operations in mines. Thereafter, the early history of steam power has usually been written in terms of cotton and Lancashire. In fact, by the 1820s fire insurance policies include valuations for steam engines in 29 London trades, of which colour manufacturing and whitelead and turpentine manufacturing were two. The other 27 were silk dressing, printing, tanning, distilling, buckram manufacturing, plate glass manufacturing, callendering, cork manufacturing, snuff making, drug grinding, vinegar manufacturing, perfume manufacturing, sugar refining, sawmilling, mustard manufacturing, engine making, jewellery manufacturing, dyeing, brewing, textile packing, shotmaking, metal goods manufacturing, timber merchants, water works,

curriers and millwrights.

Businesses in the paint, varnish, ink and dye manufacturing industries were a little larger in terms of capital insured than the average for all industries. The average value of capital insured in the 1770s was £865 compared with £676 for all businesses; in the 1820s it was £1642 compared with £1518. More significantly, median values were much higher: £600 in the 1770s compared with £200 for all industries; and, £1000 in the 1820s compared with £325.

A large proportion of businesses insured capital valued at over £500, 60% in the 1770s and over 78% in the 1820s. The largest businesses found in the 1770s were Robert Machell, Huet Johnson and George Featherstone, whitelead manufacturers of Bankside, Southwark, who in 1777 insured fixed and working capital for £4180,² and George Davy, an orchel maker of Boars Head Yard, Petticoat Lane, who in 1771 insured working capital for £3720.³

There were several much larger businesses in the 1820s. John Giles and Jeremiah Pilcher of Morgans Lane, Tooley St described themselves as Oil and Colourmen in 1824, but were clearly manufacturers and insured fixed and working capital for £10,140.⁴ Another large business was that of Thomas Grace and Joseph Freeman, whitelead and turpentine manufacturers of Thamesbank, Chelsea who, in 1820, insured fixed and working capital valued at £5400.⁵

Virtually all the businesses were to be found in the City, in the districts immediately to the east, or south of the Thames. In only one case was there a female proprietor.

As in most manufacturing industries, a large proportion of businesses insured fixed capital, 30% in the 1770s and nearly 44% in the 1820s. A particularly full policy in the latter period was that of John Giles and Jeremiah Pilcher referred to above. They

insured stock and utensils valued at £6800, a warehouse for £1390, a shed for £20, a counting house for £200, a steam engine house for £50, a steam engine for £200 and a manufactory for £750.⁶ Also referred to above is Thomas Grace and Joseph Freeman who insured stock, utensils and fittings for £4550, a horsemill, a workshop and a scouring house for £50 each, a drying house for £300 and warehouses, a counting house and furnaces for £400.⁷ Other examples are Francis and Co, saltpetre manufacturers of Nags Head Court, Gracechurch St who, in 1824 insured stock and utensils for £2700, their manufactory for £700 and a warehouse for £500,⁸ and Robert Sharp Colvin, a printing ink manufacturer of 14 King St, Clerkenwell who, in 1819, insured stock and utensils for £400 and his manufactory for £100.⁹

Examples from the earlier period are William Palmer, a saltpetre refiner of Gravel Lane, Houndsditch who insured stock and utensils for £1200 and a refining house for £300 in 1769,¹⁰ Thomas Marshall, a bluemaker of Hog Lane, Shoreditch who insured stock and utensils for £750 and a horsemill for £100 in 1774,¹¹ and Joseph Beaumont, a whitelead manufacturer of 123 Oxford Rd, who insured stock and utensils for £1500 and a warehouse for £600 in 1775.¹²

Most of the contemporary estimates for capital required to set up in business in these industries were rather low compared with the actual value of capital insured. The two estimates for 1747 give a range of £100–£500 for blue makers; those for 1819 and 1837 are even lower, £100–£300 and £100–£200 respectively. Only Kearsley in 1786 estimates a higher requirement of £500–£10,000. Most other estimates are even lower. Thus, Mortimer gives £50–£150 for a printers ink maker and Whittock gives £100–£200 for a varnish maker. Slightly higher estimates are given for capillaire and colour makers, £100–£600 by Kearsley and £200–£300 by Mortimer and Whittock.

There are a few instances where direct comparison can be made between employment figures in the 1841 Census and numbers of businesses in the same trades in the 1841

Post Office Directory. Thus, 26 colour manufacturers employed 31 people, 11 blue manufacturers employed 52 people and 45 varnish makers had 83 employees.

Half the businesses in these trades took out policies in more than one year in the 1820s and 20% in the 1770s. These were businesses which may have had a longevity of up to about ten years or more.

Overall, the group of industries discussed in this section saw a very large increase in capital employed over the period 1775–1825. The examples set out above suggest that this was particularly true of fixed capital, including steam engines, as the technology employed advanced.

7.6 Soap

The aggregated data for the 1770s and 1820s for soap manufacturers (SIC 2581) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	44
No. of Businesses Total		33	18		
by Size of Capital (£)					
100 and under		2	1		
101-500		9	3		
501-1000		6	2		
1001-5000		13	5		
5001-10000		2	4		
over 10000		1	3		
by Proprietor					
Male		22	8		
Female		1			
Multiple Male		10	10		
by Location					
E		9	6		
EC		11	4		
W		2			
WC		1	2		
SE		8	5		
SW		2	1		
by Type of Capital					
Working		25	8		
Fixed			2		
Both		8	8		
Size of Maximum Capital (£)					
Average	All	2018	4760		
Median	All	1000	3125		
Highest		11010	16800		
Lowest		50	50		
Average No of Employees (1841)			4		
Years of Entry					
	1	17	11		
	2	11	2		
	3	3	5		
	4	1			
	5	1			

Although the numbers of soap manufacturers in London in the period 1775-1825 are small, they represent a very substantial trade in which large sums of capital were employed. Pigot lists 44 businesses in 1826/27 and there are fire insurance policies for 33 in the 1770s and 18 in the 1820s. The latter is 41% of the number listed by Pigot.

Campbell in 1747 is short and sharp on the subject of soap boilers: "Soap is composed

of Lime, Salt of vegetables, and the Fat of Animals...It is a laborious nasty Business, but abundantly profitable..."¹ Certainly, the size of capital employed was large. In the 1770s, nearly half of all businesses insured capital valued at over £1000; in the 1820s it was two-thirds. The average size of capital insured rose from £2018 in the 1770s to £4760 in the 1820s. Median values rose from £1000 to £3125.

A E Musson, the historian of Joseph Crosfield and Sons Ltd of Warrington, helps put this in perspective. In 1785, Excise returns showed 971 soapmakers in Great Britain; by 1814 this had fallen to 468. However, over the same period production increased from 17,000 tons to 35,000 tons. Average annual output per firm increased from 19 tons in 1801 to 527 tons in 1851. Consumption per head of a rapidly rising population rose from 3.6 pounds to 7.1 pounds over the same period as a result of "the rapid increase in population...together with a rise in the standard of living and an increased need for soap in the growing, smoke-begrimed towns."² Thomas Vaux subtitled his polemic on taxation in 1823 "Observations on the Impolicy of Taxing Malt, Beer, *Soap* (this author's italics), candles, and Leather." Throughout he describes these commodities as "common necessities of life."³

By 1820 London soapmakers were producing 24 million tons of hard soap and 1.5 million tons of soft soap.⁴ The large investment of capital required reflected the size of plant needed to satisfy rising steeply demand. A large boiling house contained numerous soap pans and in addition there would normally be a frame room, warehouses, laboratory, carpenter's and blacksmith's shops for making boxes, crates and equipment, sheds, stables and yard, and a counting house.⁵

The range of production is illustrated by *Lillie's British Perfumer* of 1822. This described and provided instructions for preparation of 46 different varieties of soap.⁶

Virtually all London soap manufacturers were found in the City, in the districts to the

east or those south of the Thames. With only one exception in the 1770s, all proprietors were male.

Remarkably, the same business was the largest in terms of value of capital insured in both the 1770s and the 1820s. This was George and Jesse Russell, later simply Jesse Russell, of Goodmans Yard Minories. In 1771 they insured fixed and working capital valued at £11,010⁷ and in 1819 working capital valued at £16,800.⁸ Other large businesses in the 1770s were Calvert Benn and Evan Pugh of 190 Bishopsgate St, who insured capital valued at £8000 in 1769,⁹ and John Bright of Upper Ground, Southwark, who insured capital valued at £5220 in 1772.¹⁰

Apart from Jesse Russell, the largest businesses in the 1820s were Dabbs and Laidley of Well St, Wellclose Square who insured commercial property valued at £15,050 in 1824¹¹ and Peter Kendall and Co of Goodmans Yard, Minories who insured capital valued at £12,000 in 1820.¹²

In both periods a large proportion of businesses insured fixed as well as working capital. In 1769 George and Jesse Russell insured a warehouse for £80 and a soaphouse for £150 in addition to stock, utensils and goods valued at £10,780.¹³ John Bright insured stock and utensils for £4200, a soaphouse and millhouse for £470 and a warehouse for £550.¹⁴ Other examples are George Henshaw of Gravel Lane, Southwark who, in 1771, insured stock and utensils for £1000 and a workshop for £200¹⁵ and Thomas Wright, Paul Cauldwell and Thomas Edwards of 3 St Johns Lane, Clerkenwell who, in 1775 insured stock and utensils for £4000 and a manufactory and millhouse for £1000.¹⁶

In the later period, Peter Kendall and Co, referred to above, insured a manufactory, counting house, warehouse and soaphouse for £2000 in 1820, in addition to stock and utensils valued at £10,000.¹⁷ Similarly, in 1822, Thomas Curtis Gale of City Road

insured his manufactory and carthouse for £500 in addition to stock and utensils for £3000¹⁸ and the firm of Barlow and Anderson, in 1824, insured stock, utensils and plant for £3000, a manufactory and counting house for £2300 and a warehouses for £550.¹⁹ In comparison, Crosfield insured his Warrington works for £2680 in 1829.

Stock and utensils were valued at £1550, the main building containing the pans for £500, a counting house for £50, a warehouse and candle room for £300, a box room and smithy for £50, a shed with furnaces and vats for £80 and a shed with three steam boilers for £150. Profits that year were £1599, and £2100 the following year, suggesting high returns on investment.²⁰

All six contemporary sources of estimates of capital required to start a business in soapmaking give a range consistent with the high capital investment found in the industry. None suggests a starting capital of less than £1000. Campbell and Collyer estimate £2000–£5000 in 1747 and 1761 respectively, the anonymous source for 1747 estimates £2000 and Kearsley in 1786 gives £500–£5000. In the 19th century, Mortimer in 1819 estimates £1500–£3000 and Whittock in 1837 £1000–£5000.

The 1841 Census and *Post Office Directory* contain 56 soapmakers employing 241 soap boilers and makers.

The numbers of fire office records are too small to draw conclusions about the longevity of businesses but it has been seen that one survived for at least 50 years and a high proportion, nearly half in the 1770s and 39% in the 1820s, took out policies in more than one year suggesting survival for up to ten years or more.

The data does suggest that this was one of the most highly capitalised industries in London and that, either on average or median values, the capital employed more than doubled over the period of this study with increasing production and productivity to meet a rapidly expanding demand.

7.7 Wax and Tallow Products

The aggregated data for the 1770s and 1820s for manufacturers of wax and tallow products (SIC 2591) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	20	52
	by Size of Capital (£)		
100 and under		1	2
101-500		10	15
501-1000		5	14
1001-5000		4	19
5001-10000			1
over 10000			1
	by Proprietor		
Male		18	45
Multiple Male		2	5
Mixed			2
	by Location		
E		3	7
EC		5	12
W		4	9
WC		1	9
N			1
NW			2
SE		5	11
SW		10	9
	by Type of Capital		
Working		10	39
Fixed			5
Both		10	8
	Size of Maximum Capital (£)		
Average	All	687	1414
Median	All	425	950
Highest		3800	11100
Lowest		100	40
	Years of Entry		
	1	16	29
	2	4	14
	3		5
	4		3
	5		1

This is a difficult industry to categorise. On the one hand, it overlaps with soapmakers dealt with in the last section; on the other, it overlaps with wax and tallow chandlers in the retail distribution trade dealt with below under the retail trade heading oils, candles and paints (SIC 6482). Under the latter heading are to be found 160 wax and tallow chandlers in the 1770s and 90 in the 1820s. Pigot makes no distinction between manufacturers of wax and tallow products and retail dealers, with the exception of

sealing wax manufacturers. However, for the purpose of this section, those businesses designated in the fire office registers as wax and/or tallow chandlers and including in their policies clear evidence of manufacturing are dealt with primarily as manufacturers.

Contemporary descriptions show that these distinctions were far from always clear. Thus, in 1828, the Bankruptcy Commission file for Stephen Hall, a Tallow Chandler and Melter of Whites Row, Mile End describes his trade as "...buying large quantities of Fat, Kitchen Stuff and Tallow and manufacturing the same into candles and selling the same when so manufactured."¹ Again, the 1773 invoice of Edward Bick of 8 Facing Mansion House, who describes himself as a wax chandler, states that he "Makes and Sells all kinds of Sealing Wax, Wax Candles, Wafers etc. Wholesale & Retail."² The same stress on the retailer/craftsman is contained in the 1824 edition of *The Book of English Trades* which states that "The business of a Tallow-Chandler consists in making candles of suet or fat, and in selling them after they are made."³

Although Price's Patent Candle Company did not have its origins until 1830, its history makes it clear that up to the end of the 18th century candlemaking was a craft and that few workers were employed in any one establishment. However, by the 1820s it had evolved into an industry using both new machinery and new and better controlled materials.⁴

For the purposes of this study, manufacturers of wax and tallow products are identified separately, though undoubtedly most of them were also involved in wholesale or retail trade. The fire office registers contain records for 20 such businesses in the 1770s and 52 in the 1820s. This bears out the changes in the trade identified by the historian of Price's.⁵ Most of the businesses identified in both periods were wax and tallow chandlers and melters. 'Melter' usually designated a distinct manufacturing activity. A few were manufacturers of sealing wax and wafers. Pigot

lists 17 of these.

In the 1770s, over half of all businesses had a capital of £500 or less. In the 1820s, the proportion was just over one-third. Conversely, only 20% had capital valued at over £1000 in the 1770s; in the 1820s it was over 40%. The average value of fixed and working capital insured was £687 in the 1770s; by the 1820s it had more than doubled to £1414. There was a similar increase in median values which rose from £425 to £950.

The largest business in the 1770s was Alexander Barclay and William Murray, wax chandlers and bleachers of Haymarket who, in 1777, insured fixed and working capital of £3800.⁶ The largest business in the 1820s was John Back, a tallow chandler and melter of 127 Aldersgate St who, in 1825, insured capital valued at £11,100.⁷

Apart from manufacturers of candles and like products, there are a few examples of sealing wax manufacturers. In 1774 George Darby of 156 Minories insured capital valued at £1000⁸ and in 1777 another sealing wax manufacturer, Thomas Barnes of 1 Windsor Court, Strand, insured stock and utensils for £250.⁹ In the later period, William Hiss, a sealing wax and wafer manufacturer of 11 Red Lion St, Fleet St, insured stock and utensils for £120 in 1820.¹⁰

Many businesses insured both fixed and working capital. In the 1770s Alexander Barclay and William Murray, referred to above, insured a warehouse and candle house for £1000 and a melting room for £200 in addition to stock and utensils valued at £2600.¹¹ In 1775, Thomas Hearne, a tallow chandler of 170 St Olave's St, Southwark, insured stock and utensils for £470, a warehouse for £500 and a candle house for £50.¹²

In 1821, George, William and Mary Pratt, tallow chandlers and melters of Salmon

Lane, Limehouse, insured stock and utensils for £1750, a manufactory and melting house for £600 and a millhouse for £100.¹³ Four years later, William Huxtable, a wax and tallow chandler of 13 King St, Holborn, insured a candle manufactory for £200 and a warehouse for £300 in addition to stock and utensils valued at £3600.¹⁴

Contemporary estimates of capital required to set up in business do specify manufacturing separately under the heading of wax and tallow chandlers. Most of the estimates are low compared with actual insured capital in either period. Whittock provides no figures. All the other sources estimate a range in which the lowest figure is £100 and the highest £1000.

With regard to longevity of businesses, there are too few in the 1770s for conclusions to be drawn. In the 1820s, a high proportion (44%) did take out policies in more than one year, implying a longevity of up to ten years or more.

7.8 Manufacture of Other Chemical Products

The aggregated data for the 1770s and 1820s for manufacturer of other chemical products (SICs 2560, 2570, 2582 and 2592) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7 139
No. of Businesses Total		27	64	
by Size of Capital (£)				
100 and under		2	4	
101-500		10	25	
501-1000		7	9	
1001-5000		7	23	
5001-10000		1	2	
over 10000			1	
by Proprietor				
Male		20	45	
Female			2	
Multiple Male		7	17	
by Location				
E		7	9	
EC		10	22	
W		2	5	
WC		1	17	
N			1	
SE		5	6	
SW		2	4	
by Type of Capital				
Working		16	39	
Fixed			4	
Both		11	21	
Size of Maximum Capital (£)				
Average	All	1384	1397	
Median	All	750	650	
Highest		9100	10560	
Lowest		50	20	
Average No of Employees (1841)			3	
Years of Entry				
	1	25	44	
	2	12	14	
	3		5	
	4		1	

Manufacturers of other chemical products comprises four main industry groupings: pharmaceutical products (SIC 2570); other specialised chemical products (2560); makers of perfumery (2582); and, manufacture of cleaning products (2592). Pigot lists 139 businesses in 23 different trades within this group of industries. Although there are a very limited number of businesses in these trades for which fire office records

can be derived in the 1770s, only 27, there are far more in the 1820s. The total was 68, which represents nearly half the number listed by Pigot.

The trades represented in both fire office registers and Pigot include manufacturing chemists and druggists, drug grinders, castor oil manufacturers, lint and plaster manufacturers and oil of tartar and rheumatic oil manufacturers amongst manufacturers of pharmaceutical products; oil of vitriol, cart grease, size, alum, anti-corrosion and anti-mildew amongst manufacturers of other chemical products; rouge makers as well as perfumery manufacturers; and, makers of blacking, whiting, plate powder and brass and copper cleaning composition amongst manufacturers of cleaning products.

Of all these trades, the commonest for which fire office policies are extant are chemists; 17 of the 27 businesses in the 1770s were chemists, and 46 out of 64 in the 1820s. Although it is not easy to identify them, included above are those businesses where manufacturing can be shown as an activity to distinguish them from the far more numerous apothecaries, retail druggists and chemists and druggists and retail perfumers (SIC 6430), of which there are fire office records for 252 in the 1770s and 184 in the 1820s. The 1824 edition of *The Book of English Trades* attempts a distinction: "The Chemist of trade, might be defined the maker of medicines; the Druggist the seller of them. In London...a Chemist and Druggist are frequently combined in the same person...The Chemist and Druggist usually makes some of his articles, even if he is only a retailer: he also sells numerous quack medicines...The Chemist and Druggist generally, also, dispenses Physicians' prescriptions."¹

These are interesting distinctions. Geoffrey Tweedale, the historian of Allen and Hanburys, describes how, prior to the Apothecaries Act 1815, medical practice, drug dispensing and drug manufacturing were all likely to be carried out within the same business. Only after the requirement for apothecaries to be licentiates of the Society

of Apothecaries do some become medical practitioners and others dispensers or manufacturers of drugs.² Even so, it was still difficult to distinguish between them as late as 1844.³ Nevertheless by 1841 the *Pharmaceutical Journal* could observe that "in Pharmacy we have Operative Chemists, Dispensing Chemists, Manufacturing Chemists, Wholesale Druggists, Saline Chemists and Druggists who give their attention to particular classes of preparations...others who are between wholesale and retail"⁴

The first hundred years of Allen and Hanburys illustrates the overlap between these various lines of business. The founder, Sylvanus Bevan, described himself as an apothecary in 1715 but after 1765 his brother Timothy called himself a druggist and chemist. Certainly, by 1775 the firm was manufacturing drugs and selling them both wholesale and retail. The retail side of the business was still expanding in the 1830s and, even after the first technological breakthroughs in pharmaceuticals manufacture and the major expansion of the business in the 1850s, dispensing was still a major activity. It was not until the move to Bethnal Green in 1874 that manufacturing really took off. Indeed, Tweedale describes it as not fully a pharmaceutical manufacturing company until 1893.⁵

An interesting tradecard of about 1800 survives for a business in another of the industry groupings above. It is for the Grease Manufactory of Joseph Perceval of 10 Green St, Blackfriars Rd. Addressed to "Merchants, Farmers, Dealers and Others", it offers "Superior Fine Grease Preparation for Carage (sic) Wheels & Mills of every description."⁶

In the area of perfumery and cosmetic manufacturing, the sophistication achieved by the industry is illustrated by *Lillie's British Perfumer* which in 1822 describes 16 types of perfume, 40 natural aromatic products, 27 perfumed spirits and oils, 17 perfumed waters, 5 pomatums and cold creams, 22 perfumed hair products, seven powders and pastes, seven tooth powders and 17 types of cosmetics.⁷

In all the above industry groupings, the size of business seems to have been substantial in both periods, with very little difference between them. The average capital insured was £1384 in the 1770s and virtually identical in the 1820s (£1397). The respective median values were £755 and £650. Few businesses were very small, only 7% in the 1770s had commercial property valued at £100 or less, and only 6% in the 1820s. Conversely, just under a third of all businesses had fixed and/or working capital valued at over £1000 in the 1770s and over 40% in the 1820s.

The largest business found in the 1770s was John Walker and William Singleton, oil of vitriol and aquafortis manufacturers and brimstone refiners of 42 Cheapside who, in 1774 insured fixed and working capital for £9100.⁸ Amongst manufacturing chemists, Samuel Johnston of Argyle St, Oxford St, insured commercial property valued at £5000 in 1777⁹ and William Andrew and William Primatt of 66 Aldersgate St took out a policy for £3400 in 1770.¹⁰ In the 1820s, the largest business for which a fire policy is extant is for a Glue Manufacturer, John and Joseph Barton of Grange Rd who, in 1821, insured fixed and working capital valued at £10,560.¹¹ Another very substantial glue manufacturer was Thomas Bailey and George Cox of Canal Bridge, Kent Rd who, in 1819, insured commercial property valued at £4200.¹² The largest manufacturer of pharmaceutical products was James and Henry Vallance who were Chemists, Druggists and manufacturers of Castor Oil located at 19 Garlick Hill and also at Bakers Row, Clerkenwell. In 1821 they insured fixed and working capital valued at £5300.¹³ A very substantial perfume manufacturer was Samuel Berry of 17 Greek St, Soho who, in 1819, insured commercial property valued at £3000.¹⁴ Finally, amongst manufacturers of cleaning products were Joseph and William Cooper, whiting manufacturers, of 16 Millbank St, Westminster¹⁵ and Charles Day and Benjamin Martin, blacking manufacturers, of 97 High Holborn¹⁶ who in 1825 and 1821 respectively took out policies for £3000 and £2000.

The lowest valued policies were for £50 in the 1770s and £20 in the 1820s. In 1772 Everett Lodge of Trotter Alley Bermondsey St carried on business as a whiting maker with a stock of only £70¹⁷ and in 1777 John Shepherd and George More of Vauxhall were blacking makers with stock and utensils valued at only £70.¹⁸

As with other manufacturing industries, a comparatively large proportion insured both fixed and working capital, 43% in the 1770s and 39% in the 1820s. Examples in the 1770s are John Walker and William Singleton, already referred to above, who insured a laboratory and warehouse valued at £3000 as well as stock and utensils valued at £6100,¹⁹ and Samuel Hannay, a chemist and druggist of 3 Philpot Lane who, in 1777, insured an 'elaboratory' for £100 as well as stock and utensils valued at £3000.²⁰ In the 1820s, John and Joseph Barton insured a manufactory for £1000, a counting house for £250 and assorted other industrial buildings for £2000 as well as stock and utensils for £7220.²¹ Another glue manufacturer referred to above, Thomas Bailey and George Cox, insured a manufactory, counting house, drying house and sheds for £1500 as well as stock, utensils and plant valued at £2700.²² In 1822, David Taylor and Sons, chemists and druggists of 46 Finsbury Square insured a laboratory for £50 and a counting house and warehouse for £500, in addition to stock and utensils valued at £2500.²³ A year earlier, Bentley and Wood, perfumers and drug grinders of 7 Little Queen St, Lincolns Inn Fields, insured a steam engine and other machinery for £250 as well as stock, utensils and goods for £1650.²⁴ Finally of note, are Joseph and William Cooper, already referred to above, who still employed a horsemill in their whiting manufactory, valued at £1500 along with stock and utensils. They also insured livestock, presumably for the horsemill, valued at £400 and the manufactory, their counting house and stables for £1200.²⁵

Only for makers of cleaning materials are there any contemporary estimates of capital required to set up in business and these are only to be found in Mortimer for 1819 and Whittock for 1837. Mortimer estimates £20–£150 as the capital required for a

blacking maker and £50–£150 for a whiting maker. Whittock has only an estimate for the former which is identical to Mortimer's.

The 1841 Census and *Post Office Directory* show 102 people employed by 38 blacking manufacturers, 73 employed by 44 manufacturing chemists, 54 glue and size makers employed by 14 manufacturers and 36 grease makers employed by 5 employers.

With only two exceptions, all businesses for which fire office policies are extant for the 1770s took out a policy in only one year. In the 1820s, the position was quite different. Nearly one-third of all businesses took out policies in more than one year, 10% in three years or more. Since even policies taken out in two of the seven years 1819–1825 could indicate a longevity for the business of up to ten years or more, this would seem to apply to up to one-third of all such businesses.

Taken as a group, these were all trades in which science was applied to industry at an early date. Laboratories are mentioned in many fire insurance policies in both the 1770s and 1820s. Equally, both horsemills and steam engines are to be found. Nevertheless, despite comparatively high levels of technological sophistication, little change occurred over the period of this study. Tweedale notes that little breakthrough in technology took place in pharmaceutical manufacturing until the 1850s.²⁶

7.9 Foundries

The aggregated data for the 1770s and 1820s for foundries (SIC 3110) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	353
No. of Businesses Total		31	33		
by Size of Capital (£)					
100 and under		12	1		
101-500		12	12		
501-1000		2	7		
1001-5000		4	12		
5001-10000		1	1		
by Proprietor					
Male		22	24		
Female		2			
Multiple Male		5	7		
Mixed		2	2		
by Location					
E		6	5		
EC		12	9		
W		2	6		
WC		8	6		
SE		3	7		
by Type of Capital					
Working		25	21		
Fixed			4		
Both		6	8		
Size of Maximum Capital (£)					
Average	All	790	1417		
Median	All	200	700		
Highest		9800	6000		
Lowest		10	25		
Average No of Employees (1841)			17		
Years of Entry	1	27	22		
	2	3	10		
	3	1	1		

Pigot demonstrates that there were a very significant number of foundries in London in the 1826/27. Although 353 are listed, fire office policies survive for comparatively few of them. There were 31 in the 1770s and 33 in the 1820s. The latter represents just under 10% of those listed in Pigot. Even though Hamilton's classic history of the English brass and copper industries places their centre firmly in the Black country, it is interesting to compare his count of 71 brassfounders in Birmingham in 1797¹ with Kent's list of 77 in London in 1818² and Pigot's of 129 in 1826/27.

Most of these businesses were clearly designated as either brass or ironfounders, though in the 1770s a number were described only as founders. That at this time the business of an ironfounder was still involved with an element of manufacture of goods for retail sale is shown by the description of James Gilbert's trade of ironfounder in the 1831 Bankruptcy Commission file: "...buying and selling of Iron and Working and Manufacturing of Iron into divers Goods and Articles of Merchandize of iron usually dealt in by Ironfounders and selling the same..."³ Similarly, the 1812 invoices of Bailey, a Brass and Ironfounder of the South Foot of Blackfriars Bridge and W Board, an Ironfounder and Manufacturer of 50 Ray St, Clerkenwell were respectively for "rainwater pipes" and a "Patent Air Stove with Brass Ventilators", the latter valued at £25-10-0.⁴ The data for foundries must be analysed in conjunction with those industries involved in manufacture of finished metal goods (SICs 3161, 3162 and 3163). Hamilton notes this diversity in Birmingham, and there is every reason to believe it equally applicable to London:

"...there is an infinite variety of trades. At one stage we have the brass founder, who required a small amount of capital and employed several workpeople...and going through all the operations in the production of such articles as locks, door handles, hinges, brass fittings for furniture and for carriages and harness etc: at another stage we have the specialised worker producing buttons or buckles, and using different materials of which brass was usually one, or we have the brass candlestick maker, the cock founder, the locksmith, the thimble maker, the brass nail maker, etc; all concerned solely with the making of particular commodities and all using brass. At one point the brass and copper trades fade off into the toy trade, at another into the iron trade, or into the jewellery trade, or...into the engineering trade."⁵

Most foundries were small, though their size increased very dramatically over the period of this study. In the 1770s, the average value of commercial property insured was £790; by the 1820s, this had increased to £1417. More significantly, the median value of insured fixed and/or working capital increased more than three-fold from £200 to £700. In the 1770s, 77% of foundries insured commercial property valued at under £500, 38.7% valued at £100 or less. The equivalent proportion was 39% in the 1820s, with only one foundry insuring for £100 or less. Conversely, over 39% of

businesses insured property valued at over £1000 in the 1820s compared with 16% in the 1770s.

The largest business in the 1770s for which fire office records are extant was Edward Raby and Thomas Rogers, founders of Dockhead, Southwark who, in 1777, insured fixed and working capital valued at £9800.⁶ Another very substantial business was that of Mary, James and Henry Mist, founders and ironmongers of Long Acre who insured commercial property valued at £4050 in 1777.⁷ The largest commercial capital insured in the 1820s was £6000 by Robert Johnston, William Brookes and Thomas Hector, brassfounders and lamp manufacturers of 32 New St Square in 1825.⁸ Other large businesses were Rendle and Son, ironfounders and whitesmiths of 11 Clerkenwell Close who took out a policy for £4500 in 1821⁹ and Gilbert Handasyde, a founder of the Falcon Foundry, Bankside who insured commercial property valued at £3500 in 1819.¹⁰

The proprietors of most foundries were male, though there are policies for two owned by women in the 1770s; Mary Denman of 139 Holborn was a founder who insured stock and utensils for £280 in 1770,¹¹ and Susanna Farmer a brassfounder of Paved Alley, Fleet Ditch who insured stock and utensils for £30 in 1769.¹²

A large proportion of businesses insured a wide variety of heavy fixed capital. In the 1770s, Edward Raby and Thomas Rogers insured furnaces, water wheels, forges and bellows for £1800 in 1769 as well as stock, utensils and goods for £8000 in 1777.¹³ In 1772 Ann Fletcher and James Jones, ironfounders of Farthing Fields, Wapping insured their counting houses and warehouses for £400, a millhouse, engine house and workshop for £300 and their foundry for £450, as well as stock and utensils valued at £1330.¹⁴ In the 1820s, Gilbert Handasyde insured his foundry for £2000, a millhouse and counting house for £100, a smith's shop for £75 and other industrial buildings for £225 in addition to stock and utensils for £300.¹⁵ Another example, from 1825, was Crundall and Hallen, ironfounders of the Roebuck Iron Foundry, Great Dover Rd,

Southwark who insured a counting house valued at £150, a smith's shop for £50, a foundry for £350, a smithy for £100 and stables for £200, as well as stock, utensils and goods for £1150.¹⁶ These policies demonstrate the early use of power in the London manufacturing trades.

Contemporary estimates of capital required to set up in business as either a brass or ironfounder were of the same order of magnitude as the average and median values for actual commercial capital insured. For brassfounders, Kearsley in 1786, Mortimer in 1819 and Whittock in 1837 all give a lower estimate of £100 or £150. Their upper figures vary far more widely: Kearsley gives £2000; Mortimer £350 and Whittock £500. For ironfounders, Collyer also gives an estimate of £100 in 1761. The later sources all give starting points for their ranges between £100 and £250, but much higher upper estimates: £2500 for Kearsley and £1000 for Mortimer and Whittock.

The 1841 Census and *Post Office Directory* identify 119 brassfounders employing 834 people and 58 ironfounders employing 671.

Less than 13% of businesses in the 1820s took out policies in more than one year. However, in the 1820s the proportion rose to one-third. This proportion of businesses may have had a longevity of up to ten years or more.

Overall, the numbers of extant records for foundries is too small for many conclusions to be drawn. However, it is clear that the size of businesses did rise very substantially over the period of this study. There is also some indication of an increasingly sophisticated range of heavy fixed capital insured by businesses. Most important of all, it is clear that these were still important London trades throughout the period of this study, despite the huge growth of the metal industries in Birmingham and the Black country.

7.10 Bolts, Nails and Metals Treatment

The aggregated data for the 1770s and 1829s for manufacturers of bolts and nails and metals treatment (SICs 3131 and 3132) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7 76
No. of Businesses	Total	19	9	
by Size of Capital (£)				
100 and under		7	4	
101-500		11	3	
501-1000		1		
1001-5000			2	
by Proprietor				
Male		17	6	
Female		1		
Multiple Male		1	3	
by Location				
E			1	
EC		7	5	
W		3		
WC		9	3	
by Type of Capital				
Working		15	8	
Fixed			1	
Both		4		
Size of Maximum Capital (£)				
Average	All	199	754	
Median	All	180	120	
Highest		700	4000	
Lowest		10	20	
Average No of Employees (1841)			19	
Years of Entry	1	19	8	
	2		1	

These were not major London trades in the period of this study and there are few examples of such businesses in the fire office registers. Pigot listed 76 in 1826/27 and there are fire office records for only 19 in the 1770s and nine in the 1820s.

Represented in these two groups of industries are such trades as screw smiths and nailmaking on the one hand, and japanning and enamelling on the other.

Most businesses were very small, none in the 1770s having an insured commercial capital of over £700 and only two in the 1820s insuring more than £1000. The highest capital insured in the 1770s was £700 by Joseph Le Jeune, enameller, engine turner

and small worker in gold of 12 Denmark St in 1777.¹ In the 1820s, the largest business was that of Madgwick and Coopers, japanners of St John's Lane, West Smithfield who, in 1820, insured commercial property valued at £4000.²

Makers of screws and nails were the smallest businesses of all. For example, in 1769 Samuel Cummins, a bedscrew maker of Saffron Hill insured stock and utensils for £40 and his workshop for £30.³ In 1822, Thomas Bayman, a hand screw smith of 35 Old Gravel Lane insured stock and utensils for £100.⁴

The average capital insured was £199 in the 1770s and £754 in the 1820s; the respective median values were £180 and £120. Contemporary estimates for capital required to set up in business were also very small. Campbell in 1747 estimated £20–£50 for a screwmaker and Collyer in 1761, Kearsley in 1786, Mortimer in 1819 and Whittock in 1837 gave ranges with a low of £40 (Kearsley) and a high of £200 (Mortimer).

The only examples of fixed capital insured are for a few small workshops. For example, Joseph Le Jeune insured his for £200.⁵ Another example is William Lock, a japanner of 2 Eagle Court, St John's Lane who, in 1777, insured a workshop for £50 in addition to stock and utensils for £100.⁶

Although the sample of businesses in these industries is too small for any valid conclusions to be drawn, it should be noted that they overlap with both foundries (above) and manufacture of metal goods (below).

7.11 Finished Metal Goods

The aggregated data for the 1770s and 1820s for manufacturers of finished metal goods (SICs 3161, 3162 and 3163) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	812
No. of Businesses Total		306	202		
by Size of Capital (£)					
100 and under		124	55		
101-500		139	83		
501-1000		27	31		
1001-5000		13	28		
5001-10000		3	4		
over 10000			1		
by Proprietor					
Male		282	169		
Female		8	8		
Multiple Male		13	22		
Mixed		3	3		
by Location					
E		39	37		
EC		98	66		
W		34	24		
WC		72	44		
N		2	2		
NW			2		
SE		42	21		
SW		19	6		
by Type of Capital					
Working		270	151		
Fixed		6	7		
Both		30	44		
Size of Maximum Capital (£)					
Average					
All		372	769		
Female Only		110	398		
Median					
All		150	250		
Female Only		80	100		
Highest		9990	11500		
Lowest		5	10		
Average No of Employees (1841)			24		
Years of Entry					
1		261	156		
2		43	33		
3		1	9		
4			4		
5		1			

Undoubtedly, this was one of the major London manufacturing trades throughout the period of this study. Manufacturing of finished metal goods comprises three main groupings of trades; manufacture of implements and tools (SIC 3161), manufacture of

household goods (SIC 3163), and manufacture of other finished metal goods (SIC 3163). In practice, all three overlap with one another and with founders on the one hand and dealers in hardware and ironmongery on the other.

For 1826/27, Pigot listed 812 businesses in these trades, 1.7% of all businesses in London. Fire office registers contain records for 306 businesses in the 1770s and 202 in the 1820s. The latter represents a quarter of those listed in Pigot. Of the 812 businesses listed in Pigot, 110 in 14 separately identified trades fall within the category of manufacturers of implements and tools, 239 in 17 different trades within the classification of manufacturers of household goods, and 463 in 23 trades within the category of manufacturers of other finished metal goods. The businesses for which fire office records survive exemplify 10 separately identified trades in the implements and tools classification, 27 within household goods and 40 within other finished metal goods.

Within the implements and tools category, the most common businesses were sawmakers, planemakers, general toolmakers and makers of agricultural implements. Most common amongst manufacturers of household goods were makers of kitchen ware and wireworkers. The remaining category is extremely diverse, but most frequently found were brassworkers, tinplate workers and smiths of every kind (blacksmiths, whitesmiths, coppersmiths, anchorsmiths and so on).

Both the Guildhall Library collection and the Heal collection in the British Library contain scores of tradecards, handbills and invoices for these trades. A few examples give a flavour of the rich variety of finished metal goods manufacturing. They also illustrate how difficult it is to distinguish between the different categories of trade. Thus, although James Sharp of 15 Leadenhall St describes himself as an "Agricultural Implement Maker", his 1770 tradecard lists amongst his manufactures, at his manufactory at 133 Tooley St, anchors, shipwork, ploughs, harrows and carriages.¹

Similarly, in 1825, Holtzapffel and Co. of 64 Charing Cross described themselves in a handbill as Manufacturers of Mechanical and Edge Tools, and illustrated in it a variety of lathes, drills, workbenches, flatting mills, grinding machines and other tools, but also described themselves as manufacturing "Cutlery in all its branches".² Eleven years earlier, a German visitor had marvelled at their stock of lathes and at the fact that the cheapest was priced at 30 guineas.³

In the earlier period, James Powell, Iron Manufacturer, Brazier and Hardwareman of the Stove Grate Warehouse at 51 Cornhill, in his 1776 handbill listed amongst the goods he made in "Brass, Copper, Iron and Steel", stoves, fire irons, chandaliers, locks, door furniture, hooks, kitchen furniture, pots and pans, candlesticks, salvers, cisterns, watch chains, knives dog collars, tools, bells and general smith's work."⁴ In 1802 and 1811, Samuel Fossick, a Tinsplate Worker of 19 Cannon St, sent out invoices which described his business as "Makes & Sells All sorts of Tin, Brass and Copper Goods. Tin Plates, Brass and Iron ware of all sorts & Sizes, Lanthorn leaves & Bar Copper. Tin'd rivits & all sorts of Japann'd Goods. Pewter & white metal Spoons. Meat Screens, Plate & Knife Baskets, Fine Lamp Oils &c. &c."⁵ Later again, the 1824 tradecard of Henry Verinder of 79 St Paul's Churchyard, who described himself as a Working Cutler, advertised "London made Cutlery of the Best Quality...Best Plated On Steel Knives and Forks."⁶ The following year, a handbill sent out by E Weir, Implement Maker and Machinist of 369 Oxford St contained one and a half pages of agricultural and horticultural implements.⁷ A final illustration comes from the 1820s catalogue of John Porter of 81-2 Upper Thames St, his manufactory at Dowgate Dock, who described himself as the "Manufacturer of the improved Iron Park & Field Fence, Hurdles, Gates etc. Wire Fences, Flower Stands, Trainers & every description of wire work. Iron Bedsteads of all kinds."⁸

Put at its simplest, and substituting the more general word 'metal' for 'iron', the 1824 edition of the *Book of English Trades* summarises the contemporary view of all these

trades in their entirety, "A smith is one who works on iron, and who from that metal manufactures a vast variety of articles useful in the arts of life, and of great importance to domestic comfort...It would be impossible to enumerate all the articles manufactured by the smith; they are of all kinds, and of almost all values".⁹ Rupert Gentle and Rachael Field magnificently illustrate with photographs some of the range of goods produced in the domestic brass trades alone."¹⁰

In 1843 George Dodd pointed out that "manufactures in metal" were chiefly to be found in the north and midlands but that "many large establishments of the kind exist in and around the metropolis." He went on to say that,

"The manufactures in metal are...carried on in London generally on a smaller and more divided scale than in the north, especially those which relate to iron and steel...Copper is worked very largely in London, and so is Lead...The sheet-lead for roofs and terraces, lead tubes for water pipes, copper vessels for brewing, distilling, sugar refining, steam boilers, etc, are all manufactured to a considerable extent in the metropolis. The mixed metals, such as brass, gun-metal, bell-metal, and fusible metal are all worked up into useful forms here, but generally in establishments of no great extent."¹¹

It is not surprising therefore that there was enormous variation in the size of business. In both the 1770s and 1820s the large majority were predominantly small. In the earlier period, over 40% insured commercial property valued at £100 or less; another 45% took out policies for between £100 and £500. Although there were considerably less businesses in the 1820s with commercial capital valued at £100 or less (27%), the total insuring for £500 or less was still over two-thirds. In the 1770s, the proportion with an insured fixed and/or working capital of over £500 was 14%; by the 1820s, this had more than doubled to 32%. However, in neither period were there many very large businesses: only three with an insured capital of over £5000 in the 1770s; and, only five in the 1820s, one of which insured over £10,000. Again, it is interesting to compare Hamilton's conclusions with regard to Birmingham. He found that "The amount of capital required in such trades was negligible."¹² He quotes evidence given to a House of Commons Committee "that the greater part of the manufacturers of Birmingham did not require large capitals, and many worked with

less than £100."¹³

The average size of capital insured was not large in either period. It rose from £372 in the 1770s to £769 in the 1820s. Median values also rose, from £150 to £250. In both periods, there were small numbers of female proprietors in these trades, 2.6% in the 1770s and 4% in the 1820s. For these businesses, the average capital insured rose from £110 to £398, and the median from £80 to £100. There were a very few substantially sized female-owned businesses. One, for example, was that of Elizabeth Oliver, an anchormith, of 56 Wapping Wall who, in 1824 and 1825 respectively, insured a workshop for £1500 and stock and utensils for £1000.¹⁴ More typical were Rebecca Neairne, a brazier and brassfounder of 106 Curtain Rd, who insured stock utensils and goods for £200 in 1820¹⁵ and Sarah Frances Jewsbury, a smith of 13 Little Brook St, Fitzroy Square, who insured stock and utensils for £130 in 1824.¹⁶ In the earlier period, Rebecca Champion, a scissors maker of Brick Lane, Old St, insured stock and utensils for £100 in 1771¹⁷ and the next year Jane Walker, a sieve maker of 296 Kent St, Southwark, also insured stock and utensils for £100.¹⁸

The largest individual business for which there is an extant policy is that of Henry and Joseph Tylor who were coppersmiths and braziers of 4 Cripplegate Buildings. In 1825 they insured fixed and working capital for £11,500.¹⁹ The largest business in the 1770s was Alexander French, a manufacturing ironmonger of East Lane, Rotherhithe. He insured fixed and working capital in 1775 for £9990.²⁰

Over a quarter of businesses in the 1820s insured fixed capital. In the 1770s it was just under 12%. In most cases, the fixed capital insured was a workshop. However, in the case of Henry and Joseph Tylor above, it was a manufactory valued at £3500.²¹ William King, a tinplate worker of 66 Snow Hill, insured both a manufactory for £530 and a workshop for £320 in 1824, as well as stock valued at £6530.²² More typical were George Stokoe, a planemaker of 31 Sun St, who insured a workshop for £200

and stock and utensils for £1900 in 1824,²³ William Hurst, a filemaker of 8 Greenhill Rents, West Smithfield, who insured a workshop for £200 and stock and utensils for £800 in 1819²⁴ and Avery Benham, a tinsmith worker of 56 Great Surrey St, who insured a workshop and warehouse for £500 and stock and utensils for the same amount in 1825.²⁵ Again these were trades in which steam power was in use in London by the 1820s.

In the earlier period, Alexander French above insured a workshop for £900 and a warehouse for £1300 in addition to stock and utensils valued at £7790.²⁶ Smaller examples were George Muller, a planemaker of Little Bedford St, Covent Garden, who insured his workshop for £100 and stock and utensils for £820 in 1774²⁷ and William Nesbitt, a smith and brazier of Orange St, Swallow St, who insured a workshop for £30 and stock and utensils for £120 in 1772.²⁸

There are some 40 examples of trades within the above industries for which contemporary estimates were made for the capital sums required to set up in business. These varied enormously. At the lower end of their ranges, Kearsley in 1786 estimated that £5 was sufficient to set up as a birdcage maker and Campbell estimated the same sum would suffice for a button ring maker in 1747. At the other extreme, Whittock estimated that up to £10,000 might be required by a needle maker. All the estimates fall within the range of actual sums insured. A few examples of estimates for different trades in these industries give a flavour. Amongst implement and tool makers, Campbell, Kearsley, Mortimer and Whittock, in 1747, 1786, 1819 and 1837 respectively, estimated that £50–£100 would be the bottom of the range and £100–£150 the upper limit. A similar range was given for plane and sawmakers. The lower part of the ranges for required capital were £50–£100, with Mortimer in 1819 going as low as £30 for a sawmaker, and the highest upper limit is only the £300 estimated by Whittock for the same trade in 1837. For manufacturers of household goods, the range of estimates for a birdcage maker varied from £15–£20 by Collyer in

1761 to £100–£500 by the anonymous 1747 source. In the middle, Mortimer estimated £100–£200 in 1819. The vastly different scale on which contemporaries expected pin and needle makers to operate is shown by the fact that Kearsley in 1786 estimated the possible range of capital to start up to be £20–£2000 and Whittock in 1837 put it at £100–£10,000. For manufacturers of other finished metal goods, the range of estimates was equally great. There is a nearly complete set of estimates for anchorsmiths. In the earlier part of the period, Campbell, Collyer and Kearsley all estimated £500–£2000. Mortimer and Whittock gave rather lower ranges, from £250–£500. For braziers and coppersmiths, most sources started their range of capital requirements at £100 or £150 and went up to £500 or £1000. The highest upper limit for a jacksmith was £400 and for other smiths £600. In both sets of cases the lower parameter was usually £40 or £50.

In both periods, businesses in all the above trades were to be found in every part of the metropolis. The only distinction is that a higher proportion was to be found in the City and to the east in the 1820s than in the 1770s, 51% compared with 44.6%.

There were similar proportions in both periods to be found in districts to the west of the city, 34.8% in the 1770s compared with 32.6% in the 1820s. More were to be found in the districts to the south east and south west in the 1770s, 20% compared with only 13% in the 1820s.

There are a considerable number of trades for which employment can be compared with numbers of businesses by utilising the 1841 Census and *Post Office Directory* data.

	Businesses	Employees
Agricultural implement maker	7	24
Anchorsmith	20	48
Brass manufacturer	36	972
Coppersmith and brazier	58	1044
Filemaker	13	99
Lampmaker	42	130
Toolmaker	44	510
Locksmith	84	355

Mangle and pressmaker	8	51
Pewterer	49	240
Toymaker	16	407
Wireworker	58	408

A substantial proportion of businesses took out policies in more than one year, 15% in the 1770s and nearly 23% in the 1820s. This suggests that a substantial minority of businesses in these trades had a longevity of up to about ten years or more even though their size was often quite small.

In conclusion, it can be seen that, like most other manufacturing trades, businesses making finished metal goods became significantly larger in terms of fixed and working capital insured over the period of this study.

7.12 Machinery and Mechanical Equipment

The aggregated data for the 1770s and 1820s for manufacturers of machinery and mechanical equipment (SICs 3230, 3240, 3250, 3281 and 3282) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	277
No. of Businesses	Total	25	55		
	by Size of Capital (£)				
	100 and under	4	13		
	101-500	15	24		
	501-1000	2	9		
	1001-5000	3	8		
	5001-10000	1	1		
	by Proprietor				
	Male	24	43		
	Female	1	2		
	Multiple Male		8		
	Multiple Female		1		
	Mixed		1		
	by Location				
	E	3	9		
	EC	12	26		
	W	1	4		
	WC	1	5		
	N		1		
	SE	8	10		
	by Type of Capital				
	Working	16	41		
	Fixed	1	3		
	Both	8	11		
	Size of Maximum Capital (£)				
	Average All	757	878		
	Female Only		190		
	Median All	300	300		
	Female Only		200		
	Highest	8250	8900		
	Lowest	20	100		
	Average No of Employees (1841)		26		
	Years of Entry				
	1	20	45		
	2	3	6		
	3	1	3		
	4		1		
	5	1			

To some extent, especially in the 1770s, the manufacture of machinery and mechanical equipment overlaps with manufacture of finished metal goods described in the last section. The various trades aggregated above are manufacturers of textile

machinery (SIC 3230), machinery for food manufacturing (3240), construction equipment (3250), engines (3281) and other machinery(3282). Pigot lists 277 such businesses in 21 separate trades in 1826/27. The only individual trades where numbers were significant were millwrights, engine makers and scale makers. The database for this study contains only 25 businesses from the 1770s, but 55 for the 1820s. The latter figure represents 20% of those listed in Pigot. Some 20 trades are represented in the fire office records, mostly found only in the 1820s.

Most of the surviving material in the tradecard collections for makers of engines is for makers of water pumping equipment. Typical is the 1777 tradecard of John Bristow, engine maker of Ratcliffe Highway, who "Makes & Sells all sorts of Engines for Extinguishing Fires, or Watering Gardens."¹ Over 40 years later, the 1819 invoice of Hopwood and Tilley, engine makers of Blackfriars Rd, described their business as "Make all sorts of Engines and Pumps...for supplying...Mansions, Houses and Towns with Water, and also for Public Bodies and Shipping, Fire Caps, Leather Pipes and Buckets for Brewers and Distillers...Patent valve Cocks, for Canals and Water Works."² A range of products more technologically advanced is described in the 1830 handbill of William Russell, an engineer of 44 St John St, "Fire Pumps...Hydraulic Presses, Air and Gas Condensing Engines, and Soda Water Machines." The 1784 invoice of a scalemaker, Thomas Williams of 71 Cannon St, describes his business as "Makes & Sells all Sorts of Scales with English and Foreign Weights...Likewise Steelyards of all Sorts..."³

Most businesses were small in both the 1770s and 1820s. In the former, 76% had an insured capital of £500 or less; in the latter period it was still 66%. Only nine businesses in the 1820s had an insured commercial capital valued at over £1000, and only one with over £5000. There was little change in average capital insured between the two periods. In the 1770s it was £757 and in the 1820s £878. The median value was £300 in both periods. There were three female owned businesses in the 1820s, the average insured value of which was £190 and the median value £200. One

business was that of Mary Harper, a beer engine maker of 9 Cumberland St, Middlesex Hospital who insured stock and utensils for £200 in 1824.⁴

The largest business in the 1770s was that of John Bristow who insured fixed and working capital valued at £8250 in 1771.⁵ In the 1820s the largest business was that of Henry Maudslay, an engineer of Cheltenham Place, Lambeth who insured commercial property valued at £8900 in 1825.⁶ Another comparatively large business was that of Thomas Willis Cooper of 149 Old St. He was a millwright who insured fixed and working capital valued at £4900 in 1819.⁷

Over a third of businesses in the 1770s and a quarter in the 1820s insured fixed capital. John Bristow insured his counting house for £300 and various industrial buildings for £1010 in addition to stock and utensils for £5940.⁸ More typical examples were William Bynon, a millwright of Vine St, Lambeth who insured a workshop, counting house, shed and leanto in 1775 for £170 in addition to stock and utensils in 1777 for £400⁹ and William Pole, an engine and mathematical instrument maker of Lambeth Marsh who insured his workshop for £250 and stock and utensils for £1200 in 1777.¹⁰ In the 1820s, Henry Maudslay insured a counting house for £150, a turnery room for £210, an iron foundry for £600, a smith's shop for £2000, a steam engine house for £1000 and his porter's lodge for £90 as well as stock and utensils for £4850.¹¹ Thomas Willis Cooper insured his manufactory and counting house for £2300 in addition to stock, utensils and goods for £2600.¹² A smaller example of fixed capital is that of William Joshua Tilley, presumably of Hopwood and Tilley above, who insured his manufactory for £600 and stock and utensils for £100 in 1820.¹³

All the contemporary sources for estimates of capital required to set up in business give ranges much higher than was common in practice for engine makers. The two 1747 estimates start at £500 and Campbell goes up to £2000. Collyer contents himself with the phrase "A considerable sum" and Kearsley gives a range of £100–£1000. The

two later sources, Mortimer and Whittock, give £1000 as the upper parameter and £250 and £500 respectively for the lower. For millwrights, there are again estimates from all six sources. The lower figure in the ranges is £100 except for Campbell who gives £50. The upper parameter varies from £150 to £500. Five sources give estimates for scale makers. All start at £100 and the upper figure in the range varies from £100 to £800. In all these cases, there is a tendency for the two 19th century sources to give higher estimates for starting capital than those from the previous century.

In both periods, the largest proportion of businesses was located in the City or the districts to the east. There were also significant numbers south of the Thames..

The 1841 Census and *Post Office Directory* show 4521 people employed by 200 engine makers and engineers. This represents a relatively high level of average employment, over 22 before taking into account general labouring or clerical staff. It suggests a low level of capital intensity given the small size of capital employed in most businesses.

The large majority of businesses took out policies in only one year, 80% in the 1770s and 82% in the 1820s. This leaves up to about one in five which may have had a longevity of up to about ten years or more.

Overall, despite great advances in engineering technology, including the introduction of steam power, over the period of this study, there appears no evidence that this much affected the size of business in London as represented by value of capital insured.

7.13 Guns and Ammunition

The aggregated data for the 1770s and 1820s for gunmakers and manufacturers of ammunition (SICs 3291 and 3292) are summarised and tabulated below,

	1770s	1820s	Pigot 1826/7	109
No. of Businesses Total	47	32		
by Size of Capital (£)				
100 and under	14	6		
101-500	23	7		
501-1000	4	9		
1001-5000	6	8		
5001-10000		2		
by Proprietor				
Male	43	27		
Female		1		
Multiple Male	3	4		
Mixed	1			
by Location				
E	18	9		
EC	15	9		
W	5	6		
WC	4	4		
SE	3	4		
SW	2			
by Type of Capital				
Working	46	28		
Fixed		1		
Both	1	3		
Size of Maximum Capital (£)				
Average	All	456	1507	
Median	All	200	725	
Highest		3000	8900	
Lowest		10	20	
Average No of Employees (1841)				
			10	
Years of Entry				
1	42	24		
2	4	5		
3	1			
4		3		

Gunmaking was a moderately important trade in London in the period 1775-1825, although there were never more than a handful of shotmakers. Pigot lists 109 businesses in 1826/27, 90 of which were gunmakers. Other more specialised trades were gun lock, stock and barrel makers. Extant fire office registers record 47 businesses in the 1770s and 32 in the 1820s. The latter figure is nearly 30% of those listed in Pigot. Most were gunmakers with small numbers of gun lock, stock and barrel makers and shot makers.

As early as 1747 Campbell testified to the specialisation of the trade, "The Gun Smith is a Compound of the Joiner and Smith; he works both in Wood and Iron: The Gun or Pistol Barrel is none of his making; they are made at the Foundry, and he buys them in Parcels, makes Locks for them and mounts them."¹ Nevertheless, a tradecard issued 63 years later in 1810 shows that the individual business could be a great dealer more diversified. Blake, a gunmaker and sword cutler of 168 Fenchurch St, said that he "Makes & Sells all sorts of Fowling Pieces, Rifle and Air Guns, Pistols of all sorts, Small Swords and Navy Harpers, Patent Shot and best double strong Gun Powder..."²

Most businesses were fairly small in scale, though their size increased over the period of this study. In the 1770s, nearly 79% insured commercial property valued at £500 or less. Under 13% insured more than £1000. By the 1820s, the proportion insuring £500 or less had fallen to 40%, and that insuring over £1000 had risen to over 31%. The average fixed and/or working capital insured rose more than three-fold, from £456 in the 1770s to £1507 in the 1820s. The median value rose similarly, from £200 to £725.

The largest business in the 1770s was that of Michael Memory, a gunmaker of Fair St, Horsleydown, who insured stock valued at £3000 in 1769.³ In 1825 there were two businesses which insured £8900; Thomas Barnett and Son, gunmakers of 134 Minories,⁴ and Thomas Richard Beaumont, shot manufacturer and lead merchant of 7–8 Tooley St.⁵ Amongst a number of substantial businesses was that of James Purdey. The early history of the company at 4 Princes St, Leicester Square and its fashionable clientele is described at length by its historian, Richard Beaumont. Purdey had moved there in 1814 and by 1825 insured stock, utensils and goods valued at £2600.⁶

Most businesses were to be found in the City and in the districts immediately to the east like Goodmans Fields, over 70% in the 1770s and 56% in the 1820s. A small number were also to be found in the more fashionable West End.

Very few businesses insured fixed capital, and then mainly in the form of workshops. For example, in 1773 John Twigg of 30 Cornhill, and described by the historians of the company as one of the foremost gunmakers in London until his death in 1790, insured his workshop for £200, as well as stock and goods for £2000 in 1771.⁷ In the later period, Thomas Barnett and Son insured their warehouse for £1000 in addition to stock, utensils and goods valued at £7900.⁸ Thomas Richard Beaumont insured fixed capital valued at £8900, comprising a manufactory for £2500, two steam engines for £2400 and a counting house, warehouse and shot tower for £4000.⁹ Another example was Joseph Manton, a gunmaker of 11 Hanover Square and 314 Oxford St who insured several workshops for £1700 as well as stock and utensils for £2000 in 1820.¹⁰

Contemporary estimates of capital required to set up in business as a gunmaker are broadly in line with the actual values of capital insured. The two 1747 sources give a range starting at either £100 or £500 and going up to £1000. Kearsley in 1786 also suggests £100–£1000. The two 19th century sources estimate £250–£500, at a time when the actual capital employed had risen sharply. Kearsley, Mortimer and Whittock also give figures for some of the more specialised trades of gun engraver, inlayer, finisher and lock maker, varying from a lower parameter of £10 to £140.

The 1841 Census and *Post Office Directory* list 104 gun and pistol makers and 1109 people employed in the trade. Few businesses took out policies in more than one year, 10% in the 1770s and 25% in the 1820s. These may have had a longevity of up to about ten years or more.

Although there are comparatively few businesses in this specialised trade, it is apparent that size did increase very substantially over the period of this study, and that by the 1820s there were businesses large enough to use steam power in the manufacture of shot.

7.14 Shipbuilding

The aggregated data for the 1770s and 1820s for shipbuilding (SIC 3610) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	217
No. of Businesses	Total	131	51		
by Size of Capital (£)					
100 and under		29	8		
101-500		61	14		
501-1000		20	11		
1001-5000		21	15		
5001-10000			3		
by Proprietor					
Male		101	40		
Female		2	1		
Multiple Male		26	10		
Mixed		2			
by Location					
E		52	24		
EC		1			
W		3			
WC		2			
SE		70	25		
SW		3	2		
by Type of Capital					
Working		67	23		
Fixed		7	7		
Both		57	21		
Size of Maximum Capital (£)					
Average	All	563	1154		
Median	All	300	700		
Highest		4300	6150		
Lowest		10	10		
Average No of Employees (1841)			30		
Years of Entry	1	101	33		
	2	23	13		
	3	5	4		
	4	1			
	6	1	1		

For very obvious reasons, shipbuilding was a very considerable and a very highly diversified London trade in the period 1775-1825, though many businesses were located further down river and beyond the boundaries of the metropolis as defined for the purposes of this study. Pigot lists 217 businesses in nine different trades in 1826/27. Elsewhere within different industrial classifications are listed 28 anchorsmiths

and 64 sailmakers. Many of the 105 ropemakers would also have been directly concerned with the shipbuilding industry.

Fire office policy registers record 131 businesses in the 1770s and 51 in the 1820s. The former figure is larger partly because fewer businesses were located down river and outside the boundaries of this study in the 1770s. The figure for the 1820s represents just under a quarter of those listed in Pigot. However, a far greater range of specialised trades is represented, 15 compared with nine in Pigot. The fire office registers include bargebuilders, blockmakers, caulkers, lighter builders, mast and block makers, oarmakers, riggers, ship carvers, joiners, smiths and breakers. There are also extant policies for five anchormiths in the 1770s and three in the 1820s, for 37 and 13 sailmakers respectively, and for 31 and 15 ropemakers.

Pollard describes the Thames as the supreme shipbuilding river throughout the period of this study; it continued to expand until about 1850, after which decline set in. To Pollard this supremacy was "a symbol of the predominance of the merchants of London over those of the outports." The industry's reputation was high and demand steady, not least from the Admiralty which ordered at least 60% of their outside building from London yards.¹

Tradecards exist only at the level of the pleasure boat. For example, Rawlinson and Lyon, Boatbuilders of the Surrey Side of Westminster Bridge Foot, circulated one around 1800. It offers to "...Build all sorts of Pleasure Boats, for Rowing or Sailing...Pleasure Boats Bought, Sold & taken care of. Also repair'd and fitted up...Boats to Let for Rowing or Sailing."²

The size of business did grow larger over the period of this study. In the 1770s, nearly 69% of businesses insured fixed and/or working capital valued at £500 or less; in the 1820s it was 43%. Conversely, only 16% of businesses in the earlier period took out

policies for more than £1000 compared with over 35% in the 1820s. The average capital insured more than doubled from £563 in the 1770s to £1154 in the 1820s. The median value of policies also more than doubled, from £300 to £700.

There are too few surviving policies for anchormen to allow any comparison of average or median values of capital insured. However, for sailmakers it was higher and for ropemakers of the same order, compared with shipbuilders. For sailmakers the average value of capital insured was £1899 in the 1770s compared with £563, the median value was £1000 compared with £200. In the 1820s, the average and median values were £2156 and £600 compared with £1154 and £700 respectively. For ropemakers in the 1770s, the average and median values were £947 and £600, and in the 1820s £1137 and £700 respectively.

The largest policy taken out in the 1770s was for £4300 in 1773 by James Quallett, a shipbuilder and ropemaker of Love Lane, Rotherhithe.³ Another large policy was that of Peter Mestaer, a shipwright of Shipwright St, Rotherhithe. He insured fixed and working capital valued at £4170 in 1775.⁴ In the 1820s, the largest policy was that taken out for £6150 in 1821 by Ward and Milner, mast oar and blockmakers of Wapping Wall.⁵ Two other large policies, for £5900 and £5550 respectively, were taken out in 1821 by Cornelius Truefitt, a shipwright,⁶ and Joseph Cristall, a shipbuilder and sailmaker,⁷ both of Rotherhithe.

Virtually all businesses were male owned. However, half a century apart, and both in Rotherhithe, Rebecca Winter, a boatbuilder, insured capital valued at £800 in 1770⁸ and Jane Larkin, a bargebuilder, insured stock and utensils valued at £350 in 1825.⁹

Nearly all businesses in the shipbuilding trades were to be found in the riverside districts; in Wapping, Limehouse and Shadwell to the north, and in Rotherhithe and Bermondsey to the south.

Half of all businesses in the 1770s and well over half in the 1820s insured fixed capital. In the 1770s, James Quallett insured his industrial buildings for £2650 in addition to stock and utensils for £1650.¹⁰ Joseph and Hugh Woolcombe, shipbuilders and breakers of East Lane, Rotherhithe, insured their warehouses, sheds and crane house for £1250 in 1775, as well as stock and utensils for £1500.¹¹ Similarly, in 1773 Shadrack and Robert Lester, mast and oar makers of Rotherhithe Stairs, insured their counting house for £75, a shed and workshop for £230, a warehouse for £200 and a wharf for £20, in addition to stock, utensils and goods for £950.¹² In the later period, Cornelius Truefitt insured warehouses for £500, pulleys for £100, sawpits for £380, a blacksmith's shop for £800, a crane house for £220, docks and wharves for £1500 and other industrial buildings for £2500.¹³ Joseph Cristall, also mentioned above, insured a counting house for £50, a warehouse for £1000 and sheds for £250 as well as stock and utensils for £4250.¹⁴ Occasionally, a shipbuilder insured a ship under construction. For example, John Grant of Gun Lane, Limehouse insured a ship for £2000 in 1824, as well as stock and utensils for £600 and ships' stores for the same amount,¹⁵ and in 1825 George Searle, a bargebuilder of Stangate, Lambeth insured a barge under construction for the Stationers' Company for £500, a ship under construction for £200, a boathouse for £400 and stock, utensils and goods for £400.¹⁶

There are a large number of estimates in the contemporary sources for capital required to set up in business as a shipbuilder. The minimum is £500 in every case, with an upper estimate varying from £2000 in 1761 to £10,000 in 1837 and £15,000 in 1786. Lower estimates are given for boat and lighter builders. For the former, the range was £100–£300 in both 1747 sources, but "several thousands" in Collyer in 1761, £100–£1000 in Kearsley in 1786 and £250–£600 in Whittock in 1837. For lighter builders, the lower parameter varied from £100 to £500 and the upper from £500 to £2000. The lowest capital estimated as required to set up in the mast and blockmaking and other shipbuilding trades was between £100 and £400, with upper

limits of up to £1000.

The 1841 *Post Office Directory* lists 222 businesses within the shipbuilding industry and the 1841 Census 3770 employed in shipbuilding trades. It is estimated that another 2800 general labourers, clerks and people in other unspecified occupations were employed in shipbuilding. Pollard gives employment figures for four yards in 1825; Green and Wigram of Blackwall employed 600–800, Evans of Rotherhithe 280, Snook of Poplar 150 and Young of Limehouse 230.¹⁷

In both periods, a significant number of businesses took out policies in more than one year, nearly a quarter in the 1770s and over a third in the 1820s. This implies a substantial minority with a longevity of up to about ten years or more. In both periods, records are extant of businesses which took out policies in six different years. It is instructive to look at how the sums insured could vary from year to year. Thus, Thomas Smith and Robert Fenn, shipwrights, oar and mastmakers of 342 Wapping Wall insured commercial capital valued at £250 in 1770, £560 in 1771, £200 in 1772, £860 in 1774, £2260 in 1775 and £440 in 1777.¹⁸ Similarly, Ward and Milner, already mentioned above, took out policies varying from £1500 in 1824 and 1825 to £3000 in 1823, £4900 in 1822, £5500 in 1820 and £6150 in 1821.¹⁹

As with most manufacturing industries, size of business as measured by the value of commercial capital insured, rose considerably over the period 1775–1825, though at both the beginning and the end of the period it was lower than the average for all businesses in London.

7.15 Coachbuilding

The aggregated data for the 1770s and 1820s for coachbuilders (SICs 3651 and 3653) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	567
No. of Businesses Total		150	138		
by Size of Capital (£)					
100 and under		33	17		
101-500		69	43		
501-1000		32	28		
1001-5000		15	39		
5001-10000		1	10		
over 10000			1		
by Proprietor					
Male		128	104		
Female		5	1		
Multiple Male		17	31		
Mixed			2		
by Location					
E		9	19		
EC		31	14		
W		35	35		
WC		54	53		
N			2		
NW			2		
SE		15	6		
SW		6	7		
by Type of Capital					
Working		124	95		
Fixed		3	7		
Both		23	36		
Size of Maximum Capital (£)					
Average		All	540	1444	
		Female Only	206		
Median		All	300	600	
		Female Only	100		
Highest			5500	11000	
Lowest			20	20	
Average No of Employees (1841)				24	
Years of Entry		1	131	86	
		2	17	32	
		3	1	12	
		4	1	5	
		5		2	
		6		1	

Coachbuilding was not only a very substantial London industry throughout the last quarter of the 18th and the first quarter of the 19th centuries, but was to a considerable extent centred in London. Including wheelwrights (SIC 3653), Pigot lists

567 businesses in 1826/27, 1.2% of all businesses in London. Fire office registers yield policies for 150 businesses in the 1770s and 138 in the 1820s. The latter is nearly a quarter of those listed in Pigot. That this was an industry of many very specialised trades is shown by the fact that the fire office registers contain policies for businesses within 22 separate trades. In addition to wheelwrights, sedan chair makers, chaise and carriage makers, there are, amongst others, coach axletree makers, blind makers, carvers and engravers, founders, joiners, lamp makers, painters, platers, spring makers and tyresmiths.

How specialised the trade already was in 1747 is shown by Campbell: "The Coach-Maker's proper Business is to make the Body of the Coach, and all the Carriage except the Wheels: his Trade is compounded of the Carpenter, Taylor, and Shoe-Maker: he finishes his Work by the assistance of the Founder, Tire-Smith, Wheeler, Carver and Painter..."¹ A century later, George Dodd said much the same thing and testified also to its scale: "Coach-making is carried on in the metropolis to a greater extent, and probably in a higher state of excellence, than anywhere else. from the light gig to the state-coach, from the cab to the heavy wagon, all are manufactured here; and in one part of London several establishments are congregated, in which the classified arrangement of operations is very complete. The wheels of vehicles, too, form another extensive branch of manufacture..."²

A 20th century preoccupation is to be found in the wording of a tradecard circulated in 1791 by I Brooks, Coachmaker of 13 Long Acre: "Carriages built on true Mechanical principles which are not liable to overturn, and follow the Horses with less draught. Axletree & Boxes on an entire new & simple construction, in which the Friction is so reduced, & the Oil preserved, that they will go three thousand miles without a fresh supply."³

The sophistication of the product is exemplified by the specification for a coach sent

by William Cook to a potential customer in 1824 and quoted by John Copeland. It had,

"able shifting bodies and a large locker underneath, made of best material, seasoned timber and workmanship, neatly carved and run, painted and picked out to order and the panels highly varnished and polished, a four hooped circular head with japanned joints and a japanned dashing leather to one of the bodies, two neat leather knee-boots and floor cloths in the bottom...a perch carriage with hoop tyre wheels turned and hardened axles and boxes. Long under springs to the fore part of the body and circular whip springs with braces and jacks to their backs to the hindpart of the carriage and painted and picked out and clear varnished and a pair of japanned lamps fixed with socket ironwork, the whole complete, duty included, £225."⁴

The period of this study was one of considerably expanding demand. The sections below on coachmasters, carmen and carriers discuss at length the increase in road building and traffic, both of which greatly stimulated the demand for vehicles.⁵ As long ago as 1916 Jackman noted that good roads were both the cause and result of prosperity.⁶ By the 1830s there were 20,000 miles of turnpiked main road.⁷ Chartres and Turnbull note that "London was the great hub of road passenger carriage before 1800" and they quantify the huge increase in both passenger and ton miles from the 1770s onwards.⁸

The size of business increased substantially between the 1770s and the 1820s. In the former period, over two-thirds of all businesses insured fixed and/or working capital valued at £500 or less; in the latter, the proportion was only 43%. Conversely, in the 1770s only just over 10% of businesses took out policies valued at over £1000 compared with over 36% in the 1820s. The average size of capital insured nearly trebled, from £540 to £1444; the median value exactly doubled, from £300 to £600. There were a few female owned businesses in the 1770s, virtually none in the 1820s. In the former period, the average capital insured by businesses of which the proprietors were women was £206 and the median value £100, less than half the size of those owned by men.

In the earlier period, the largest capital insured was £5500 by John Hatchett and

William Boyes, coachmakers of Long Acre in 1772.⁹ There were far more large businesses in the 1820s. The largest was that of John and James Houlditch, coachmakers of 93 Long Acre, who insured fixed and working capital for £11,000 in 1824.¹⁰ Another was Stubbs and Hancock, coachmakers of 243–7 Whitechapel Rd. They took out a policy for £10,000 in 1823.¹¹ The largest wheelwrights in the two periods were John Law of Park St, Southwark who insured stock and utensils for £700 in 1777¹² and John Eaton of 4 Davies St, Berkeley Square who insured both fixed and working capital for £2300 in 1824.¹³ The largest business owned by a woman was that of Susannah Wilson of Whitehorse Yard, Church Lane, also a wheelwright, who in 1777 insured stock and utensils valued at £600.¹⁴

A substantial minority of businesses insured fixed capital, 17% in the 1770s and 31% in the 1820s. This was mostly in the form of workshops. In the 1770s examples are John Hatchett and William Boyes who insured a range of industrial buildings, including their workshops, for £1700 in addition to stock and utensils for £3800;¹⁵ John Bromley, a coach painter of Parker St, Queen St who insured his workshop for £500 and stock, utensils and goods for £540 in 1777;¹⁶ and, Richard Friend, a wheelwright of Liquorpond St who insured a shed and blacksmith's shop for £150 in addition to stock, utensils and goods valued at £400, also in 1777.¹⁷ In the 1820s, Stubbs and Hancock insured a range of industrial buildings for £3050 as well as stock, utensils and goods for £6950.¹⁸ John Eaton, also mentioned above, insured his workshop for £500 as well as stock, utensils and goods for £1800.¹⁹ A very substantial workshop was insured for £1900 in 1821 by William and Daniel Hopkins, coachmakers of 36 Davies St, Berkeley Square. They also insured stock, utensils and goods valued at £3300.²⁰ A smaller example is that of Isaac Harper, a wheelwright of 14 Market St, Horseferry Rd who, in 1821, insured a workshop for £60 and a smith's shop for £20 in addition to stock, utensils and goods valued at £170.²¹

All six contemporary sources estimated the capital required to set up in business as a

coachmaker. With the exception of Kearsley in 1786 who gave a lower limit of £300, all started at £500. None gave an upper limit of less than £1000. For wheelwrights the estimates were much lower, all falling within the range of £100–£300. These estimates were very close to the median values for fire policies. A few estimates were given for other coachmaking trades. Most were very low. Rarely was it estimated that more than £200 was required at the highest limit. The exception was coach carriers. Kearsley suggested that up to £6000 might be required and Campbell £1000. Even Mortimer in 1819 gave a range up to £800.

In both periods, it was Long Acre and the area around it which had the reputation for the finest coaches. It was natural for Macartney, on his famous embassy to China in 1792–94, to write of his journey to the Emperor's summer palace that his was "the first piece of Long Acre machinery that ever rattled up the road to Jehol".²² Some 36% of businesses in the 1770s were located there, and 38% in the 1820s. The other large concentration was in the West End, especially around Berkeley Square, where 23% were to be found in the 1770s and 25% in the 1820s. The only shift in location was away from the City: in the 1770s over 20% were located there; by the 1820s this had fallen to 10%.

The 1841 *Census and Post Office Directory* list 485 businesses employing 6646 people with specifically coachmaking skills and another estimated 5000 in non-specific occupations.

Substantial minorities of businesses in both periods took out policies in more than one year, 13% in the 1770s and 38% in the 1820s. This suggests a growing number of businesses with a possible longevity of up to ten years or more. One business in the 1820s took out policies in six separate years. Interestingly, there is comparatively little variation in their value. William Tate, a coachmaker of Greek St, Soho insured capital valued at £2300 in 1819, £2200 in 1820 and 1821, £3300 in 1823, and £1900

in 1824 and 1825.²³

As with most other manufacturing industries, the size of business as measured by capital insured did rise sharply over the period 1775-1825.

7.16 Mathematical and Optical Instruments

The aggregated data for the 1770s and 1820s for makers of mathematical and optical instruments (SICs 3711 and 3730) are summarised and tabulated below,

	1770s	1820s	Pigot 1826/7	144
No. of Businesses Total	36	27		
by Size of Capital (£)				
100 and under	12	10		
101-500	19	12		
501-1000	5	2		
1001-5000		3		
by Proprietor				
Male	35	22		
Female		2		
Multiple Male	1	2		
Mixed		1		
by Location				
E	5	4		
EC	22	8		
W	3	5		
WC	3	6		
N		1		
SE	2	3		
SW	1			
by Type of Capital				
Working	35	22		
Fixed	1	2		
Both		3		
Size of Maximum Capital (£)				
Average	All	269	359	
Median	All	175	160	
Highest		825	1800	
Lowest		15	40	
Average No of Employees (1841)				
			5	
Years of Entry				
1	32	21		
2	4	5		
5		1		

Although not large, this was a London trade of some significance, both with regard to the capital's maritime concerns and the increasingly scientific spirit of the age.

Pigot for 1826/27 lists 144 businesses, slightly more than the 114 for London in the 1820s listed by Edwin Banfield.¹ Fire office registers yield data for 36 businesses in the 1770s, compared with 47 listed by Banfield. For the 1820s, there are fire office records for 27 businesses, 19% of those to be found in Pigot. From all sources, most were makers of mathematical, optical or philosophical instruments.

Few London trades have as assiduous a historian as Anita McConnell. She sums it up very succinctly,

"A hierarchy of makers can be detected: at the top were the famous 'names', to whom buyers from government departments, institutions, and elite British and foreign customers went for all types of instruments and globes...Below these leading houses were reputable makers specialising in certain instruments, or supplying one class of buyer...Below again, the makers who seldom dealt with the public but served the firms above them. At the base, those numerous makers of second-class goods for which there was a growing market..."²

Dr McConnell shows how large could be the scale of a few scientific instrument makers.³ One was Edward Nairne of 20 Cornhill. He lived from 1726 to 1806 and was inventor as well as manufacturer. His tradecard describes at great length his products under the headings of spectacles, magnifying glasses, telescopes, microscopes, camera obscuras, air pumps, barometers, apparatus for electrical experiments, thermometers, hydrometers, hydrostatic balances, quadrants, compasses, sun dials, globes, rulers, drawing pens, theodolites, pencils and drawing instruments, drawing boards and all sorts of measuring equipment.⁴

Nevertheless, most businesses employed very modest sums of capital. The average capital insured was only £269 in the 1770s; it rose very little to £359 by the 1820s. The median value actually fell, from £175 in the 1770s to £160 in the 1820s. In the 1770s, 86% insured capital valued at £500 or less: even by the 1820s, the proportion was still over 81%.

The largest business in the 1770s was that of Benjamin Cole, a mathematical instrument maker of 136 Fleet St. In 1769 he insured stock and utensils for £825.⁵ Two years later, Jesse Ramsden, a mathematical and philosophical instrument maker of the Haymarket, insured stock, utensils and goods for £800.⁶ In the 1820s, the largest business was that of Thomas Rubergall, an optical and philosophical instrument maker of 24 Coventry St, who insured stock and utensils valued at £1800 in 1825.⁷

Two other substantial businesses were those of Worthington and Allen, mathematical, optical and philosophical instrument makers of 196 Piccadilly, who insured utensils and goods valued at £1700 in 1825,⁸ and John Tuther, a mathematical and optical instrument maker of 221 Holborn, who insured fixed and working capital for £1630 in 1820.⁹

Although a substantial majority of businesses were located in the City in the 1770s, by the 1820s they were to be found in small numbers in every part of London.

Amongst the few businesses insuring fixed capital was John Tuther. He insured his workshop for £50 in addition to stock and utensils for £1580.¹⁰ A smaller example was William Couzell, a mathematical instrument maker of 19 Castle St, Southwark. He insured his workshop for £40 and stock and utensils for £110 in 1823.¹¹

All the contemporary sources estimated the starting capital required by mathematical instrument makers. The 1747 estimates are in line with actual insured values; £100–£1000 by Campbell and £50–£500 by the anonymous author. Thereafter, they were very high: £500–£600 by Collyer in 1761; £300–£1500 by Kearsley in 1786; £300–£1000 by Mortimer in 1819; and, £800–£2000 by Whittock in 1837. There were fewer, but equally high estimates for optical instrument makers: £500–£1000 by Campbell; £500 by Collyer; and, £100–£1000 by Kearsley.

The 1841 Census and *Post Office Directory* list 25 barometer and thermometer makers with 85 employees and 61 mathematical and nautical instrument makers with 395.

Dr McConnell draws attention to the major change which took place in the trade over the period of this study. From the second half of the 18th century, the major firms responded to increased demand by specialising either as retailers of a wide range of smaller apparatus or as manufacturers of large apparatus to order.¹²

7.17 Other Precision Instruments and Medical Equipment

The aggregated data for the 1770s and 1820s for manufacturers of other precision instruments and medical equipment (SICs 3712 and 3720) are summarised and tabulated below,

		1770s	1820s	
No. of Businesses	Total	4	18	Pigot 1826/7 117
by Size of Capital (£)				
100 and under			8	
101-500		4	5	
501-1000			3	
1001-5000			2	
by Proprietor				
Male		3	15	
Multiple Male		1	2	
Mixed			1	
by Location				
E			1	
EC		1	8	
W		1		
WC		1	7	
SE		1	2	
by Type of Capital				
Working		4	16	
Fixed			1	
Both			1	
Size of Maximum Capital (£)				
Average	All	220	466	
Median	All	225	150	
Highest		300	2750	
Lowest		130	10	
Average No of Employees (1841)			2	
Years of Entry	1	4	12	
	2		6	

There were a number of smaller trades dealing in the manufacture of other precision instruments and medical equipment. Pigot lists 117 businesses in 11 trades. Fire office registers yield very few records for such businesses, only four in the 1770s and 18 in the 1820s. The latter figure is 15% of those listed in Pigot. Most businesses for which there are records were very small. For the 1770s there are too few from which to draw any conclusions. However, even for the 1820s, the average value of capital insured was only £466 and the median £150. Over 72% of business insured £500 or less. The largest business was Samuel Crosley, a gas meter manufacturer of Cottage

Lane, City Rd, who insured his manufactory for £1000 in 1824 and stock and utensils valued at £1750 in 1825.¹

Although there are too few extant records from which to draw conclusions about the longevity of businesses, it is interesting to note that there are extant policies for one surgical instrument maker in 1774 and 47 years later in 1821. The business is that of William Hasledine Pepys of 22 Poultry. He insured stock and utensils for £250 in 1774;² by 1821 he was insuring stock and utensils for £2000.³

Estimates of capital required to set up in business as a surgeons instrument maker varied from £50-£200 by Campbell, to £50-£500 by Kearsley and £150-£300 by Mortimer.

The 1841 Census and *Post Office Directory* list 53 surgical instrument makers with 152 employees. They also list 28 truss makers with 74 employees.

7.18 Clocks and Watches

The aggregated data for the 1770s and 1820s for clock and watchmakers (SIC 3740) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	627
No. of Businesses Total		255	158		
by Size of Capital (£)					
100 and under		122	57		
101-500		113	72		
501-1000		12	15		
1001-5000		8	14		
by Proprietor					
Male		243	147		
Female		4	4		
Multiple Male		7	6		
Mixed		1	1		
by Location					
E		21	21		
EC		148	101		
W		14	8		
WC		59	15		
N			4		
NW			1		
SE		10	6		
SW		3	2		
by Type of Capital					
Working		251	145		
Fixed		1	2		
Both		3	11		
Size of Maximum Capital (£)					
Average					
All		214	375		
Female Only		163	180		
Median					
All		110	123		
Female Only		55	150		
Highest		1500	3050		
Lowest		7	10		
Average No of Employees (1841)				6	
Years of Entry					
1		237	128		
2		13	19		
3		5	10		
4			1		

Clock and watchmaking is a major example of a trade where distinctions are very difficult to draw between manufacturing and bespoke production to order. What is not in doubt is that this was one of the major London trades in the last quarter of the 18th century and the first quarter of the 19th. It was also a trade of many

specialisms. Pigot lists 627 businesses in 1826/27. This was nearly 1.4% of all London businesses. Pigot lists clock and watchmaking businesses under 25 separate trades. Fire office registers contain records of 255 businesses from the 1770s and 158 from the 1820s. The latter is just over a quarter of those listed in Pigot. Again, 25 separate trades are represented. These include chronometer makers, clock chain makers, engravers, smiths, movement and dial makers, watch cap makers, case makers and springers, chasers, finishers, gilders, hand makers, jewellers, water gilders and wooden clock makers. Dorothy George quotes an estimate of 102 separate trades in 1817.¹

In 1824 it could still be claimed that the "Best watches in the world are made in London". *The Book of English Trades* goes on to say that "When watches were first made, the whole business was performed by one man, who was then properly called a watch-maker; but the name is now given to him who puts the various movements together, adjusts their several parts, and finishes the whole machine...The trade in watches is very considerable...it employs a great number of hands."²

Watchmaking is one of the three trades dealt with at length by Dorothy George. Dealing with the second half of the 18th century, she quotes an estimate of the output of watches from Clerkenwell alone as 120,000 a year. On the question of manufacturing or retailing, she says that "The maker...might be either a shopkeeper or a chamber-master working for the shops, in which case the name of the shop would be put on the dial – sometimes the name of a jeweller, a toyman or even a pawnbroker, who knew nothing of watchmaking."³

More recently, David Landes has shown that in the second half of the 18th century jewelled bearings became a standard feature of any good watch and that watch jewellery became a monopoly of British watchmakers for a hundred years⁴ so that "British technology enjoyed a century of recognized superiority and commercial dominance".⁵ Of Britain at this time he says "nowhere was demand for timepieces so

large and growing so rapidly".⁶ He describes how,

"Hundreds of master craftsmen, employing thousands of out-workers, produced tens of thousands of watches a year...Much of this was for export (and) represented about half the European total...made possible by what was probably the most highly developed division of labour of any branch of British industry"⁷

Nevertheless, in all the many specialised branches of clock and watchmaking, businesses operated with very small amounts of capital. The average size of capital insured in the 1770s was only £214; even by the 1820s it had risen to only £375. The median value of capital insured was £110 in the 1770s and £123 in the 1820s. In the 1770s, 48% of businesses insured capital at £100 or less, compared with 32% for all businesses. Another 44% insured capital valued at between £100 and £500. Under 8% insured capital valued at over £500. Even by the 1820s, 82% of businesses took out policies for £500 or less and only 9% insured for more than £1000. The few businesses with female proprietors were even smaller: the average capital insured was £163 in the 1770s and £180 in the 1820s.

The largest sum insured in the 1770s was £1500 by James Trugent, a clock and watchmaker of Cranbourn St in 1770.⁸ Two policies for £1400 were taken out in 1772 and 1777 respectively by Frederick Jury, a clock machine maker of Red Lion St, Holborn⁹ and Edward Tomlin, a watchmaker of Threadneedle St.¹⁰ In the later period, the largest policy extant was taken out by Benjamin Lewis and John Theodore Vulliamy of 74 Pall Mall in 1825. They insured capital valued at £3050.¹¹ Other substantial businesses were those of George Clark, a watchmaker of 3 Cherrytree Court, Aldersgate St who insured fixed and working capital valued at £2450 in 1820 and 1821,¹² and John Moore, a clockmaker of 39 Clerkenwell Close, who insured stock and utensils valued at £2200 in 1819.¹³ A substantial business in one of the specialised trades was that of William Rowland of 33 Lower Smith St, Northampton Square. He insured fixed and working capital valued at £1450 in 1825.¹⁴

Typical of the few businesses owned by women in the 1820s was Ann Stratton, a

watchmaker of 133 Bunhill Row, who insured stock and utensils for £150 in 1825.¹⁵ In the 1770s there was one considerably larger than average business of which the proprietor was a woman. Margaret Russell, a watchmaker of King St, Moorfields insured stock and utensils for £500 in 1775.¹⁶ More typical was Susanna Boyer, a watch springer and liner of Compton St, Clerkenwell, who insured stock, utensils and goods for £60 in 1774.¹⁷

Very few businesses insured fixed capital, only 2.5% in the 1770s and 8.2% in the 1770s. Two examples of watchmakers from the 1770s are Henry Billingham of 67 Aldersgate St, and William and Henry Morland of 17 Redcross St. In 1769, the former insured his workshop for £300 in addition to stock and utensils for £455;¹⁸ the latter, in 1777, insured their smith's shop for £110, a shed for £20 and stock and utensils for £350.¹⁹ In the 1820s, George Clark insured watchmaker's lathes for £850 and stock and utensils for £1500 in 1820 and a workshop for £100 in 1825.²⁰ William Rowland, also mentioned above, insured his workshop for £450 in 1825, as well as stock, utensils and goods for £1000.²¹

There are many estimates of capital required to set up in business in the clock and watchmaking trades. For most, the lower limit is often no more than £10 and rarely more than £100. The highest upper limit does not exceed £200. Most of the sources give separate estimates for clock and watch makers, usually larger for the latter. For clockmakers, Collyer, Kearsley, Mortimer and Whittock all give a lower limit of £100. Upper limits vary from £200 (Collyer) to £1000 (Kearsley). For watchmakers, Campbell estimates a range of only £50–£100. Collyer also starts at £50, but goes up to £1000. Kearsley estimates £400–£1000, Mortimer £250–£500 and Whittock £500–£3000. Whittock in 1837 may well be thinking of a watch manufacturer. Certainly, Mortimer in 1819 gives a separate estimate of £500–£1500 for a watch manufacturer.

In both periods, the large majority of businesses were located in the City and around

Clerkenwell, 58% in the 1770s and 64% in the 1820s.

The 1841 Census and *Post Office Directory* list 755 businesses and 4440 people employed in clock and watchmaking trades. The surviving wages book for 1828–40 of Thwaites and Reed, clockmakers of Rosoman St, Clerkenwell shows that they employed between 35 and 40 people between 1828 and 1830 but then the number declined markedly to 19 or 20 by the mid-1830s.²²

Although Thwaites and Reed had been established in 1780 and were still in business 60 years later, only a small minority of businesses took out policies in more than one year – 7% in the 1770s and 19% in the 1820s – and might have had a longevity of up to about ten years or more.

Overall, the period covered by this study was not one of technological or organisational change. Most businesses were very small and employed neither many people nor much capital, though the trade was none the less successful in meeting a steeply rising demand throughout the period.

7.19 Sugar Refining

The aggregated data for the 1770s and 1820s for sugar refiners (SIC 4200) are summarised and tabulated below,

	1770s	1820s	Pigot 1826/7 88
No. of Businesses Total	98	65	
by Size of Capital (£)			
100 and under		3	
101-500	2	4	
501-1000	9	3	
1001-5000	62	33	
5001-10000	15	12	
over 10000	10	10	
by Proprietor			
Male	54	23	
Multiple Male	43	41	
Mixed	1	1	
by Location			
E	53	58	
EC	35	6	
W	2		
WC	4		
N	1		
SE	2	1	
SW	1		
by Type of Capital			
Working	83	38	
Fixed	3	4	
Both	12	23	
Size of Maximum Capital (£)			
Average	All	4913	5620
Median	All	3700	4000
Highest		22000	20000
Lowest		400	40
Average No of Employees (1841)			
			15
Years of Entry			
1	58	26	
2	26	16	
3	10	17	
4	4	4	
5		2	

Food manufacturing in general, and sugar refining in particular, were amongst the most highly capitalized industries in London in the last quarter of the 18th century and the first quarter of the 19th. Sugar refiners were not numerous. Pigot for 1826/27 lists 88. For the 1770s, there are extant fire insurance policies for 98 businesses, which is 70% of the 140 sugar houses estimated in 1776 by Clive Trebilcock in his history of the Phoenix Insurance.¹ For the 1820s there are policies for 65 businesses, 74% of

those listed in Pigot.

Trebilcock describes how the Phoenix was born of a crisis in the sugar refining industry, which underwent a steep decline in the 1780s. He cites as a contributory factor rising fire insurance premiums and a refusal to accept them as risks to the full value of their assets. In 1767 the Directors of the Sun Fire Office decided "that no policy be issued out for insuring any one Sugar House or Stock House therein exceeding Ten Thousand Pounds except by Direction of some particular Committee." In 1771 the figure was further reduced to £5000.²

However, the Sun did retain more business than suggested by Trebilcock. As we have seen, in the 1820s the Sun insured 74% of the businesses listed by Pigot. Given their size, it is unlikely that many were missed. It must also be noted that "particular Committees" must often have directed otherwise because, after the Directors minute noted above, 25 businesses insured capital valued at over £5000, ten of these over £10,000, in the 1770s, with 22 and again ten respectively in the 1820s.

In the 1770s the average value of capital insured was £4913. By the 1820s this had risen to £5620. The median values were £3700 and £4000. Although there were a handful of smaller businesses in the 1770s, 89% insured capital valued at over £1000. Of these, over 15% were valued at between £5000 and £10,000 and another 10% at over £10,000. For the 1820s, nearly 85% were valued at over £1000. Of these, 18.5% were valued between £5000 and £10,000 and 15.4% at over £10,000.

Amongst these were some very large businesses. The largest capital sum insured in the 1770s was £22,000 by James Spalding, Thomas Slack and John Hawes of Gravel Lane, Whitechapel in 1777.³ William Pycroft and Samuel Payne of Angel Alley, Whitechapel had taken out policies for £21,000 in 1769.⁴ In the later period, Holthouse and Co of New Rd, Back Lane insured for £20,000 in 1822⁵ and Seargeant and Co of

Princes Place, Back Lane for £18,200 in 1821 and 1822.⁶

Just over 15% of businesses in the 1770s insured fixed capital. In the 1820s, the proportion was very much higher at 41.5%. In the 1770s a typical example was Martin Wackerbath of Hoxton Square who insured a sugar house for £700, sheds and lofts for £150 and stock and utensils for £4400 in 1777.⁷ Much more by way of fixed capital was insured in the 1820s. Thus, in 1820 James Nasmyth of Old Gravel Lane insured a steam engine and other machinery for £2000, a sugar house and steam engine house for £6000 a storehouse for £1000 and an experimental house for £150.⁸ This is an excellent example of the widespread application by the 1820s of steam power to large scale food production.

For sugar refiners, nearly all the contemporary sources estimate that not less than £1000 was required to start a business. The exception was Mortimer in 1819 who gives £750. Upper limits varied from £2000 (Mortimer), to £5000 (Campbell, Collyer and Whittock) and to £10,000 (Kearsley).

In terms of location, sugar refineries usually required reasonable access to the river. However, during the period of this study, there was a distinct movement to the east. In the 1770s, 36% were located in the City and 54% to the east, most usually around Wellclose Square and in Whitechapel. By the 1820s, less than 10% were located in the City and 89% to the east.

The 1841 Census and *Post Office Directory* list 42 sugar refiners employing 645 people.

Very high proportions of businesses took out policies in more than one year, over 40% in the 1770s and 60% in the 1820s. This suggests a very high degree of longevity for businesses in this industry.

Overall, there appears to have been comparatively little change in the size of capitalization of businesses between the 1770s and the 1820s. However, this reflects how large was the scale and how highly capitalized the industry already was by the last quarter of the 18th century.

7.20 Distilling

The aggregated data for the 1770s and 1820s for distillers (SIC 4240) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7
No. of Businesses	Total	69	24	60
by Size of Capital (£)				
	101-500	16		
	501-1000	12	3	
	1001-5000	30	8	
	5001-10000	9	5	
	over 10000	2	8	
by Proprietor				
	Male	40	6	
	Female	1		
	Multiple Male	28	18	
by Location				
	E	15	6	
	EC	20	10	
	W	5	4	
	WC	10		
	N	2		
	SE	16	3	
	SW	1	1	
by Type of Capital				
	Working	47	14	
	Fixed	2	1	
	Both	20	9	
Size of Maximum Capital (£)				
Average	All	2719	10328	
Median	All	1550	5900	
Highest		17700	50000	
Lowest		150	530	
Years of Entry				
	1	43	9	
	2	16	5	
	3	7	5	
	4	2	2	
	5	1	1	
	6		1	
	7		1	

Distilling was another of London's very highly capitalised food and drink manufacturing industries. Pigot lists 60 in 1826/27. There were very many more in the earlier part of the half century from 1775 to 1825. Kent's Directory for 1774, which is a very incomplete count, lists 71. Fire office registers yield data for 69 businesses in the 1770s, almost the same figure as listed by Kent. For the 1820s there are fire office

records for 24 businesses, 40% of those in Pigot.

As early as 1747, Campbell believed that "The London Distillery is now arrived at a very great Perfection..."¹ Certainly, their scale of operations was very impressive. In the 1770s, only just over 40% of businesses insured capital valued at under £1000, 43% insured for between £1000 and £5000 and 16% for over £5000. By the 1820s, the size of business was even more marked. None insured for under £500 and 54% for over £5000. The average policy was for £2719 in the 1770s; by the 1820s, it was £10,328. The median value rose from £1550 in the 1770s to £5900 in the 1820s.

The largest business in the 1770s was that of John Bockett and Joseph Houghland of 273 Borough. They insured fixed and working capital valued at £17,700 in 1777.² As John Bockett and Son, and moved to New Bridge St, they insured for £21,000 in 1819 and 1821.³ Another very large policy in the 1770s was that taken out for £11,100 in 1771 by Samuel David Litrap of Whitechapel Rd.⁴ The largest sum insured in the 1820s was £50,000 in 1825 by Currie and Co. of Vine St, Bloomsbury and Bromley, Middlesex.⁵ Other very large policies were taken out by Cook and Co. of Thamesbank, for £30,000 in 1821,⁶ and for £25,000 in 1820 by George Richards of 210 Piccadilly.⁷

Nearly one-third of businesses in the 1770s and 42% in the 1820s insured fixed capital, often on a very large scale. Steam power was extensively in use by the 1820s. In the 1770s, John Bockett and Joseph Houghland insured a still house and counting house for £700 and a warehouse for £1000 in addition to stock and utensils valued at £16,000.⁸ On a smaller scale, William Van Strate and Peter Edel of Lower St, Islington insured a still house, a rectifying house and a warehouse for £200 each in 1771, as well as stock and utensils for £6650.⁹ In the 1820s, Seager and Evans of Brewer St, Pimlico insured their distillery for £3000 in 1824, as well as stock and utensils for £5000.¹⁰ Hodges and Co. of Church St, Lambeth insured a steam engine and other machinery for £1200 in 1820. A year earlier they had insured a group of

industrial buildings for £2000 and stock and utensils for £3000.¹¹ Over the two years 1823/24, Charles Gordon and Co. of 67 Goswell St insured stock utensils and a steam engine valued at £4500 and a still house and warehouse for £500.¹²

All but one of the contemporary estimates of capital required to set up as a distiller gave a lower figure of £500. The exception was Whittock. He estimated £2000.

Campbell in 1747 and Mortimer in 1819 gave a higher limit to their ranges of £1000.

However, Kearsley in 1786 believed that up to £10,000 might be required and Whittock £6000.

In both periods, distillers were to be found throughout the City, the districts immediately to the east and west, and south of the river.

The 1841 Census and *Post Office Directory* list 56 distillery businesses employing 149 distillers. However, there would also have been large numbers of general labourers not shown under any trade.

Nearly 38% of businesses in the 1770s took out policies in more than one year. In the 1820s it was 62.5%. All of these may have had a life of up to at least ten years or more. Certainly, there is evidence of great longevity amongst distillers. Many 20th century household names were already flourishing. It is also interesting to note the records for Currie and Co., who took out policies in every year from 1819 to 1825. The lowest valued were for £20,000 in 1822 and 1824. In 1821 they took out policies for £22,700, in 1820 for £41,600 and in 1819 for £48,000. In 1825 they took out their largest policy for £50,000.¹³

Throughout the period of this study, distilling was one of the most highly capitalised industries in London. Even though businesses were very large by comparison with other industries in the 1770s, they increased in size many times over by the 1820s.

7.21 Brewing

The aggregated data for the 1770s and 1820s for brewers (SIC 4270) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7 177
No. of Businesses	Total	120	57	
by Size of Capital (£)				
100 and under		5	3	
101-500		38	8	
501-1000		22	14	
1001-5000		38	17	
5001-10000		11	6	
over 10000		5	9	
by Proprietor				
Male		76	32	
Female		1		
Multiple Male		40	25	
Mixed		3		
by Location				
E		41	21	
EC		21	11	
W		8	4	
WC		15	2	
N		1	1	
NW			2	
SE		22	14	
SW		12	2	
by Type of Capital				
Working		75	19	
Fixed		3	7	
Both		42	31	
Size of Maximum Capital (£)				
Average	All	2621	6607	
Median	All	900	1500	
Highest		31400	84100	
Lowest		80	50	
Average No of Employees (1841)			9	
Years of Entry	1	86	33	
	2	22	15	
	3	7	6	
	4	2	3	
	5	2		
	6	1		

Brewing is the third of the very large London food and drink manufacturing industries. Pigot lists 177 businesses in 1826/27. For the 1770s, there are fire office records for 120; for the 1820s, there are 57. The latter is a third of those listed in Pigot.

Peter Mathias describes how the 12 largest London brewers came to dominate the industry by 1830, in contrast to innumerable small producers a century earlier. As early as 1815 they were producing 78% of London's beer and by 1830 it was over 85%. By the latter date the twelve had financial resources of £6 million. Such was the continuity of the first twelve brewing businesses that they already produced 55% as early as 1776. London was a market of ideal size. Mathias suggests that the determining factor was the range of a dray, that is up to about five miles.¹ Demand escalated throughout the period of this study. Gourvish and Wilson show that even between 1818 and 1825 output nationally of strong beer increased by 16.6% from 5,573 million gallons to 6.5 million.² Over the even more limited period of 1820–25 per capita expenditure on alcohol increased by over 22% from £2.43 to £2.97.³

Mathias sums up as follows,

"These marketing opportunities...could be seized by the brewers more completely than by most potential industrialists, for the industry was technologically very suited for large scale production within the single plant, and above all, the techniques of large scale manufacture did not have to wait for steam power or the railroad before this market could be exploited...although (steam power) was adopted at once...by the great brewers to aid a process which had been actively at work for over a generation...the absence of the necessity for any invention or process before which brewing could not be industrialised, meant that there was no technological time-lag in its industrial or commercial development."⁴

Fire office registers testify to the considerable size of businesses in both the 1770s and 1820s. In the earlier period, just over a third of businesses insured £500 or less; by the 1820s, it was less than one-fifth. In the 1770s, 45% of businesses insured capital valued at over £1000, 13% at over £5000. By the 1820s, these proportions had increased to 56% and 26%. Nevertheless, throughout the period of this study there were substantial brewers outside the circle of the largest twelve.

The average capital insured by brewers in the 1770s was £2621; by the 1820s, this had increased to £6607. the median value increased from £900 to £1500. The largest business in the 1770s was Felix Calvert and Co. of Campion Lane, Upper Thames St. They insured fixed and working capital valued at £31,400 in 1771.⁵ Only just smaller

was Henry Goodwyn Senior and Junior of 7 Ratcliffe Cross. They insured capital valued at £30,790 in 1771.⁶ Remarkably, Calvert and Co. were still the largest business in the 1820s, taking out policies valued at £84,100 in 1820.⁷ Goodwyn and Co., had moved to Lower East Smithfield by 1820 in which year they insured fixed and working capital valued at £33,000.⁸ Other very large businesses in the 1820s were Barclay, Perkins and Co. of Park St, Southwark who insured capital valued at £37,000 in 1820⁹ and James Goding and Henry Broadwood of Broad St, Carnaby Market, who insured for £33,500 in 1822.¹⁰

Well over a third of businesses in the 1770s insured fixed capital, and two-thirds in the 1820s. As with distilling, this was often on a very considerable scale. In the 1770s, Henry Goodwyn Senior and Junior insured their still house, warehouses and other industrial buildings for £5890 in addition to stock and utensils for £24,900.¹¹ In 1773, Samuel Gower Poole of Kings Rd, Chelsea insured his brew house for £1200, counting houses for £650, a crane house and store house for £200 and a cart house for £60, in addition to stock and utensils for £5960.¹² Other examples from the 1770s are Joseph Waring of King's Arms Stairs, Narrow Wall, who insured a brew house for £2000 and stock and utensils for £3600 in 1777,¹³ and David Trinder and William Green of Stepney, who insured the Swan Brewhouse for £1800 and stock and utensils for £8900 in 1771.¹⁴

Calvert and Co. in 1820 insured a wide range of fixed capital in addition to stock and utensils valued at the huge sum of £62,900. The fixed capital included a storehouse and brew house plant for £7800, a steam engine for £800, a steam engine house for £500, a vat house for £700, a counting house for £3000, a warehouse for £700 and an assortment of other industrial buildings for £6700.¹⁵ Other examples of substantial and wide ranging insurance of fixed capital are: John Chapman and Co. of Bell Wharf, Lower Shadwell, who insured a brew house for £1800, storehouses for £500, plant for £1900, a cart house and ccopeage for £500 and livestock, carts and boats for £300,

as well as stock, utensils and fittings for £3000 in 1821;¹⁶ John Lyall and Sons of Paradise Rd, Chelsea, who insured another Swan Brewhouse for £1000, storehouses for £1900, cooperage for £50, other industrial buildings for £350 and stock and utensils for £4800 in 1825;¹⁷ and, George Ball and Co. of Bowl Yard, Broad St Giles, who insured their brew house for £3000, a steam engine for £800, a counting house and assorted industrial buildings for £1040 and stock and utensils for £9710.¹⁸ Mathias mentions nine steam engines installed in London by 1796 and 14 by 1801.¹⁹

Contemporary estimates of capital required to set up as a brewer reflected the size of capital most often insured. All the 18th century sources give a lower limit of £2000 or "many thousands". Upper limits rise to between £10,000 and £20,000. The two 19th century sources distinguish between brewers of porter and of ale and table beer. For the latter, both Mortimer and Whittock estimate a required starting capital of £250–£2000. However, for brewers of porter, their range increases to £500–£10,000.

In both periods, most brewers were located in the City, in the districts to the east and south of the river, most usually where there was access to the river.

The 1841 Census and *Post Office Directory* list 140 brewers with 1265 employees.

A high proportion of brewers took out policies in more than one year; over 28% in the 1770s and 42% in the 1820s. This represents the proportion of businesses which might have had a longevity of up to ten years or more. However, it has already been noted that several businesses were active in both the 1770s and 1820s, exemplifying Mathias's thesis on family continuity.

As with the other major London food and drink manufacturing industries, brewing was a highly capitalised industry, the individual businesses within which grew considerably larger over the period of this study as fewer of them dominated the market.

7.22 Other Food and Tobacco Manufacturing

The aggregated data for the 1770s and 1820s for other food and tobacco manufacturers (SICs 4110, 4120, 4140, 4160, 4180, 4190, 4210, 4230, 4260, 4280 and 4290) are summarised and tabulated below,

	1770s	1820s	
No. of Businesses Total	68	85	Pigot 1826/7 301
by Size of Capital (£)			
100 and under	12	10	
101-500	31	37	
501-1000	12	11	
1001-5000	10	19	
5001-10000	2	5	
over 10000	1	3	
by Proprietor			
Male	53	63	
Female	2	3	
Multiple Male	12	19	
Mixed	1		
by Location			
E	25	27	
EC	13	22	
W	4	5	
WC	8	7	
SE	17	21	
SW	1	3	
by Type of Capital			
Working	51	56	
Fixed	2	5	
Both	15	24	
Size of Maximum Capital (£)			
Average	All	1085	2440
	Female Only		223
Median	All	400	450
	Female Only		120
Highest		21100	56400
Lowest		5	30
Average No of Employees (1841)			
			2
Years of Entry	1	56	64
	2	10	12
	3	2	4
	4		3
	5		2

There were small numbers of businesses in a wide range of other food and drink manufacturing industries in London during the last quarter of the 18th century and the first quarter of the 19th. These numbers were small, partly because so much of London's food and drink was imported from other countries and other parts of the

United Kingdom, and partly because a great deal was produced by retailers.

Nevertheless, there were some very large businesses.

The separate industries concerned are manufacture of organic oils (SIC 4110), meat products (4120), processing of fruit and vegetables (4140), grain milling (4160), starch manufacture (4180), bread, biscuits and flour confectionery (4190), chocolate and sugar confectionery (4210), other miscellaneous foods (4230), wines, cider and perry (4260), soft drinks (4280) and tobacco manufacture (4290). Within these industries, Pigot lists 301 businesses in 27 separate trades. Fire office registers yield records for 68 businesses in the 1770s and 85 in the 1820s. The latter is 28.2% of those listed in Pigot. The 33 separate trades represented in the fire office registers include fat and oil manufacturers, bacon curers, sausage and savaloy makers, slaughtermen, jelly makers, lemon juice makers, millers, sea biscuit bakers, chocolate makers, mustard manufacturers, vinegar manufacturers, British wine manufacturers, cider makers, ginger and spruce beer manufacturers, soda and mineral water manufacturers and snuff and tobacco manufacturers.

That food manufacture was already distinguished from retailing is shown by the wording of a tradecard issued in the first quarter of the 19th century by G R Mitchell, French Bread, Gingerbread and Biscuit Baker of 32 Gibson St, Lambeth. It reads "Muffins, Crumpets, Prussian Cakes...Taverns, Coffee Houses & Shops supplied with the above articles."¹

It is particularly difficult to draw conclusions from small numbers of businesses across a very wide range of related, but different, trades. Most were small in scale; a few were very large. In the 1770s, over 63% of such businesses insured £500 or less but a significant minority (19%) insured over £1000. By the 1820s, the proportion of businesses insuring £500 or less had risen to nearly 55%, but that insuring over £1000 had also risen sharply to a third.

The average value of capital insured more than doubled, from £1087 in the 1770s to £2440 in the 1820s. However, this arose largely from the existence of a small number of very large businesses in the 1820s and median values rose only from £400 to £450. There was a small number of businesses with female only proprietors. In the 1820s, the average and median values of capital insured were £223 and £120 respectively, very much lower than for all businesses.

Some examples of different individual businesses give an overall flavour of food, drink and tobacco manufacture in the period covered by this study. In both the 1770s and the 1820s, the same business was the largest in the food manufacturing industry. This was the vinegar manufacturer Potts, the proprietors of which were John Potts Senior and Junior in the 1770s, when the business was located at 17 Mansell St, Goodman's Fields. The capital insured in 1777 was £21,100, made up of stock and utensils valued at £15,000, a mill house, warehouse and brew house valued at £4000 and a storehouse and lofts valued at £2100.² Nearly a half century later, the proprietors Charles, Arthur and William Potts insured capital valued at £56,400. By then the business was located at New Bridge St, Southwark. In addition to stock and utensils insured for £38,800, there were sheds, warehouses, liquorbacks and cooperage insured for £5400, a steam engine for £400, a coal house for £100 and assorted other industrial buildings for £7100.³ Again it is worth noting the use of steam power in large scale food production.

Another very large vinegar manufacturer in the 1820s was John Hanbury Beaufoy and Co. of South Lambeth. In 1820 they insured capital valued at £28,500, consisting of stock and utensils for £13,300, their brew house for £7000, a steam engine for £600, a mill and machinery for £3000, warehouses for £1500, cooperage for £400 and other industrial buildings for £3200.⁴ They were still in business in 1843 when the company was described in detail by George Dodd. He makes an interesting observation with

regard to London's food and drink manufacturing industries as a whole. He reflects on the,

"difference exhibited between those (manufactures) relating to solid food and those relating to liquids; the former being mostly carried on in comparatively small establishments, while the latter involve arrangements of great magnitude. The London porter breweries, for example, are among the 'lions' of the metropolis, so vast are their dimensions, their vessels, their plan of operations, and the capital involved. Distilleries, too, exhibit the same remarkable largeness of feature: and Vinegar-works may be included in the same list...the like may be said of the beverage known as 'soda-water'..."

However, with regard to solid food, he believed that "scarcely anything deserving the name of a 'factory' is involved directly in the preparation of edibles". His only exceptions are "Sugar...one of the few articles of food which involve extensive manufacturing arrangements (and) mustard...another article which requires tolerably extensive arrangements for its preparation."⁵

In addition to brewing, distilling, sugar refining and vinegar manufacturing, Dodd also mentions mustard and soda water as industries requiring large scale capitalisation.⁶ In the 1770s, John Lingard and George Sadler, mustard makers of 24 Winchester St, Borough took out a policy for £1600, covering a millhouse valued at £150, warehouses valued at £200 and stock and utensils valued at £1250.⁷ Larger again was the business of Dampier and Co., mustard and drug grinders of 7 North St, City Rd. They insured fixed and working capital valued at £4600 in 1822.⁸ An example of a soda and mineral water manufacturer was Philip de Gruchy of 17 Silver St, Wood St, Cheapside. In 1820 he insured stock and utensils for £1500.⁹

However, there were other individual businesses which were exceptions to Dodd's rule. For example, sea biscuit baking. In 1777, Morrison Coverdale of Wapping Wall insured his bakehouse for £1000 and stock and utensils for the same sum.¹⁰ On an even larger scale in the 1820s, Hill, Boulcott and Hill of 80 Wapping Wall took out a policy for £12000.¹¹ Very large, too, was the business of William Phone and Son, confectioners of 38 Watling St. They insured their manufactory and warehouse for

£3000 in 1820, as well as stock, utensils and goods valued at £1450.¹² A half century earlier, in 1772, Joseph Haslam and William Townsend, sweetmakers of 40–1 Bread St, insured their stock and utensils for £1700. Even in terms of meat products,¹³ Thomas Hemmings, a bacon curer of Peters Lane, Clerkenwell, insured stock and utensils for £8000 in 1819.¹⁴

In both the 1770s and the 1820s, there were a few millers with moderately highly capitalised businesses. In 1772 Benjamin Ardley of Bow insured stock and utensils for £1000.¹⁵ In the later period, Thomas Rutter and Co. of Lambeth took out a policy for £3400 in 1820.¹⁶

Mention, too, must be made to the manufacture of starch. Two very large businesses were those of Richard Bush, of St Mary Ovary Dock, Southwark, who insured a warehouse for £300 in 1775 and stock and utensils for £8800 in 1777,¹⁷ and William Randall of Princes St, Lambeth, who in 1824 insured a mill for £1975, a counting house for £300, a forge house for £25, a warehouse for £2800 and granaries for £4200.¹⁸

Examples of smaller businesses in these trades are: Moses Hooper, a lemon juice maker of Botolph Alley, who insured stock for £100 in 1769;¹⁹ William Brier and Samuel Parker, fat and oil melters of 10–11 Onslow St, Saffron Hill, who insured stock and utensils for £400, a counting house for £50, warehouses for £320 and a boiling and melting house for £50 in 1821;²⁰ and, John Hinxman, a tripe dresser of 10 Clare St, Clare Market, who insured stock, utensils and livestock for £220, a slaughterhouse for £200 and a boiling house for £250 in 1820.²¹

Finally, it is necessary to note the manufacture of tobacco and snuff. Dodd noted that they "involve manufacturing arrangements of much ingenuity".²² An example in the 1770s was John Garrard Willimott, Richard Brooke and John Lafont, tobacco

manufacturers of Lemon St, Goodman's Fields. In 1777 they insured stock, utensils and goods for £3000.²³ In the 1820s, Samuel Stock, a snuff manufacturer of Vine St, Minories, insured stock and utensils for £4000, a manufactory for £2875, a steam engine for £300 and other machinery for £700 in 1820.²⁴ In the same year, John Barker, a tobacco manufacturer of 157 Shadwell insured stock and utensils for £650, a manufactory for £400 and a horsemill for £300.²⁵

Campbell, Kearsley and Mortimer gave estimates of the capital required to set up in business as a vinegar manufacturer. Campbell thought it "unlimited", while Kearsley set it at £1000–£5000 and Mortimer at £500–£3000. Only Mortimer did not give an estimate of capital required to set up as a miller. The other five sources estimated that £100 to £200 represented the lower limit and only Kearsley and Whittock went as high as £500 for their upper limit. For both these trades, the estimates seem low compared with actual sums insured.

Such businesses were to be found across all parts of London, though predominantly in the City, the districts to the east and south of the river.

For most of these food and drink manufacturing industries, it is difficult to cross-refer the 1841 Census and *Post Office Directory*, mainly because a large proportion of the people employed in them would have been counted as general labourers. However, amongst some of the smaller industries, 14 coffee roasters employed 66 people, 10 chocolate manufacturers employed 27 and 45 soda water and ginger beer manufacturers employed 259.

7.23 Silk and Cotton

The aggregated data for the 1770s and 1820s for silk and cotton manufacturers (SIC 4320) are summarised and tabulated below,

	1770s	1820s	Pigot 1826/7 323
No. of Businesses Total	166	176	
by Size of Capital (£)			
100 and under	60	51	
101-500	38	33	
501-1000	27	11	
1001-5000	34	60	
5001-10000	4	16	
over 10000	2	5	
by Proprietor			
Male	129	118	
Female	8	5	
Multiple Male	25	52	
Multiple Female	1		
Mixed	3	1	
by Location			
E	106	104	
EC	51	65	
WC	3	6	
N	1	1	
SE	4		
SW	1		
by Type of Capital			
Working	159	168	
Fixed	2	2	
Both	6	6	
Size of Maximum Capital (£)			
Average	All	1103	2449
	Female Only	163	32
Median	All	300	925
	Female Only	50	30
Highest		21000	50000
Lowest		10	6
Years of Entry			
	1	145	123
	2	16	38
	3	3	8
	4	2	4
	5		3

Nathalie Rothstein's recent study of the silk industry in the 18th century draws attention to its importance in London for two centuries before that. The London Weavers Company had 6000 members between 1681 and 1733/4. She draws a picture of general expansion until 1824, although the trade was moving away from Spitalfields by the late 18th century.¹ Dorothy George also deals at length with the

silk trade. She too points out that it was an important London textile industry long before the boost given by Huguenot immigration after 1685. She describes the many branches to the trade, the wide variation in size of business and the enormous fluctuations in trade suffered by it, despite the complete ban on imports of foreign silk fabrics for the whole period of this study. Fluctuations varied with fashion and season, as well as with the trade cycle. It was also a trade characterised by an over-supply of labour. The Spitalfields Act of 1773 had forbidden combinations and fixed prices and wages. However, this was not a factor, contrary to the belief at the time, leading to a decline in the trade.² The Hammonds also testify to the fact that most of the industry remained unaffected.³

As late as the 1826/27 edition, Pigot lists 323 businesses in 12 trades. Of these, 237 businesses were engaged in six silk trades, the other 86 in six cotton, calico and crepe trades. These figures exclude the finishing trades which are dealt with below in the section on textile finishing. Fire office registers yield records for 166 businesses in the 1770s and 176 in the 1820s. The latter is over 54% of those in Pigot. Some 21 different specialised trades are represented.

Dorothy George states that "The small master and the large master existed side by side, though there was a progressive tendency to greater capitalization." There was also "the working weaver who owned or hired his own loom."⁴ Fire insurance records support this assertion, though throughout the period of this study most businesses remained small. In the 1770s, over 75% of businesses insured capital valued at £1000 or less, 59% being £500 or below. By the 1820s, these proportions had fallen to under 54% and under 48% respectively. In the earlier period, only 24% insured for more than £1000 and less than 4% insured for more than £5000. By the 1820s, these proportions had risen to over 46% and 12% respectively.

The average value of capital insured more than doubled between the 1770s and

1820s, rising from £1103 to £2449. Median values trebled from £300 to £925. There were some very substantial businesses, even in the 1770s. The largest was James Vansommer and Peter Paul, silk weavers of Pall Mall. In 1777 they insured stock and utensils for £21,000. Interestingly, they insured this with four different fire offices, £6000 each with the Sun and Royal Exchange, £5000 with the Union and £4000 with the London.⁵ There were a number of other large businesses: in 1777 also, James Walker, a weaver of 7 Duke St, Old Artillery Ground, insured stock and utensils for £10,500;⁶ and, in 1773 Lewis Jouenne, a weaver of 1 Chapel St, Spital Square, insured stock and utensils for £9000.⁷

There were some very much larger businesses still by the 1820s. The largest was Doxatt and Co. of Bishopsgate St. They were described in their policy as silk manufacturers, a term which had largely replaced that of 'weaver' by the 1820s. In 1820, they insured stock, utensils and goods for £50,000.⁸ Another large silk manufacturer was William Maddick of 2 Love Lane, Wood St. In 1819 he insured stock and utensils for £15,900.⁹ Within this industrial grouping were also muslin manufacturers and in 1825 one, James Mair of 60 Friday St, insured goods valued at £20,000.¹⁰

The large majority of businesses were owned by men, 93% in the 1770s and nearly 97% in the 1820s. The average capital insured by businesses the proprietors of which were women were £163 in the 1770s and £32 in the 1820s, very much smaller than those for all businesses. This was also true of the median values, which were £50 and £30 respectively. There was, however, at least one moderately substantial business with a female proprietor in the 1770s. This was Elizabeth Clarke, a thread throwster of the Maze, Southwark. In 1775, she insured stock, utensils and goods for £580.¹¹ In the same year, Sarah Cope, a weaver of John St, Spitalfields, insured stock, utensils and goods valued at £300.¹² More typical was Mary Gyles, a weaver of 33 Church St, Berthnal Green, who insured stock, utensils and goods for £50 in 1772.¹³ Similarly in

the later period, Elizabeth Moreland, a weaver of 28 Bacon St, Brick Lane insured stock, utensils and goods for £50 in 1819¹⁴ and Elizabeth Jacobs of 137 Brick Lane, Spitalfields, another weaver, insured utensils and goods for £40 in 1822.¹⁵

Very few businesses insured fixed capital, under 5% in both the 1770s and 1820s. In 1843, Dodd was to observe "with respect to silk...although a large quantity is manufactured at Spitalfields, yet it is here totally distinct from factory operations."¹⁶ Amongst the few exceptions in the 1770s was Joseph Wells and James Rickards of 23 Ludgate Hill. They insured a silk mill and machinery for £3000 in 1774, in addition to stock and utensils valued at £2000.¹⁷ Similarly, Henry Thomas Robinson, a silk manufacturer of 36 Gun St, Spitalfields, insured a manufactory for £500 in 1822 and stock, utensils and machinery for £6000 the following year.¹⁸ An interesting business was that of John and Francis Giles of 18–19 Church St, Spitalfields, unusually still described as weavers in 1823. They insured stock, utensils and machinery which increased in value from £1550 in 1819, to £2550 in 1821 and to £4500 in 1822, before reaching £6500 in 1823.¹⁹

The contemporary estimates of the capital required to set up in business as a silk weaver show both the same wide variation in size and rising trend as is found in insured values. Thus, Campbell gives £100–£500 and the other 1747 source only £50–£100. Both Collyer in 1761 and Kearsley in 1786 estimate £50–£5000. Mortimer gives £250–£2000. There are higher estimates for silk throwsters. Campbell gives £400–£3000, as does Whittock 90 years later. Kearsley estimates £400–£2000 and Mortimer gives £1000 as the lower limit in 1819.

The large majority of businesses were located in and around Spitalfields, and in Bethnal Green to the north and Mile End to the east as time went on. This did not change over the period of this study. Nearly 64% of businesses were located there in the 1770s and over 59% in the 1820s. Most of the rest were located in the City.

It is difficult to interpret the data in the 1841 Census and *Post Office Directory* for the silk trade. The directory lists 147 silk manufacturers and 7203 people employed in silk manufacturing. It also list 5065 unspecified weavers, most of whom were undoubtedly self-employed. The two sources also list 38 cotton manufacturers with 1172 employees.

In the 1770s, under 13% of businesses took out policies in more than one year; by the 1820s it was over 30%. These are the maximum proportions which can be assumed to have had a longevity of up to about ten years or more.

Overall, it may be concluded that the evidence of the fire office registers for 1775–1825 confirm the traditional view of the silk trades as consisting predominantly of small businesses, but with a growing number which were more highly capitalized by the later part of the period.

7.24 Wool, Jute, Flax and Hemp

The aggregated data for the 1770s and 1820s for wool, jute, flax and hemp manufacturers (SICs 4310, 4340 and 4350) are summarised and tabulated below,

No. of Businesses	Total	1770s	1820s	Pigot 1826/7	152
by Size of Capital (£)					
100 and under		4	1		
101-500		15	8		
501-1000		4	6		
1001-5000		3	8		
5001-10000			2		
by Proprietor					
Male		23	21		
Female		1			
Multiple Male			4		
Mixed		2			
by Location					
E		5	4		
EC		7	9		
W		3	2		
WC			1		
N		3			
SE		7	8		
SW		1	1		
by Type of Capital					
Working		24	18		
Fixed		1	1		
Both		1	6		
Size of Maximum Capital (£)					
Average	All	581	1850		
Median	All	305	700		
Highest		3000	9500		
Lowest		30	100		
Average No of Employees (1841)			8		
Years of Entry		1	22	16	
		2	2	6	
		3	2	3	

There were nowhere near the number of London businesses involved in the manufacture of wool (SIC 4310), jute (4350) and flax and hemp (4340) as there were in the silk trade. Pigot for 1826/27 lists 152 businesses within 11 separate trades, most of them in the wool trade. There are extant fire office records for only 26 businesses in the 1770s and 25 in the 1820s, the latter representing just over 16% of those listed in Pigot. Although the number of businesses is small, 20 separate trades are represented. The most common are bombazeen manufacture, wool and worsted

manufacture, flax and hemp working, sailcloth manufacture and hemp floor covering manufacture.

Few meaningful conclusions can be drawn from such small numbers of businesses across such a wide spectrum of trades. Size did increase between the 1770s and 1820s. In the former period, 73% of businesses insured capital valued at £500 or less; in the later, it was only 36%. Conversely, only 11.5% insured more than £1000 in the 1770s compared with 40% in the 1820s. The average value of capital insured increased from £581 in the 1770s to £1850 in the 1820s. Median values doubled, from £305 to £700.

In the 1770s there are extant records for no business larger than Edward Dowling, Robert Brett and Susanna Hardingham, Norwich manufacturers of 18 Milk St. They insured stock and utensils for £3000 in 1771.¹ Within the other two main industrial classifications, Nathan Smith, a floorcloth painter of Knightsbridge, insured stock and utensils for £700, a workshop and counting house for £100 each and his floorcloth manufactory for £900 in 1775 and a warehouse for £900 in 1777;² and, Stephen Goulden, a sailcloth maker of Ratcliffe Highway, insured stock and utensils for £600 in 1771.³

There were a few rather larger businesses in the 1820s. The largest was that of John Harvey and Jasper Knight, floorcloth manufacturers of 57 Broad St, Bloomsbury. In 1821 they insured stock and utensils for £4500 and their manufactory at George St, Lambeth for £5000 in 1822.⁴ Amongst others were: Willement and Co, bombazeen manufacturers of 14 Wood St, Cheapside, who insured stock, utensils and goods valued at £3200 in 1820;⁵ Charles Hampton Turner and Co, sailcloth weavers of Narrow St, Limehouse, who insured stock, utensils and goods for £5525, a warehouse and counting house for £1500, spinning sheds for £250, a tar house for £75 and other buildings for £200 in 1819;⁶ and, John Longman, a flax and hemp dresser of 9 Garden

Row, London Rd, who insured stock and utensils for £1200 in 1820.⁷

Very few businesses in these trades insured fixed capital. Apart from those already referred to above, a rare example of a smaller business which did so is James Mason, a bombazeen manufacturer of 28 Crispin St. In 1822 he insured a warehouse and workshop for £200 in addition to stock, utensils and goods valued at the same amount.⁸

There are also few examples of contemporary estimates of capital required to set up in business. The high figure given by Whittock in 1837 for floorcloth manufacturing, £1500–£2000, is consistent with the few examples extant for the 1820s. Both Mortimer and Whittock give a range of £250–£500 for a bombazeen manufacturer. There is a run of estimates for flax dressers. In no case is the lower figure greater than £50 or the higher parameter greater than £100. Both Mortimer and Whittock give rather higher figures for hemp and flax dressers, £150–£300 and £200–£500 respectively.

In both periods, most businesses were located in the City, in the districts to the east or south of the river.

The only data which can be cross-referred from the 1841 Census and *Post Office Directory* is for 11 flax spinners with 131 employees and 43 floor cloth manufacturers with 178 staff.

7.25 Textile Finishing

The aggregated data for the textile finishing trades (SICs 4371, 4372, 4373 and 4374) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	240
No. of Businesses Total		171	120		
by Size of Capital (£)					
100 and under		39	20		
101-500		51	37		
501-1000		29	17		
1001-5000		44	35		
5001-10000		5	9		
over 10000		3	2		
by Proprietor					
Male		132	80		
Female		13	10		
Multiple Male		24	25		
Multiple Female			1		
Mixed		2	4		
by Location					
E		48	31		
EC		79	53		
W		10	9		
WC		15	9		
N		2	2		
NW			1		
SE		15	13		
SW		2	2		
by Type of Capital					
Working		141	88		
Fixed		4	6		
Both		26	26		
Size of Maximum Capital (£)					
Average					
All		1264	1763		
Female Only		872	463		
Median					
All		500	575		
Female Only		200	150		
Highest		18900	13800		
Lowest		5	13		
Average No of Employees (1841)					7
Years of Entry					
1		145	87		
2		22	24		
3		4	7		
4			1		
6			1		

The four major groupings of textile finishing trades were dyeing and bleaching (SIC 4371), callendering and hot pressing (4372), textile dressing (4373) and assorted other trades, including textile printing (4374). Pigot listed 240 businesses in 21

separate trades within the above categories. There are substantial numbers of extant fire policies for these trades. The registers yield 171 for the 1770s and 120 for the 1820s. The latter figure is exactly half those listed in Pigot. Represented in the fire office registers are 25 separate trades. These include bleachers, dyers and scourers, callenderers and hot pressers, silk, satin, flax, hemp and gauze dressers, packers and calico and woollen printers. In practice, as can be seen from some of the examples below, many businesses were involved in a range of these trades.

Chapman and Chassagne in their study of Peel in England and Oberkampf in France demonstrate the fundamental role played by calico printing in European industrialisation and the growth of commerce in the 18th century. In England, the industry had had its original base in London from the late 17th century. However, from the mid 18th century it was moving away from London. Calico printing arrived in Lancashire at that time and expanded enormously there while the number of firms in London steadily diminished.¹ Stanley Chapman shows that London's river had become too congested for the industry's requirements for water power and that the large majority of London textile printers were outside the area of the metropolis defined for the purposes of this study: along the Lea from Waltham Abbey to Bow; along the Wandle from Croydon to Wandsworth; and, on the Cray at Crayford and Dartford.²

Nevertheless, there were substantial numbers of businesses in many of the textile finishing trades left in London, a substantial proportion of which were very small. Nearly 53% in the 1770s insured capital valued at £500 or less, 23% being £100 or less. By the 1820s, these proportions had fallen slightly to 47.5% and 16.7% respectively. In the 1770s just over 30% insured capital valued at over £1000, with 2% insuring over £5000. By the 1820s, these proportions had risen to over 38% and nearly 10%. Similarly, neither the average nor median values of capital insured increased greatly between the 1770s and 1820s. The former rose from £1264 to £1763, and the latter from £500 to £575.

There are records for three businesses in the 1770s with capital of over £10,000: Robert Allan, a calico printer of Old South Sea House, insured capital valued at £18,900 in 1777;³ Crutchley, Farmer and Goodwin, dyers of Clark St, Southwark, insured fixed and working capital valued at £13,400 in 1777;⁴ and, William Worsfold, a packer of 58 Mark Lane, insured capital valued at £11,500 in 1777 also.⁵ Substantial businesses in the other major trades included: George Shervill, a silk dresser and callenderer of Greyeagle St, Spitalfields, who insured fixed and working capital for £1700 in 1777;⁶ and, Samuel Bradford, a satin dresser of Mason's Court, Brick lane, Spitalfields, who insured fixed and working capital for £1300 in 1775.⁷

The largest business in the 1820s was that of Wilkinson, Fisher and Co, callenderers and hot pressers of Hill St, Windmill St. They insured fixed and working capital for £13,800 in 1819.⁸ Another was James Thompson and James Kendall, callenderers of 57 Redcross St, Cripplegate, who insured for £12,500 in 1820.⁹ Examples of others in the various different textile finishing trades were: Henry Heylin and Jacob Connofa, dyers of Old Ford, who insured stock, utensils and goods valued at £9000 in 1824;¹⁰ William Horsey, a packer of 33-4 Camomile St, who insured fixed and working capital valued at £8450 in 1821 and 1823;¹¹ and, James Ball, a silk dresser of 17 Montague St, Spitalfields, who insured capital valued at £2200 in 1821.¹²

Although the large majority of businesses were male-owned, there were significant numbers of female-owned businesses, nearly 8% in the 1770s and over 9% in the 1820s. The average value of capital insured for such businesses was substantially lower than for all businesses, but still quite high, £872 in the 1770s and £463 in the 1820s. The median values were £200 and £150 respectively. In both periods there were a number of quite substantial female-owned businesses. In the earlier period, Jane Thompson, a callenderer of London Wall, insured fixed and working capital valued at £2500 in 1769.¹³ Two years later, Mary Aungier, a dyer of Bromley, Middlesex, insured stock, utensils and goods for £2000.¹⁴ In the later period, Sarah Alchorne, a packer

of 12–13 Old Fish St, insured stock, utensils and goods for £2000 in 1819.¹⁵ In 1821, Anna Phelp, a silk and satin dresser of Osborn Place, Brick Lane, Spitalfields, insured stock, utensils and goods valued at £1800.¹⁶ Much larger still were two businesses where the principal proprietor was a woman. In 1822, Elizabeth Whitehead and Co, dyers of Bankside, insured fixed and working capital valued at £7000.¹⁷ Two years later, Ann Kirk and Son, dyers of Osborn Place, insured for £5800.¹⁸

A substantial minority of businesses insured fixed capital, 17.5% in the 1770s and 27% in the 1820s. This was often on a very substantial scale, especially in the 1820s. In the 1770s, Robert Allan insured industrial buildings valued at £2800 in addition to stock and utensils for £16,100.¹⁹ Crutchley, Farmer and Goodwin insured a dyehouse for £1400, warehouses for £600, a millhouse for £150 and horses for £100, as well as stock, utensils and goods for £11,150.²⁰ Another example is George Shervill. He insured his workshop for £200 in addition to stock, utensils and goods for £1500.²¹

The range of fixed capital insured was wider, as well as larger, in the 1820s.

Wilkinson. Fisher and Co. insured a steam engine house for £2900 as well as stock, utensils and goods valued at £10,900.²² Elizabeth Whitehead and Co insured a steam engine and other machinery for £1300, industrial buildings for £3750 and stock, utensils and goods for £1950.²³ James Thompson and James Kendall also insured a steam engine and machinery, in their case for £3600, as well as stock, utensils and goods valued at £8900.²⁴ In the 1820s, there are extant instances of at least five steam engines insured in the textile finishing trades, about 10% of all those for which fire insurance records survive.

The highest starting capital estimated by contemporary sources was for packers. With the exception of Mortimer, all give ranges starting at £300 or £400 and going up to £3000 in the case of Kearsley. For callenderers, the 18th century sources regard £50 or £100 as the appropriate lower limit, though Kearsley goes up to £600 for his upper

limit. Mortimer in 1819 and Whittock in 1837 give £200 and £150 respectively as their lower limits and take their range up to £350. Although most regard £200 or £300 as the lower limit for calico printers, the ceiling for their ranges varies from £1300 to £3000 for the 18th century sources. Again. Mortimer and Whittock differ, estimating £300–£600 as the range. Most of these estimates are a little low compared with actual insured values.

As with most textile trades, the large majority were located in the city or the districts to the east, over 74% in the 1770s and 70 in the 1820s. Small numbers were located in all other parts of the metropolis, especially south of the river.

There are a number of trades for which employment shown in the 1841 Census can be compared directly with numbers of businesses listed in the *Post Office Directory*.

	Businesses	Employees
Bleachers	5	63
Calico printers	38	63
Dyers and callenderers	237	1829
Hot pressers	10	100
Packers	16	308
Silk printers	10	20

Only 15% of businesses in the 1770s took out policies in more than one year; by the 1820s, this had risen to 27.5%. Thus, a significant proportion may have had a longevity of up to about ten years at least. In the 1820s, one business took out policies in six different years. It is interesting to note the steady rise and then decline in their value. The business was George Yeathead, a dyer and embosser of Deal St, Coverley's Fields. In 1819 he insured capital valued at £4000, in 1820 at £5000, in 1821 at £7300, in 1822 at £2300, in 1823 at £2000 and, finally, in 1824 at only £800. There appears to be no policy for 1825.²⁵

Unlike most of the other textile trades, the finishing trades did not see any significant increase in the value of capital insured by businesses over the period of this study, largely because most of the largest firms had moved away from the metropolis.

7.26 Hosiery, Carpets and Miscellaneous Textiles

Aggregated data for the 1770s and 1820s for the hosiery, carpet and other miscellaneous textile trades (SICs 4360, 4380, 4391, 4392 and 4393) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	88	106
by Size of Capital (£)			
	100 and under	16	14
	101-500	35	36
	501-1000	21	19
	1001-5000	15	33
	5001-10000	1	1
	over 10000		3
by Proprietor			
	Male	70	76
	Female	4	4
	Multiple Male	13	23
	Multiple Female		1
	Mixed	1	2
by Location			
	E	29	14
	EC	21	58
	W	9	5
	WC	12	13
	N	1	7
	SE	15	8
	SW	1	1
by Type of Capital			
	Working	66	87
	Fixed		1
	Both	22	18
Size of Maximum Capital (£)			
Average	All	770	1662
	Female Only	104	284
Median	All	400	600
	Female Only	75	70
Highest		5600	24000
Lowest		10	20
Average No of Employees (1841)			15
Years of Entry	1	66	74
	2	18	21
	3	3	4
	4	1	5
	5		1
	6		1

By the period of this study, hosiery (SIC 4360) was not a significant London trade.

There was a small number of carpet manufacturers (4380) and more substantial numbers of businesses in a number of other textile manufacturing trades. These were hair manufacturing (4391), ribbon lace and trimmings (4392) and other miscellaneous trades, including rope, line and twine makers (4393). Pigot in 1826/27 listed 509 businesses in 21 separate trades of which manufacture of ribbon, lace and trimmings and rope, line and twine were the largest. Fire office registers yield records for 88 businesses in these trades in the 1770s and 106 in the 1820s. The latter is 21% of those listed in Pigot. Over the period 1775–1825, 25 separate trades are represented. These include framework knitters and stocking dressers, carpet and rug manufacturers, hair and hair cloth manufacturers, lace, ribbon, braid and trimming manufacturers and dressers, net makers and rope and twine manufacturers. The majority of businesses were either in ribbon, lace and trimming or rope and twine manufacture.

With regard to hosiery, manufacturing had become centred in Nottingham and Leicester by 1750. The East Midlands merchant entrepreneurs channelled their expanding output to the London market and elsewhere through the Wood St area of the City.¹ Stanley Chapman lists 38 Nottingham, Leicester and Derby merchant hosiers with stock in London to the value of £19,500 by the middle of the 19th century.²

The tradecard and shopbill collections contain a number of items for ribbon, lace and trimming, and rope and twine manufacturers. An invoice issued in 1777 by Matthew Winter, Lace and Fringe Maker of Long Acre, states that he "Makes & Sells all Sorts of Livery and Army Lace & Fringe for Beds, Coaches & Saddles, Shoulder Knots in Gold, Silver, Silk, Mohair or Worsted, Sashes for Officers, Glass Strings, Reins, Footmen's Holders, Tassels and Lines for hanging large Lanterns or Chandaliers &c."³ That many businesses in this trade were part of the coachbuilding industry is shown by an invoice of 1785 for Block and Hopwood, who were also located in Long Acre, at number 65, and also mention "Coach Laces".⁴ The range of products offered by a ropemaker is exemplified by a tradecard of 1776 issued by R Tidswell, Ropemaker of

Windmill Hill, Upper Moorfields: "...all sorts of Ropes, as Packers Ropes, Crane Ropes, Barr Ropes, Cart Ropes, Waggon Lines, Bricklayer's and Swayer's Lines, Corded Traces and Halters, Jack and Sash Lines, Cloaths, Chalk and Fishing Lines, both for Sea and Rivers, with other Lines, Packthread and Twine."⁵

Although capital insured increased over the period of this study, most businesses were of no great size. In the 1770s, nearly 58% insured capital valued at £500 or less, compared with 47% in the 1820s. In the earlier period, only 18% insured capital valued at over £1000, with only one policy in excess of £5000. By the 1820s, the proportion of policies for over £1000 had increased to 35%. Their average value more than doubled between the 1770s and 1820s, increasing from £770 to £1662. The median value increased less markedly, from £400 to £600. For the ribbon, lace and trimming manufacturers, the average capital insured rose from £871 to £1823, and the median value from £400 to £475; for rope and twine manufacturers, the average capital increased only from £819 to £1043 and the median value from £525 to £675.

Looking at each of the separate trades, the largest manufacturer of hosiery and knitted goods in the 1770s was Michael Bagnley, a framework knitter and hosier of 70 Oxford St. He insured stock and utensils valued at £500 in 1774.⁶ The largest carpet manufacturer was Robert Morrell of 43 Chiswell St. He insured fixed and working capital for £1800 in 1770 and 1775.⁷ Very much larger was the business of Joseph Bower and George Robinson of 27 Princes St, Lothbury. They insured fixed and working capital for £14,250 in 1819.⁸ For hair manufacturing, the largest business in the 1770s was that of Caleb Welch, Richard Joynson and Henry Ladyman, horsehair weavers of 1 Round Court, St Martins le Grand. They insured stock and utensils valued at £2500 in 1777.⁹ The same company, by then known as Welch, Collins and Wells, horsehair manufacturers of Chancery Lane. were still the largest business in the later period. In 1819 they insured stock, utensils and goods valued at £8000 and in 1822 their warehouses for £1500.¹⁰

The largest ribbon, lace and trimming manufacturer in the 1770s was William Poole, a ribbon weaver of 53 Cheapside, who insured stock and utensils for £5600 in 1775.¹¹ Fifty years later, the largest capital insured was by Fisher, Stroud and Robinson of 12 Watling St. They insured goods, utensils and fittings for £24,000 spread equally amongst the Sun, Royal Exchange, Globe and London fire offices.¹² Like hosiery, lacemaking was centred in Nottingham and they were the largest lace manufacturers in that city. James Fisher was the subject of a lengthy narrative in Felkin's classic 1867 history of hosiery and lace.¹³ The largest ropemaker in the 1770s was Robert Sopling of Cutthroat Lane, Upper Shadwell. He insured fixed and working capital for £5000 in 1771.¹⁴ The largest business in the 1820s was smaller than this. In 1822, William Sims and Son of Sun Tavern Fields insured fixed and working capital for £4400.¹⁵

There was a small number of female-owned businesses, all involved in the ribbon, lace and trimming trade. Typical was that of Frances Lowden, a trimming maker of the Strand. She insured stock and utensils for £100 in 1775.¹⁶ In the 1820s there were a few rather larger businesses like that of Ann Spiers, a trimming and silk manufacturer of 122 Church St, Bethnal Green, who insured fixed and working capital valued at £810 in 1819.¹⁷

A substantial proportion of businesses insured fixed capital, 25% in the 1770s and 17% in the 1820s. In the earlier period, Robert Morrell insured his workshop for £300 in 1770 and utensils and goods for £1500 five years later.¹⁸ John Fowler, a ropemaker of 141 Upper Shadwell, insured warehouses for £200, sheds also for £200 and stock and utensils for £1900 in 1770.¹⁹ In the 1820s, Joseph Bower and George Robinson insured their counting house for £250 and a warehouse for £2000, in addition to stock, utensils and goods for £12,000.²⁰ William Sims and Son insured stock, utensils and machinery for £2500 and industrial buildings for £1900.²¹ On a smaller scale, Ann

Spiers, also mentioned above, insured her manufactory for £10 and stock, utensils, fittings and machinery for £800.²²

Contemporary estimates of capital required to set up in business as a ropemaker set £50 to £100 as the lower limit. The upper parameter was set at £1000 to £2000 except for Mortimer in 1819 who gave £50–£150 as his range. There are no complete sets of estimates for any other trade in this group. Thus, Campbell in 1747 gives £50–£500 for a carpet weaver and Whittock in 1837 estimates £350–£500, but Kearsley in 1786 gives a much wider range of £200–£2000. For fringe makers, Kearsley gives £20–£100, a lower estimate than Mortimer and Whittock who estimate £200–£400 and £300–£500 respectively. Mortimer estimates £250–£500 for a ribbon manufacturer. For stocking trimmers Kearsley and Mortimer give estimates beginning at £40 and £50 and going up to £100. There are also estimates for stocking makers: Campbell gives £100–£500 and Kearsley £100–£1000. None of these estimates is out of line with actual insured values.

Most businesses in the rope and twine making trades were located near the river. Ribbon, lace and trimming manufacture was located mainly in the City and to the east.

There are a number of the above trades for which employment shown in the 1841 Census can be compared directly with numbers of businesses listed in the *Post Office Directory*.

	Businesses	Employees
Braid makers	10	50
Carpet makers	42	632
Fringe and lace makers	81	377
Lace manufacturers	63	465
Ribbon manufacturers	20	69
Rope, line and twine manufacturers	94	1192
Trimming manufacturers	39	439

The large majority of businesses took out policies in more than one year, 75% in the

1770s and 70% in the 1820s. Nevertheless, this still leaves a substantial minority which may be taken to have had a longevity of up to about ten years or more. It should also be noted that, in addition to Caleb Welch, the business of John Pickering, a stocking trimmer, was to be found in both periods in Whitecross Alley, Wilson St. In 1773, he insured stock and utensils for £100 and a workshop for the same amount.²³ By 1819, the workshop had risen in value to £200 and stock, utensils and goods to £670.²⁴

In all these trades, there were small, but significant increases in the value of capital insured over the period of this study.

7.27 Leather Tanning, Dressing and Fellmongery

The aggregated data for leather tanning, dressing and fellmongery (SIC 4410) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	112	164 Pigot 1826/7 443
by Size of Capital (£)			
100 and under		20	10
101-500		48	47
501-1000		23	25
1001-5000		19	66
5001-10000		2	9
over 10000			7
by Proprietor			
Male		93	120
Female		2	10
Multiple Male		14	32
Multiple Female			1
Mixed		3	1
by Location			
E		9	25
EC		30	40
W		8	13
WC		17	25
N		2	
SE		40	59
SW		6	2
by Type of Capital			
Working		85	102
Fixed		4	2
Both		23	60
Size of Maximum Capital (£)			
Average	All	775	2243
	Female Only		980
Median	All	400	1050
	Female Only		400
Highest		7388	25900
Lowest		5	40
Average No of Employees (1841)			11
Years of Entry	1	96	92
	2	13	36
	3	3	24
	4		7
	5		3
	6		1
	7		1

Leather tanning, dressing and fellmongery was another very substantial London trade in the period 1775-1825. Pigot in 1826/27 lists 443 businesses, nearly one per cent of all businesses in the metropolis. The database for this study contains 112 businesses

for the 1770s and 164 for the 1820s. the latter is 37% of those listed in Pigot.

Contained in the fire office registers are 19 separate trades. These include curriers, fellmongers, grinders, leather cutters, dressers, japanners, dyers and stainers, patent leather manufacturers, tanners and vellum makers.

In all the leather preparation trades, the size of business increased very substantially between the 1770s and 1820s. In the earlier period, nearly 61% of businesses insured capital valued at £500 or less; by the 1820s this had fallen to under 35%. In the 1770s, the proportion of businesses insuring over £1000 was 19%, with less than 2% insuring over £5000; by the 1820s, these proportions had risen to 50% and 10% respectively. Over the period 1775–1825, the average capital insured tripled from £775 to £2243. The median value also rose sharply, from £400 to £1050.

The largest sum insured in the 1770s was £7388, very unusually for a business the proprietor of which was a woman. This was in 1769 by Ann Varnham, a fellmonger of Five Foot Lane, Southwark.¹ The proprietors of the next largest were a husband and wife, John and Mary Simpson. They were fellmongers and leather dressers of Whites Grounds, Barnaby St, Southwark and they insured fixed and working capital valued at £6020 in 1771.² Sarah Waghorn and Thomas King, curriers of 10–11 Old Bethlem, insured capital valued at £2400 in 1777.³ The largest tanner was Benjamin Pope of Long Lane, Southwark. He insured for £2200 in 1769.⁴ Finally, the largest leather dresser was James Knowles of Broadwall, Southwark who insured fixed and working capital for £4800 in 1769.⁵

The largest businesses in the 1820s were of a different order of magnitude. George Choumert, tanner and Spanish leather dresser of Russell St, Bermondsey St insured fixed and working capital for £25,900 in 1821.⁶ The business was already in existence at 84 Bermondsey St in 1777 when fixed and working capital were valued at the much lower sum of £1300.⁷ The insured capital of two other businesses in the 1820s

exceeded £20,000: Francis and Ellis Brewin, tanners of Willow Walk, Grange Rd, insured for £22,800 in 1819;⁸ and, Richard and Timothy Bevington, Morocco leather manufacturers and dressers of 34 Gracechurch St insured fixed and working capital valued at £22,500 in 1822.⁹ The largest currier and fellmonger were Joseph Sharp of 4 Russell St, Bermondsey and Joseph and Samuel Jackson of 103 Bermondsey St respectively. The former insured for £7000 in 1824¹⁰ and the latter for £16,500 in 1824.¹¹

Although less than 2% of businesses were female-owned in the 1770s, by the 1820s there was a much more significant minority of nearly 7%. The average capital insured was £980 and the median value £400. There were several quite large businesses amongst these. Sarah Margetson, a leather dresser of 214 Bermondsey St, insured stock and utensils for £3500 in 1825.¹² In the same year, Susannah Ash, a tanner and leather dresser of Russell St, Bermondsey insured fixed and working capital for £2350.¹³ Another was Elizabeth Crowley, a currier, japanner and leather hat manufacturer of 35 Camomile St. She insured fixed and working capital for £1350 in 1819.¹⁴

In all these trades, a substantial minority of businesses insured fixed capital, nearly a quarter in the 1770s and 38% in the 1820s. Examples from the 1770s are: Ann Varnham who insured Industrial buildings valued at the unusually precise figure of £1838, as well as stock and utensils for £5550;¹⁵ John and Mary Simpson who insured a leather mill for £100 and a shed for £200 as well as stock and utensils for £4820;¹⁶ and, James Robson, a leather dresser of 93 Bermondsey St, who insured a barn and sorting house for £120, rag houses for £210, a drying house for £310 and a leather mill for £340 in 1773.¹⁷ Examples from the 1820s are: George Choumert who insured his counting house, a warehouse and assorted industrial buildings for £5800 as well as stock and utensils for £20,100;¹⁸ Francis and Ellis Brewin who insured a steam engine for £1000, the steam engine house for £500, other machinery for £1000 and a range

of industrial buildings for £5800, in addition to stock and utensils for £14,500;¹⁹ and, Elizabeth Crowley who insured a warehouse for £700, machinery for £500 and stock, utensils and fittings for £150.²⁰ This was yet another London trade in which steam power was to be found by the 1820s.

There are estimates in all the contemporary sources for capital required to set up a fellmonger, leather cutter and tanner. Most also give figures for a carrier. For a fellmonger, Campbell gives a huge range of £50–£2000. The other 1747 source gives a single figure of £1000. Thereafter the estimates reduce. Collyer gives £400–£500, Kearsley £100–£1000 and both Mortimer and Whittock £100–£500. For leather cutters, there is more consistency. The lower limits vary from £200 to £500 and the upper from £500 to £2000. The estimates for tanners are of the same order of magnitude, the lower limits varying from £100 to £500, and the upper from £500 to £3000. The same is true of carriers. All the sources except Campbell give estimates and these set a lower limit of between £200 and £400 and an upper of between £500 and £3000. In most of these cases it is Kearsley who gives much higher ceilings than the others. None of these estimates is out of line with actual capital insured by the majority of businesses in these trades.

The *Book of English Trades* in 1824 remarks that the tanner "Requires considerable capital, and room and water."²¹ Dodd was more specific: "Bermondsey has been for many years the principal seat of the leather manufacture in England (because) a series of tide-streams...twice in every 24 hours supply a large quantity of water from the Thames for the use of the tanners and leather-dressers."²² In fact, although there was a considerable concentration in and around Bermondsey, only 36% of businesses were located there in the 1770s and 36% in the 1820s. Most of the rest were to be found in the City and near to the northern bank of the river to the east.

These were comparatively labour intensive trades. The 1841 Census and *Post Office*

Directory show 2328 people employed by 160 curriers, 224 employed by 17 fellmongers, 83 employed by seven leather dyers, 39 employed by six leather japanners and 901 employed by 36 tanners.

In the 1770s, 14% of businesses took out policies in more than one year; by the 1820s this had risen to 44%. This implies a significant number with a longevity of up to about ten years or more. It has already been noted that policies are extant from at least 1777 to 1821 for George Choumert.

Although there were no great changes in technology for most businesses in the period of this study, there was nevertheless a considerable increase in capitalisation.

7.28 Saddles and Harnessing

The aggregated data for for the 1770s and 1820s for saddlers and makers of harnessing (SIC 4421) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7 304
No. of Businesses	Total	55	61	
by Size of Capital (£)				
	100 and under	15	6	
	101-500	35	41	
	501-1000	3	8	
	1001-5000	2	6	
by Proprietor				
	Male	49	57	
	Female	4		
	Multiple Male	2	4	
by Location				
	E	5	9	
	EC	7	14	
	W	21	20	
	WC	13	11	
	NW		1	
	SE	5	2	
	SW	4	4	
by Type of Capital				
	Working	55	55	
	Fixed		1	
	Both		5	
Size of Maximum Capital (£)				
Average	All	276	536	
	Female Only	133		
Median	All	200	300	
	Female Only	125		
Highest		1500	4700	
Lowest		8	20	
Average No of Employees (1841)			9	
Years of Entry	1	47	50	
	2	8	7	
	3		3	
	4		1	

The manufacture of saddles and harnessing was another substantial London industry.

The 1826/27 edition of Pigot lists 304 businesses in nine separate trades, most of them saddlers, harness makers or whipmakers. There are extant fire office policies for 55 businesses in the 1770s and 61 in the 1820s. The latter is 20% of those listed in Pigot.

Campbell provides an overview of the diversity of trades related to the saddler in 1747,

"The Sadler...furnishes us with Saddles of all Sorts, Housings, Caps, Bridles, Caparisons, Girths, Surfingles, Brushes, Sponges, and Curry-Combs with every Thing else related to Horse-Furniture...He finishes his Work by the Help of Several distinct Tradesmen: such as the Tree-Maker, who makes the wooden Part of the Saddle; the Rivetter, who makes the Iron Work of the Tree; the Founder, who casts Buckles, Bars, Studs, Brasses, etc for his Bridles...the Bridle-Cutter, who cuts out Leather in Patterns for Saddles, Bridles etc; the Embroiderer, who works Devices, Crests, and Coats of Arms, etc. in Gold, Silver, or Worsteds upon his Housings."¹

More than 30 years later, the tradecard of Edward Ashworth, Saddler of Fleet St, lists much the same activities: "Makes all sorts of Saddles & Riding Furniture, Likewise Sells the Best Jockey, and all other sorts of Whips, Fine Sponges, Vases, Cloak and Saddle Baggs, Collars, Cupples and Chains for Dogs, Silk & Thread Nets for Saddle & Coach Horses & other Saddler's Goods in General."² That these products were sometimes made for sale by others is shown by the fact that Richardson and Kitson of 154 Fenchurch St describe themselves as "Wholesale Saddlers and Harness Makers" in their 1802 invoice.³

Most businesses were very small. Over 90% in the 1770s insured capital valued at £500 or less. Even by the 1820s, this proportion was still 77%. In neither period did any business insure for as much as £5000. Under 4% insured for over £1000 in the 1770s and it was still less than 10% in the later period. The average value of capital insured was only £276 in the 1770s and £536 in the 1820s. The median values increased even less, from £200 to £300.

In both the 1770s and the 1820s. the largest sums insured were by whipmakers. In 1777, John Ross of Piccadilly insured stock, utensils and goods for £1500,⁴ and in 1824 Charles Griffiths of 322 High Holborn insured fixed and working capital valued at £4700.⁵ The largest saddler in the 1770s was Rowland Atkinson of 22 Snow Hill. He insured stock valued at £1100 in 1769.⁶ In the 1820s it was John Townes of 68 Barbican and 141 Cheapside. He insured stock, utensils, goods and fittings for £4200

in 1820.⁷ The largest collar and harness maker was William Cairns of 43 Whitechapel who insured fixed and working capital valued at £1050 in 1820.⁸

There are few extant records of fixed capital, none in the 1770s. Charles Griffiths insured a workshop and warehouse for £2200 in addition to stock, utensils and goods for £2200;⁹ and, William Cairns several workshops for £450 as well as stock, utensils and fittings for £600.¹⁰

Most of the contemporary estimates of capital required to set up in business are in line with actual sums insured, though a few suggest an upper figure which is rather high. The lower limits suggested for saddlers are realistic, ranging from £50 to £300. However, Kearsley suggests an upper limit of £3000 in 1786, which is very high. The lower limits suggested for whipmakers vary from £30 to £50, and £500 is the highest upper limit. For the specialised trades of saddle rivetters, bit makers and bridle cutters, it is estimated that £20 to £100 is a lower limit for the capital required. Only a little higher are the estimates for harness makers; all the estimates fall within a band of £100–£500.

The 1841 Census and *Post Office Directory* list 216 saddlers and 2171 people employed as saddlers, harness and collar makers. Also listed are 37 whipmakers with 377 employees and seven bridle bit, stirrup and spur makers with 47 employees.

A majority of businesses were located in the districts to the west of the City or in the West End, 62% in the 1770s and 51% in the 1820s. Most of the remainder were in the City or in the districts to the east.

The very large majority of businesses took out policies in only one year, over 85% in the 1770s and 18% in the 1820s. This suggests only a small proportion may have had a longevity of up to about ten years or more.

Overall, these were labour intensive trades in which the capitalisation was low and changed comparatively little over the period of this study.

7.29 Luggage and Other Leather Goods

Aggregated data for manufacturers of luggage and other leather goods (SICs 4422 and 4423) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	236
No. of Businesses	Total	48	41		
by Size of Capital (£)					
100 and under		20	9		
101-500		23	22		
501-1000		2	3		
1001-5000		3	4		
5001-10000			3		
by Proprietor					
Male		39	32		
Female		6	4		
Multiple Male		2	4		
Mixed		1	1		
by Location					
E		6	8		
EC		26	12		
W		1	10		
WC		10	6		
N		1			
SE		3	4		
SW		1	1		
by Type of Capital					
Working		45	37		
Both		3	4		
Size of Maximum Capital (£)					
Average	All	317	1013		
	Female Only	388	148		
Median	All	155	300		
	Female Only	125	35		
Highest		3000	9330		
Lowest		10	10		
Average No of Employees (1841)			19		
Years of Entry	1	39	30		
	2	5	8		
	3	4	2		
	4		1		

Pigot in 1826/27 lists 236 manufacturers of luggage and other leather goods in 15 different trades. The largest numbers were trunkmakers and makers of pocket books. In all, Pigot lists 983 businesses in the various leather preparation and manufacturing trades, 2.1% of all London businesses. For manufacturers of luggage and other leather goods, there are comparatively few businesses for which fire office records are

extant, only 48 in the 1770s and 41 in the 1820s. The latter figure is just over 17% of those listed in Pigot. Even so, 20 different specialised trades are represented. These include trunkmakers, letter and dressing case makers, army accoutrement makers, bellows makers, pocket book manufacturers, razor strap and case makers, shagreen case makers and telescope and instrument case makers.

A good example of the range of products made by the trunkmaker is provided by the tradecard of Samuel Forsaith, Trunk Maker of Long Acre. Dating from the last quarter of the 18th century, it states that he "Makes and Sells all sorts of campaign, and strong Iron bound Trunks for travelling in foreign Roads, Sumpters and Portmanteau Trunks, Budgets and trunks for Post Chaises, Cover'd Hampers, Canvas and Leather Valeses for Bedding, Leather Portmanteaus, Saddle Bags, Fire Buckets, Jacks, Powder Flasks, Harvest Bottles, Peruke Boxes, travelling Writing Desks, Cases for Plate, China, Glasses and Musical Instruments...Gentlemen, Merchants and Shopkeepers in Town and Country may be well supplied with all Sorts of Packing Trunks, and Hair & Gilt Nests of Trunks for Exportation, &c."¹

Most businesses were very small. Nearly 90% insured £500 or less in the 1770s; even by the 1820s it was still over 73%. The average capital insured was only £317 in the 1770s. It increased to £1013 in the 1820s but median values rose less, from £155 to £300. The largest sum insured in the 1770s was £3000 by William Rawle, an accoutrements maker of the Strand. He insured stock and utensils for £3000 in 1772.² There were also two substantial trunkmakers: Mary Townsend of Leadenhall St, who insured stock and utensils for £1850 in 1769;³ and, John Clements of 46 St Paul's Churchyard, who insured stock and utensils for £1200 in 1771.⁴ There were some considerably larger businesses in the 1820s. The largest was a pocket book maker, William Smith of 45 King St, Snow Hill, who insured fixed and working capital for £9330 in 1825.⁵ The next two largest businesses were both army accoutrement makers. William Moore of 1 Old Bond St insured stock and utensils for £7850 in

1825,⁶ and Samuel Jackson and Walter Learmouth of 4 Great Poultney St insured for £7150 in 1822.⁷ The largest trunkmakers were Robert and John Viney of 48 Cornhill and James and William Philip Lowndes of 18 Haymarket. The former insured stock, utensils and goods for £1300 in 1819,⁸ and the latter stock, utensils and livestock for £1100 in 1822.⁹ Another trade worthy of note is that of bellows maker. In 1777 John Collier of 7 Drury Lane insured fixed and working capital valued at £500.¹⁰ In the 1820s, the largest business was Sarah Frazier of 14 Little Alie St, Goodman's Fields. She also insured both fixed and working capital, valued at £500 in 1820.¹¹

Women were proprietors of a significant proportion of businesses, 12.5% in the 1770s and 10% in the 1820s. In the earlier period, the average capital insured was £388, greater than that for all businesses. However, this was due to one business, that of Mary Townsend, already mentioned above. In the 1820s, the average was only £148, compared with £1013 for all businesses. The median values were much lower, £125 and £35 respectively. The two largest businesses owned by women are noted above. Rather more typical were those of Hannah Welbank and Mary Hill. The former was a bellows maker of Red Lion St, Whitechapel who insured stock and utensils valued at £150 in 1774;¹² the latter was an epaulet and sword knot maker of 11 Broad Court, Bow St. She insured stock and utensils valued at £50 in 1825.¹³

Very few businesses in these trades insured fixed capital. In the 1770s, John Collier insured his workshop for £100 in 1771 and a shed for £50 in 1777, in addition to stock and utensils for £350 in the latter year.¹⁴ Robert Bromfield, a trunkmaker and coach joiner of Long Acre, insured a workshop for £130 and stock and utensils for £370 in 1775.¹⁵ In the later period, Samuel Jackson and Walter Learmouth insured a counting house and workshop for £650 as well as stock and utensils for £6500. Sarah Frazier insured her workshop for £100 and stock and utensils for £400.¹⁶

There is no trade in this grouping for which there are more than a handful of

contemporary estimates of starting capital. Both 1747 sources and Kearsley give estimates for trunkmakers. The first two give £200 as a lower limit, though Campbell goes up to £500. Kearsley suggests only £50–£200. All give a range for bellows makers, except Mortimer, and agree a lower limit of £15 to £50 and an upper parameter of £100. The two 19th century sources give estimates for accoutrement makers. Both set an upper figure of £500, though Mortimer suggests £150 and Whittock £500 as the lower end of the range. Mortimer gives £100–£200 for a pocket book maker. All these estimates are very close to the median values for capital insured in both periods.

Businesses in these trades were to be found in all parts of London. In the 1770s there was a rather greater concentration in the City and in the districts to the east than in the 1820s, two-thirds compared with just under half. This is because rather more were to be found in the West End in the 1820s.

Trades for which the 1841 census and *Post Office Directory* can be compared are,

	Businesses	Employees
Army accoutrement makers	23	105
Bellows makers	8	41
Brace & belt makers	24	255
Leather pipe and bucket makers	8	28
Pocket book makers	27	220
Trunkmakers	96	1024

The large majority of businesses insured in only one year, over 81% in the 1770s and nearly 75% in the 1820s. The remainder took out policies in two or more years and may have had a longevity of up to about ten years or more.

In conclusion, it would appear that these trades were more labour than capital intensive, but that they nonetheless experienced an increase in capitalization over the period of this study.

7.30 Hatmaking

Aggregated data for the 1770s and 1820s for hat manufacturers (SIC 4532) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	662
No. of Businesses	Total	36	109		
by Size of Capital (£)					
	100 and under	8	36		
	101-500	13	34		
	501-1000	9	10		
	1001-5000	6	21		
	5001-10000		6		
	over 10000		2		
by Proprietor					
	Male	27	62		
	Female	2	19		
	Multiple Male	5	23		
	Multiple Female	1	2		
	Mixed	1	3		
by Location					
	E	9	14		
	EC	10	45		
	W	3	10		
	WC	3	9		
	N		2		
	SE	10	26		
	SW	1	3		
by Type of Capital					
	Working	26	92		
	Fixed	1	1		
	Both	9	16		
Size of Maximum Capital (£)					
Average	All	759	1368		
	Female Only	273	200		
Median	All	375	270		
	Female Only	756	100		
Highest		5000	21235		
Lowest		20	6		
Average No of Employees (1841)			29		
Years of Entry	1	28	71		
	2	7	19		
	3	1	10		
	4		6		
	5		2		
	6		1		

It is very difficult in practice to differentiate between manufacture of any kind of clothing and retail bespoke production. However, this is less so in the case of hat

manufacture. David Corner has shown that "unlike other pre-industrial clothing trades such as shoe-making or tailoring, manufacturing and retailing functions within the hatting trade were usually separate." This was because "There was no need for measuring and fitting, and hats could be made on different size blocks for sale ready-made".¹ This is amply sustained by the evidence of the fire insurance policies. The term 'manufacturer' is often to be found, or a production process is described or the facilities specifically insured.

Even though Corner suggests that the London trade, in felt hats at least, was in decline from about 1750,² Pigot lists 662 hat manufacturing businesses within 13 separate trades in 1826/27. Of these, 375 were straw and chip hat manufacturers and 212 general hat manufacturers. The remainder were involved in more specialised trades such as manufacturers of silk waterproof hats.

The database created for this study contains records for only 36 businesses from the 1770s, compared with 109 from the 1820s. This, together with the evidence from Pigot, suggests that the trade had undergone a revival by the first quarter of the 19th century. In the 1770s there were only small numbers of hat manufacturers, and these were not yet in the specialised hat production trades commonly found in the 1820s. Thus, for example, there were no policies for hat finishers, binders or liners, nor for hat tip manufacturers; nor was there yet the huge straw hat trade of the 1820s. There is also not yet such a specialism as waterproof hat manufacture. In total, the number of businesses for which fire office records are extant in the 1820s represents 16.6% of those listed by Pigot. To complete the picture, it should be noted that there are also fire office records for 385 milliners and 108 hatters in the 1770s, and for 108 and 82 respectively in the 1820s. These are dealt with below within the retail trade.

The *Book of English Trades* for 1824 remarks that "Hats of the finest Quality, are made in large quantities in London...The master Hat-maker employs frequently a large

capital and numerous hands."³ Two decades later, Dodd distinguished hatmaking from production of virtually every other form of clothing: The whole article is made from the raw material, and to a greater extent in London than anywhere else, by a connected series of processes in one establishment."⁴ He would seem to have had Christy's in mind and the historian of that company has shown how enormous it had grown by the latter part of the period of this study.⁵

There are too few businesses in the 1770s from which to draw any very meaningful conclusions. Most were very small, over 58% insuring capital valued at £500 or less, and none insuring more than £5000. The historians of Christy's and Lock's, two of the longest surviving companies, have shown that both were still quite small in the 1770s when the latter insured for only £610 in 1775.⁶ While it was still the case in the 1820s that most of the businesses engaged in hat manufacture were very small – only a little less than two-thirds insured capital valued at £500 or less – there were by then a number of very highly capitalised businesses. By the 1820s, 27% were insuring for £1000 or more and over 7% for more than £5000. For this reason, the average value of capital insured in the 1820s was much higher than in the 1770s, £1368 compared with £759, the median value actually fell. It was £375 in the 1770s and only £270 in the 1820s.

The largest business in the 1770s was Thomas Davis, Thomas Owens and John Swanton, hatters of 13 Nicholas Lane, Lombard St. They insured fixed and working capital valued at £5000 in 1770.⁷ The next largest was little more than half that size. Benjamin Driffield, a hatter of Worcester St, Southwark, insured stock and utensils for £2800 in 1769.⁸ By the 1820s, there were some very much larger businesses. Christy and Co, described as waterproof and silk hat manufacturers at 34–5 Gracechurch St, their factory in Bermondsey St, insured fixed and working capital valued at £21,235 in 1820.⁹ Amongst a number of other very substantial hat manufacturers were Francis and Samuel Eveleigh of 57–59, Union St, Borough and the company which was later

to give its name to the 'bowler', John Bowler and Co, of 52 Castle St, Southwark. The former insured capital valued at £9850,¹⁰ the latter valued at £9800, in both cases in 1822.¹¹

Examples of some of the smaller and more specialised manufacturers were: Letitia Fitzpatrick, a straw hat manufacturer of 29 Cranbourn St, who insured stock, utensils and goods valued at £770 in 1823;¹² Flavell and Co, hat finishers of 73 Lower Thames St, who insured stock and utensils for £500 in 1822;¹³ Henry Fricker, a japan leather hat manufacturer of 182 Fleet St, who insured fixed and working capital valued at £950 in 1824;¹⁴ and, Mary Phillips and Son, beaver cutters of 5 Middlesex St, who insured fixed and working capital valued at £3100 in 1819 and 1823.¹⁵

By the 1820s, nearly 20% of businesses were owned by women. The largest was that of Letitia Fitzpatrick above. More typical was Esther Pearseal, a straw hat maker of 41 Northampton St. She insured stock and utensils for £140 in 1820.¹⁶

A significant proportion of businesses insured fixed capital, 28% in the 1770s and 16% in the 1820s. In the 1770s, Davis, Owens and Swanton insured their workshop for £400, and a warehouse for £50, as well as stock and utensils valued at £4550.¹⁷

Other examples of manufacturing hatters in the 1770s are: William Smith of 46 Gracechurch St, who insured a boiling house for £20, a shed for £80 and a workshop for £200 in addition to stock and utensils for £2300;¹⁸ and, Henry Butler Senior and Junior of the Maze, Southwark, who insured a workshop for £80, a warehouse for £400 and stock and utensils for £620 in 1772.¹⁹ Examples from the 1820s are: John Bowler & Co, who insured their manufactory and a range of other industrial buildings for £2220 in addition to stock and utensils for £7580;²⁰ Henry Fricker, who insured a manufactory for £400 as well as stock, utensils and goods for £550;²¹ and, Richard Munt, a straw hat manufacturer of 36 Wood St, Cheapside, who insured a workshop for £50 and stock and utensils for £3000 in 1821.²²

Of the contemporary sources for estimates of capital required to set up in business, only Kearsley in 1786, Mortimer in 1819 and Whittock in 1837 give figures for a hatmaker. Kearsley suggests an enormous range from £300–£6000. The other two give a similar lower limit of £250, though Whittock goes up to £1500 and Mortimer only up to £500. Mortimer and Whittock also give estimates for chip and willow hat makers, £100–£250 and £150–£300 respectively. Three of the 18th century sources give estimates for a cap maker. Both 1747 sources suggest £50–100 and Kearsley a slightly wider range from £40–£150. Between them, these estimates encompass much of the range of actual capital sums insured.

Corner draws attention to the importance of Southwark as a major centre for hat manufacture.²³ The fire office registers show that about a quarter of all businesses were located there. However more were located in the City, over a quarter in the 1770s and 41% in the 1820s.

The 1841 Census and *Post Office Directory* list 38 cap makers and 151 hat makers, with 566 and 4825 people respectively employed in those trades. However, many of those shown as employed would undoubtedly have been self-employed. Dodd mentions that Christy's factory in Bermondsey St employed 1500 people in 1843.²⁴ As early as 1820 they had insured warehouses and workshops to the value of £1700, damping, finishing and stiffening shops valued at £450, a dyehouse for £75 and storerooms and sheds for £170.²⁵

A significant minority of businesses took out policies in more than one year, 22% in the 1770s and 35% in the 1820s. These businesses may be assumed to have had a longevity of up to about ten years or more. Christy's flourished throughout the period of this study and into the present century.

Throughout the period of this study, hatmaking was dominated by the dictates of fashion. If there was not the overall decline in the trade identified by Corner for felt hats, it was increasingly dominated by a few large businesses, the size of which increased over the period 1775–1825, although there was also a growing number of smaller businesses which did not increase in size.

7.31 Other Clothing and Footwear

The aggregated data for manufacturers of other clothing and footwear (SICs 4510, 4531 and 4533) are summarised and tabulated below,

		1770s	1820s	
No. of Businesses	Total	322	48	Pigot 1826/7 305
by Size of Capital (£)				
100 and under		243	14	
101-500		73	18	
501-1000		3	8	
1001-5000		2	8	
5001-10000		1		
by Proprietor				
Male		294	36	
Female		16	5	
Multiple Male		9	6	
Multiple Female		2		
Mixed		1		
by Location				
E		38	8	
EC		93	13	
W		41	9	
WC		100	8	
N		1		
NW			2	
SE		20	5	
SW		29	3	
by Type of Capital				
Working		319	46	
Both		3	2	
Size of Maximum Capital (£)				
Average	All	143	663	
	Female Only	144	75	
Median	All	70	373	
	Female Only	90	40	
Highest		8000	3900	
Lowest		5	20	
Average No of Employees (1841)			10	
Years of Entry	1	296	36	
	2	24	9	
	3	2		
	4		2	
	5		1	

Most other clothing and footwear production was bespoke and is dealt with below under the retail sections of this study. Even so, Pigot lists 305 businesses in 1826/27 within the footwear manufacturing trades (SIC 4510), clothing manufacture (SIC 4531) and other products (SIC 4533). It should be noted that the latter category includes

manufacture of wigs, fans, umbrellas and parasols. Because of the fashion-generated demand for wigs in the 1770s, there are extant fire insurance policies for 322 businesses (253 of which were peruke makers). By the 1820s there were only 48, 16% of those listed in Pigot.

Most businesses were very small. The average capital insured in the 1770s was £143 and the median value only £70. For peruke makers the average and median were still smaller, £78 and £60. Even by the 1820s, the average was only £663 and the median value £373. In the 1770s, over 75% of businesses insured capital valued at £100 or less, and another 23% insured for between £100 and £500. Only one per cent of businesses insured capital valued at over £1000. In the 1820s, two-thirds insured for £500 or less and 17% for over £1000.

D J Smith has already demonstrated the importance of the armed forces as a market for the products of the textile industries. The 18th century saw the emergence of distinct uniforms and by 1762/63 there were 18 major London contractors to 115 regiments, all benefiting from the continuity provided by this market compared with the uncertainties of the fashion trades.¹ Certainly, two army clothiers were by far the largest businesses in this sector of the London textile manufacturing trades in the 1770s. They were Thomas Harley of 152 Aldersgate St, who insured stock and utensils valued at £8000 in 1777,² and William Dickey of Bow St, Covent Garden, who insured stock, utensils and goods for £4400 in 1771.³ The largest business in the 1820s was Edward Ledger and Son, a buckram manufacturer of Back St, Horsleydown. He insured fixed and working capital for £3900 in 1819.⁴ Interestingly, another member of the family, and also a buckram stiffener, was George Ledger of Maze Pond, who insured fixed and working capital valued at £3700 in 1820.⁵ Ancestor to them both was Robert Ledger, of 3 Maze Pond, who insured for £2100 in 1775.⁶

Examples of businesses in the other main trades in the 1770s were: Robert and John

Clarke, fanmakers of 26 Strand, who insured stock and utensils for £650 in 1777;⁷ John Ollivier, a peruke maker of Belton St, Piccadilly, who insured stock, utensils and goods valued at £530 in 1769;⁸ and, Paul du Frenoy, an artificial flower maker of 17 Charles St, Covent Garden, who insured stock and utensils for £300 in 1777.⁹

There are no policies for shoe manufacturers in the 1770s, but in 1824, Thomas Cotton and Co, boot and shoe manufacturers of 1 London Rd, insured stock, utensils and goods valued at £1500.¹⁰ Another shoe manufacturer, Alexander Levi Newton, Hart and Co. of 4 Bury St, St Mary Axe, insured for £1000 in the same year.¹¹

Interestingly, the same company traded separately as goldsmiths, jewellers, hardwaremen and merchants and insured stock, utensils and goods for £10,000.

Examples of other trades in the 1820s were: Benjamin and Susanna Baker, leather breeches makers of 215 Piccadilly, who insured stock and utensils for £2400 in 1822;¹² William Wilson, an umbrella manufacturer of 8 Crown St, Finsbury, who insured stock and utensils for £2500 in 1822;¹³ James Holmes, a wigmaker of 109 New Bond St, who insured stock, utensils and goods for £900 in 1825,¹⁴ Betsey Coker, a fanmaker of 2 Wine Office Court, Fleet St, who insured stock, utensils and fittings for £250 in 1823;¹⁵ and, William Scolding, a brace, stock and stiffening manufacturer of 27 Wood St, Cheapside, who insured stock, utensils and fittings for £550 in 1825.¹⁶

There were a small proportion of businesses the proprietors of which were women in both periods, 5.6% in the 1770s and just over 10% in the 1820s. Two examples from the earlier period are: Mary Huntley, a fanmaker of Swithins Alley, Cornhill, who insured stock and utensils for £400 in 1770;¹⁷ and, Elizabeth Clements, a peruke maker of 17 Bear Lane, Thames St, who insured stock, utensils and goods for £200 in the same year.¹⁸ An example from the later period was Betsey Coker, already mentioned above.

Very few businesses insured fixed capital apart from the buckram manufacturers and stiffeners. In the 1770s, Robert Ledger insured a dye house, callenderer house, warehouse and counting house for £300 in addition to stock and utensils for £1800.¹⁹ In the 1820s, Edward Ledger and Son insured stock, utensils and machinery for £1400, a steam mill and steam engine house for £800 and a warehouse for £200.²⁰ George Ledger insured a steam engine and other machinery for £500, a warehouse, counting house, engine house, dye house and workshop for £1600 and stock, utensils, goods and livestock for £1600.²¹ This was another industry in which steam power was extensively used.

There were few estimates of starting capital requirements for the trades dealt with in this section. A very large proportion of peruke makers were to be found around Drury Lane and Covent Garden in the 1770s. Most other businesses in that, and the other trades dealt within this section, were found in the City or West End. In the 1820s, businesses were to be found in all districts, with the largest concentration in the City.

The 1841 Census and *Post Office Directory* list four fanmakers and 25 employees, 8 robemakers with 42 employees, 49 shawl makers with 84 employees, 106 umbrella and parasol makers with 831 employees and 20 wigmakers with 62 employees.

Very few businesses insured in more than one year, 8% in the 1770s and 25% in the 1820s. Only a small proportion are likely to have had a longevity of up to about ten years or more, although note has already been made of the longevity of the Ledgers' businesses.

Overall, and with the exception of a small number of army clothiers in the 1770s, these were not highly capitalized trades and little significant change seems to have occurred over the period of this study, apart from the decline of peruke making.

7.32 Household and Other Made-up Textiles

The aggregated data for the 1770s and 1820s for manufacturers of household and other made-up textiles (SIC 4550) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	114
No. of Businesses	Total	72	34		
by Size of Capital (£)					
	100 and under	19	11		
	101-500	21	8		
	501-1000	18	5		
	1001-5000	10	7		
	5001-10000	3	2		
	over 10000	1	1		
by Proprietor					
	Male	51	23		
	Female	13	8		
	Multiple Male	7	3		
	Mixed	1			
by Location					
	E	23	11		
	EC	7	5		
	W	5	2		
	WC	13	7		
	N		1		
	SE	17	7		
	SW	7	1		
by Type of Capital					
	Working	61	27		
	Fixed		1		
	Both	11	6		
Size of Maximum Capital (£)					
Average	All	1107	1225		
	Female Only	165	123		
Median	All	400	300		
	Female Only	60	60		
Highest		14100	11100		
Lowest		10	10		
Average No of Employees (1841)			17		
Years of Entry	1	55	24		
	2	7	8		
	3	8	1		
	4	2	1		

Two distinct sets of trades are contained within this category: manufacture of household textiles such as blankets and bed linen: and, manufacture of such industrial textile products as sails, sacks and tarpaulins. Numerically, these were not major London trades. In the 1826/27 edition, Pigot lists 114 businesses within six separate

trades. Of these, 64 were sailmakers and 25 sack and sacking manufacturers. The fire office registers yield records of 72 businesses in the 1770s and 34 in the 1820s. The latter is 30% of those listed by Pigot. Ten separate trades are represented, including blanket manufacturers, child bed linen makers, sack and sacking manufacturers, sailmakers, tarpaulin makers and tent makers. One of the major reasons for the much larger number of extant policies in the 1770s is that it contains data for 37 sailmakers, compared with 13 in the 1820s, resulting from the tendency for trades related to shipbuilding to move down river and outside the area covered by this study.

Most businesses were very small. In both periods, 56% insured capital valued at £500 or less. At the other end of the scale, 19% insured for more than £1000 in the 1770s, and 29% in the 1820s. The average capital insured changed little between the two periods; it was £1107 in the 1770s and £1225 in the 1820s. The median value actually fell, from £400 in the 1770s to £300 in the 1820s. Nevertheless, there were a few quite large businesses, nearly all of them sailmakers. Dodd in 1843 remarked that "Many of the fittings of a ship involve large branches of manufacture, such as ropes and cables, chain-cables, anchors, sail-cloths, etc: and these furnish employment for extensive establishments at the east end of London."¹ The average capital employed by sailmakers was £1870 in the 1770s, and the median value £925. In the 1820s, the average was £2181 and the median £700. The largest sailmakers in the 1770s were Thomas Hubbert and Cornelius Donovan of 19 Coopers Row, Crutched Friars and John Turner of Narrow St, Limehouse. The former insured fixed and working capital for £14,100 in 1775² and the latter for £9200 in 1772.³ In the 1820s, the largest sailmaker was Samuel Bennett and Sons of Rotherhithe. They insured for £11,100 in 1820.⁴ There were two other large businesses: Peter Mallard of 312-3 Wapping insured fixed and working capital for £5500 in 1825;⁵ and, Somes and Bacon of 39 Broad St, Ratcliffe insured for £5100 in 1819.⁶ Larger businesses in the other household and made-up textile trades in the 1770s were: George Dyer and John Sayce, sackmakers of 27 Lower Thames St, who insured stock, utensils and goods for £1400 in 1769;⁷

Ann Petty, a tent maker of Love Lane, Rotherhithe, who insured stock and utensils for £1000 in 1777;⁸ and Cecily Parson, an embroiderer of Pall Mall, who insured stock, utensils and goods valued at £100 in 1771.⁹ In the 1820s, Thomas Gamson, a sack and sacking manufacturer of Kingsland, insured fixed and working capital for £2300 in 1821.¹⁰ Louis Holbeck, an embroiderer of 5 King St, Golden Square, insured stock, utensils and goods for £3000 in 1820¹¹ and Samuel Sadler, a ready made linen manufacturer of 132 Fleet St, insured stock, utensils and goods for £1200 in 1819.¹²

There were substantial minorities of female-owned businesses in all these trades, 18% in the 1770s and 24% in the 1820s. Average capital insured was much lower than for all businesses, £165 in the 1770s and £123 in the 1820s. Median values were much smaller too, £60 in both periods. Ann Petty has already been noted and Sarah King, a sailmaker of 244 Wapping, insured stock, utensils and goods for £500 in 1777.¹³ More typical was Catherine Hathway, a sack maker of 28 Aldermanbury, who insured stock, utensils and goods for £150 in 1769.¹⁴ The largest business the proprietor of which was a woman in the 1820s was Amelia da Costa, an embroiderer of 3 Broad St, Long Acre. She insured stock for £400 in 1825.¹⁵ Other examples were Sophia Mitchell, a sailmaker and ship chandler of 307 Wapping, who insured stock, utensils and goods for £300 in 1822¹⁶ and Mary Sophia Mannering, a child bed linen maker of 8 Swinton St, Grays Inn Rd, who insured stock, utensils and goods valued at £50 in 1825.¹⁷ As an interesting cross-check on the value of stock insured, the catalogue for the sale in 1783 of the bankrupt stock of Henry Fremont, an embroiderer of Berkeley Square yielded £52 with an unspecified but probably similar amount for the shop fittings.¹⁸ This is not out of line with the average insured value for working capital for embroiderers in the 1770s of £158.

A small proportion of businesses insured fixed capital, 15% in the 1770s and 21% in the 1820s. In the earlier period, Thomas Hubbert and Cornelius Donovan insured their counting house and a sail warehouse for £3500 in addition to stock, utensils and

goods for £10,600.¹⁹ John Turner insured warehouses, a tar house and other industrial buildings for £2500 and stock, utensils and goods for £6700.²⁰ Yet another sailmaker, Josiah Wallis of 247 Wapping Wall, insured stock utensils and goods for £5500 in 1769, a warehouse and cranes for £650 and wharves for £50 in 1770 and a dressing shop for £25 in 1777.²¹ In the 1820s, Samuel Bennett and Sons insured a warehouse and counting house for £1500 each, other industrial buildings for £3800 and stock and utensils for £4300.²² Thomas Gamson insured a warehouse, manufactory and starching shop for £1500, as well as stock and utensils for £800.²³ Another sacking manufacturer, William Bray of 68 Turnmill St, Clerkenwell, insured a workshop and tar house for £100 in 1822, as well as stock and utensils for £1100.²⁴

Campbell in 1747, Collyer in 1761 and Mortimer in 1819 all estimated £500–£1000 as the capital required to set up in business as an sailmaker. Whittock agreed on £500 as the lower limit, but went up to £1500. On the other hand, for an embroiderer, £50 was the common lower limit for the two 1747 and the two 19th century sources. The higher parameter varied from £150 to £200. Mortimer alone provided estimates for a sack maker and weaver, £50–£100 and £150–£200 respectively. All these figures are on the low side compared with actual capital insured.

In both periods, the largest concentrations were in those districts close to the river on both banks, 56% in the 1770s and 53% in the 1820s. The 1841 Census and *Post Office Directory* list 69 sail and tarpaulin manufacturers and 638 people employed in these trades. A significant minority of businesses in both periods took out policies in more than one year, 24% in the 1770s and 29% in the 1820s. These proportions may have had a longevity of up to about ten year or more.

In none of these trades was there any great change in the capitalization of businesses over the period 1775–1825. Nor did they see any great change in technology.

7.33 Fur Goods

The aggregated data for the 1770s and 1820s for manufacturers of fur goods (SIC 4560) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	58
No. of Businesses	Total	17	24		
by Size of Capital (£)					
100 and under		6	5		
101-500		8	13		
501-1000		2	2		
1001-5000		1	3		
over 10000			1		
by Proprietor					
Male		16	22		
Female		1	1		
Multiple Male			1		
by Location					
E		2	6		
EC		3	12		
W		1			
WC		5			
SE		5	6		
SW		1			
by Type of Capital					
Working		16	18		
Both		1	6		
Size of Maximum Capital (£)					
Average	All	491	1374		
Median	All	250	325		
Highest		3000	20000		
Lowest		20	20		
Average No of Employees (1841)			13		
Years of Entry	1	12	17		
	2	5	4		
	3		3		

Manufacture of fur goods was not a major London trade. As with all clothing, it is often difficult to distinguish between manufacturing and bespoke production. Pigot lists only 58 businesses in 1826/27, spread amongst five separate trades. There are extant fire policies for only 17 businesses in the 1770s and 24 in the 1820s. The latter is just over 41% of those listed in Pigot. Eight trades are represented in the fire office registers, including manufacturing furriers and a range of fur and furskin dyers and dressers. In the 1820s, there are policies for 42 retail furriers, but only eight in the

1770s. These are dealt with below under retail distribution of clothing.

The difficulty of distinguishing between manufacture and bespoke production for retail sale is exemplified by the bankruptcy file description in 1821 of the trade of Charles Edwards, Furrier of Gough Square, Fleet St, "...buying Skins and Furs wholesale and Manufacturing the same into Muffs Tippetts Hats Bonnetts Trimmings and other Articles and selling the same when so manufactured by wholesale and retail..."¹

There are too few businesses in the database for this study to draw many conclusions. Most businesses were small. In the 1770s, over 82% insured capital valued at £500 or less; in the 1820s, it was still 75%. The average capital insured in the 1770s was only £491. In the 1820s it was £1374, but this resulted from one very large business. The median values were £250 in the 1770s and £325 in the 1820s.

The one very large business, which insured fixed and working capital valued at £20,000 in 1822, was Lee and Sons, Loman St, Loman Pond.² Next in size were James Potter, a fur dyer of 16 Caroline Place, Goswell St, who insured for £3500 in 1823 and 1824,³ and Samuel Nathan, a furrier and skin dyer of Swallow Walk, Chambers St, Goodman's Fields, who insured capital valued at £1300 in 1824.⁴ In the 1770s, the largest business by a considerable margin was that of William Atkinson, a skinner of 191 St Olaves St, who insured stock and utensils for £3800 in 1777.⁵

Virtually no businesses in the 1770s insured fixed capital. However, all the larger businesses in the 1820s did. Lee and Sons insured machinery for £2000 as well as stock, utensils and goods for £18,000.⁶ Samuel Nathan insured a workshop for £300 and stock and utensils for £1000.⁷

The 1841 *Post Office directory* lists 28 skimmers and fur and skin dressers and dyers, and the Census 371 people employed in those trades.

7.34 Coopers and Wooden Container Makers

The aggregated data for the 1770s and 1820s for coopers and other wooden container makers (SIC 4640) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	142	78
by Size of Capital (£)			
100 and under		35	16
101-500		53	33
501-1000		13	14
1001-5000		36	14
5001-10000		3	1
over 10000		2	
by Proprietor			
Male		115	68
Female		7	3
Multiple Male		17	7
Mixed		3	
by Location			
E		44	38
EC		42	13
W		4	5
WC		12	5
N			1
NW			1
SE		33	15
SW		7	
by Type of Capital			
Working		97	52
Fixed		4	4
Both		41	22
Size of Maximum Capital (£)			
Average	All	1100	770
	Female Only	764	255
Median	All	350	350
	Female Only	145	250
Highest		12900	5830
Lowest		10	20
Average No of Employees (1841)			17
Years of Entry			
1		106	53
2		26	13
3		6	7
4		3	4
5		1	1

Coopers and makers of other wooden containers were a substantial London trade in the period 1775-1825. Pigot lists 302, of which coopers comprised 252. There were also small numbers of backmakers, hoop benders, packing case and tea chest makers

and plate case makers. The database created for this study contains 142 businesses in the 1770s and 78 businesses in the 1820s, just over a quarter of those listed in Pigot. Amongst the separate trades named in the extant fire policies are backmakers, box makers, chest and packing case makers, coopers, hoop benders, medicinal chest makers, plate case makers and tea chest makers. The large majority were coopers.

Most of these trades were too common-place to warrant representation in the various contemporary sources of descriptions of trades. Mortimer in 1819 described a cooper as "one who manufactures casks, tubs of all sizes, pails, and other similar articles used by brewers, dealers in liquors, and for domestic purposes. The vessels are usually made of oak timber..."¹ He described a backmaker in more specialised terms as one who makes "in brewing, a large flat kind of tub or vessel, in which the wort (infusion of malt before it is made into beer) is put for cooling."² A tradecard circulated by Thomas Peake, Plate Case, Knife Case and Cabinet Maker of 3 Windsor Court, Monkwell St, in the early years of the 19th century, described his business as making "Canteens, Portable Desks, Tea Chests, & Gun Cases."³

Size of business did not vary greatly over the period of this study. In the 1770s, 24.6% of businesses insured working and/or working capital valued at £100 or less, and another 37.3% capital valued at between £101 and £500. In the 1820s, the equivalent proportions were 20.5% and 42.3% respectively. Taken together, the proportions of businesses insuring capital valued at £500 or less was virtually identical at the beginning and end of the period 1775–1825 (61.9% and 62.8% respectively). Similarly, the proportions of businesses insuring capital valued at £501–£5000 were almost identical, 34.5% in the 1770s and 35.8% in the 1820s. Only for the very largest businesses were there any significant differences. In the 1770s, nearly 29% of businesses insured capital valued at over £1000; in the 1820s it was only 19%. This is quite contrary to the overall situation for all London trades: in the 1820s over 23% of businesses insured capital valued at over £1000 compared with only just over 12% in

the 1770s.

Overall, the average size of capital insured was much larger in the 1770s than in the 1820s, £1100 compared with £770. This is largely because of two very large businesses in the 1770s, insuring capital valued at over £10,000, for which there was no equivalent in the 1820s. The two businesses were both coopers and located in Westminster; Matthew Wiggins of Millbank and Johnson West of Market St. In 1774 the former insured working and fixed capital valued at £12,500⁴ and in 1777 the latter insured capital valued at £12,900.⁵ However, the more significant point is that the median value of capital insured was £350, exactly the same at the beginning and the end of the period 1775–1825.

One reason for the decrease in size of coopers is suggested by Gourvish and Wilson. Although dealing with a later period and Burton rather than London, they describe how Bass had their own very large-scale cooperage in 1881, capable of handling 500,000 casks a year.⁶ Nearly forty years earlier, Dodd had remarked of Beaufoy's vinegar factory that "The cooperage is more extensive than any of these (their other workshops), for all the casks employed in the vinegar and wine departments are both made and repaired within the premises."⁷ Certainly, the fire office registers show that nearly 87% of businesses specifically insuring cooperages in the 1770s were in fact coopers; by the 1820s the proportion had fallen to only 40% and amongst the other 60% were such large scale users of barrels and casks as brewers, vinegar manufacturers, sugar refiners and spirit colour manufacturers.

The very large majority of proprietors were male, 93% in the 1770s and over 96% in the 1820s. Under 5% of businesses in the 1770s were owned exclusively by women, under 4% in the 1820s. Although this is unsurprising, given the nature of these trades, it is worth noting that two of the largest businesses in the 1820s did have female proprietors: Ann Spencer of Mitchell St, Old St, who in 1777 insured capital valued at

£2250;⁸ and, Margaret Bentley of High Holborn who insured £2600.⁹ Even so, the median value of capital insured was only £145 compared with £350 for all businesses.

Over two-thirds of all businesses insured only working capital. However, 29% in the 1770s and 28% in the 1820s insured both fixed and working capital, the latter usually in the form of workshops, warehouses, sawpits or cooperages. A typical example from the 1770s is Edward Layton of 163 Borough who, in 1774, insured stock and utensils for £2600 and a workshop and sawpits for £1900. In 1769 he had insured stock and utensils for £500 and a workshop for £200, and in 1775 he insured a workshop and sheds for £400.¹⁰ Other examples are Johnson West who insured stock and utensils for £7840 and several workshops, warehouses and a counting house for £5060;¹¹ and, Joseph Dell of Three Oak Lane, Rotherhithe, who insured stock, utensils and goods for £3700 and his cooperage for £600 in 1771.¹² Ann Spencer insured stock and utensils for £1500, a warehouse for £200 and cooperage for £550.¹³

In the 1820s, typical examples are: David Ford of 12 Globe St, Wapping, who in 1822 insured stock and utensils for £970 and a shed and workshop for £230;¹⁴ Michael Davis of 4 Allington Place, New Rd, Back Lane, who in 1824 insured stock and utensils for £140 and cooperage for £100;¹⁵ and, John Haddon of New St, St Catherines, who in 1821 insured stock, utensils and goods for £200 and his cooperage for the same sum.¹⁶

All six contemporary sources give estimates for starting capital for both coopers and boxmakers, and five for backmakers. For coopers all give a range starting at either £100 or £200 and with a higher figure of £500, except for Kearsley who in 1786 gives a value of £1000. For boxmakers £250 or £300 is the higher point of the range and £150 or £200 the lower, except for Campbell who gives £50 for the latter in 1747. There is a greater range of estimates for backmakers, ranging from Kearsley's £30–£60 in 1786 to Mortimer and Whittock who in 1819 and 1837 respectively both give

£150–£250, and to Collyer who gives £200–£300 in 1761. None of the estimates for starting capital are out of line with the median figure of capital insured of £350 in both periods. The estimates are in line too with the fact that in both periods the largest numbers of businesses for any size-band fall within the range £101–£500.

In both periods, the large majority of businesses were located in the City, to the east or to the south east, 84% in the 1770s and 85% in the 1820s. The only change was that the proportion located in the City declined from 30% to under 17%. Conversely, the proportion located in the districts to the east rose from 31% to 49%. The proportion located south of the Thames fell slightly from 23.2% to 19.2%.

The 1841 Census and *Post Office Directory* show 3489 people employed by 179 coopers and 39 people employed by 11 backmakers. The majority of businesses took out policies in only one year, 75% in the 1770s and 68% in the 1820s. This suggests that up to about a quarter in the 1770s and one third in the 1820s may have had a longevity of up to about ten years or more.

This was not a trade in which any significant advances occurred over the period of this study. The principal change was the trend towards in-house production of barrels and casks by their largest users.

7.35 General Carpenters and Turners

The aggregated data for the 1770s and 1820s for general carpenters, turners and manufacturers of general wooden products (SIC 4650) are summarised and tabulated below,

		1770s	1820s	
No. of Businesses	Total	541	287	Pigot 1826/7 1565
by Size of Capital (£)				
	100 and under	266	147	
	101-500	243	126	
	501-1000	27	7	
	1001-5000	5	7	
by Proprietor				
	Male	513	272	
	Female	10	7	
	Multiple Male	16	7	
	Mixed	2	1	
by Location				
	E	80	56	
	EC	141	75	
	W	119	54	
	WC	111	41	
	N	11	10	
	NW	2	9	
	SE	49	34	
	SW	28	8	
by Type of Capital				
	Working	447	228	
	Fixed	10	11	
	Both	84	48	
Size of Maximum Capital (£)				
Average	All	185	202	
	Female Only	246	269	
Median	All	110	100	
	Female Only	100	300	
Highest		1850	3800	
Lowest		5	5	
Years of Entry	1	489	225	
	2	42	52	
	3	8	8	
	4	2	2	

Carpenters, turners and other manufacturers of general wooden products were amongst the commonest London trades in the last quarter of the 18th century and the first quarter of the 19th. It must be noted that throughout this period the term 'carpenter' could mean either a small-scale craftsman working generally in wood or could be

synonymous with the general term 'builder' within the construction trade (SIC 5010). This section deals with carpenters in the former sense. In the 1826/27 edition, Pigot lists 1565 businesses. This is 3.4% of all London businesses.

The fire office registers yield records for 541 businesses in the 1770s and 287 in the 1820s. The latter is just over 18% of those listed in Pigot. Besides carpenters and turners, 12 other trades are represented, including last and patten makers, hat block makers, ladder makers, saddle tree makers, stick makers and even artificial leg makers. After carpenters, turners were the most common trade. Of 541 businesses in the 1770s, 97 or 18% were turners; in the 1820s it was 40 out of 287, or 14%.

Most of the few more substantial businesses were turners and a tradecard issued by Edward Beesly of Fleet St in 1784 provides a comprehensive description of his trade: "Turns & Sells all sorts of Cane & Stick Heads, with Canes, Oak, Hickery & other Sticks. Likewise Mounts of all sorts of Canes, Sticks & Whips, with a Spear, in the Manner of those Above, in Gold, Silver, Mettal, or Steel, Wholesale or Retail..."¹

Most businesses were very small. Nearly half in the 1770s insured capital valued at £100 or less, and another 45% valued at between £100 and £500. In the 1820s, the latter proportion was over half, and the former 44%. Only about 5% of businesses in either period insured capital valued at over £500. The average capital insured was only £185 in the 1770s and £202 in the 1820s. The median values were £110 and £100. The very largest businesses insured capital valued at only £1850 in the 1770s and £3800 in the 1820s. Both were turners: Thomas Jackson of Mutton Lane, Clerkenwell in 1775² and John and George Allsop of 174 Union St, Borough in 1825.³ Other substantial turners were John Leader of Drury Lane, who insured fixed and working capital for £1400 in 1777⁴ and Peter Poland of 351 Strand, who insured stock, utensils and goods for £2800 in 1822.⁵

The largest capital insured by a carpenter in the 1770s was £1100, by Thomas Lewis of Theobald's Row, Holborn in 1770;⁶ in the 1820s, it was £1350, by James Bridger of Aldgate in 1824.⁷ More typical carpenters were Robert Dodds, of Wells St, who insured for £100 in 1769⁸ and, over half a century later, John Webb of Union Rd, Kingsland, who insured capital valued at the same amount in 1822.⁹

Some examples of the other trades working in wood in the 1770s are: Richard Tristed, a gun stock maker of 61 Prescott St, Goodman's Fields, who insured stock, utensils and goods for £1000 in 1777;¹⁰ Thomas Berridge, a saddle tree maker of Rupert St, who insured stock and utensils for £100 in 1769;¹¹ John Coleman, a patten maker of Fish St Hill, who insured stock and utensils for £100 in 1771;¹² John Payne, an artificial leg maker of 35 Goulston St, Whiteshapel, who insured stock and utensils for £15 in 1769;¹³ and, William Bailey, a fan stick maker of 16 Great New St, Shoe Lane, who insured stock, utensils and goods for £100 in 1772.¹⁴

Example from the 1820s are: Robert Smith, a hat block maker of 18 Webb St, Tooley St, who insured fixed and working capital valued at £380 in 1824;¹⁵ Samuel Phillips, a saddle tree maker of 65 Bunhill Row, who insured for £250 in 1821;¹⁶ Henry Felix, a patten and last maker of 29 Turnmill St, Clerkenwell, who insured stock and utensils for £100 in 1825;¹⁷ and, John Willis of 70 Kingsland Rd, who was turner, blind maker and artificial leg maker, and who insured stock, utensils and goods for £220 in 1825.¹⁸

A small proportion of businesses were female-owned, just under 2% in the 1770s and just over 2% in the 1820s. In both periods, the average capital insured was greater than for all businesses, £246 compared with £185 in the 1770s, and £269 compared with £202 in the 1820s. The median values were £100 in the 1770s and £300 in the 1820s. The latter was three times the value for all businesses. In the earlier period, the largest business was that of Elizabeth Fellows, a turner of Princes St, Leicester

Fields, who insured stock and utensils for £700 in 1777.¹⁹ Another of well above average size was that of Mary Prince, a carpenter of Water St, Arundel St, Strand, who insured for £500 in 1773.²⁰ The largest female-owned business in the 1820s was that of Elizabeth Freanch, a carpenter of 13–16 Warwick Lane. She insured stock and utensils for £430 in 1821.²¹ The largest turner was Elizabeth Bracker of 1 Primrose St, who insured stock and utensils for £300 in 1821.²²

A considerable minority of businesses insured fixed capital, 17.3% in the 1770s and 20.6% in the 1820s. This was most commonly in the form of a workshop, often of very low value compared with those insured by businesses in other trades. In the 1770s, Thomas Jackson insured a workshop, mill house and various other industrial buildings for £200, as well as stock and utensils for £1650.²³ John Leader insured his workshop and counting house for £400, sheds for £100 and stock and utensils for £900.²⁴

Rather more substantial was the workshop insured by Thomas Lewis. This was valued at £300. He also insured his counting house for £100, sawpits for £60 and a shed for £40, in addition to stock and utensils valued at £600.²⁵ An example of a much smaller carpenter was Robert Dodds who insured his workshop for £50 and stock and utensils for the same amount.²⁶

In the 1820s, James Woodward Turner, a carpenter of 46 Wells St, Oxford St, insured his workshop for £500, workmen's tools for £250 and stock and utensils for £500.²⁷ More typical was James Binder, a carpenter of 75 Park St, Grosvenor Square, who insured his workshop for £20 and stock and utensils for £80 in 1823.²⁸ Robert Smith insured a warehouse and workshop for £50 as well as stock and utensils valued at £330.²⁹

The contemporary estimates of capital required to set up in business as a turner all set a lower limit of £50 to £100. With the exception of Campbell, who gave a higher parameter of £500, all the other sources suggested £100 or £200. The lower limits for carpenters were similar, but Campbell went up to £500, Kearsley to £5000 and

Mortimer and Whittock to £600. Undoubtedly, they had in mind the carpenter as builder. The lower limit for last and patten makers varied from £50 to £100, and only Campbell went as high as £200 for the upper limit. Similarly, there are a few estimates for saddletree maker, hat block maker and stick maker. In all these trades £20 to £50 is suggested as a lower limit, and £100 is the highest upper limit. All these estimates are in line with the actual capital insured by most businesses.

The 1841 Census and *Post Office Directory* list 116 turners and 1544 people employed as turners. Many of these will have been self-employed. Also listed are 17 hat and bonnet block makers with 68 employees, 18 patten makers with 239 employees and 11 saddletree makers with 31 employees.

The large majority of businesses took out policies in only one year, over 90% in the 1770s and 79% in the 1820s. This suggests that comparatively few businesses had a longevity of up to about ten years or more.

Overall, most businesses were very small in scale and labour rather than capital intensive. Capitalisation changed very little between 1775 and 1825.

7.37 Furniture Making

The aggregated data for the 1770s and 1820s for furniture makers (SIC 4670) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	1718
No. of Businesses	Total	510	511		
by Size of Capital (£)					
	100 and under	164	135		
	101-500	232	202		
	501-1000	71	77		
	1001-5000	37	94		
	5001-10000	6	1		
	over 10000		2		
by Proprietor					
	Male	470	432		
	Female	5	17		
	Multiple Male	32	59		
	Multiple Female	1	1		
	Mixed	2	2		
by Location					
	E	41	66		
	EC	148	135		
	W	136	152		
	WC	146	79		
	N	1	9		
	NW		9		
	SE	23	49		
	SW	15	12		
by Type of Capital					
	Working	456	426		
	Fixed	4	4		
	Both	50	81		
Size of Maximum Capital (£)					
Average	All	479	708		
	Female Only	168	290		
Median	All	200	300		
	Female Only	150	50		
Highest		10000	14900		
Lowest		10	5		
Average No of Employees (1841)			10		
Years of Entry	1	457	349		
	2	46	102		
	3	6	41		
	4	1	13		
	5		3		
	6		2		
	7		1		

Furniture making was one of the primary trades of London in the period of this study.

The 1826/27 edition of Pigot lists 1718 businesses, over 3.7% of all businesses in the metropolis. These were to be found within 23 separate trades. Of these, the largest numbers were cabinet makers (667), carvers and gilders (264), upholsterers (221), bed, bedstead and mattress makers (142) and chair and sofa makers. The fire office registers yield records for 510 businesses in the 1770s and 511 in the 1820s. The latter is just under 30% of those listed in Pigot. Another interesting comparison is with the coverage achieved by Sir Ambrose Heal. For the period 1765–80, he listed 416 businesses, only a little over 80% of those for which fire insurance policies are extant in the narrower period 1769–1777. For the comparable period 1815–30, Heal lists 188 businesses, which is only a little over one-third of those for which fire office records survive for 1819–1825.¹

Amongst the 32 trades represented in the fire office registers are: bedpost carvers; bed and mattress makers, with a sub-division of child bed makers; cabinet makers; carvers and gilders; chair makers, carvers, painters, japanners and stuffers; clockcase makers; couch and sofa makers; desk and desk base makers, with specialist portable desk makers; frame makers; inlayers; screen makers; and upholsterers.

Furniture making is yet another trade where it is not easy to distinguish between manufacturing, bespoke production for the individual retail customer and retailing someone else's product. However, for the purposes of this study, a distinction is made between the furniture maker dealt with in this section and the dealers in new and second hand furniture dealt with below in the section on retailing of furniture and general household goods. Another problem is dealing with the term 'upholder' or 'upholsterer'. Many businesses were known as cabinet makers and upholsterers, or upholders. To Campbell in 1747, the upholder was the key: "I have just finished my House, and must now think of furnishing it with Fashionable Furniture. The Upholder is chief Agent in this Case. he is the Man upon whose Judgement I rely in the Choice of goods...he has not only Judgement in the Materials, but Taste in the Fashions, and

Skill in the Workmanship. This Tradesman's Genius must be universal in every Branch of Furniture...The Cabinet-Maker is his right-hand Man..."² However, by 1824 it was observed that "The business of the cabinet maker, and that of an upholsterer, are now so generally linked together, that any observation on either...may...be comprehended under one general head."³

Many hundreds of tradecards and shopbills issued by furniture makers survive in the Heal and Guildhall Library collections, many of them superbly illustrated with contemporary furniture. A tradecard issued by I Turnley and Sons of Garden Row, London Rd, Southwark about 1800 is an interesting example of a cabinet maker supplying other retailers. The business is described as a "Wholesale Manufactory for Every Description of Sofas, Settees, Fancy Drawing Room, Solid Rosewood, Mahogany, and other Chairs, Bedsteads, Bed Pillars, Mattresses, Writing Desks, Tea Caddies, Looking Glasses, &c, &c."⁴ A typical range of products from the latter part of the 18th century is exemplified by Thomas Chapman of Old Bedlam who was in business from about 1760 to 1769. His oddly spelled tradecard says that he "Maketh and Selleth all sorts of Mahogany Tea & Dining Tables, Chamber-Tables, Tea Boards, Waiters, and Tea Chests, likewise all sorts of Bed Carving and Joyner's Work, as Bed Cornishes, Teasters and Head Boards, Settees, Beauroes, and Field Beds."⁵

The large majority of businesses were very small. Dodd noted in 1843 that : "The tables, chairs, the bedsteads, the beds, the mattresses, the glass-frames, the picture-frames, the window cornices, - all are made to a vast extent in London, but not generally in large factories. They are the production of tradesmen, each of whom can carry on a tolerably extensive business without great extent of room, or a large number of workmen."⁶ In the 1770s, nearly 78% of businesses insured capital valued at £500 or less, over 32% valued at £100 or less. By the 1820s, these proportions had fallen a little to 66% and 26% respectively. Only just over 8% of businesses insured for more than £1000 in the 1770s; even by the 1820s, this had risen only to 19%. The

average capital insured was £479 in the 1770s. This increased to £708 by the 1820s. The median values were only £200 and £300 respectively.

The largest capital insured in the 1770s was £10,000. This was by John Mayhew and William Ince, cabinet makers and upholsterers of Marshall St, Carnaby Market in 1772.⁷ Another large cabinet maker was Richard and William Gomm of Clerkenwell Close. They insured fixed and working capital valued at £7000 in 1774.⁸ The largest capital insured by a cabinet maker in the 1820s was £14,900, by William Ferguson, Henry and Edward Whiteside and Leonard Redmaine of 176 Oxford St in 1824.⁹ Thomas Dowbigging of 128 Mount St, Grosvenor Square, insured for £11,400 in 1821.¹⁰ One business which was very large in both periods was George, later Thomas and George, Seddon, cabinet makers of Aldersgate St. They insured for £5250 in 1771¹¹ and £5000 in 1822.¹² Heal outlines the history of the firm over four generations from about 1750 to 1868.¹³ Typical of the smaller cabinet makers were: John Nicholl of 6 Bryanston St, who insured stock and utensils for £200 in 1771;¹⁴ and, Joseph Sugden of 7 Harcourt St, Lisson Green, who insured fixed and working capital valued at £300 in 1823.¹⁵

Amongst the other trades, some examples from the 1770s are: William Flint, a bedstead maker of 19 Bartholomew Close, who insured stock and utensils for £200 in 1775;¹⁶ Abraham Dunton, a chairmaker of Compton St, who insured for £420 in 1771;¹⁷ Thomas Barnett Cotton, a picture frame maker of 42 Fenchurch St, who insured for £550 in 1772;¹⁸ and William Peters, a carver and gilder of 78 Houndsditch, who insured stock, utensils and goods for £200 in 1771.¹⁹ Many businesses, of course, combined all these trades. As an example, William Butler of 27 Coppice Row, Clerkenwell described himself as cabinet maker, chair maker and carver when he insured for £520 in 1775.²⁰

Examples from the 1820s are equally numerous. A few are: Alexander and Kingsbury, chair, sofa and couch makers of Marylebone Passage, Wells St, Oxford St, who

insured stock and utensils for £300 in 1825;²¹ Thomas Gravell, carver, gilder and picture frame maker of 61 Jewin St, Aldersgate, who insured stock, utensils and goods valued at 5330 in 1823;²² Martha Gee, feather bed and mattress maker of Newington Causeway, who insured fixed and working capital for £300 in 1822;²³ and an example of a multiplicity of trades, John Wood, portable desk, trunk, bedstead and bellows maker of 149 Minories, who insured stock, utensils and goods for £800 in 1821.²⁴

Only one per cent of businesses were female-owned in the 1770s. By the 1820s this had risen to 3.5%. The average value of capital insured was much lower than for all businesses, £168 in the 1770s and £290 in the 1820s. The median values were £150 and £50. Nonetheless, there were a few more substantial businesses. In the 1770s, Elizabeth Fisher, a cabinet maker of Oxendon St, insured stock, utensils and goods valued at £390 in 1771.²⁵ Substantially larger in the later period was the business of Mary Jones, an upholsterer of 30 Old Compton St. She insured stock and utensils for £1800 in 1819.²⁶ Also quite large was the business of Hannah Yeatman, a cabinet maker and broker of 18 Green St, Leicester Square. She insured stock, utensils and goods for £750 in the same year.²⁷ More typical was Eleanor Crockett, a mattress maker of 5 Clare St, Drury Lane, who insured stock and utensils for £150 in 1777.²⁸

A substantial minority of businesses insured fixed capital, just over 10% in the 1770s and nearly 17% in the 1820s. This was very often in the form of a workshop. In the 1770s, Richard and William Gomm insured a workshop and warehouse for £1000, as well as stock for £6000.²⁹ George Seddon insured a workshop and warehouse for £2500, sawpits for £250 and stock and utensils for £2500.³⁰ Amongst the smaller businesses, Abraham Dunton insured his workshop for £180 in addition to stock and utensils for £240,³¹ and William Butler insured a workshop and warehouse for £200 and stock, utensils and goods for £320.³²

In the 1820s, Thomas Dowbigging insured his workshop for £3000 as well as stock, utensils and goods for £8400. Martha Gee insured her's for £50, in addition to stock, utensils and goods for £250.³³ Joseph Sugden insured his workshop for £200 and stock and utensils for £100.³⁴

Contemporary estimates of the capital required to set up in business as a cabinet maker were very wide ranging. Campbell suggested £200–£2000 and Kearsley £100–£3000. Later, both Mortimer and Whittock gave £150–£500. For an upholsterer, the estimates were of the same order at the lower limit. Kearsley thought £500, but Campbell gave only £100, Whittock £200 and Mortimer £250. Upper limits went much higher, from £1000 estimated by Campbell, Collyer, Mortimer and Whittock, to £3000 suggested by Kearsley. Although Collyer in 1761 thought that "some thousands" would be required by a chairmaker, the 1747 sources and Kearsley suggested much lower figures. For carvers and gilders, £50 to £200 was suggested as the range of starting capitals, going up to a highest estimate of £400 by Mortimer. None of these estimates is out of line with actual insured capital values.

There were some changes in the location of businesses, although the proportion in the City remained constant, 29% in the 1770s and over 26% in the 1820s. However, the numbers located in the area around Holborn, Drury Lane and Tottenham Court Rd fell from 28.6% to 15.5% between the 1770s and 1820s, although the historian of Heal's describes this as still the centre of the London trade when the first Heal moved there in 1818.³⁵ The numbers located in the West End and in the districts to the east of the City rose from 26.7% to 29.7% and from 8% to 13% respectively. The numbers located south of the river more than doubled, from 4.5% to nearly 10%.

There are a wide variety of comparable data in the 1841 Census and *Post Office Directory*. The latter lists 56 bed and mattress makers and the Census 330 people employed in those trades. There were also 818 upholsterers, cabinet and chair makers

with 9663 people employed in those trades, though many would have been self-employed. A similar conclusion must be drawn from the 232 carvers and gilders with 2003 people employed in the trade. In a more specialist trade, 48 looking glass makers employed 134 people. On the other hand, Seddon's employed 400 people in 1796, including sawyers, joiners, gilders, mirror workers, locksmiths, carvers and seamstresses.³⁶

Although only just over 10% of businesses took out policies in more than one year in the 1770s, by the 1820s this had increased to just under 32%. This suggests that nearly one-third of businesses in the 1820s may have had a longevity of up to about ten years or more. This can be compared with the dates given for individual businesses by Heal. He lists 1372 businesses trading at some point between 1760 and 1830. Of these, 25.6% survived for more than ten years and 10.4% for more than 20 years. If the proportions of businesses which took out policies in at least two different years is averaged out for both the 1770s and 1820s, it gives 21.1%. This is of the same order of magnitude as the 25.6% ten year plus survival rate in the Heal listing.

Overall, furniture making saw some increase in capitalization of businesses over the period of this study with enormously increasing demand. Nevertheless, there was no great change in technology and no change in the structure of the trade.

7.37 Other Timber Manufacturing Trades

The aggregated data for the 1770s and 1820s for other timber manufacturing trades (SIC 4610 and 4630) are summarised and tabulated below,

		1770s	1820s	
No. of Businesses	Total	38	11	Pigot 1826/7 128
by Size of Capital (£)				
	100 and under	22	3	
	101-500	14	6	
	501-1000	2	2	
by Proprietor				
	Male	34	10	
	Female	3		
	Multiple Male	1	1	
by Location				
	E	8	1	
	EC	14	3	
	W	6		
	WC	3	3	
	SE	5	3	
	SW	2	1	
by Type of Capital				
	Working	33	9	
	Fixed		1	
	Both	5	1	
Size of Maximum Capital (£)				
Average	All	158	364	
	Female Only	85		
Median	All	100	250	
	Female Only	55		
Highest		600	1000	
Lowest		10	50	
Years of Entry	1	34	8	
	2	3	1	
	3	1	2	

There were comparatively few other specialised timber manufacturing businesses. Most were either sawmills (SIC 4610) or builders' carpenters and joiners (SIC 4630). Pigot for 1826/27 lists 128 businesses in seven trades, the great majority window blind makers (76). Policies for only 38 businesses in the 1770s and 11 in the 1820s survive in the fire office registers. The latter is less than 9% of those listed in Pigot. The main trades represented are sawyers, joiners, lath manufacturers, cornice, sash and skylight manufacturers and window blind makers. Most were very small. None insured more than £1000 in either the 1770s or 1820s. The average value of capital insured was

only £158 in the 1770s and £364 in the 1820s. The median values were £100 and £250. The largest policy taken out in the 1770s was only £600. This was by John Partridge, a joiner of 49 New Bond St. He insured stock, utensils and goods for that amount in 1777.¹ The largest sawyer was James Wells of Charles St, Long Acre who insured stock and utensils for £450 and sheds for £50 in 1772.² In the 1820s, the largest capital insured was £1000 by Richard Bower, a sawyer of Pye Gardens, Bankside. He insured stock, utensils and goods for £1000 in 1819.³ Two years later, another sawyer located in Pye Gardens, Edward Jardine and Thomas Hacker, insured a mill house for £200, a workshop for £50, a steam engine for £100 and other machinery for £500.⁴

Amongst other trades, Robert Willson, a joiner of Globe Alley, Fore St, Limehouse, insured a warehouse for £25 and stock and utensils for £185 in 1769.⁵ A rare female-owned business was that of another joiner, Elizabeth Kirk of Wapping. She insured stock and utensils for £150 in 1775.⁶ In the 1820s, Richard Jinks, a venetian blind maker of 8 King St, Covent Garden, insured stock and utensils for £300 and a workshop for £150 in 1822,⁷ and Martin Friend, a fan and skylight manufacturer of 58 Paul St, Finsbury, insured stock utensils and goods for £100 in 1825.⁸

The 1841 Census and *Post Office Directory* list seven fan and skylight makers with 16 employees and 87 window blind makers with 262 people employed. They also list 27 sawmills and 2978 people employed as sawyers. However, many of those would have been self-employed.

7.38 Cork, Baskets and Brushes

The aggregated data for the 1770s and 1820s for manufacturers of cork, baskets and brushes (SICs 4661, 4662 and 4663) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	314
No. of Businesses Total		39	62		
by Size of Capital (£)					
100 and under		11	9		
101-500		19	32		
501-1000		5	8		
1001-5000		3	10		
5001-10000		1			
over 10000			3		
by Proprietor					
Male		36	46		
Female		2	8		
Multiple Male		1	7		
Mixed			1		
by Location					
E		5	11		
EC		15	19		
W		5	9		
WC		4	15		
NW			1		
SE		8	6		
SW		2	1		
by Type of Capital					
Working		33	48		
Fixed			1		
Both		6	13		
Size of Maximum Capital (£)					
Average					
All		509	1163		
Female Only			471		
Median					
All		230	325		
Female Only			250		
Highest		6700	16000		
Lowest		20	20		
Average No of Employees (1841)				11	
Years of Entry					
1		29	36		
2		7	17		
3		2	7		
4		1	2		

There were a substantial number of London businesses in the period 1775-1825 in the three related groups of trades, cork manufacture (SIC 4661), making of baskets (4662) and of brushes (4663). In many ways, this is the archetypal manufacturing trade serving the everyday domestic needs of a rapidly expanding city in a period of

improving living standards, but not the less important to the economy for that. Much of the demand was met by small-scale production, but with a few major manufacturers, especially in the later part of the period of this study.

The 1826/27 edition of Pigot lists 314 businesses, of which 71 were cork cutters, 72 basket makers and 150 brushmakers. Records derived from extant fire office registers provide data for 39 such businesses in the 1770s and 62 in the 1820s. The latter is 20% of those listed in Pigot.

In practice, individual businesses often dealt in the manufacture and sale of both brushes and baskets. For example, a handbill published about 1830 by James Brand, Brush Manufacturer of 43 Blackman St, Borough lists for sale by wholesale or retail an enormous range of mops, brushes and baskets as well as lanterns, mats, rugs, pails, tubs, clothes horses, blinds, cutlery, kitchen chairs, wooden kitchen implements, trays, stools, rules, sponges, sieves, mouse traps, cradles, coat and umbrella stands, cleaning materials, brewing utensils, gaming boards, cricket bats and balls, chess sets, children's toys, billiard balls and wooden shoes.¹ More specifically, another brushmaker, George Thatcher of 3 Tothill St, Westminster, listed "Cloath, Hair, Button & Horse Brushes, Curry Combs, Hair & Mane ditto".²

Most businesses were very small. In the 1770s, nearly 77% of insured £500 or less; even by the 1820s it was still over 66%. However, the proportion of businesses insuring for £1000 and more rose from only just over 10% in the 1770s to 21% in the 1820s. The average value of capital insured also doubled, from £509 in the 1770s to £1163 in the 1820s. The median value rose from £230 to £325.

In both periods, the largest businesses were brushmakers. In 1775, James Smith of 28 Fish St Hill insured stock, utensils and goods for £6700.³ The next largest brushmaker was also located in Fish St Hill, at number 1. Richard Brett insured stock valued at

£1350 in 1769.⁴ By the 1820s, records are extant for several very much larger businesses: Wright and Cartwright of Christopher St, Hatton Garden, insured fixed and working capital valued at £16,000 in 1821;⁵ James Boaz Wiggett of 138 Drury Lane, insured for £11,100 in 1822;⁶ and, John Matthew of 106 Upper Thames St insured stock, utensils and goods for £10,730 in 1823.⁷

The largest cork cutter in the 1770s was Richard Gimber of Piccadilly. he insured stock and utensils for £1180 in 1773.⁸ In the 1820s, it was John Bucknall and Sons of 5 Crutched Friars. They insured fixed and working capital valued at £3000 in 1825.⁹ The largest basket makers were John Mollard of Gloucester Row, Knightsbridge and William Austin of 420 Oxford St. The former insured for £600 in 1772;¹⁰ the latter for £1030 in 1823.¹¹

Although there were very few female-owned businesses in the 1770s, 13% were in the 1820s. In the later period, the largest was Ann Freeman, a cork cutter of 72 Watling St. She insured fixed and working capital valued at £1900 in 1822.¹² A rare example from the 1770s was Elizabeth Brown, a brushmaker of Peter St, Saffron Hill who insured stock and utensils for £150 in 1769.¹³

A small minority of businesses insured fixed capital, 15% in the 1770s and 22% in the 1820s. In the 1770s, Thomas Bill, a brushmaker and turner of 41 London St insured his workshop for £60 in 1774 and stock and utensils for £1250 the following year.¹⁴ William Largent, a cork cutter of 90 Houndsditch insured a warehouse for £100 in 1777, in addition to stock and utensils for £700.¹⁵ John Mollard also insured a warehouse for £100, as well as stock and utensils for £500.¹⁶ In the later period, Wright and Cartwright insured their manufactory for £1000, warehouses for £3000 and stock and utensils for £12,000.¹⁷ James Boaz Wiggett insured a workshop for £750, a warehouse for £150 and stock, utensils and goods for £10,200.¹⁸ Another example was John Bucknall and Sons. They insured a warehouse for £500 and stock and utensils

for £2500.¹⁹

There are no contemporary estimates of capital required to start up in business as a brushmaker. For a basket maker, the estimates are very low. All start at £50 to £100 and no upper parameter is greater than £200. Estimates for cork cutter are even lower. The suggested lower limit is £40 or £50 and no-one suggests an upper figure greater than £100. Even in a trade of low capitalization, these estimates are a little low compared to actual insured capital.

The 1841 Census and *Post Office Directory* list 52 basket makers with 730 people employed in the trade, 246 brushmakers with 2158 people employed and 65 cork cutters and manufacturers with 571 people employed. There were also two mop makers with 23 people employed in the trade. No doubt many of the people shown as employed in these trades were self-employed; nevertheless it does suggest that these trades were much more labour than capital intensive.

The majority of businesses insured in only one year, over 74% in the 1770s and 58% in the 1820s. However, this does suggest a significant minority, especially in the later period, who may have had a longevity of up to about ten years or more.

Overall, these were not trades in which much change occurred between 1775 and 1825. The growth in average capital insured was almost entirely the result of the emergence of two or three very large brush manufacturers who were untypical of the trade as a whole.

7.39 Paper and Board

The aggregated data for the 1770s and 1820s for manufacture of paper and board and paper and board products (SICs 4710 and 4720) are summarised and tabulated below,

		1770s	1820s	
No. of Businesses	Total	34	36	Pigot 1826/7 129
by Size of Capital (£)				
	100 and under	4	6	
	101-500	12	9	
	501-1000	7	3	
	1001-5000	8	10	
	5001-10000	3	4	
	over 10000		4	
by Proprietor				
	Male	26	22	
	Female		4	
	Multiple Male	7	9	
	Mixed	1	1	
by Location				
	E	4	3	
	EC	15	20	
	W	3	5	
	WC	7	7	
	SE	3		
	SW	2	1	
by Type of Capital				
	Working	28	24	
	Fixed	1	4	
	Both	5	8	
Size of Maximum Capital (£)				
Average	All	1511	3791	
	Female Only		80	
Median	All	650	1100	
	Female Only		70	
Highest		8000	28300	
Lowest		50	30	
Average No of Employees (1841)			16	
Years of Entry	1	28	22	
	2	5	11	
	3	1	3	

London was the major market for paper and, although it was necessary for production to be located as near to the capital as possible, Coleman shows that paper making was predominantly located in Kent and Hertfordshire. It was not a major London manufacturing industry; there was not the necessary good supply of clear water. Coleman also draws attention to the union of wholesale stationer and paper maker, so

that many of the major Home Counties manufacturers were at the same time major London stationers.¹ This applies, for example, to Thomas Creswick. In an invoice issued by him in 1822 from 16 Skinner St, Snow Hill, he describes himself as a "manufacturer of Paper, Pasteboard, Drawing Boards, Playing Cards, Improved Rough and Rolled Drawing Paper."² His manufactory was at Hatfield.³

Conversely, London was the centre of the wallpaper trade. Treve Rosoman describes how plastered walls replaced panelled walls in London from the 1760s so that by 1834 production was over 1.2 million pieces.⁴ By the first quarter of the 19th century there were some very large London manufacturers. Although there is no extant fire policy, the manufactory of Harwood and Co of Adam St West, Cumberland Place illustrated in their tradecard of 1813 is clearly very large indeed.⁵ Even by the 1770s the tradecard of John Sigrist of Piccadilly sets out that he manufactures "the New Invented Paper Hangings from off Copper Plates" and that he "Imitates India Landscapes, Figures, Flowers, Birds &c. Matches Silks, Chintzs, Cotton, Linnens &c."⁶

For 1826/27, Pigot lists only 129 businesses within seven paper and board manufacturing trades (SIC 4710) and six paper and board product manufacturing trades (SIC 4720). Most of the former were paper makers of one sort or another; the largest category in the latter were paperhanging manufacturers, of which there were 54. There are fire office records for a small numbers of businesses in the 1770s and 1820s, 34 and 36 respectively. The latter is 28% of the number listed in Pigot. Twenty trades are represented. These include card, pasteboard and paper manufacturers, account book manufacturers, paper toy and ornament makers, paperhanging manufacturers, papier maché manufacturers and pasteboard goods manufacturers. Treve Rosoman lists 241 businesses involved in the London wallpaper trade in the first quarter of the 19th century and 53 in the latter part of the previous century.⁷ However, this includes stationers and other dealers in paperhangings, as well as paperhangers themselves, all of whom are dealt with elsewhere in this study.

Other specialised trades are exemplified by Ann Biddulph of 9 Blackman St, Borough who, in a tradecard of about 1820, stated that she made and sold "Account Books, School Books, Memorandum Books (and) Stationery in General",⁸ while James Imray of Old Fish St Hill, at about the same time described himself in his tradecard as a manufacturer of "the Ivory Paper or Indelible Memorandum Books with Metallic Pencils and Improved Music Paper".⁹

In both periods, a majority of businesses insured for over £500, 53% in the 1770s and 58% in the 1820s. In the latter period, over 22% insured for over £5000. The average value of capital insured was considerable in both periods, but rose sharply from £1511 in the 1770s to £3791 in the 1820s. The median value also rose from £650 to £1100.

In the 1770s, the largest capital insured was £8000 in 1770. This was by Charles Gibson, a cardmaker of Gerrard St.¹⁰ Benjamin and John Crompton, printed paperhanging makers of Cockspur St insured fixed and working capital for £7000 in 1771.¹¹ The largest papermaker was John Demeza of Lambeth St, Goodman's Fields. He insured for £1100 in 1772.¹² Other substantial businesses were those of Benjamin Johnson, a cardmaker of the Strand, who insured fixed and working capital valued at £3500 in 1774,¹³ and of John Boover Brooks, a papier maché maker of 61 Queen St, Lincolns Inn Fields, who insured stock and utensils for £1250 in 1777.¹⁴

There were some very much larger businesses in the 1820s. Williams and Lowe, paper stainers of West Smithfield insured fixed and working capital valued at £18,300 in 1820.¹⁵ The previous year, Magnay Pickering and Co, stationers, paper makers and rag merchants of College Hill had insured stock, utensils and goods valued at £23,000.¹⁶ Another large papermaker was Bening Arnold and Son of Kingsland Rd and Elizabeth St, Bethnal Green, who insured for £7300 in 1822.¹⁷ Large businesses in some of the other trades were: George Cooke, Nathaniel Hinchcliffe and William George Matthews, paperhanging manufacturers of Whitelands, Chelsea, who insured fixed and working

capital for £8850 in 1825;¹⁸ William Thomas Heath, William Vaughan and Benjamin Coveney, pasteboard manufacturers of Queen St, Cheapside, who insured for £2500 in 1825 also;¹⁹ and, Elizabeth Stopforth and James Warner, cardmakers of 24 Little Newport St, Leicester Fields, who insured stock for £1100 and utensils for £200 in 1824.²⁰

In the 1820s, more than 10% of businesses were female owned. All were very small, with an average capital of £80 and a median value of £70. The largest was Philadelphia Scott, an artificial florist of 18 Dukes Court, St Martins Lane, She insured stock and utensils for £150 in 1823.²¹ More typical was Sarah Walker, a mask and paper toys and cap maker of 2 Castle St, Long Row who insured stock and utensils for £30 in 1825.²²

Nearly 18% of businesses in the 1770s insured fixed capital; by the 1820s, this had increased to one-third. In the earlier period, Benjamin Johnson insured two workshops for £1000 in addition to stock and utensils for £2500,²³ and John Demeza insured a paper mill for £750 and a drying house for £150, as well as stock and utensils for £200.²⁴ In the 1820s, Williams and Lowe insured their factory, warehouse and other industrial buildings for £6800 in addition to stock and utensils valued at £21,500.²⁵ Heath, Vaughan and Coveney insured a manufactory for £500 and stock and utensils for £2000.²⁶ Steam power was used by Bening Arnold and Son who insured their manufactory for £2300, an engine house for £500, and a steam engine and other machinery for £1700.²⁷

Contemporary estimates of capital required to set up in business as a playing card maker were low. Kearsley estimated £100–£300 but both Mortimer and Whittock gave £250–£1000. Much lower estimates were given for cardmakers, all setting their lower limit at £100 and going up to £250 to £500. Estimates were also lower for paperhanging makers. Campbell suggested £100–£200, Kearsley £200–£600 and

Mortimer £250–£500. Whittock gave only £100–£300. These latter estimates are low in comparison with actual capital insured.

In both periods, the greatest concentration of businesses was in the City, 44% in the 1770s and 56% in the 1820s. The 1841 Census and Directory *Post Office Directory* list 16 card and cardboard makers and 174 people employed in those trades, 30 papermakers and 173 employees, nine parchment and vellum makers and 130 employees, and six pasteboard makers and 31 employees. However, it was claimed that Harwood and Co alone employed 600 people 30 years earlier.²⁸

Although the numbers are too small to draw conclusions, over one-sixth of businesses in the 1770s and over a third in the 1820s took out policies in more than one year and may, therefore, have had a longevity of up to about ten years or more. William Gough, paperhanging manufacturers successively of Great Bell Alley, Aldgate and Hoxton Square, were in business from at least 1780 to 1820.²⁹

Most of these trades were highly capitalized and businesses grew larger over the period 1775–1825 as publishing expanded, demand grew for paper and paper products and production technology advanced.

7.40 Printing and Publishing

The aggregated data for the 1770s and 1820s for printers and publishers (SICs 4751 and 4752) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	202	269
by Size of Capital (£)			
	100 and under	70	60
	101-500	86	84
	501-1000	21	38
	1001-5000	24	67
	5001-10000	1	12
	over 10000		8
by Proprietor			
	Male	182	213
	Female	5	10
	Multiple Male	10	43
	Mixed	5	3
by Location			
	E	9	13
	EC	107	131
	W	15	32
	WC	61	70
	N		7
	NW		2
	SE	5	6
	SW	5	8
by Type of Capital			
	Working	198	233
	Fixed	1	9
	Both	3	27
Size of Maximum Capital (£)			
Average	All	533	1541
	Female Only	1222	235
Median	All	200	500
	Female Only	300	150
Highest		9000	18000
Lowest		10	2
Average No of Employees (1841)			9
Years of Entry	1	174	156
	2	27	64
	3	1	32
	4		13
	5		2
	6		1
	7		1

Printing and publishing was a major London trade throughout the period of this study.

In 1843 Dodd observed that "In no other British town or city are there printing offices

on so large a scale, or so many printing machines congregated in one spot, or so many workmen."¹ Ian Maxted shows an increase in the number of books published annually from 600 in the 1770s to over 990 in the first half of the 1820s, an increase of 65%. The number of pamphlets published annually averaged 2542 between 1769 and 1777; between 1819 and 1825 it more than doubled to 5087. In the shorter period between 1769 and 1800, the number of periodicals published annually rose from 34 to 83.³

Pigot lists 1162 businesses in 19 printing trades (SIC 4751) and two publishing trades (SIC 4752) in 1826/7. This was over 2.5% of all London businesses. In practice, it is very difficult to differentiate between these trades. Many businesses were involved in both printing and publishing. So also were many of the booksellers and stationers dealt with in the below in the retail trades. The major trades listed by Pigot are 393 printers, 358 engravers, 255 bookbinders and 48 publishers. The fire office registers yield data for 202 businesses in the 1770s and 269 in the 1820s. The latter is 23% of those listed in Pigot. There are 28 trades represented, including copperplate, letterpress and lithographic printers, music printers, book sewers, binders, folders and edge gilders, map and print colourers, music, wood and general engravers, chart, law, music and general publishers.

The coverage of printers from the fire office office records can also be compared with estimates made by John Pendred in *The Earliest Directory of the Book Trade*. He gave the number of London master printers in 1724 as 75 and in 1785 as 124; four other sources from 1818 to 1826 vary from 233 to 323.³ There are extant fire office records for 94 printers in the 1770s and 148 in the 1820s. Another trade for which there is an independent count is bookbinding. Cowie's *Bookbinder's Manual* of 1828 lists 295 bookbinders.⁴ The fire office registers yield data for 62 in the 1770s and 66 in the 1820s.

Tradecards tend to have been issued by smaller scale general printers and engravers. A good example is one issued about 1830 by Redford and Robins, Printers of 36 London Rd, Southwark. It describes their business as "Pamphlets, Auctioneer's Work, Cards, &c...Posting and Hand Bills...Engraving and Bookbinding, Stamps, Account Books, and Stationery of every description."⁵ A typical engraver was G Berry of 70 Long Acre. His trade card of about 1800 said "Arms found & printed on Vellum, and engraved on Stone, Steel, Silver etc. Visiting Cards, Compliments Cards, Bills etc."⁶

Businesses grew substantially in size between the 1770s and 1820s. In the earlier period, nearly 35% insured capital valued at £100 or less; by the 1820s it was only 22%. The proportions insuring between £100 and £500 were 42.5% and 31.2%. Conversely, only 12.3% insured for more than £1000 in the 1770s; by the 1820s this was 32.3%. In the 1820s, over 7% of businesses insured over £5000. The average size of capital insured trebled over the period of this study, from £533 in the 1770s to £1541 in the 1820s. Median values rose from £200 to £500. Across the major trades, the average size of publishers was the largest; £2838 in the 1820s, in the 1770s it is impossible to identify publishers separately. For printers, the average capital insured was £908 in the 1770s and £2118 in the 1820s. For bookbinders it was £219 and £790 respectively, and for engravers it was only £196 and £400.

The largest capital insured in the 1770s was £9000. This was by Eyre and Strahan of New St, Shoe Lane, described in 1773 as "His Majesty's Printers".⁷ They were also the largest business in the 1820s. By then moved to East Harding St, they insured stock, utensils and goods for £18,000 in 1820.⁸ Maxted shows the company trading from 1770–1831. From 1832–75, it traded as Eyre and Spottiswoode.⁹ In 1820, Andrew and Robert Spottiswoode, in New St, Shoe Lane, had insured capital valued at £8200.¹⁰

Other substantial businesses in the 1770s were: William Richardson, a printer of 2 Racquet Court, Fleet St, who insured fixed and working capital for £5000 in 1775;¹¹

William Wynne, an engraver and printseller in the Strand, who insured stock and utensils for £1350 in the same year;¹² and, Joseph White, a bookbinder of Searle St, Lincolns Inn Fields, who insured stock, utensils and goods for £1160 in 1772.¹³

Another large printer in the 1820s was John Valpy of Red Lion Passage, Fleet St. He insured stock, utensils and goods for £17,000 in 1820.¹⁴ The largest extant policy taken out by a publisher was for £14,000. This was by Simkin and Marshall of 3–5 Stationer's Court, Ludgate Hill in 1823.¹⁵ John and Walter Thomas Clarke, law booksellers and publishers of 22 Portugal St, Lincolns Inn Fields insured stock, utensils and goods for £11,000 in 1821.¹⁶ The largest bookbinder was Francis Westley of 10–11 Friar St, Shoemaker's Row. He insured fixed and working capital for £12,180 in 1819 and 1821.²¹ A very substantial engraver was Abraham Rainback of 10 Warren St, Fitzroy Square. He insured stock and utensils for £3400 in 1822.¹⁸

Example of rather smaller-scale businesses in the 1770s were: William Gray, a bookbinder of 6 Deans Court, St Martins le Grand, who insured stock and utensils for £200 in 1777;¹⁹ William East, a copperplate printer of 31 Warwick Lane, who insured for the same amount in 1771;²⁰ and, Lewis Marks, a bookbinder of St Martin's Lane, who insured stock, utensils and goods for £300 in 1775.²¹ Example from the later period were John William Parker, a copperplate printer of 32 Northumberland St, Strand who insured stock, utensils and goods for £500 in 1824,²² and Elizabeth and James Lake, engravers of 15 Tokenhouse Yard, who insured stock and utensils for £100 in 1822.²³

There were small numbers of businesses owned by women in both periods, 2.5% in the 1770s and 3.7% in the 1820s. In the earlier period there was one very large printing business owned by a woman. This was Mary Say of 10 Ave Maria Lane. She insured stock and utensils for £4900 in 1772.²⁴ A more typical business in the same year was that of Hellen Pratt, a printer of New Round Court, Strand who insured stock and utensils for £300.²⁵ In the 1820s, typical businesses were Judith Bishop, a copperplate

printer of 11 Rolls Buildings, Fetter Lane who insured paper for £400 in 1820 and stock and utensils for £200 in 1822,²⁶ and Sarah Taylor, a bookbinder of 8 Church St, Soho who insured stock, utensils and goods for £150 in 1820.²⁷

Very few businesses insured fixed capital in the 1770s, but by the 1820s over 13% did. A rare example in the earlier period was William Richardson. He insured two printing houses for £1200 as well as stock, utensils and goods for £3800.²⁸ A far greater range of fixed capital was being insured by the 1820s, including steam power on a substantial scale. John Walter of the *Times* insured a printing office, counting house and steam engine house for £3250, a steam engine for £400 and printing machinery for £3500 in 1820 at the Times Printing Office, Printing House Square, Blackfriars.²⁹ Another famous name, Hansard, insured a printing office at 6 Great Turnstile for £1000 in 1821 as well as stock, utensils and goods for £8000.³⁰ Francis Westley insured his manufactory for £3000 and stock, utensils and goods for £9000 in 1819, and a workshop for £180 two years later.³¹ Another steam engine was insured for £300 in 1819 by Charles Baldwin, a printer of Bridge St, Blackfriars. He also insured stock and utensils for £2700.³² On a different scale, Joseph Porter, a die sinker and engraver of 3 Perceval St, Goswell St, insured his workshop for £30 in 1820. In 1824 he also insured stock, utensils and goods for £780.³³

Contemporary estimates of the lowest amount of capital required to set up in business as a printer fell steadily over the period, from £500 suggested by the two 1747 sources, to £400 by Collyer in 1761, £300 by Kearsley in 1786 and to £150 by Mortimer in 1819. Whittock suggested £200 in 1837. The upper parameters varied widely, from £500 suggested by Collyer to £5000 by Whittock. Much lower estimates were given for copperplate printers, starting at £50 in each case. Upper limits varied from £150 to £200. The lower limit estimated for a bookbinder was only £30 to £50, although Mortimer went up to £350. Collyer suggested that "very little" capital was required to set up as an engraver and Kearsley started at £5 and Mortimer at £25.

However, Kearsley went up to £1000 and Mortimer to £400. Only Kearsley and Mortimer suggested ranges for publishers. These differed widely, from £50–£200 to £250–£1000. Again, all these estimates reflect the actual capital insured by a large proportion of middling businesses.

In both periods the large majority of businesses were located in the City or in those areas around the Inns of Court to the west, 53% and 30% respectively in the 1770s and 49% and 26% in the 1820s.

The 1841 Census and *Post Office Directory* list 59 copperplate printers and 329 people employed in the trade, 52 lithographic printers and 144 people employed, 435 general printers and 6618 people employed, 347 engravers and 1872 people employed and 22 vellum binders and 133 people employed.

Although less than 14% of businesses in the 1770s took out policies in more than one year, by the 1820s it was over 42%. This suggests that a very significant proportion of businesses had a longevity of up to about ten years or more. One quite small business took out policies in each of the years from 1819 to 1825. This was Samuel Brooke, a printer of 35 Paternoster Row. He insured £6000 in 1819 and 1820, £8500 in 1821, £6700 in 1822, £5000 in 1823 and £7000 in 1824 and 1825.³⁴

Overall, the trades related to printing and publishing were often highly capitalized and employed large numbers of people. As we have seen demand expanded over the period 1775–1825 and the size of business grew with an advancing technology.

7.41 Jewellery

The aggregated data for the 1770s and 1820s for jewellery makers (SIC 4910) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	158	100
by Size of Capital (£)			Pigot 1826/7 533
100 and under		102	38
101-500		49	37
501-1000		6	14
1001-5000		1	9
over 10000			2
by Proprietor			
Male		140	90
Female		5	3
Multiple Male		11	6
Mixed		2	1
by Location			
E		11	4
EC		80	54
W		14	14
WC		49	17
N			1
NW			2
SE		1	5
SW		3	3
by Type of Capital			
Working		154	84
Fixed			1
Both		4	15
Size of Maximum Capital (£)			
Average	All	150	657
	Female Only	216	
Median	All	78	150
	Female Only	100	
Highest		1400	12550
Lowest		5	10
Average No of Employees (1841)			4
Years of Entry	1	144	73
	2	13	21
	3	1	6

There were innumerable small-scale London trades related to the manufacture of gold, silver, jewellery, pewter and related products, as compared to the retail gold, silver and jewellery trades (SIC 6544). Pigot listed 533 businesses in 1826/27 under 22 separate trade headings. The largest were working jewellers (184), working

silversmiths (79), chasers and embossers (68) and gold and silver beaters (49). The fire office registers yield data for 158 businesses in the 1770s and 100 in the 1820s. the latter is nearly 19% of those listed in Pigot. Represented are 49 separate trades. Besides working jewellers, goldsmiths and silversmiths are such trades as gold and silver beaters, button makers, chasers and engravers, flower makers, thread makers, wire drawers and lace manufacturers, motto ring makers, necklace makers, pearl button and bead manufacturers, silver late manufacturers and watch pendant makers. Where these trades overlapped with finished metal goods at the lower end of the market, for example in the manufacture of 'toys', this had certainly moved to Birmingham. Hamilton refers to the overlap of jewellery manufacture and the brass and copper trades in the Black Country at this time."¹ Certainly, the fire office registers contain only four toymakers in the 1770s and three in the 1820s.

The major tradecard and shopbill collections mostly contain example issued by jewellery retailers. However, towards the end of the 18th century, William Hunt and Sons, Gold Workers of Cheapside published a tradecard which described their product range as "Rich Work in Gold, & Curious Stones. Viz Watch Chains, Etwees, Snuff Boxes, Sword Hilts, Cane heads, Buckles and Motto Rings: with variety of Trinketts..." It added that "Merchants & Dealers may be Supply'd on the most Reasonable Terms."² Two tradecards of about 1760 exemplify more specialist trades. Shaw and Preist, Working Goldsmiths of Wood St, Maiden Lane made "all Sorts of Large and Small Plate in Gold and Silver"³ while John Wibird, Working Goldsmith of Babbmay's Mews, Jermyn St made "all Sorts of Tea Tongs, Buckles, Spurs &c."⁴

Most businesses were very small, although there were a few exceptions in the 1820s. In the 1770s, nearly 65% insured capital valued at £100 or less and another 31% insured for between £100 and £500. Only just over 4% insured for over £500. Even by the 1820s, 75% insured for £500 or less, but 11% insured for over £1000. The average capital insured was only £150 in the 1770s. This rose to £657 by the 1820s,

but mainly as a result of the emergence of a small number of very substantial businesses. The median value of capital insured increased only from £78 to £150.

The largest capital insured in the 1770s was £1400. This was in 1771 by Abraham Atterbury of 71 Snow Hill in the very specialised business of coffin plate chaser.⁵ This was very much a specialised London trade.⁶ Robert Fearn, a gold beater of 44 Cow Lane, West Smithfield insured stock and utensils for £770, also in 1771.⁷ Examples of the main trades were: George Clinton, a gold and silver flatter of King St, St Giles, who insured fixed and working capital valued at £600 in 1770;⁸ Abraham Ballin, a necklace maker of 5 Creechurch Lane, who insured stock and utensils for £600 in 1777;⁹ Elizabeth and John Williams, gold and silver button makers of 45 St Martin's Lane, who insured stock and utensils for £600 in 1777;¹⁰ Richard Alexander, a silver turner and polisher of 4 Fitchett's Court, Noble St, who insured stock, utensils and goods for £100 in 1771;¹¹ Andrew Chambier, a gold worker of Little Earl St, Seven Dials, who insured his utensils for £100 in 1771;¹² and, Charles Buss, a motto ring maker of Four Door Court, St Martins le Grand, who insured for £40 in 1775.¹³

In the 1820s there were a number of much larger manufacturers. In 1824 and 1825 Eley and Co, working silversmiths of Lovell's Court, Paternoster Row, insured fixed and working capital for £12,550.¹⁴ Similarly, Rundell and Co, Goldsmiths, Silversmiths and Jewellers of Ludgate Hill, insured a wide range of fixed as well as working capital for £11,000 in 1822 and 1825.¹⁵ Other specialised and more substantial businesses included: Craddock and Reid, silver plate manufacturers of 3 Carey St, who insured stock, utensils and fittings for £2500 in 1820;¹⁶ Thomas Ballam, a silversmith and plated goods manufacturer of 25 Panton St, Haymarket, who insured stock and utensils for £3600 in 1821;¹⁷ James Buchanan, a gold and silver caster of 4 Racquet Court, Fleet St, who insured stock, utensils and fittings for £1100 in 1825;¹⁸ George Webb and George Frederick Aston, gold and silver lace manufacturers of 5 Stafford St, Bond St, who insured stock and utensils for £2300 in 1825;¹⁹ Mary Gerardin and

Thomas Watson, pewterers of 21 Poland St, who insured fixed and working capital for £1600 in 1821 and 1825;²⁰ and, John Samuel Reily, a working goldsmith of 29 Gutter Lane, who insured stock, utensils and goods valued at £1000 in 1825.²¹

Amongst smaller and more typical businesses were: Thomas Tapley, a pearl bead manufacturer of 8 Blue Anchor Alley, Bunhill Row, who insured stock, utensils and goods for £150 in 1820;²² James Boys, a gold and silver thread spinner of 17 North St, Westminster, who insured fixed and working capital for £500 in 1825;²³ and, William King, a working jeweller of 18 Bridgewater Square, who insured for £525 in 1824.²⁴

There were very few female-owned businesses in these trades. An exceptional one was that of Mary Godley, a silver flatter of 18 Aldersgate St, who insured fixed and working capital for £760 in 1777.²⁵ More typical was Catherine Torney, a necklace maker of St Martin's St, Leicester Fields. She insured stock, utensils and goods for £100 in 1773.²⁶ In the 1820s, Mary Coxon, a gold beater and dealer in toys of 228 Tottenham Court Rd insured stock and utensils for £800 in 1824.²⁷

Very few businesses insured fixed capital in the 1770s, though 16% did in the later period. Mary Godley insured a flatting mill for £350 as well as plate valued at £60 and stock and utensils at £400.²⁸ George Clinton also insured a flatting mill, valued at £500 with his utensils, as well as plate for £150.²⁹ In the 1820s, Eley and Co. insured their machinery for £500 in 1824 and their workshop and warehouse for £500 and stock, utensils and fittings for £10,000 the following year.³⁰ Rundell and Co. insured their manufactory for £500 and a steam engine and machinery for the same amount in 1822. In 1825 they insured stock, utensils and goods for £10,000.³¹ Amongst smaller businesses, William King insured his workshop for £125 in addition to stock and utensils for £400,³² and James Boys a mill and machinery for £250 and stock, utensils and goods for the same amount.³³

All the contemporary sources suggested a lower limit of £50 for the starting capital required by a gold beater, except Mortimer who gave £150. The upper parameters varied from £100 to £250. All agreed that the minimum capital required by a diamond cutter was £100. Campbell went up to £200, Mortimer and Whittock to £150, but Kearsley much higher to £1000. For a working jeweller, £20 to £100 was suggested as a lower limit and £100 to £150 as an upper. There was no run of estimates for any other individual trade. Mortimer and Whittock both gave £100–£250 for a gold ring maker, Whittock £200–£500 for a working goldsmith and Kearsley and Mortimer £200–£500 and £150–£250 for a working silversmith. Collyer, Kearsley and Mortimer agreed that £50 might be enough to set up as a silver and gold thread spinner. As another individual example, Mortimer gave £50–£150 for a pearl setter and stringer. All these estimates were in line with the actual low levels of capitalization suggested by the values of capital insured by a large majority of businesses.

In both periods, a majority of businesses were located in the City, or in the districts immediately to the west, 81.6% in the 1770s and 71% in the 1820s. The 1841 Census and *Post Office Directory* list 274 businesses and 943 people employed in various gold, silver and jewellery manufacturing trades. There were also nine diamond cutters and 60 employees and nine pearl stringers with 68.

Only 9% of businesses insured in more than one year in the 1770s; by the 1820s this rose to 27%, suggesting that a small minority may have had a longevity of up to ten years or more.

Manufacture of gold, silver and jewellery involved very traditional crafts in which little change was likely, or occurred, between 1775 and 1825. None of the trades was either capital or labour intensive. The only change was the emergence of a few large-scale manufacturing businesses by the 1820s.

7.42 Musical Instruments

The aggregated data for the 1770s and 1820s for makers of musical instruments (SIC 4920) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	180
No. of Businesses	Total	56	48		
by Size of Capital (£)					
	100 and under	17	11		
	101-500	28	22		
	501-1000	11	3		
	1001-5000		10		
	5001-10000		2		
by Proprietor					
	Male	52	34		
	Female		2		
	Multiple Male	4	10		
	Mixed		2		
by Location					
	E	2	4		
	EC	5	9		
	W	18	21		
	WC	27	9		
	SE		1		
	SW	4	4		
by Type of Capital					
	Working	54	40		
	Fixed		1		
	Both	2	7		
Size of Maximum Capital (£)					
Average	All	297	1003		
Median	All	235	300		
Highest		1000	8500		
Lowest		20	10		
Average No of Employees (1841)			7		
Years of Entry	1	44	38		
	2	11	9		
	3	1			
	4		1		

Manufacture of musical instruments was a small but important London trade. The 1826/27 edition of Pigot lists 180 businesses in 11 separate trades. Of these, 74 pianoforte makers were the largest group. The fire office registers yield records for 56 businesses in the 1770s and 48 in the 1820s. The latter is 27% of those listed in Pigot. There were 19 specialist trades. Apart from general makers of musical instruments, these included bow and bowstring makers, organ builders, metronome makers and

specialist makers of harps, flutes, pianofortes, guitars, harpsichords, drums, violincellos and French horns.

Few tradecards or handbills have survived but an interesting observation in the *The Book of English Trades* for 1824 is worthy of note. Musical instrument making was described as "a very lucrative trade...The Trade in pianofortes alone is one of considerable magnitude, 70 guineas being frequently paid for a good article of this kind."¹

Capitalization increased very considerably between the 1770s and 1820s. In the former period, over 80% of businesses insured for £500 or less and none for more than £1000. By the 1820s, the proportion insuring for £500 or less had fallen to under 69% and 25% insured for over £1000. The average value of capital insured increased from £297 in the 1770s to £1003 in the 1820s. Median values rose from £235 to £300.

The highest capital value insured in the 1820s was only £1000, by James and John Simpson, musical instrument makers of Swithin's Alley, Threadneedle St in 1769.² Next largest was only £800, by John Hancock, a harpsichord maker and organ builder of Great Russell St in 1771³ and John Rutherford, a musical instrument maker of St Martin's Court, St Martin's Lane, also in 1771.⁴ Other specialised makers of musical instruments included: James Reiter, an organ builder of 74 Castle St, Oxford St, who insured for £330 in 1771;⁵ Christopher Garner, a pianoforte maker of Broad St, Carnaby Market, who insured stock and utensils for £400 in 1775;⁶ and, William Gardner, a guitar maker of 39 Orchard St, Westminster, who insured stock valued at £40 in 1777.⁷

There were several much larger businesses in the 1820s. Astor and Co, musical instrument makers of 79 Cornhill insured stock and utensils valued at £8500 in 1819.⁸ In the same year, another musical instrument maker, John Whittaker and John Maddox

of 75 St Paul's Churchyard, insured stock, utensils and goods for £6000.⁹ Two large harpmakers were Frederick Grosgean and Thomas Henry Williams of 11 Soho Square, who insured fixed and working capital valued at £3480 in 1824,¹⁰ and Jacob Erol of 23 Berners St, who insured for £3300 in 1825.¹¹ George Rudall and John Rose, flute makers of 7 Tavistock Square insured stock and utensils for £1420 in 1824¹² and Mary and Edward Ball, pianoforte makers of 27 Duke St, Grosvenor Square, insured stock, utensils and goods for £1200 in 1822.¹³ Smaller specialised businesses included: Ann Lymington, a bow string maker of 2 Bowling St, Turnmill St, who insured stock and utensils for £50 in 1819;¹⁴ Joseph Eveleigh, an organ builder of 21 Swan St, Minories, who insured stock and utensils for £500 in 1824;¹⁵ Samuel Potter, a drum maker of 20 King St, Westminster, who insured stock, utensils and goods for £250 in 1825;¹⁶ Samuel Keat, a French horn maker of 3 Fisher St, Red Lion Square, who insured stock and utensils for £200 in 1824;¹⁷ and Mark Myers, a violincello maker of 37 Princes St, Soho, who insured stock and utensils for £200 in 1824 also.¹⁸

Only a small number of businesses insured fixed capital, under 4% in the 1770s and under 17% in the 1820s. A rare example in the 1770s was James Reiter who insured a workshop for £30 in addition to stock and utensils for £300.¹⁹ In the later period, Jacob Erol insured his manufactory for £500 as well as stock and utensils for £2800.²⁰ The workshop of Grosgean and Williams was valued at £280, in addition to their stock and utensils which were valued at £3200.²¹

Contemporary estimates for the capital required to set up in business as a musical instrument maker were not high. The two 1747 sources suggested £100 and £300 as a lower limit. Campbell went up to £500. In the next century, Mortimer suggested £100–£250. Mortimer also gave a range of figures for an organ builder and a pianoforte maker, £200–£500 in both cases. Kearsley gave a slightly wider range of £1000–£500 for an organ builder.

Most businesses were located in the West End or west central districts. The 1841 Census and *Post Office Directory* list 78 musical instrument makers and 17 musical instrument string makers with 323 and 58 people respectively employed in those trades. Also listed are 158 pianoforte makers and 1345 people employed either in making the instruments or as tuners. Most of the latter would have been self-employed.

In both periods 79% of businesses took out policies in only one year, suggesting that about one-fifth might have had a longevity of up to about ten years or more.

These are yet more examples of trades where no great change took place over the period of this study, except for the emergence of a small number of substantially capitalized manufacturers into a predominantly craft industry.

7.43 Manufacture of Miscellaneous Goods

The aggregated data for the 1770s and 1820s for other miscellaneous manufacturing trades (SICs 4940, 4951 and 4952) are summarised and tabulated below,

	1770s	1820s
No. of Businesses Total	47	90
by Size of Capital (£)		
100 and under	18	24
101-500	20	43
501-1000	7	14
1001-5000	2	9
by Proprietor		
Male	42	73
Female	3	7
Multiple Male	2	6
Multiple Female		3
Mixed		1
by Location		
E	9	21
EC	21	33
W	3	7
WC	11	18
N		2
NW	1	8
SE	2	1
by Type of Capital		
Working	43	78
Fixed	1	3
Both	3	9
Size of Maximum Capital (£)		
Average	All	296
	Female Only	253
Median	All	160
	Female Only	220
Highest		1840
Lowest		20
Average No of Employees (1841)		
		5
Years of Entry	1	43
	2	4
	3	12
		12

Included in this section are a number of manufacturing industries and trades, the numbers of businesses within which are either very small or cannot be classified in any of the sections above. In the former category are toys and sports goods (SIC 4940) and pens, pencils and quills (4951). SIC 4952 is a classification for any industry or trade not classified elsewhere. Within these categories, Pigot listed 411 businesses

in 1826/27. The fire office registers yield data for 47 businesses in the 1770s and 90 in the 1820s. Pigot lists 26 separate trades and 32 are represented in the fire office registers. In Pigot, some of the major trades are fishing tackle makers (28), pen, pencil and quill manufacturers (63), feather makers (88), comb makers (32) and tobacco pipe makers (47). Represented in the fire office registers are billiard table, doll and fishing tackle makers, pen, pencil and quill manufacturers, comb makers, feather manufacturers, inkstand makers, ivory and bone makers, bird and beast stuffers, shirt button makers, teapot handle manufacturers, tobacco pipe makers, whalebone cutters and plaster, wax and clay modellers.

Dodd exaggerated when he wrote that children's toys "give rise to no inconsiderable amount of manufacturing enterprise. The ball and the bat, the whistle and the drum, the rocking-horse and the mimic cart, the hoop, the doll, the humming-top, the skipping rope – all are sold so very largely as to render the employment of a considerable number of persons."¹ How specialised these trades could be is shown by an invoice issued in 1809 by Thomas Waring of Caroline St, Bedford Square which stated that he made "Bows, Arrows, Targets, &c".²

It is impossible to draw conclusions from data spread across so many very different trades, apart from observing that the large majority of businesses were very small, 81% insured capital valued at £500 or less in the 1770s and over 74% in the 1820s, and that there were no very large businesses in any of the various trades. However, it is possible to quote some examples.

In the 1770s, individual businesses included: Benjamin Crayer, a doll carver of 132 Golden Lane, who insured stock and utensils for £200 in 1773;³ John Middleton, a pencil maker of Vine St, Golden Square, who insured his counting house for £50 and stock and utensils for £1160 in 1772;⁴ Richard Feakes, a pen cutter of Catherine Wheel Alley, Whitechapel, who insured stock and utensils for £100 in 1777;⁵ William

Rogers, a tobacco pipe manufacturer of 2 Hermitage Bridge, who in 1775 insured a kiln for £80, a kiln house and workshop for £250, a warehouse for £210 and stock and utensils for £1300;⁶ Ann Barber, a feather maker of 12 Stephen St, Rathbone Place, who insured stock and utensils for £220 in 1775;⁷ Charles Lacey, a combmaker of Great Turnstile, who insured stock and utensils for £340 in 1775;⁸ Francis Wright, a horn turner of 15 Petticoat Lane, who insured stock and utensils for £550 in 1771;⁹ Anthony Lewis Torre, a plaster of Paris figure maker of Market Lane, St James, who insured stock and utensils for £700 in 1769;¹⁰ and, the exotically named Onesimus Ustonson, a fishing tackle maker of 205 Fleet St, who insured stock and utensils for £550 in 1773.¹¹

In the 1820s, examples are: Robert Kirby, George Beard and William Tovey, pen makers of 46 Cannon St, who insured stock and utensils for £3000 in 1822;¹² Joseph Defriez, a feather manufacturer of 3 Houndsditch, who insured stock and utensils for £2850 in 1824;¹³ Thomas Hall, a stuffer of birds and beasts of Finsbury Terrace, City Rd, who insured stock, utensils and goods for £700 in 1820;¹⁴ William Drane, a combmaker of 25 Aldgate, who insured stock and utensils for £2000 and a warehouse for £400 in 1823;¹⁵ John Chamberlain, a billiard table maker of 15–17 Sherborn Lane, who insured stock and utensils for £350 in 1822;¹⁶ George Bowness, a fishing tackle maker of 14 Bell Yard, Temple Bar, who insured stock and utensils for £550 in 1823;¹⁷ Anthony Bazzoni, a wax and composition doll maker of 23 Kingsgate St, Holborn, who insured stock and utensils for £270 in 1824;¹⁸ Dorothy Cluer, a tobacco pipe maker of 31 Narrow St, Limehouse, who insured stock and utensils and her workshop for £50 each in 1822;¹⁹ and, Joseph Rhoades, an ebony inkstand maker of 5 James St, Featherstone St, who insured his manufactory for £150 and stock and utensils for £240 in 1823.²⁰

A few example of contemporary estimates of capital required to set up in business are for combmakers, fishing rod and tackle makers and pen and pencil makers. For

combmakers, the lower limit was set at £50 or £100. Campbell went up to £300 and Mortimer and Whittock to £150. For fishing tackle makers, £20 to £50 was reckoned to be a starting figure, though Mortimer and Whittock had an upper parameter of £250. For pen and pencil makers, £20 to £100 was suggested as a lower limit. Mortimer went up to £250 for a pen maker. All these estimates are in line with actual insured values.

There are a number of examples of these trades for which comparison can be made of numbers of businesses listed in the 1841 *Post Office Directory* and the employment count in the 1841 Census. There were 35 pencil manufacturers with 157 people employed, 56 combmakers and 464 people employed in the trade, 15 feather manufacturers with 119 people employed, 31 fishing tackle makers and 102 people employed and 30 tobacco pipe makers with 118 people employed.

Construction

7.44 General Building and Construction

The aggregated data for the 1770s and 1820s for the general building and construction trades (SICs 5000 and 5010) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	531	329
Pigot 1826/7 838			
by Size of Capital (£)			
100 and under		38	24
101-500		190	108
501-1000		143	94
1001-5000		145	96
5001-10000		14	4
over 10000		1	3
by Proprietor			
Male		499	307
Female		4	
Multiple Male		27	19
Mixed		1	3
by Location			
E		82	66
EC		110	64
W		143	45
WC		63	38
N		17	21
NW			16
SE		86	51
SW		30	28
by Type of Capital			
Working		67	52
Fixed		333	156
Both		131	121
Size of Maximum Capital (£)			
Average	All	1120	1113
	Female Only	1145	
Median	All	600	700
	Female Only	915	
Highest		16100	18450
Lowest		10	6
Average No of Employees (1841)			29
Years of Entry			
1		353	214
2		96	69
3		48	26
4		17	13
5		12	6
6		4	
7		1	1

The rapid growth in population and the outward expansion of London in the last

quarter of the 18th and the first quarter of the 19th centuries resulted in an enormous market for all the building and construction trades. H J Dyos has pointed out that the irresistible growth of London was a magnet for speculative capital. He points out the importance of men like James Burton who "erected over 900 houses in the decade ending in 1803 on the Foundling Hospital and Bedford estates (and) did so partly by...bringing in smaller builders, to who he appears not only to have sub-leased the plots but to have supplied some of the building materials and the capital as well." This was not new: in the late 17th century Nicholas Barbon had pursued the same course in developing Lincoln's Inn Fields, the Temple, the Strand and Soho.¹

In practice, the terms 'builder', 'carpenter', 'plasterer', 'bricklayer', 'mason' and even 'plumber', 'painter' and 'glazier' were interchangeable. Thus, for example, Seth Smith of 70 Davies St, Berkeley Square described himself as a carpenter in 1819 and as a builder in 1820.² Similarly, in 1771 John Matthews of Hercules Buildings, Lambeth described himself in two policies as a plasterer and in a third as a builder.³ The 1826/27 edition of Pigot lists 838 businesses, over 1.8% of all businesses in London. Fire office policies yield data for 531 businesses in the 1770s and 329 in the 1820s. The latter is over 39% of those listed in Pigot.

There were comparatively few very small businesses in the building and construction trades. Only 7% insured £100 or less in both the 1770s and 1820s; 36% insured between £100 and £500 in the 1770s and 33% in the 1820s. In the earlier period, over 30% insured capital valued at over £1000, with 3% insuring over £5000. Almost identically, in the 1820s, these proportions were 31% and 2%. Nor was there any significant change in either the average or median values of capital insured: in the 1770s these were £1120 and £600; in the 1820s, £1113 and £700.

Most of the capital insured by the large majority of businesses, 84% in both the 1770s and 1820s, was in the form of houses. Often it was specified that these were

unfinished or still empty. A random 15% sample of businesses in both periods covered 80 in the 1770s and 50 in the 1820s. In the earlier period 506 houses were insured for £122,900; in the later 342 for £83,270. Remarkably, this gives an average value of £243 in both the 1770s and 1820s.

The largest capital insured in the 1770s was £16,100 by Jonathan Mann, a carpenter of Berkeley Square. He insured 23 houses in 1775, 15 of which were still unfinished.⁴ Edward Gray, a bricklayer of Queen St, Grosvenor Square, insured five unfinished houses for £8300 in 1775 and his counting house and various industrial buildings for £600 and stock and utensils for £1000 in 1777.⁵ A builder, Thomas Nicholl of 16 Margaret St, Cavendish Square, insured six unfinished houses for £5500 in 1774 and three years later his workshops for £900 and stock and utensils for £800.⁶ Individual houses could be of considerable value. Nathaniel Sanderson of 33 Tottenham St insured two unfinished houses for £6000 in 1777.⁷

In the 1820s, the largest extant policy was taken out for £18,450 by James Sim, a builder of 8 Little Torrington St in 1825. He insured 15 houses for £18,200 and a workshop for £250.⁸ Another builder, John McGill of 34 Middlesex St, Somers Town, insured houses and other property under construction, as well as stock and utensils in each year from 1819 to 1825. The highest sum insured was £11,400 for 11 houses in 1821. In 1819 he had insured five houses for £5000, in 1820 five houses and other property under construction for £5700 as well as stock and utensils for £300, in 1822 four houses for £3200, in 1823 four houses again for the same sum, in 1824 seven house and other work under construction for £8700 and in 1825 four coach houses under construction for £1000.⁹ Thomas Cubitt insured four house for £6000 in 1821, seven for £5200 in 1822, 11 for £8200 in 1823, eight for £6600 in 1824 and two for £3400 in 1825. Some years he described himself as a carpenter, in others as a builder.¹⁰

In 1820, Seth Smith, already mentioned above, insured 13 houses, seven of them unfinished, for £7900, his workshops for £2400 and stock, utensils and livestock for £1000.¹¹ On a different scale, and both in 1825, Thomas Sewers, a bricklayer and plasterer of 13 Foley St insured five houses for £1000¹² and William Beetles, a bricklayer of 8 St John's Row, St Luke's, insured nine houses for £800 and stock, utensils and goods and a workshop for £50 each.¹³ Of much lower value still were the six houses insured for £300 in 1823 by Joseph Denney, a builder of Mare St, Hackney.¹⁴

There were several substantial female-owned businesses in the 1770s. Elizabeth Harrison, a carpenter of King St, Clerkenwell insured 34 houses for £2380 in 1771, as well as a workshop for £20 and stock and utensils for £50. The following year she insured nine houses for £1660.¹⁵ Another carpenter, Elizabeth Taylor of Drury Lane insured four houses for £800 and stock and utensils for £200 in 1771¹⁶ and Mary Grisson, a bricklayer of 14 Billiter Lane insured two houses for £800 and stock and utensils for £30 in 1774.¹⁷

Contemporary estimates of capital required to set up in business as a bricklayer started at a lower limit of £100 in all the 18th century sources and at £150 in the 19th. The upper parameter varied widely. Campbell gave £5000, Collyer and Kearsley £600 and Mortimer and Whittock £500. Only Mortimer and Whittock suggest a range of capital required for a builder, £500–£1000 in both cases. For a plasterer, the lower limit varied from £50 to £100. For all except Whittock, £200 was the highest upper figure given. Whittock suggested £1000.

Businesses were located in large numbers in every district of London. However, by the 1820s there was an increase in the proportion located in the expanding suburbs to the east, north and north west, and south west.

It is difficult to separate the various major trades in the construction industry in the 1841 Census and *Post Office Directory*. It is also the case that a large proportion of those shown as general labourers were employed in the industry. However, taking the industry as a whole and including those trades involved in installation of fixtures and fittings and building completion work covered in the next section, it is possible to estimate 2555 businesses with about 67,000 employees. Dyos points out that Thomas Cubitt employed up to 2000 people on a permanent or semi-permanent basis.¹⁸

Over one third of businesses in both the 1770s and 1820s took out policies in more than one year. This suggests a longevity of up to about ten years or more amongst a substantial minority of businesses. One business seems to have flourished on a considerable scale from at least 1770 to 1824, trading as John Burnell at 25 Fleet Market in the 1770s¹⁹ and as George Burnell at 21 Bartlett's Buildings, Holborn in the later period.²⁰ It has already been noted that John McGill took out policies in each of the years 1819–25; William London, a carpenter of 3 Little Trinity Lane, took out policies in seven of the nine years from 1769 to 1777. In 1769 he insured six houses valued at £1200, in 1770 two for £300, in 1771 five for £800 and his workshop for £80, in 1823 his workshop again and a house valued at £320, in 1774 five houses for £1300, in 1775 his workshop revalued at £100 and in 1777 stock and utensils valued at £100.²¹

Overall, this was a boom period for the construction industry, the precursor of the even larger expansion of speculative building in the Victorian age, even though there was little change in technology, organisation or capitalization.

7.45 Installation of Fixtures and Fittings and Building Completion Work

The aggregated data for the 1770s and 1820s for the trades concerned with installation of fixtures and fittings and building completion work (SICs 5030, 5042, 5043 and 5044) are summarised and tabulated below,

		1770s	1820s	
No. of Businesses	Total	234	182	Pigot 1826/7 1218
by Size of Capital (£)				
	100 and under	108	67	
	101-500	79	72	
	501-1000	23	24	
	1001-5000	23	19	
	5001-10000	1		
by Proprietor				
	Male	224	167	
	Female	5	2	
	Multiple Male	5	11	
	Mixed		2	
by Location				
	E	23	26	
	EC	54	43	
	W	72	26	
	WC	54	46	
	N		7	
	NW		2	
	SE	18	23	
	SW	13	9	
by Type of Capital				
	Working	163	136	
	Fixed	41	24	
	Both	30	22	
Size of Maximum Capital (£)				
Average	All	406	406	
	Female Only	104		
Median	All	150	200	
	Female Only	100		
Highest		6000	3000	
Lowest		5	5	
Years of Entry				
	1	190	141	
	2	34	31	
	3	9	9	
	4		1	
	5	1		

These trades are complementary to the general building and construction trades covered in the previous section. Four groups of trades are included; plumbers (SIC

5030), painters and glaziers (5042), paperhangers and plasterers (5043) and other miscellaneous building completion trades (5044). Pigot lists 1218 businesses in 1826/27, over 2.6% of all London businesses. The fire office registers yield records for 234 businesses in the 1770s and 182 in the 1820s. the latter is 15% of those listed in Pigot.

Many businesses combined several of these trades. A tradecard issued about 1820 by Elizabeth Proctor of 50 Shoe Lane, trading as widow of the late Thomas Proctor, described the business as Plumber, Glazier and Painter and promised "Writing, Graining, Marbling and Gilding. Water Closets & Hydraulic Pumps, Fixed and Repaired."¹ Another tradecard was issued about the same time by Lindsay, Painter, Glazier and Plumber of 7 St Martin's Lane. He undertook "Writing, Gilding, Transparencies &c. Forced Pumps & Water Closets, Beer Engines &c. Ornamental Paper Hanging in all its Branches – Colouring in Distemper &c."² It is worth noting that Treve Rosoman lists 66 London paperhangers in the first quarter of the 19th century.³

In both the 1770s and 1820s, businesses in these trades were very much smaller than in the building and construction trades proper. The average value of capital insured was £406 in both the 1770s and the 1820s. Median values were £150 and £200 respectively. In the 1770s, over 46% of businesses insured £100 or less and another nearly 34% between £100 and £500. Even by the 1820s, these proportions were still 37% and 39%. Only 10% insured capital valued at over £1000 in either period. It has also to be noted that the largest businesses were almost invariably involved directly in construction work as well as their other trades.

The largest business in the 1770s insured capital valued at £6000. This was Arthur Edwards, a plumber of Quebec St. He insured for £6000 in 1771.⁴ James Lawrence, a plumber, painter and glazier of Grevil St, Hatton Garden, insured for £3200 in 1775, but this included 12 houses valued at £2700.⁵ On a smaller scale, William Large, a

paperhanger of 256 Oxford St, insured stock and utensils for £150 in 1777, but also a house under construction for £500.⁶ On a much smaller scale still, Mortimer, his first name unrecorded, a lath render of Broad St, Berwick St, insured stock and utensils for £75 in 1774.⁷

In the later period, Ralph Robinson Hindmarsh, a plumber of 18 Basing Lane, insured capital valued at £3000 in 1825.⁸ Of the £1950 for which Edward Orton Ottey, a plumber, painter and glazier of Cartaret St, Westminster, insured in 1819, £800 was for six houses, £400 for his workshop and £750 for stock and utensils.⁹ William Willson, a lath render of 14 Cleveland St, Fitzroy Square, insured stock and utensils for £1150 in both 1819 and 1823,¹⁰ and Thomas Wiltshire and Sons, paperhangers and painters of Ball Alley, Lombard St insured stock and utensils for £1500 and fittings for £300 in 1823.¹¹

There were a few female-owned businesses in both periods, none very large. In 1771, Elizabeth Cant, a painter and glazier of 18 Princes St, Cavendish Square, insured stock and utensils for £150.¹² Even smaller was the business of Eleanor Downey, a plumber, painter and glazier of 125 Wapping New Stairs, who insured stock, utensils and fittings for £100 in 1822.¹³

A substantial minority of businesses insured fixed capital, 30% in the 1770s and 25% in the 1820s. In most cases this was in the form of houses under construction.

However, Nicholas Winsland, a painter and glazier of 44 Great Russell St, insured his workshop for £500 in 1824, as well as stock and utensils for £400,¹⁴ and Frederick Powell, a painter and paperhanger of 48 Coleman St, insured a warehouse for £100 and stock and utensils for £500 in 1822.¹⁵

All the contemporary sources estimated £50 or £100 as the lower limit of capital required to set up in business as a glazier. Most set an upper figure of £500, though

Whittock suggested £200. Estimates varied for a house painter. Collyer suggested £30–£40 would suffice but the others gave £100 to £200. There was general agreement at £100 or £150 as the lower limit for a plumber. However, Mortimer only went up to £150 whereas Campbell went up to £500 and Kearsley and Whittock to £2000.

About 19% of businesses in the 1770s and 23% in the 1820s took out policies in more than one year, suggesting that about a fifth and a quarter respectively may have had a longevity of up to about ten years or more.

Overall, these were not trades which underwent any significant change between the 1770s and the 1820s, though they shared in the enormous expansion of demand enjoyed by the construction trade as a whole.

Wholesale Distribution

Agricultural and textile raw materials

As has already been noted in the chapter above on classification of trades and industries in London in the period of this study, it is very difficult to distinguish between the wholesale and retail distribution trades. In practice, many businesses were involved in both. There are hundreds of surviving tradecards, shopbills, handbills and invoices with the words "wholesale and retail". In practice, businesses are assumed to be predominantly retail unless there is good evidence in the fire office registers to suggest otherwise. Although the Muis devote little attention in their study of 18th century shops and shopkeeping to the wholesale link in the chain of distribution, they do note that London dealers doubled as retailers in the capital and wholesale suppliers to provincial retailers.¹ This relationship is discussed in more detail below with regard to the clothing and textile trades.

The aggregated data for the 1770s and 1820s for wholesale distributors of agricultural and textile raw materials (SICs 6111-7) are summarised and tabulated below,

No. of Businesses	Total	1770s	1820s	Pigot 1826/7	376
	by Size of Capital (£)	95	74		
100 and under		8	4		
101-500		27	17		
501-1000		27	16		
1001-5000		25	24		
5001-10000		8	7		
over 10000			6		
	by Proprietor				
Male		70	54		
Female		1	1		
Multiple Male		22	19		
	by Location				
E		10	11		
EC		26	28		
W		9	4		
WC		11	3		
NW			1		
SE		38	26		
SW		1	1		
	by Type of Capital				
Working		85	63		

Fixed			2
Both		10	9
Size of Maximum Capital (£)			
Average	All	1596	3620
Median	All	780	1100
Highest		8000	29500
Lowest		30	30
Average No of Employees (1841)			
Years of Entry	1	64	38
	2	19	19
	3	8	5
	4	3	3
	5	1	2
	6		4
	7		3

Seven raw material categories are included within this section: hops (SIC 6111); corn (6112); other cereals (6113); livestock (6114); leather and skins (6115); textile raw materials (6116); and, other agricultural and textile raw materials (6117). Pigot lists 376 such businesses in 1826/27. By far the most numerous were corn and hop merchants, of whom Pigot lists 158 and 62 respectively. The fire office registers provide data for 95 businesses in the 1770s and 74 in the 1820s. The latter is 20% of those listed in Pigot. Represented in the fire office registers are wholesale distributors of 29 agricultural and textile raw materials. These include hops, corn, malt, seed, yeast, horses, hogs, pigs, cattle, sheep and asses, leather and skins, cotton, hemp, flax and horsehair, feathers and horn.

It is very difficult to generalise across such a wide range of materials; individual examples afford a better illustration. However, most businesses were of a substantial size. Nearly 35% of businesses in the 1770s insured capital valued at over £1000 and 50% in the 1820s. In the earlier period, nearly 9% insured for over £5000; by the 1820s it was 18%. The average value of capital insured in the 1770s was £1596; this more than doubled to £3620 in the 1820s. The median values were £780 and £1100.

The largest businesses in both periods were hop merchants. In the 1770s the largest sum insured was £8000. This was by both Timothy Yeats of 2 St Mary Hill in 1771²

and James Hunter of 1 Catherine Court, Seething Lane in 1775.³ In the 1820s, there were a number of very large businesses indeed: Tavernor and Co. of 21 Borough insured fixed and working capital valued at £29,500 in 1823 and 1824;⁴ Armstrong and Co. of Bridge Foot, Fish St Hill insured capital valued at £28,000 in 1820;⁵ and, Thomas Pritchard of 30 West Smithfield insured for £27,500 in 1819.⁶

Examples of wholesale distributors of other materials in the 1770s were: Elizabeth Ure, a hair merchant of Duck Lane, West Smithfield, who insured stock and goods for £4000 in 1772;⁷ William Wildman, a sheep salesman of Red Lion St, Clerkenwell, who insured fixed and working capital for £2300 in 1771;⁸ William Groome and John Bird, mealmen of Rotherhithe, who insured stock and utensils valued at £2000 in 1777;⁹ George John Fardo, a corn dealer of Horsleydown New Stairs, who insured stock, utensils and goods for £700 in 1771;¹⁰ and, John and William Bellett, feather merchants of 22 Leadenhall St, who insured stock and utensils for £500 in 1777.¹¹

Examples from the 1820s are: Francis Alvin, a feather merchant of 9 Walbrook, who insured merchandise for £7000 in 1819;¹² Messrs Lucas, corn and flour dealers of 18 Millbank St, Westminster, who insured fixed and working capital for £7350 in 1823;¹³ Matthew Milton, a horse dealer of Peartree Yard, Piccadilly, who insured for £4000 in 1819;¹⁴ Dyer, Emmett and Co, hemp merchants of 78 Lower Thames St, who insured merchandise valued at £2000 in 1823;¹⁵ Isaac Abrahams, a dealer in skins of 1-2 Harrow Alley, Petticoat Lane, who insured stock and utensils for £3500 in 1822;¹⁶ Edward Taylor, a mealsman of 65 South Audley St, who insured stock and utensils for £1000 in 1821;¹⁷ and, Nathaniel and Walter Nathan, quill and feather merchants of 45 Mansell St, who insured fixed and working capital valued at £1650 in 1819.¹⁸

Although the business of Elizabeth Ure referred to above was substantial, there were very few women indeed to found in these, or any other, wholesale trades.

A small proportion of businesses insured fixed capital, 11% in the 1770s and 15% in

the 1820s. It is common to all the wholesale distribution trades for this to be normally in the form of warehouses. In 1777, Thomas and John Ismay and John Creed, hop merchants of 79 Borough, insured five warehouses for £5000 as well as stock, utensils and goods valued at £400.¹⁹ James Davis, a hair merchant of 219 Barnaby St, Southwark insured several warehouses and lofts for £340 in 1774, in addition to stock and utensils for £1000.²⁰ William Wildman, mentioned above, insured his sheep house for £100 as well as stock and utensils valued at £2200.²¹ Tavernor and Co. insured their warehouse for the very large sum of £10,500, in addition to stock, utensils and goods for £19,000.²² Messrs Lucas insured their warehouse for £1700 and barges valued at £150 as well as stock and utensils for £5500.²³ In addition to his warehouse valued at £250, William Morris a feather merchant of 61 Princes St, Leicester Fields, insured a "building with a feather stove" for £50 and stock and utensils for £350 in 1820.²⁴ Matthew Milton insured stables for £2000 and stock, utensils and goods for the same amount.²⁵

There were few estimates of capital required to set up in business in any of the wholesale trades. However, very wide ranges were given for a hair merchant. The suggested lower limits were £100 to £200, but Campbell suggested an upper parameter of £2000 and Kearsley, Mortimer and Whittock £1000. Both Mortimer and Whittock suggested £500–£2000 for a hop merchant and the former £250–£500 for a cattle and sheep salesman.

In both periods, most businesses were located in the City or south of the river, in the latter case this particularly applied to the hop trade. There are comparatively few examples of a match between the 1841 Census data and *Post Office Directory* for the wholesale trades. An exception was corn and hop merchants. The *Post Office Directory* lists 134 businesses and the Census 892 people employed. There were also 24 horse dealers and 216 people employed.

Nearly one-third of businesses in the 1770s and almost a half in the 1820s took out policies in more than one year, suggesting a substantial minority had a longevity of up to at least ten years or more.

Overall, these trades experienced a very considerable increase in capitalization between the 1770s and 1820s, as did virtually all other wholesale distribution trades, suggesting a growing differentiation between the roles of wholesaler and retailer over the period.

7.47 Fuels, Ore, Metals and Industrial Materials

The aggregated data for the 1770s and 1820s for wholesale distributors of fuels, ores, metals and industrial materials (SICs 6121, 6123 and 6124) are summarised and tabulated below,

No. of Businesses	Total	1770s	1820s
		35	39 Pigot 1826/7 181
	by Size of Capital (£)		
100 and under		1	
101-500		10	13
501-1000		8	9
1001-5000		11	16
5001-10000		3	1
over 10000		2	
	by Proprietor		
Male		17	25
Female			1
Multiple Male		16	13
Multiple Female		1	
Mixed		1	
	by Location		
E		5	5
EC		15	14
W			3
WC		3	3
SE		7	11
SW		8	8
	by Type of Capital		
Working		23	24
Fixed		4	7
Both		8	8
	Size of Maximum Capital (£)		
Average	All	2199	1408
Median	All	400	1000
Highest		13300	5350
Lowest		50	200
	Years of Entry		
	1	23	27
	2	7	9
	3	4	2
	4	1	1

Pigot lists 181 businesses involved in the wholesale distribution of fuel (SIC 6121), metals (6123) and other industrial materials (6124). The fire office registers yield data for 35 businesses in the 1770s and 39 in the 1820s. The latter is 21.5% of those listed in Pigot. Represented in the fire office registers are wholesale distributors of coal, coke, dyes, copper, iron, lead, gum, lime, clay, pitch and tar and glazier's diamonds.

The tonnage of coal imported into London rose from 677,000 in 1750 to 2,079,000 in 1830, an increase of 207%. By the 1820s there were 6000 arrivals a year in the port of London.¹ Michael Flinn discusses the role of the London coal merchant and describes the structure of the trade after the establishment of the Coal Exchange in 1769. The so-called 'first buyers' became dominant, buying up whole cargoes when the ships arrived from the Northumberland and Durham coalfields. They sold on either to 'loaders', who distributed beyond London, or to 'dealers', who supplied domestic households, or to 'retailers', who sold in small amounts from such retail premises as chandler's shops.²

Wholesalers were much less likely to issue tradecards or handbills and few invoices have survived. An exception is an invoice from the 1820s sent out by Thomas Jarvis, Lead and Oil Merchant of 10 Little Knighttrider St, Doctor's Commons. His stock includes "refined Pig Lead, Milled Sheet Lead, Cast Sheet Lead, Patent Shot, Cast Lead Pipes, in Rolls and Lengths, Pump Barrels, Heads, and Handles, Patent Pipes of all Sizes, Sealed Solder and Soldered Pipes, Tin in Blocks or Ingots, Church and Common Window Lead, Red and White Lead..."³ The range of materials dealt with by two bankrupted drysalters in the 1820s, James Winwood Cosler of Princes St, Spitalfields⁴ and John Henderson of Lawrence Poutney Lane,⁵ included logwood, fustic, ebony, cochineal, shuma, indigo and lac-dye.

With comparatively few surviving records spread across a number of trades, it is not possible to draw many conclusions. Few businesses were small; only about one-third insured capital valued at £500 or less in both the 1770s and 1820s. Conversely, 46% insured for over £1000 in the earlier period, and 44% in the 1820s. Records are extant for more large businesses in the 1770s. As a result, the average value of capital insured was £2199 compared with £1408 in the 1820s. However, the median value

was very much higher in the later period, £1000 compared with £400.

Much the two largest businesses in the 1770s were both drysalters. In 1775, William, Henry and James Hanson of 27 Miles Lane, Cannon St, insured fixed and working capital for £13,300⁶ and Francis Hammond, Daniel Birkett and John Smith of Upper Thames St insured stock, utensils and goods for £12,000 in 1777.⁷ Substantial coal merchants were John and Robert Bradley of Abingdon Buildings, Westminster. They insured stock, utensils and goods for £2250 in 1774.⁸ Benjamin Burch, a lime merchant of Three Colt St, Limehouse, insured for £1800 in 1775⁹ and John James Daluy, a blacklead merchant of the Haymarket, insured stock valued at £700 in 1771.¹⁰

In the 1820s, the largest surviving policy was for a coal merchant. Edward and William Wood and Leonard Phillips of Northumberland Wharf, Northumberland St, insured fixed and working capital for £5350 in 1820.¹¹ This can be compared with an estimate in the 1780s that £10,000 was required by a 'first buyer'.¹² Other substantial businesses included: Robert Graham, an iron merchant of Trigg Lane, Upper Thames St, who insured for £3250 in 1822;¹³ Thomas Forrest, a lime merchant of Puddle Dock, who insured for £2950 in 1823;¹⁴ John Todhunter, a drysalter of 31 Little Eastcheap, who insured stock and utensils for £2500 in 1822;¹⁵ and, John Savill and Richard Janian, copper merchants at the Steel Yard in Upper Thames St, who insured cake and sheet copper valued at £2000 in 1820.¹⁶

Substantial minorities of businesses insured fixed capital, 34% in the 1770s and 38% in the 1820s. In the earlier period, William, Henry and James Hanson insured warehouses valued at £1000, as well as stock and utensils valued at £12,000,¹⁷ and Benjamin Burch warehouses for £1100 and stock and utensils for £1100.¹⁸ Equally valuable warehouses were insured in the 1820s. Robert Hutchinson, a drysalter of 20 Clements Lane, insured his for £500 in 1822, as well as stock, utensils and goods for £2000.¹⁹

Thomas Forrest insured warehouses and other industrial buildings for £2950.²⁰ Wood and Phillips insured a counting house for £500, a range of industrial buildings for £2200 and stock, utensils and livestock for £2650.²¹

Estimates of capital required to set up in business as a drysalter varied hugely. In 1747 Campbell suggested only £100–£500, Collyer suggested £1000 in 1761, Kearsley £1000–£5000 in 1786 and Mortimer £750–£1500 in 1819.

In both periods, the majority of businesses were located in the City or south of the river.

The 1841 Census and *Post Office Directory* listed 38 drysalters and 66 people employed in the trade.

7.48 Timber and Building Materials

The aggregated data for the 1770s and 1820s for wholesale distributors of timber and building materials (SIC 6130) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	344
No. of Businesses	Total	86	96		
by Size of Capital (£)					
100 and under		2	4		
101-500		19	31		
501-1000		20	19		
1001-5000		41	33		
5001-10000		4	4		
over 10000			5		
by Proprietor					
Male		70	75		
Female			1		
Multiple Male		16	19		
Mixed			1		
by Location					
E		22	19		
EC		27	27		
W		6	5		
WC		5	8		
N			2		
NW			2		
SE		23	30		
SW		3	3		
by Type of Capital					
Working		53	50		
Fixed		2	7		
Both		31	39		
Size of Maximum Capital (£)					
Average	All	1657	3185		
Median	All	1145	900		
Highest		10000	58500		
Lowest		70	70		
Years of Entry	1	70	67		
	2	13	18		
	3	3	5		
	4		1		
	5		2		
	6		2		
	7		1		

The scale of building and construction in London in the last quarter of the 18th century and the first quarter of the 19th created a massive demand for timber and other building materials. Pigot listed 344 businesses in 1826/27 and there are extant fire policies for 86 in the 1770s and 96 in the 1820s, 28% of those listed by Pigot. Most were either timber

merchants or dealers in building materials, although there also such specialist trades as brick and sand merchants, lath dealers, plate glass dealers and marble merchants. There was some overlap with coal merchants. Individual firms often traded in coal in the winter when the building trade was slack, and in building materials in the summer when the coal trade was slack and construction busy, thus optimising the use of both employees and transport facilities. A good example, a little outside the geographical area of this study was Hall and Co of Croydon founded in 1824.¹

Most businesses were fairly substantial in size. Less than a quarter insured capital valued at £500 or less in the 1770s; in the 1820s it was 36%. In the 1770s, over 52% insured for £1000 or more, but only 44% in the 1820s. However, in the 1820s over 9% insured for over £5000, compared with under 5% in the 1770s. Surviving records for a small number of much larger businesses in the 1820s result in a much higher average value of capital insured, £3185 compared with £1657 in the 1770s. Conversely, the median value was rather higher in the earlier period, £1145 compared with £900.

The largest policy in the 1770s was taken out for £10,000 by Matthew Yerroway, a timber merchant of 5 New St, Blackfriars in 1774.² Two other large timber merchants were Thomas Coxhead of Great Hermitage St, who insured fixed and working capital valued at £8500 in 1777,³ and Samuel Bernet Smith of Shad Thames, who insured for £5800 in the same year.⁴ There were a number of very large timber merchants in the 1820s, all the three largest located in Blackfriars, like Matthew Yerroway half a century earlier. Sewell and Necks of 1 Chatham Place, Blackfriars insured for £58,500 in 1819,⁵ George Norman of 23 Earl St, Blackfriars insured for £45,000 in the same year,⁶ and Boulton and Co, also of Chatham Place, insured for £41,000 the following year.⁷ In the 1770s there were no businesses identified as dealers in building materials; by the 1820s, there were a number. Most were quite small, like Thomas Gibson and Thomas Weeks of Lambeth, who insured fixed and working capital valued at £450 in 1822⁸ and James Broker of Portland Place, Walworth, who insured for £350

In 1825.⁹

A substantial number of businesses insured fixed capital, 38% in the 1770s and 48% in the 1820s. Matthew Yerroway insured cranes for £350 and scaffolding was included with the stock, utensils and goods he insured for £9650.¹⁰ Samuel Bernet Smith insured sheds for £500, sawpits for £100 and stock and utensils for £5200.¹¹ A much wider range of fixed capital was insured by Nicholas Leach and Archibald Smith, timber merchants of Rotherhithe. In 1777 they insured their cranes for £300, sheds for £200, fences for £20, an engine house for £190, warehouses for £1200 and stock and utensils for £1990.¹² In 1820, John Chatfield and Co, timber merchants of Upper Ground St insured their counting house and sawpits for £200 as well as stock, utensils and goods for £15,000.¹³ Another timber merchant, Thomas Newton of 14 Paul St, insured his counting house for £100 and his sheds and sawpits for £450 in 1823, as well as stock and utensils for £3500.¹⁴ Gibson and Weeks¹⁵ and James Broker¹⁶ both insured workshops, for £250 and £50 respectively. They also insured stock, utensils and goods for £200 and £300 respectively.

Steam power was in use by the 1820s when Winter and Barton, timber merchants of St Martin's Lane insured their's, together with the buildings that housed it, for £1000 in 1822.¹⁷

Only Campbell, Collyer and Mortimer suggested a range of capital required to set up in business as a timber merchant. The two earliest sources suggested £1000–£5000 and £2000–£3000; Mortimer a rather more modest £300–£1500. Certainly, most timber merchants insured well under the £1000 lower limit suggested by Campbell and Collyer.

In both periods, the largest concentrations of businesses were near to the river, in the City or to the east or south. This gave them access to the easiest and cheapest form of transportation. The 1841 Census and *Post Office Directory* identify 201 timber

merchants and 364 people employed in the trade. However, there would have been many other people employed from the category of general labourers.

Less than 19% of businesses in the 1770s took out policies in more than one year; by the 1820s it was just over 30%. This represents a significant minority with a longevity of up to about ten years or more.

Although the general level of capitalization did not change much over the period of this study, a small number of very large businesses had emerged by the 1820s.

7.49 Clothing and Textiles

The aggregated data for the 1770s and 1820s for warehousemen and other wholesale distributors of clothing and textiles (SICs 6161, 6162, 6163 and 6164) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	129	332
	by Size of Capital (£)		
	100 and under	3	7
	101-500	26	22
	501-1000	33	37
	1001-5000	57	46
	5001-10000	8	76
	over 10000	2	44
	by Proprietor		
	Male	87	164
	Female	2	3
	Multiple Male	39	164
	Mixed	1	1
	by Location		
	E	5	5
	EC	98	314
	W	4	4
	WC	22	4
	SE		5
	by Type of Capital		
	Working	126	321
	Fixed	2	1
	Both	1	10
	Size of Maximum Capital (£)		
Average	All	2111	6265
	Female Only		1233
Median	All	1200	4000
	Female Only		600
Highest		25500	50500
Lowest		50	20
Average No of Employees (1841)			10
Years of Entry	1	106	181
	2	20	80
	3	2	37
	4	1	20
	5		10
	6		4

Most firms involved in wholesale distribution of clothing and textiles were designated as warehousemen. This was the case with 275 businesses out of 322, or 83% in the 1820s. In many ways, warehousemen straddle the divide between wholesale and retail

distribution in the key London textile trades. Some were involved in the classic pattern of wholesaling to both provincial and London retailers while themselves retailing directly to London customers; others were virtually entirely wholesale. Together with clothing and textile retailers, warehousemen were of crucial importance in those trades where London fashions determined demand from the entire country.¹ Although very little has been written about warehousemen, Stanley Chapman has placed them in context. Although textile manufacturing largely deserted London during the Industrial Revolution, "one of the apparent anomalies of economic history is the continued development of London as a major centre of the textile trade through the eighteenth and nineteenth centuries...The textile sector of the City of London, the narrow streets between Wood St and St Paul's Churchyard, evidently retained a momentum of its own, both in its particular forms of enterprise and its relations with the provinces".² He goes on to describe the over-production and falling prices of the post-Napoleonic War depression and the opportunity this gave a group of London drapers. Led by James Morrison, they bought cheap and established high turnover warehouses where they could sell in large quantities at modest profit margins.³

The 1826/27 edition of Pigot does not use the term 'warehousemen' so no direct comparison can be made with the surviving fire office records. These yield data for 129 businesses in the 1770s and 332 in the 1820s. Apart from those businesses described simply as 'warehousemen', there are also included those businesses as describing themselves as Manchester, Norwich, Scotch, cotton, woollen, worsted and wholesale shoe warehousemen and wholesale hosiers, glovers, mercers and linen drapers.

Two brief descriptions from the Bankruptcy Commission files exemplify the nature of the warehouseman's role. The business of John Millar of Wood St, Cheapside is described in 1830 as "buying of Irish Cloth, Calicoes, Checks, Cottons, Sheetings and Bed Ticks in the Wholesale and selling the same to retail houses..."⁴ That of Matthew

Walker of Lad Lane in 1829 is described as "buying divers quantities of Manchester Silks and other goods in the wholesale and selling the same again..."⁵

Most businesses were very substantial indeed, especially in the 1820s. In the 1770s, 22.5% insured for £500 or less; by the 1820s, this had fallen to under 9%. In the earlier period, 52% of businesses insured capital valued at £1000 or more and of these, 8% insured for over £5000. By the 1820s, these proportions had risen to 80% and 36%, and over 13% insured for over £10,000. The average value of capital insured was £2111 in the 1770s. By the 1820s, this had nearly trebled to £6265. Median values rose in the same proportion, from £1200 to £4000.

The largest sum insured in the 1770s was £25,500. This was by Thomas Nash, John Eddowes and Martine Pelice, wholesale linen drapers of 89 Cheapside. They insured stock, utensils and goods to that value with three different fire offices in 1777.⁶

Another wholesale linen draper, Andrew Barlow, John Wigginston and William Francis of 57 Gracechurch St, insured stock, utensils and goods for £18,000 in 1771.⁷ The term 'warehouseman' was rather less common in the 1770s than the 1820s. The largest business describing itself as such was Sampson Barker of 8 Basinghall St. He insured stock, utensils and goods for £4000 in 1772 and his counting house and warehouse for £3500 in 1777.⁸ James Touchet of 22 Bucklersbury, another warehouseman, insured stock, utensils and goods valued at £6000 in 1777.⁹ This was just the end of the period described by Stanley Chapman as the "Blackwell Hall period" during which Blackwell Hall factors served both the local population and provincial shopkeepers and dealers who came to London to buy their stocks.¹⁰

For the 1820s, there are surviving fire office records for 23 businesses which insured for £20,000 or more. The largest described itself as a wholesale linen draper and warehouseman. Samuel Thorp and Sons of 14 Aldgate insured goods valued at £50,500 with nine different fire offices in 1822.¹¹ Bradbury and Co, warehousemen of 39-40

King St, Cheapside, insured for £50,000 in 1824.¹² Joseph Morrison, referred to above, was managing partner of Joseph Todd and Co at 105–6 Fore St, Cripplegate. They insured for £26,000 in 1822. The range of goods they dealt in is shown by their description in their fire insurance policy as haberdashers, glovers, hosiers, lacemen, mercers, furriers and dealers in woollens, stuffs and fancy trimmings.¹³ David Kynaston shows that their turnover rose from £65,000 in 1813 to over £1½ million by 1822.¹⁴ In 1824, Westall, Spence and Balgally, wholesale haberdashers of 57 Borough insured stock, utensils and goods for £20,000.¹⁵

Examples of warehousemen of a lesser order of magnitude, but still very large by any other standards, were Thomas Ovington and Joseph and John Wilkinson of 137 Cheapside, who insured stock, utensils and goods for £15,000 in 1825,¹⁶ and Thomas Pedley of 15 Poultry, who insured fixed and working capital valued at £11,500 in 1824.¹⁷ Joseph Watson, a Manchester warehouseman of 8 Watling St, insured for £12,800 in 1824 and 1825,¹⁸ and John Swinford Bassett, a baize, blanket and flannel warehouseman of 34 Wood St, Cheapside, insured for £13,600 in 1825.¹⁹

Few businesses insured fixed capital. Where they did, it was usually in the form of a warehouse, often of very considerable value. Joseph Watson insured a warehouse for £8000,²⁰ and Thomas Pedley his for £2500.²¹

Only Kearsley and Mortimer offered estimates of the capital required to set up as a warehouseman. Both were very low. Kearsley suggested a single figure of £1000 and Mortimer a range of £250–£2000. The latter also suggested £250–£1000 for a Scotch warehouseman.

The overwhelming majority of businesses were located in the City, 76% in the 1770s and 95% in the 1820s. The 1841 Census and *Post Office Directory* list 417 warehousemen and wholesale linen draper and 3861 employees. However, it is possible

to go a little further. The Centre for Metropolitan History database referred to above identifies 35 businesses where employees lived in. These employed 267 people, of whom 199 were warehousemen, 26 clerks, 19 porters, nine shopmen and six apprentices.

Although only 18% of businesses took out policies in more than one year in the 1770s, by the 1820s this had risen to 45.5%. This suggests that by then nearly half of all businesses had a longevity of up to about ten years or more. It is worth noting that a wholesale glover, trading as Thomas Nalder of 6 Bucklersbury in 1771 and as Francis and Thomas Nalder of 40 Cheapside in 1823, insured stock, utensils and goods for £1800 and £10,000 over half a century apart.²² Indeed, the *Post Office Directory* shows that they were still trading from the same address in 1841. In this respect, it is interesting to note that William Hull, writing in 1834, stated that 50,000 dozen gloves were still being manufactured in London, exclusively from imported French kid leather, and that 1500 to 1700 people were employed in the trade.²³

7.50 Food, Drink and Tobacco

The aggregated data for the 1770s and 1820s wholesale distributors of food, drink and tobacco (SICs 6171-6) are summarised and tabulated below,

No. of Businesses Total		1770s	1820s
		23	52
by Size of Capital (£)			Pigot 1826/7 806
100 and under		2	
101-500		5	6
501-1000		5	8
1001-5000		5	28
5001-10000		3	3
over 10000		3	7
by Proprietor			
Male		15	24
Female		1	1
Multiple Male		7	26
Mixed			1
by Location			
E		7	11
EC		9	37
W		1	
WC			1
SE		5	3
SW		1	
by Type of Capital			
Working		17	37
Fixed		1	3
Both		5	12
Size of Maximum Capital (£)			
Average	All	3668	4701
Median	All	1000	3000
Highest		16000	30000
Lowest		50	250
Years of Entry			
	1	15	32
	2	3	11
	3	4	6
	4	1	1
	5		2

Although the 1826/27 edition of Pigot lists 806 businesses, of which wholesale tea dealers and meat and fruit wholesalers located at the various markets comprise the largest numbers, comparatively few records for such businesses are to be found in the fire office registers. There are 23 for the 1770s and 52 for the 1820s. The latter is only 6.5% of those listed in Pigot. In the light of the wide range of wholesale trades covered in these categories, this is too few from which to draw many conclusions.

However, it has been noted that from about 1750, London's wholesale cheesemongers had monopolised the transport of Cheshire cheese and were importing nearly 4200 tons a year into the capital." ¹

There were a number of sizeable businesses. In the 1770s, nearly half insured for £1000 or more; by the 1820s this was nearly three-quarters. The average capital insured rose from £3668 in the 1770s to £4701 in the 1820s. Median values trebled from £1000 to £3000. The largest business in the 1770s in terms of capital insured was that of Monkhouse Davison and Abraham Newman, grocers of 44 Fenchurch St. They insured stock and utensils valued at £16,000 in 1772.² The previous year, Henry Spencer, a tobacconist of 55 Queen St, Cheapside had insured stock, utensils and goods for £12,900 and a warehouse for £2000.³ In neither of these cases was the term 'wholesale' used. However, the size and nature of the capital insured makes it clear that the balance of the businesses was wholesale. This is also true on a smaller scale for John Kittermaster, a fishmonger of Billingsgate, who insured stock and utensils valued at £800 and a warehouse for £200 in 1775.⁴ Examples of other sizeable businesses were Isaac Buxton and Samuel Enderby, oil merchants of St Paul's wharf, Upper Thames St, who insured stock and goods valued at £8000 in 1772⁵ and Joseph Eade and William Wilton, ship chandlers of King Edward Stairs, Wapping, who insured for £1600 in 1771.⁶

The term 'wholesale' dealers is found far more often in the 1820s. Two very large wholesale grocers were Kymer and Co. of 38 Mincing Lane, who insured stock, utensils and goods for £30,000 in 1823,⁷ and Travers and Co. of 19 St Swithin's Lane, who insured stock, utensils and goods for £12,000 and a warehouse for £2000 in 1820.⁸ Francis and Child, tea and coffee dealers of 13 Nags Head Court, Gracechurch St, insured for £21,000 in 1823.⁹ On a similar scale were Henry Harben and William Larking, provision merchants and cheesemongers of 8 Whitechapel, who insured stock, utensils and goods for £18,000 and their warehouses for £2150 in 1824,¹⁰ and Joshua

and Joseph Williamson, fruit merchants of 16 Botolph Lane, who insured nuts valued alone at £17,000 as well as other stock and utensils for £2000 in 1820 and a warehouse valued at £1000 the following year.¹¹ On an only slightly smaller scale, Robert Linklater, a ship chandler and dealer in provisions of 269 Wapping, insured capital valued at £11,000 in 1825,¹² and Thomas and Richard Abbotts, wine, spirit and liquor warehousemen of 43 Skinner St, Snow Hill, insured for £13,500 in 1819.¹³ Examples of other wholesalers were: George Simpson, a wholesale bacon merchant of 2 Bagnio Court, Newgate St, who insured merchandise valued at £2000 in 1825;¹⁴ John Jackson and Son, wholesale fishmongers of Dowgate Iron wharf, who insured goods for £2000 in 1825 also;¹⁵ and, Robert Hulme, a wholesale butcher of Leadenhall Market, who insured stock and utensils for £1100 in 1821.¹⁶

Mortimer in 1819 suggested a range of capital required to set up as a tea dealer of £1500–£6000. The only other contemporary estimates for these wholesale trades were for a ship chandler. The 1747 anonymous source, Collyer and Kearsley suggested lower limits of between £100 and £300 and upper parameters of only £300 to £500.

By the 1820s, well over 70% of businesses were located in the City. This was especially true of wholesale grocers, for whom Eastcheap was the centre of the trade. Slightly after the period of this study, 46 were recorded there in 1836.¹⁷ As with most wholesale trades, a substantial proportion took out policies in more than one year, 35% in the 1770s and 38.5% in the 1820s, suggesting that more than a third had a longevity of up to about ten years or more.

Overall, these were trades where considerably more clearly wholesale businesses, and of a greater size, functioned in the 1820s than in the 1770s.

7.51 Other Wholesale Distribution

The aggregated data for the 1770s and 1820s for other wholesale distribution trades (SICs 6151, 6153, 6154, 6180, 6192 and 6193) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	12	69
by Size of Capital (£)			Pigot 1826/7 415
100 and under		1	23
101-500		5	23
501-1000		3	9
1001-5000		1	7
5001-10000		2	6
over 10000			1
by Proprietor			
Male		10	50
Female			9
Multiple Male		2	9
Mixed			1
by Location			
E		6	18
EC		4	25
W			3
WC			7
SE		2	16
by Type of Capital			
Working		7	59
Fixed		1	
Both		4	10
Size of Maximum Capital (£)			
Average	All	2081	1402
	Female Only		74
Median	All	525	200
	Female Only		50
Highest		10000	13700
Lowest		100	15
Average No of Employees (1841)			4
Years of Entry	1	9	55
	2	2	10
	3	1	4

There were a number of other wholesale distribution trades within which Pigot listed 415 businesses in 1826/27. These were glass and ceramics (SIC 6151), hardware (6153), other household goods (6154), medical goods (6180), stationery (6192) and miscellaneous and general wholesale distribution (6193). The largest numbers of businesses listed in Pigot were wholesale ironmongers (53), wholesale druggists (54),

wholesale stationers (94), dealers in marine stores (53) and wholesale perfumers (28). Few such wholesale trades would appear to have emerged by the 1770s. There are records for only 12 businesses in the fire office registers. For the 1820s there are 69, 17% of those listed in Pigot. Again, the small numbers and the wide diversity of separate trades make it difficult to draw many conclusions.

In the 1770s, the only two substantial businesses for which records survive were both drug merchants. In 1771, George Webster of 20 Bucklersbury, insured stock and utensils for £10,000.¹ Four years later, Richard Staveley of Mincing Lane insured stock and utensils for £9000. He was also a dealer in rum!² By the 1820s there was a wide range of wholesalers. Many of the largest were wholesale stationers: Thomas Dutton and Henry Thomas Willats of 4 Queenhithe insured stock, utensils, goods and livestock for £13,700 in 1822;³ Key and Co. of 30 Abchurch Lane insured stock, utensils and goods valued at £10,000 in 1820;⁴ Jones and Co. of 10–11 Aldgate insured stock and utensils for £7250 and a warehouse valued at £700 in 1819;⁵ and, George Longman and John Dickinson of 65 Old Bailey, insured stock and utensils for £7500 in 1821.⁶ Other examples were: Clode and Richards, phial and bottle merchants of Crispin St, Spitalfields, who insured stock utensils and goods for £8500 and their warehouse for £200 in 1820;⁷ Samuel and Thomas James, wholesale oil and colourmen of 17 Great Trinity Lane, who insured stock, utensils and goods for £5000 in 1819;⁸ Thomas Marshall, a wholesale ironmonger of 22 College Hill, Upper Thames St, who insured stock, utensils and goods for £700 in 1825;⁹ and, William Turner, a wholesale jeweller of 6 Brook St, Holborn, who insured stock, utensils and goods for £500 in 1823.¹⁰ There were a number of large dealers in marine stores like Thomas Van of 18 Tooley St, who insured stock and utensils for £4300 and a warehouse for £2500 in 1821.¹¹

The anonymous 1747 source estimated that £2000 was required to set up in business as a wholesale stationer. Collyer suggested £1000. He also estimated that £2000–£10,000 was required by a wholesale hardwareman.

7.52 Merchants

The aggregated data for the 1770s and 1820s for merchants (SIC 6191) are summarised and tabulated below,

		1770s	1820s
No. of Businesses Total		450	356
by Size of Capital (£)			
100 and under		18	13
101-500		75	33
501-1000		89	49
1001-5000		171	117
5001-10000		47	50
over 10000		50	94
by Proprietor			
Male		290	183
Female		2	1
Multiple Male		157	172
Mixed		1	
by Location			
E		46	27
EC		358	299
W		10	5
WC		12	11
N		1	3
NW		1	
SE		20	10
SW		2	1
by Type of Capital			
Working		426	329
Fixed		5	7
Both		19	20
Size of Maximum Capital (£)			
Average	All	4059	11882
Median	All	1790	3600
Highest		45700	167000
Lowest		40	30
Years of Entry			
	1	306	210
	2	87	83
	3	25	24
	4	17	12
	5	9	17
	6	4	9
	7	1	1
	8	1	

Merchants form possibly the single most important group of businesses in London in the last quarter of the 18th and the first quarter of the 19th centuries. It is worth noting that surviving fire office records for merchants show that in the 1770s they

insured just over 16% of the total capital insured by all businesses for which records are extant, in the 1820s it was 10%. Although these figures have no precise statistical validity, because the proportions of businesses for which fire office records survive are different for different trades and industries, they provide a broad-brush picture of the importance of London's merchants. Even before the start of the period of this study, Christopher French, using the ledgers of imports and exports compiled by the Inspector General of Imports and Exports from 1696 to 1772–74, has shown that over the first three quarters of the 18th century London's imports increased by 94% and exports by 145% so that by 1772–74, London's share of British trade was 72% of imports and 66% of exports.¹ Thereafter, David Kynaston has shown how war provided the opportunity for Britain to increase its share of world trade and for London to replace Amsterdam as the leading financial centre. He quotes the banker Henry Thornton who, as early as 1803, could observe that "London is become, especially of late, the trading metropolis of Europe, and indeed, of the whole world."²

This was, of course, an international business. Stanley Chapman quotes Postlethwayt's *Universal Dictionary of Trade and Commerce* of 1774,

"The most capital houses of mercantile trade throughout Europe being generally composed of several partners, it is customary for one or the other to travel into foreign countries to make better judgement of the credit and fortune of their correspondents, cement ties of commercial friendship, and extend their traffic in general. As foreign merchants resort to England with this intent, so the English frequently take the tour into foreign countries."³

The foreign merchant families who migrated to London and played such a vital role in British mercantile development in the 18th and 19th centuries are called by Stanley Chapman 'international houses'.⁴ Thus, for many houses, to the capital invested in London must be added the capital invested in New York, Paris, Hamburg or elsewhere. He shows how Ralli Bros, trading in London from 1818 from 5 Finsbury Chambers, City Rd and 25 Finsbury Circus, had their origins in Greece, and family connections in the period of this study with Odessa and Marseilles. Thereafter, their family network extended to New York, New Orleans, Rostov, St Petersburg, Taganrog,

Constantinople, Tabriz, Calcutta, Bombay and Karachi, as well as to Manchester and Liverpool.⁵ It has to be remembered, therefore, that for the largest merchant houses, the capital insured in London might represent only a part of that invested by the house as a whole, with substantial additional sums invested overseas or in the major outports of the United Kingdom.

There are surviving fire office records for 450 merchants in the 1770s and 356 in the 1820s. For the earlier period this can be compared with the lists in Mortimer's *Universal Director* of 1763 and Kent's *Directory* for 1774. These list 1365 and 1220 merchants respectively. However, Mortimer includes a number of businesses, such as wine merchants and timber merchants, which would not be included in any other source. Thus, the 450 businesses tabulated above represent 37% of those listed in Kent and about the same proportion of those included by Mortimer when businesses shown elsewhere in this study are excluded. In the introduction to his section on merchants, Mortimer lists 14 categories depending on the area of the world with which they trade. However, his classification shows the geographical area in only a minority of cases; in the examples quoted below from the 1770s, this is shown where it can be cross-checked with Mortimer.⁶ Pigot lists 1370 merchants in 1826/27. Records for the 1770s from the fire office registers account for 26% of those in Pigot.

Many merchants insured for very substantial amounts. In the 1770s, 60% insured for over £1000, 22% for over £5000 and 11% for over £10,000. By the 1820s, these proportions had risen to 73%, nearly 41% and over 26% respectively. Indeed, nearly 5% insured for over £50,000. The average capital insured in the 1770s was £4059; by the 1820s this had nearly trebled to £11,882. The median value doubled from £1790 to £3600.

In terms of capital insured, the largest business in the 1770s was Godfrey Thornton of 19 Aldermanbury. He insured for £47,500 in 1772.⁷ George Arnold Roote of 13 Angel

Court, Throckmorton St insured for £38,700 in 1771⁸ and John Gibson and William Wellbank of 1 Crown Court, Threadneedle St for £37,300 in 1770.⁹ Sometimes the type of merchandise was specified; in this case hemp and flax valued at £37,300. Andrew Thompson of 32 Old Bedlam, identified by Mortimer as a Russia merchant, insured for £36,000 in 1772.¹⁰ In the same year, Peter and Richard Muillman of 46 Old Broad St insured a huge stock of hemp and flax valued at £18,250 and kept in a warehouse valued at £1750.¹¹ Richard Bosanquet and John David Fatio of 31 Mincing Lane, identified by Mortimer as Hamburg merchants, insured their warehouse for £800 in 1769, as well as stock and utensils valued at £20,800.¹² In 1771 warehouses of considerable value were insured for £4000 by Benjamin Kidney of 6 Lawrence Poutney Lane. The following year he insured stock and goods for £6000.¹³

By the 1820s, the amounts of capital insured had increased enormously in many cases. Smith, Inglis and Co. of George St, Mansion House insured for £167,000 in 1820.¹⁴ Five other businesses insured £100,000 or more. These included: Edgar Corrie and Co. of 24 Mincing Lane, who insured for £154,750 in 1821¹⁵ (and would also have had capital invested in Liverpool); Abel Anthony Gower, Nephews and Co. of 28 Coleman St, who insured for £143,840 in 1825;¹⁶ and, Bazett and Co. of 71 Broad St, who insured for £120,000 in 1822.¹⁷ There were also a number of very substantial warehouses insured by merchants. Thus, Pearsons and Price of 1 Seething Lane insured three for £8000 in 1822 and stock, utensils and goods for £11,000 in 1825.¹⁸

Many more types of stock were identified in the 1820s. Some examples are: oil valued at £7000 and insured by John Goodson of 29 Great Winchester St in 1821;¹⁹ silk valued at £2000 and insured by Thomas Kinder of 2 Sambrook Court, Basinghall St in 1825;²⁰ butter insured for £10,000 in 1819 by James King and Co. of 15 Great Elbow Lane;²¹ and tallow, furs and wool, all valued at £10,000 and insured by David Carruthers of 9 Copthall St in 1820,²² Mctavish, Fraser and Co. of 2 Suffolk Lane in 1821²³ and Charles Le Jeune of 20 Pavement, Moorfields in 1821²⁴ respectively.

There was general agreement on the large size of capital required to set up in business as a merchant. Campbell suggested that the sum was "unlimited", Collyer that £3000–£4000 was required, Kearsley £3000–£30,000 and Mortimer £2000–£10,000.

The very large majority of merchants were, of course, to be found in the City, 80% in the 1770s and 84% in the 1820s. Small numbers were also to be found in the districts immediately to the east, 10% in the 1770s and 8% in the 1820s. The 1841 *Post Office Directory* listed 1820 merchants and the Census 3991 people employed by them. However, it also enumerated over 20,400 commercial clerks unattributed to any trade or industry. Many of these would have been employed by the great merchant houses.

A substantial minority of merchants took out policies in more than one year, 32% in the 1770s and 41% in the 1820s. These may be assumed to have had a longevity of up to at least ten years or more.

The clear trend over the period of this study was for merchant houses to become much more highly capitalized and for a number of very large houses to emerge by the 1820s on a scale not seen 50 years earlier, although to grow very much larger in the Victorian era.

7.53 Dealing in Waste Materials

The aggregated data for the 1770s and 1820s for dealer in waste materials (SIC 6220) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	35	21
by Size of Capital (£)			
	100 and under	18	10
	101-500	13	6
	501-1000	4	4
	1001-5000		1
by Proprietor			
	Male	29	16
	Female	6	5
by Location			
	E	11	8
	EC	8	2
	W	5	7
	WC	5	3
	SE	6	
	SW		1
by Type of Capital			
	Working	31	21
	Both	4	
Size of Maximum Capital (£)			
Average	All	198	393
	Female Only	98	470
Median	All	100	130
	Female Only	75	400
Highest		1000	2000
Lowest		40	50
Average No of Employees (1841)			3
Years of Entry	1	33	20
	2		1
	3	2	

There were a small number of London dealers in waste materials and scrap in the period of this study. The 1826/27 edition of Pigot lists 86 businesses, 68 of which were rag merchants. These were much the most important since rags were a major raw material for the making of paper. There also seems to have been a market for most other sorts of scrap. The fire office registers contain records of 35 businesses in the 1770s and 21 in the 1820s. The latter is just under a quarter of those listed in Pigot. Beside rag merchants and dealers, there were dealers in waste paper, scrap

metals and glass, old ropes, soot, manure and bones.

Most businesses were very small: in the 1770s, 60% insured for £500 or less; by the 1820s, it was 76%. The average value of capital insured was £198 in the earlier period and £393 in the later. Median values were £100 and £130 respectively. In the 1770s, the largest policy was for £1000. It was taken out in 1775 by Richard Stogden, a dealer in ropes and rags of 3 Worcester Place, Upper Thames St.¹ In the same year, Thomas Kirke, a dealer in ropes, oakum and slush of George Alley, Shadwell Dock insured stock and utensils for £580 and a workshop for £60.² The previous year, Robert Hunter, a rag merchant of 53 Upper Thames St insured stock and utensils for £600.³ Other examples, both in 1777, were Peter Bewsey, a dealer in old ropes and rags of Mint St, Southwark, who insured stock, utensils and goods and a workshop for £200 each,⁴ and William Hall, a rag merchant and dealer in bottles of 422 Oxford St, who insured stock and utensils for £200.⁵ All these examples show the variety of waste materials for which there was a substantial recycling demand.

With the expansion of demand for paper, the business of rag merchants expanded so that by 1819 Joseph Bonsor, a rag merchant of Salisbury Square, Fleet St, was insuring a stock of rags for £2000.⁶ Amongst other rag merchants were John Jones of 210 Whitechapel, who insured stock and utensils for £1000⁷ and Moses Myers of 184 Kingsland Rd, who insured stock, utensils and goods for £500, both in 1825.⁸

There was a substantial minority of female-owned businesses, nearly 21% in the 1770s and 24% in the 1820s. The average value of capital insured by these businesses was very small in the 1770s, only £98 compared with £198 for all businesses. However, in the 1820s the average value was £470, substantially larger than for all businesses. Two typical female-owned businesses in the earlier period were Ann Fenwick, a dealer in old ropes of Blackwall, who insured stock and utensils for £200 in 1777,⁹ and Ann Campher, a dealer in ropes and oakum of Pelican Stairs, Lower Shadwell, who insured

stock and utensils for £150 in 1775.¹⁰ There were several rather larger businesses in the 1820s. Anna Myers, a dealer in iron and rags of 5 White St, Cutler St, insured stock and utensils for £1000 in 1821¹¹ and Ann Little, a scavenger of King John's Court, Holywell Lane, insured stock, utensils and livestock for £800 in 1819.¹² Another example was Sarah Levi, a dealer in old iron and rags of 27 Ratcliffe Highway, who insured stock and utensils for £400 in 1821.¹³

Contemporary estimates of the capital required to set up in business as a ragman or merchant suggested a lower limit of £80 to £150. However, Campbell gave a ceiling for his range of £2000 and Mortimer went up to £500. Extant fire policies suggest these estimates were rather high.

There were a number of trades for which 1841 Census and *Post Office Directory* data can be compared: 38 rag merchants had 136 employees; 44 bottle merchants and dealers had 124; 14 bone dealers had 89; and four manure merchants had 11.

Commission Agents

7.54 Agricultural Raw Materials

Commission agents, factors and brokers played a vital role in the commercial development of the capital in this period, and were a central link in the chain of distribution for all commodities, whether raw materials for industry, textiles and clothing, or food and drink. There were a very considerable number. Pigot lists 1254, which was 2.7% of all businesses in the metropolis. However, the classifications used by Pigot do not match those in the standard industrial classification used in this study so that only an overall comparison can be made with the number of businesses derived from the fire office registers, 186 in the 1770s and 164 in the 1820s. The latter was just over 13% of those listed in Pigot. It is worth noting that the capital insured by these businesses represents 4.2% of all capital insured in the 1770s and 5.3% in the 1820s.

The aggregated data for the 1770s and 1820s for agricultural raw materials agents, factors and brokers (SIC 6301) are summarised and tabulated below,

	1770s	1820s
No. of Businesses Total	74	61
by Size of Capital (£)		
100 and under	1	
101-500	16	6
501-1000	24	10
1001-5000	23	22
5001-10000	7	8
over 10000	3	15
by Proprietor		
Male	51	35
Multiple Male	23	25
Mixed		1
by Location		
E	8	8
EC	22	13
W	1	3
WC	1	
SE	40	36
SW	2	1
by Type of Capital		
Working	62	39
Fixed	2	3

Both		10	19
Size of Maximum Capital (£)			
Average	All	2568	9684
Median	All	1000	3700
Highest		30700	104500
Lowest		100	106
Years of Entry			
	1	45	26
	2	22	14
	3	5	6
	4	2	3
	5		6
	6		4
	7		2

The fire office registers yield data for 74 businesses in the 1770s and 61 in the 1820s. Represented are factors and brokers of such raw materials as corn, seed, hops, malt and meal. Most were of a substantial size. In the 1770s, under 23% insured for £500 or less; by the 1820s this had fallen to under 10%. Conversely, 45% of businesses in the 1770s insured for over £1000, and 13.5% for over £5000. By the 1820s, the equivalent proportions were 74% and 38%. The average value of capital insured increased sharply, from £2569 in the 1770s to £9684 in the 1820s. Median values rose from £1000 to £3700.

In both periods, the largest amounts insured were by corn factors. In 1777, James Rondeau Senior and Junior and William Breese of 5 Savage Gardens insured stock, utensils and goods for £30,700.¹ Two years earlier, George Nelson, William Trotman and Robert Worlidge of New Bridge St insured fixed and working capital valued at £27,200.² Thomas Farrer of 32 Mark Lane insured stock, utensils and goods for £11,000 in 1772.³ The largest hop factors were William and George Baldwin and John Bayly of George Inn Yard, Borough, who insured stock, utensils and goods for £6900 in 1770,⁴ and Charles Thorpe of 62 Borough, who insured stock, utensils and goods for £5650 in 1772.⁵ In the 1820s, the largest corn factor was Robert and John Wilson of 3 Crescent, Minorities. They insured for £104,500 in 1820.⁶ Two other very large corn factors were Scott, Garnett and Palmer of Aldermanbury, who insured for £46,000 in 1821,⁷ and Timothy Addis of Pickle Herring, who insured for £43,300 in

1823.⁸ the largest hop and seed factors were Thomas Nash and Co. of Nags Head Yard, Borough, who insured stock, utensils and goods valued at £28,000 in 1824,⁹ and Crasper Humble of 7 Red Lion St, Borough, who insured for £23,350 the same year.¹⁰ Hays and Wedd, corn and flour factors of Shad Thames, insured for £14,500 in 1821.¹¹

Although most businesses insured only working capital, a significant minority did insure fixed capital, 16% in the 1770s and 36% in the 1820s. Nelson, Trotman and Worlidge insured their warehouse for £1000, in addition to corn for £3600 and stock, utensils and goods for £22,600.¹² On a smaller scale, William Anderson, a corn factor of Gainsford St, Southwark insured his counting house for £75 and a warehouse for £800 in 1773 and goods for £1000 the following year.¹³ Another corn factor, Robert and Christopher Burnett of New St, Horsleydown insured their warehouse for £300 in 1769 and stock, utensils and goods for £1500 in 1771.¹⁴ In the 1820s, Scott, Garnett and Palmer insured a granary for the huge sum of £13,000, as well as stock, utensils and goods for £33,000.¹⁵ Rather more modestly, James and John Priestley, hop and seed factors of 9 Counter St, Borough insured their warehouse for £400 in 1824, as well as stock and utensils for £6600.¹⁶

Only the later sources suggested estimates of the capital required to set up in business, and only for corn and hop factors. All were rather low compared with the majority of actual amounts insured, although they recognised that the former required a greater capitalization. For a hop factor, Whittock suggested £250–£500 and for a corn factor £500–1500. For the latter, Kearsley gave £500–£1000 and Mortimer £250–£500.

Most businesses, especially hop factors, were located in and around Borough High St, 54% in the 1770s and 59% in the 1820s. Most of the remainder were in the City or in the districts to the east. A considerable number of businesses took out policies in

more than one year, 39% in the 1770s and over 57% in the 1820s. This is a measure of the numbers of businesses which may have had a longevity of up to ten years or more.

Overall, as with all agents, factors and brokers, there was a substantial increase in capitalization over the period of this study for those dealing in agricultural raw materials. There was also the emergence of businesses on a much larger scale in the 1820s than had existed in the 1770s.

7.55 Textiles and Textile Raw Materials

The aggregated data for the 1770s and 1820s for textile and textile raw materials factors and brokers (SIC 6302) are summarised and tabulated below,

		1770s	1820s
No. of Businesses Total		42	58
by Size of Capital (£)			
100 and under		1	
101-500		7	5
501-1000		12	5
1001-5000		17	28
5001-10000		1	12
over 10000		4	8
by Proprietor			
Male		27	24
Multiple Male		15	34
by Location			
E		3	4
EC		27	46
WC		2	
SE		10	8
by Type of Capital			
Working		40	52
Fixed		1	
Both		1	6
Size of Maximum Capital (£)			
Average	All	3317	5662
Median	All	1225	3800
Highest		30000	26000
Lowest		100	375
Years of Entry			
	1	27	29
	2	10	14
	3	2	9
	4	3	5
	5		1

The fire office registers contain records for 42 businesses in the 1770s and 58 in the 1820s. The largest number were Blackwell Hall factors, especially in the 1820s, when Pigot listed 174. The fire office registers for the 1820s provide data for 40, 23% of those listed in Pigot. There were also factors and brokers of cloth, gloves, linen, muslin, wool, silk and yarn, as well as Scotch and Irish factors.

There was, of course, an overlap with the wholesalers of clothing and textiles discussed below and note has already been made of the importance of Blackwell Hall

factors in wholesale distribution to provincial dealers and shopkeepers.¹ That this was still an important role in 1823 is shown by Mortimer's description: "Those of this business act by commission from the manufacturers of woollen cloth in the country, but more particularly for the merchants and dealers in cloth in town; to supply them, they contract for large quantities of the various kinds of cloth, in the counties where they are made, which they deposit in Blackwell Hall, Basinghall St, where there are separate places appointed for each factor; and where they sell them to the merchants and retail dealers."²

Most were of a considerable size. In the 1770s, over 52% insured for more than £1000 and 12% for over £5000; in the 1820s, it was 83% and 34.5%. The average capital insured rose from £3317 in the 1770s to £5662 in the 1820s. Median values increased from £1225 to £3800.

In terms of capital insured, the largest business in the 1770s was an Irish factor, James Adair, Thomas Scott Jackson and Christian Wagner of 5 Fountain Court, Aldermanbury. They insured stock, utensils and goods for £30,000 in 1775.³ The two largest Blackwell Hall factors were Thomas Dawes and William Jackson of 2 Basinghall St, who insured stock, utensils and goods for £15,000 in 1770⁴ and Robert and George Fryer of 15 Aldermanbury, who insured stock and goods valued at £14,000 in 1774.⁵ An example of a smaller Blackwell Hall factor was John Fraser of 67 Basinghall St. He insured stock, utensils and goods for £4000 in 1772.⁶ Amongst other brokers and factors were James Truchard, a silk broker of Spital Square, who insured stock, utensils and goods for £10,000 in 1777,⁷ and Broome and Richard Witts, wool staplers of 34 St Mary Axe, who insured a mill house for £300, a warehouse and counting house for £1000 and stock, utensils and goods for £2700 in 1771.⁸

The three largest businesses in the 1820s were all Blackwell Hall factors: Thomas Sheppard of 84 Basinghall St insured stock, utensils and goods for £26,000 in 1825;⁹

Henry Hughes of 11 Basinghall St insured stock, utensils and goods for £20,000 in 1821;¹⁰ and, Joseph Overbury and William Cartwright of 32–3 Cateaton St insured stock, utensils and goods for £19,000 in 1820.¹¹ An example of a smaller scale of capitalization was John Golding and Charles Brown of 8 Basinghall St. They insured stock, utensils and goods for £6000 in 1825.¹² Amongst other factors and brokers were: Robert Lawson, a muslin factor of 78 Watling St, who insured stock, utensils, goods and merchandise valued at £17,000 in 1823;¹³ William Anderson and Thomas Wilkins, Scotch factors of 10 Trump St, who insured stock, utensils and goods for £9000 in 1819;¹⁴ and, John Dyer and John Swaine, wool staplers of Gravel Lane, Houndsditch, who insured for £10,000 in 1820.¹⁵

Mortimer and Whittock suggested very low ranges of capital required to set up in business as a Blackwell Hall factor, £250–£500 and £100–£500 respectively. These estimates bear little relation to actual capital insured. Kearsley gave a rather more realistic estimate of £1000–£5000. On the other hand, Campbell estimated that £1000–£10,000 was required for a wool stapler. Kearsley suggested £1000–£7000 and Mortimer £500–£1000.

All Blackwell Hall factors were located in and around Basinghall St. Most other businesses in this category were also to be found in the City, with a few in the wool trade located south of the river. The 1841 Census and *Post Office Directory* list 34 wool staplers and 192 people employed.

Over a third of businesses in the 1770s and half in the 1820s took out policies in more than one year. This suggests a longevity of up to about ten years or more for a considerable minority of all businesses.

Overall both the size of capitalization of businesses and the number on a very large scale increased over the period of this study.

7.56 Other Agents, Factors and Brokers

The aggregated data for the 1770s and 1820s for other agents, factors and brokers (SICs 6303, 6304, 6305 and 6306) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	70	45
by Size of Capital (£)			
100 and under		2	4
101-500		12	11
501-1000		21	8
1001-5000		29	15
5001-10000		5	4
over 10000		1	1
by Proprietor			
Male		51	32
Female		1	
Multiple Male		17	13
Mixed		1	
by Location			
E		3	3
EC		54	33
W		2	1
WC		6	7
SE		5	1
by Type of Capital			
Working		67	37
Fixed		2	2
Both		1	6
Size of Maximum Capital (£)			
Average	All	1952	4283
Median	All	1080	1000
Highest		12000	71500
Lowest		40	20
Years of Entry	1	51	35
	2	13	4
	3	3	3
	4	3	1
	5		1
	6		1

There are comparatively few surviving records in the fire office registers for other categories of agent, factor and broker, 70 from the 1770s and 45 from the 1820s. These are spread across a wide variety of different products so that few general conclusions can be drawn. Amongst others, there were factors and brokers of beer, wine and spirits, tea, fish, flour, fruit, bacon, cheese, skins, drugs, boots and shoes, looms, tallow, ironmongery and leather. However, most were of a substantial size;

exactly half insured capital valued at over £1000 in the 1770s and over 44% in the 1820s. The average value of capital insured increased from £1952 in the earlier period to £4283 in the later. Median values were virtually unchanged, £1080 in the 1770s and £1000 in the 1820s.

Examples from the 1770s are: David Powell, a broker of 3 Crown Court, Broad St, who insured stock and goods for £12,000 in 1770;¹ Andrew Layton and William Samdell, tea brokers of 41 Lime St, who insured stock and utensils for £10,000 in 1771;² Edward Walker, a drug broker of 12 Billiter Square, who insured stock and goods for £3300 in 1769;³ and, James Hodgkin, a tobacco broker of 21 Watling St, who insured stock, utensils and goods for £1900 in 1777.⁴

In the 1820s, by far the largest business in terms of capital insured was Wheelwright and Co, brokers and agents by private and public sale of 21–2 Budge Row. They insured for £71,500 in 1822.⁵ Examples of particular merchandise were: John King, a leather factor of Philpot Lane, who insured his counting house and various other buildings for £11,500 and stock, utensils and goods for £4000 in 1821;⁶ Cox and Co, army agents of Craig's Court, Charing Cross, who insured military stores valued at £10,000 in 1822;⁷ George Millward, a bacon factor of 120 Goswell St, who insured merchandise for £5000 in 1820;⁸ John Adam, a fruit broker of 11 Pudding Lane, who insured a warehouse for £1000 in 1822 and stock, utensils and goods for the same amount the following year;⁹ and, William Frederick Whitehouse and Co, identified only as of the City, who insured nails and ironmongery valued at £500 in 1825.¹⁰ Longden, Atkinson and Goddard, brokers identified also only as of the City, insured tallow valued at £8000 in the same year.¹¹ Interestingly, David Kynaston notes that tallow was a commodity in which there was great speculation because of the combination of high demand and uncertainty of supply from Russia.¹²

Retail Distribution

7.57 Meat and Poultry

The recent work of McKendrick, Brewer and Plumb on the consumer revolution in 18th century England sets out the background to any analysis of retailing in London during the period 1775–1825. Indeed, this study provides hard data which effectively substantiates the thesis. McKendrick puts it powerfully,

"There was a consumer boom in England in the eighteenth century. In the third quarter of the century that boom reached revolutionary proportions. Men, and in particular women, bought as never before...the later eighteenth century saw such a convulsion of getting and spending, such an eruption of new prosperity, and such an explosion of new production and marketing techniques, that a greater proportion of the population than in any previous society in human history was able to enjoy the pleasures of buying consumer goods. They bought not only necessities, but decencies, and even luxuries...the same unmistakable breakthrough occurred in consumption as occurred in production...Just as the Industrial Revolution...marks one of the great discontinuities of history (so) does the matching revolution in consumption. For the consumer revolution was the necessary analogue to the industrial revolution, the necessary convulsion on the supply side of the equation to match the convulsion on the supply side."¹

He goes on to show that none of this would have been possible without London. The unrivalled size of London enabled it to become the showcase for and arbiter of fashion, and the means whereby consumer behaviour throughout the entire kingdom could be influenced, not only in the clothing market, but in every other.²

The Muis have subsequently attempted to define the channels through which goods reached the consumer but without themselves fully understanding the nature of retailing in this period.³ Nevertheless, they do recognise the intricate network and great variety of shops which had emerged by the middle of the 18th century.⁴ David Alexander in his study of retailing in England in the industrial revolution recognised that 18th century retailing "focused on the London market", but mistakenly believed that "shopkeepers drew most of their trade from a small class of highly paid workers, tradesmen, farmers, gentry and aristocracy."⁴ How far this was from the reality is shown by Alison Adburgham in the case of the development of Regent St from 1813 to 1820. Because the old St James market had been demolished, Nash took great care

to ensure that a new market area was provided between Regent St and Haymarket, surrounded by 'domestic' shops to serve the local population.⁵

Even by the middle of the 18th century, London's shops were the wonder of the world.

Roy Porter quotes *The Picture of London* published in 1803,

"There are two sets of streets, running nearly parallel, almost from the eastern extremity of the Town to the Western, forming (with the exception of a very few houses), a line of shops. One lying to the South, nearer the river, extends from Mile End to Parliament St, including Whitechapel, Leadenhall St, Cornhill, Cheapside, St Paul's Churchyard, Ludgate St, Fleet St, the Strand, and Charing Cross. The other, to the North, reaches from Shoreditch Church almost to the end of Oxford St, including Shoreditch, Bishopsgate St, Threadneedle St, Cheapside, Newgate St, Snow-hill, Holborn, Broad St, St Giles and Oxford St.

The Southern line, which is the most splendid, is more than three miles in length; the other is about four miles. There are several large streets also occupied by retail trade, that run parallel to parts of the two grand lines, or intersect them, among the most remarkable of which are Fenchurch St and Gracechurch St in the City of London; and Cockspur St, Pall Mall, St James St, Piccadilly, King St Covent Garden, and New Bond St, at the West end of the town."⁶

On the one hand, in Porter's words, "high-grade retailing was becoming the province of stylish shops. Superior streets in both the West End and the City gloried in all manner of quality suppliers: upholsterers, glovers, goldsmiths, stationers, cartographers, mathematical-instrument-makers, music publishers, tailors, milliners perfumiers, jewellers, chemists, druggists, tea and coffee merchants, wine and spirit merchants, pastrycooks, porcelain, china and glass shops, woollen- and linen-drapers, boot- and shoemakers, tobacconists, gold and silver lacemen, carpet manufacturers, parasol-makers, furriers, seedsmen and florists, lamp-makers – and scores more." He quotes a German visitor: "On both sides tall houses with plate-glass windows. The lower floors consist of shops and seem to be made entirely of glass, many thousand candles light up silverware, engravings, books, clocks, glass, pewter, paintings, women's finery, modish and otherwise, gold, precious stones, steel work...The street looks as though it were illuminated for some festivity."⁷ As Joyce Ellis recently put it "recreational shopping – shopping as a major leisure activity – came of age in the Georgian town".⁸

On the other hand, there was the retail trade catering for the greater mass of people. Christopher Hibbert notes that "Most shops were small and dark, their wares stacked behind the counter in piles which reached as high as the ceiling. Some of them were little more than shacks propped up against the side of houses..."⁹

All these accounts are necessarily qualitative. It is the purpose of this study to quantify the complex, highly specialised and multi-layered pattern of retail distribution which was already in existence in London by the 1770s. Overall, Pigot listed 20,041 retailers in 1826/27, 43.6% of all London businesses. These were involved in 115 separate trades. The fire office registers yield data for 6726 businesses in the 1770s; in the 1820s there were 6342, 31.6% of those listed in Pigot. Represented are 299 separate trades. For food retailers alone, Pigot contains 7371 businesses. This is 16% of all businesses in London. The fire office registers yield data for 2136 in the 1770s and 2344 in the 1820s. The latter is 32% of those listed in Pigot. Finally, and with all the necessary qualifications, it is worth noting that retailing represented about a quarter of all capital insured in both the 1770s and 1820s.

Turning first to the retailing of food, the aggregated data for the 1770s and 1820s for butchers, poulterers and retailers of other meat products (SIC 6411) are summarised and tabulated below,

No. of Businesses	Total	1770s	1820s
		280	327
	by Size of Capital (£)		Pigot 1826/7 1519
100 and under		220	199
101-500		51	116
501-1000		6	11
1001-5000		3	1
	by Proprietor		
Male		269	293
Female		10	21
Multiple Male		1	7
Multiple Female			1
Mixed			5
	by Location		
E		70	88
EC		83	84
W		26	46

WC		57	45
N		3	8
NW			5
SE		29	37
SW		12	14
by Type of Capital			
Working		253	283
Fixed		7	9
Both		20	35
Size of Maximum Capital (£)			
Average	All	117	144
	Female Only	184	133
Median	All	50	100
	Female Only	100	100
Highest		1950	1150
Lowest		10	5
Average No of Employees (1841)			7
Years of Entry	1	261	261
	2	16	50
	3	2	11
	4	1	5

Pigot lists 1519 meat, poultry and meat product retailers, 1347 of which were butchers and 70 poulterers. The fire office registers contain records of 280 businesses in the 1770s and 327 in the 1820s. The latter is 21.5% of those in Pigot. Apart from butchers and poulterers, there are sausage dealers, tripemen and sheep's head dealers.

Although most of the many hundreds of surviving tradecards, shopbills, handbills and invoices are from retail businesses, there are virtually none issued by butchers and poulterers, reflecting the very small scale of the trade. In the 1770s, nearly 79% insured £100 or less and another 18% insured between £100 and £500. Only just over 3% insured for more than £500. Even by the 1820s, nearly 61% insured for £100 or less and 35.5% for between £100 and £500. Less than 4% insured for more than £500. The average capital insured was £117 in the 1770s and £144 in the 1820s. The median values were £50 and £100.

In the 1770s, the largest amount of capital insured was by John Woodard, a butcher of 43 St Olave's St, Southwark. He insured fixed and working capital valued at £1950

in 1771.¹⁰ Other substantial butchers were: Roger Enever of Compton St, Clerkenwell, who insured stock for £1850 in 1769;¹¹ Richard Kilbinton of Wapping Wall, who insured for £1200 in 1775;¹² and, Richard Holmes of Marshall St, who insured stock, utensils and goods for £1000 in 1771.¹³ Amongst the other related trades, Ursula Farmer, a poulterer of Dog Row, Bethnal Green insured stock and utensils for £800 in 1773¹⁴ and Solomon Shaw, a tripeman of 2 Tyers Gateway, Barnaby St insured stock and utensils for £600 in 1771.¹⁵ The three largest butchers in the 1820s, in terms of capital insured, were: William Beaver of 100 Fore St, Cripplegate, who insured for £1150 in 1820;¹⁶ John Wright of 154 Whitecross St, who insured for £870 in 1823;¹⁷ and, Absolom Smith of 14 Duke St, Grosvenor Square, who insured for £850 in 1820.¹⁸ Two substantial tripemen were John Emblin of 67 Leather Lane¹⁹ and Thomas Smellie of 244 Shadwell,²⁰ both of whom insured for £850 in 1820 and 1825 respectively. Smaller businesses in related trades included: Thomas Lack, a poulterer and porkman of 215 Shoreditch, who insured stock and utensils for £100 in 1821;²¹ Lettice Rogers, a dealer in tripes and offal of 7 Field Lane, Holborn, who insured fixed and working capital valued at £270 in 1820 and 1822;²² William Allkins, a dealer in sheep's heads of 175 Whitecross St, who insured stock and utensils for £100 in 1820;²³ and, Elizabeth Davis, a pork butcher and sausage maker of 4 Honey Lane Market, who insured stock and utensils for £50 in 1822.²⁴

A small proportion of businesses were female-owned, under 4% in the 1770s but nearly 7% in the 1820s. The average capital insured by them was £184 in the 1770s, which was higher than for all businesses; even in the 1820s, it was £133 which was very little different to the overall average. A number of individual businesses are already mentioned above. Others in the 1770s included Mary Haberjam, a butcher of 279 Gun Dock, Wapping who insured for £400 in 1775²⁵ and Mary Wright, a poulterer of Goswell St, who insured stock, utensils and goods for £100 in 1771.²⁶ In the later period, Susanna Sherrin, a butcher of 35 Duke St, Manchester Square insured fixed and working capital for £400.²⁷ More typical was Mary Bromley, a butcher of 213

Rotherhithe who insured stock and utensils for £80 in 1823.²⁸

A small minority of businesses insured fixed capital, 10% in the 1770s and 14% in the 1820s. This was most often in the form of a slaughterhouse. In the 1770s, Richard Kilbinton insured his for £800²⁹ and Mary Haberjam hers for £200.³⁰ Of lower value were John Woodard's, valued at £100.³¹ In the 1820s, William Beaver insured his slaughterhouse for £1100³² and Absolom Smith his for £700.³³ Other examples are John Wright, who insured his for £400³⁴ and Susanna Sherrin, who insured hers for £300.³⁵ On a smaller scale, Maria Pitt, a butcher of 25 Wapping Wall, insured her slaughterhouse for £25 and stock and utensils for £200 in 1823.³⁷ John Emblin³⁷ and Thomas Smellie³⁸ both insured tripehouses, for £400 and £150 respectively.

The 18th century estimates of capital required to set up in business as a butcher were lower than those given by the later sources. The 1747 sources suggested £20–£100 and £50 and Kearsley £30–£100. Mortimer and Whittock agreed on a lower limit of £100, but the former went up to only £350 and the latter to £1000. Mortimer gave a lower range of £50–£150 for a porkman and sausage maker. For a poulterer, the lower limits suggested varied only from £20 to £50. Kearsley gave £5–£20 for a tripe shop. All these estimates are consistent with actual capital insured with the exception of Whittock's upper parameter for a butcher.

Butchers and related trades were, of course, to be found in all parts of London. There are, however, some interesting differences in capitalization between districts. In the 1770s, the average capital insured was £117 but this varied from £177 in the districts to the south east of the river to only £56 in the west central area. Surprisingly, the average capital insured was higher to the east of the City than in the City itself or the West End, £146 compared with £121 and £98. In the 1820s, the differences were both less marked and more expected. The highest average value (£169) was in the City and the lowest in the south east (£110). West central districts and the West End

were higher than the districts east of the City, £158 and £147 compared with £133.

The 1841 Census and *Post Office Directory* list 934 butchers, pork butchers or dealers in other meat and 6688 people employed, although many would have been self-employed in their own small shops. There were also 109 poulterers with 492 people employed and 38 tripe dressers with 181 people employed.

Only a small minority of businesses insured in more than one year, 3% in the 1770s and 20% in the 1820s. This suggests that even in the later period it may not have been more than one in five businesses which achieved a longevity of up to about ten years or more.

As with all the food retailing trades, capitalization was low for butchers and related trades and rose comparatively little over the period of this study.

7.58 Bakers

The aggregated data for the 1770s and the 1820s for bakers (SIC 6412) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	1858
No. of Businesses	Total	348	481		
by Size of Capital (£)					
	100 and under	133	69		
	101-500	212	365		
	501-1000	3	40		
	1001-5000		7		
by Proprietor					
	Male	332	459		
	Female	12	17		
	Multiple Male	2	3		
	Multiple Female		1		
	Mixed	2	1		
by Location					
	E	76	109		
	EC	61	90		
	W	63	64		
	WC	77	53		
	N	3	22		
	NW		17		
	SE	39	90		
	SW	29	36		
by Type of Capital					
	Working	333	413		
	Fixed	1	6		
	Both	14	62		
Size of Maximum Capital (£)					
Average	All	160	306		
	Female Only	121	178		
Median	All	150	250		
	Female Only	100	150		
Highest		600	1960		
Lowest		20	25		
Years of Entry	1	370	367		
	2	26	90		
	3	1	18		
	4	1	4		
	5		1		
	7		1		

Bakers were the single most frequently found London retail tradesmen in the last quarter of the 18th and the first quarter of the 19th centuries. The 1826/27 edition of Pigot lists 1858, over 4% of all businesses in London. The fire office registers contain records for 348 in the 1770s and 481 in the 1820s, 26% of those listed in Pigot.

Although most businesses were small, there was a distinct increase in capitalization by the 1820s compared with the 1770s. In the earlier period, 38% insured for £100 or less; by the 1820s this had decreased to 14%. The large majority (61%) insured for between £100 and £500 in the 1770s; in the 1820s it was over 74%. However, the greatest difference was in the proportion of businesses insuring for over £500, less than one per cent in the 1770s but nearly 10% in the 1820s, with a small number insuring for over £1000. The average value of capital insured nearly doubled, from £160 in the 1770s to £306 in the 1820s. Median values rose from £150 to £250.

The largest amount of capital insured in the 1770s was only £600. This was by two bakers, John Holland of 22 Grays Inn Lane¹ and Greenwood, first name unrecorded, of Clare St² in 1777 and 1774 respectively. James Sheridan of 39 Marylebone High St insured fixed and working capital for £550 in 1771.³ On a smaller scale, John Lawrence, a muffin baker of Silver St, Golden Square, insured stock and utensils for £160 in 1769.⁴ There were a small number of rather more heavily capitalized bakers in the 1820s: Nathan Negus of 44 Petticoat Lane insured for £1960 in 1822 and 1825;⁵ George Thomas Turner of 68 Bishopsgate St insured for £1800 in 1823 and 1825;⁶ Alexander Greig of 17 Great Bell Alley, Coleman St insured stock and utensils for £1500 in 1821;⁷ and, Archibald Michie of 31 Millbank St insured fixed and working capital valued at £1250 in 1824.⁸ An example of a specialist muffin baker was John Laxson of 38 Brick Lane, Spitalfields. He insured stock and utensils for £200 in 1822.⁹

In both the 1770s and 1820s, over 3% of businesses were female-owned. Typical businesses in the 1770s were two bakers, Mary Wakefield of 50 Brook St, Ratcliffe¹⁰ and Ann Dean of the Strand.¹¹ In 1771 and 1774 respectively, they insured stock and utensils for £300 and £70. Rather larger in the 1820s was the business of another baker, Catherine Stewart of 17 King St, Golden Square. She insured stock, utensils and an oven for £500.¹² Rather more typical was Mary Anderson, a muffin baker of 31 Peter St, Wardour St. She insured stock and utensils for £25 in 1824.¹³

The large majority of businesses insured only working capital, 96% in the 1770s and 86% in the 1770s. Where fixed capital was insured, it was generally in the form of a bakehouse or warehouse. In the 1770s, John Holland insured both, a warehouse for £50 and a bakehouse for £350.¹⁴ James Sheridan insured a bakehouse for £300.¹⁵ In the 1820s, William Webb, a baker of 4 Whitechapel Rd insured his bakehouse for £200 in 1820, as well as stock, utensils and goods for £700.¹⁶ Nathan Negus insured his warehouse for £400 in 1822 and his oven and stock and utensils for £1560 in 1825.¹⁷

The lower limit for capital required to set up in business as a baker was set at either £100 or £200 by all the contemporary sources. Campbell, Mortimer and Whittock all went up to an upper ceiling of £500 for their range of capital required. Kearsley suggested £5–£10 for a muffin baker.

The variation in average value of capital insured in the 1770s was from £140 in south western districts to £182 in the south eastern districts. It was £147 in the City, £149 in the west central area, £164 in the West End and £173 in those districts to the east of the City. The variation was greater in the 1820s. The highest average was to be found in the west central districts (£353) and the lowest in north western districts (£229). It was £263 in northern districts, £277 in south eastern, £303 in both east and West End, £312 in south western and £337 in the City. The 1841 Census and *Post Office Directory* listed 1189 bakers and 9110 employed in the trade.

Small proportions of businesses took out policies in more than one year, 8% in the 1770s and just under 24% in the 1820s. This suggests that less than a quarter had a longevity of up to about ten years or more, even in the later period. Nevertheless, one quite small business insured for increasing values in each year from 1829 to 1825. Samuel Shannon, a baker of 33 Petticoat Lane insured £400 in 1819, £500 in each year from 1820 to 1823 and £700 in 1824 and 1825.¹⁸

7.59 Fruit and Vegetables

The aggregated data for the 1770s and 1820s for retailers of fruit and vegetables (SIC 6413) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	59	133
by Size of Capital (£)			Pigot 1826/7 299
100 and under		43	75
101-500		13	49
501-1000		2	7
1001-5000		1	2
by Proprietor			
Male		53	116
Female		6	10
Multiple Male			4
Multiple Female			1
Mixed			2
by Location			
E		5	34
EC		20	35
W		5	9
WC		20	26
N			1
NW			1
SE		2	20
SW		7	7
by Type of Capital			
Working		59	123
Fixed			3
Both			7
Size of Maximum Capital (£)			
Average	All	137	170
	Female Only	185	115
Median	All	50	100
	Female Only	60	65
Highest		1400	1700
Lowest		10	4
Years of Entry	1	54	115
	2	3	12
	3	1	6
	4	1	

There were considerably less fruiterers, greengrocers and other retailers of fruit and vegetables than of most other foodstuffs. Fruit and vegetables, and also fish, were still most likely to be sold by hawkers and costermongers, especially in poorer areas. Nevertheless, Pigot lists 299 businesses in 1826/27. The fire office registers yield data for 59 in the 1770s and 133 in the 1820s. The latter is 44.5% of those listed in Pigot.

Most businesses were very small: in the 1770s, 73% insured for £100 or less and 22% for between £100 and £500; by the 1820s, it was 56% and 37%. Less than 5% insured for more than £500 in the 1770s; in the 1820s it was under 7%. The average capital insured was £137 in the 1770s and £170 in the 1820s. Median values were £50 and £100.

Orange merchants were retailers as well as wholesalers. A trade card issued in 1803 by William Parnell, an orange merchant of 2 George Lane, Botolph Lane, states that he "Sells Lemons and Oranges, Lemon & Orange Juice, Nuts, Chestnuts, & Almonds, Wholesale and Retail."¹ The same business often dealt in dried fruit too. Samuel Hanson of 47 Botolph Lane was trading in oranges and lemons from Spain and Cyprus, figs, sultanas and raisins from Greece and almonds from the Balearic Islands in 1747.² In 1770 he insured stock and utensils for £1000.³ Alexander Brander, an orange merchant of 8 Thames St insured stock and utensils for £1400 in 1773.⁴ Amongst fruiterers, the largest was Margaret Fitchcomb of Upper Thames St. She insured stock and utensils for £800 in 1771.⁵ An example of a greengrocer was Thomas Butcher of 5 Botolph Alley, Botolph Lane. He insured stock and utensils for £200.⁶

In the 1820s, Jeremiah Bigg, a fruiterer of 11 Little Russell St insured his shop for £1000 and stock, utensils and goods for £700 in 1821.⁷ John Johnston and Son, orange merchants of 32 Pudding Lane insured stock and utensils for £1100 in 1825.⁸ In the same year, Richard Gregory, a potato merchant of 11 Paternoster Row insured stock, utensils and livestock for £700.⁹ A greengrocer, John Dodsworth of 4 Chicksand St, insured stock, utensils and livestock for £600 in 1820.¹⁰ He was also a coal dealer. It was quite usual for coals and potatoes to be dealt with by the same business because of the bulk transport requirements in common. Of 98 businesses dealing in potatoes in the 1820s, 48 also dealt in coal, just under half. A smaller scale greengrocer was Thomas Skirll of 4 St John's St, Clerkenwell, who insured for

£180 in 1824.¹¹

A small number of businesses had female proprietors, 10% in the 1770s and 8% in the 1820s. Capitalization was very similar to that for all businesses. In the 1770s, apart from Margaret Fitchcomb, more typical businesses were those of Ann Fowler, an orange merchant of 3 Botolph Lane¹² and Frances Lamber, a fruiterer of Covent Garden Market.¹³ Both insured stock and utensils, the former for £140 in 1777 and the latter for £70 in 1769. In the 1820s, Mary Hill, a foreign fruit dealer of 2 Sloane St insured stock and utensils for £400 in 1820¹⁴ and Jane Dennis, a greengrocer of 5 Upper Grosvenor St insured stock and utensils for £100 in 1824.¹⁵

Contemporary estimates of capital required to set up in business as a fruiterer all set a lower limit of £20 to £50. Campbell went up to £500, Kearsley and Mortimer only to £100 and Whittock to £400. Collyer estimated that £1000 was required by an orange merchant. Kearsley and Whittock suggested rather more modest requirements of £100–£500 and £100–£250. Mortimer suggested £50–£250 for a potato merchant and £50–£100 for a greengrocer. Whittock estimated only £5–£30 for the latter. Both Mortimer and Whittock estimated £100–£250 was required for a dealer in foreign fruit. All these estimates are in line with actual capital insured.

The 1841 Census and *Post Office Directory* list 464 fruiterers and greengrocers and 51 orange merchants with 3620 people employed in these trades. Most would have been self-employed, often as hawkers and market stall holders.

Only a very small number of businesses took out policies in more than one year, 8% in the 1770s and 13.5% in the 1820s. This suggests that only a very small proportion may have had a longevity of up to about ten years or more.

7.60 Fish

The aggregated data for the 1770s and 1820s for fishmongers (SIC 6414) are summarised and tabulated below,

		1770s	1820s	
No. of Businesses	Total	14	40	Pigot 1826/7 411
by Size of Capital (£)				
100 and under		11	24	
101-500		3	15	
501-1000			1	
by Proprietor				
Male		13	35	
Female			3	
Multiple Male		1		
Multiple Female			1	
Mixed			1	
by Location				
E		2	2	
EC		5	18	
W		3	5	
WC			9	
SE		2	5	
SW		2	1	
by Type of Capital				
Working		14	37	
Fixed			2	
Both			1	
Size of Maximum Capital (£)				
Average	All	85	153	
	Female Only		95	
Median	All	50	100	
	Female Only		80	
Highest		300	600	
Lowest		5	20	
Years of Entry	1	14	32	
	2		7	
	3		1	

Although fish, like fruit and vegetables, was probably much more often sold by hawkers and costermongers, Pigot lists 411 fishmongers in the 1826/27 edition. However, there are extant fire office records for only 14 in the 1770s and 40 in the 1820s. The latter is less than 10% of those in Pigot.

A number of surviving tradecards exemplify the variety of fish retailed. One issued in the early years of the 19th century by Palmer and Jay, fishmongers of Hungerford

New Market advertises "Barrelled Oysters & Shell Fish of every description, Pickled salmon, Yarmouth Bloaters, Anchovies, Prawns &c."¹ Specialisation is exemplified by J Edmonds of 83 Snow Hill. His 1830 tradecard describes the business as an "Oyster and Pickled Salmon Warehouse".²

Businesses tended to be very small. In the 1770s, none insured more than £500 and only one in the 1820s. The average value of capital insured was only £85 in the 1770s and £153 in the 1820s; median values were £50 and £100.

Although numbers are too small for any conclusions to be drawn, a few examples illustrate the trade. Fishmongers in 1770s included: Edward Peirce and David Tait of 99 Lower Thames St, who insured stock and utensils for £300 in 1770;³ William Curling of Fish St Hill, who insured stock and utensils for £240 in 1772;⁴ James Wardall of 102 Lower Thames St, who insured stock and utensils for £160 in 1769;⁵ and, Thomas Williams of St James, who insured stock and utensils for £60 in the same year.⁶ Two larger businesses in the 1820s were those of Robert Batley of 20 St Mary at Hill⁷ and John George Lucy of 17 Thomas St.⁸ Both fishmongers, they insured for £400 and £600 respectively in 1820 and 1824. Mary Ann Norbury, an oyster warehouse keeper of Birchin Lane⁹ and William Purser, a dealer in shellfish of 19 St Martins le Grand.¹⁰ Each insured stock and utensils in 1821, for £200 and £350 respectively.

All the contemporary sources suggested enormously wide ranges of capital required to set up in business as a fishmonger. The common lower limit was £40 or £50.

However, all the 18th century sources suggested a higher parameter of £1000.

Mortimer and Whittock gave rather more realistic estimates of £250 and £200.

The 1841 *Post Office Directory* listed 270 fishmongers and the Census 4986 people employed in the trade. The latter figure undoubtedly includes a substantial number of self-employed street sellers.

7.61 Grocery and Provisions

The aggregated data for the 1770s and 1820s for grocers, cheesemongers, chandlers and other retailers of provisions (SICs 6415, 6416, 6417 and 6418) are summarised and tabulated below,

		1770s	1820s
No. of Businesses Total		1435	1363 Pigot 1826/7 3284
by Size of Capital (£)			
100 and under		643	383
101-500		610	702
501-1000		114	172
1001-5000		63	98
5001-10000		5	8
by Proprietor			
Male		1216	1161
Female		145	112
Multiple Male		59	76
Multiple Female		9	7
Mixed		6	7
by Location			
E		263	373
EC		374	328
W		240	170
WC		301	170
N		7	31
NW			34
SE		146	187
SW		104	70
by Type of Capital			
Working		1416	1308
Fixed		3	7
Both		16	48
Size of Maximum Capital (£)			
Average			
All		305	442
Female Only		121	164
Median			
All		130	200
Female Only		70	100
Highest		8000	7000
Lowest		5	4
Average No of Employees (1841)			3
Years of Entry			
1		1328	1108
2		89	187
3		15	45
4		2	17
5		1	6

Dealing in provisions was one of the commonest retail trades in London during the last quarter of the 18th century and the first quarter of the 19th. The 1826/27 edition of

Pigot lists 3284 businesses, over 7% of all businesses in London. There were in fact three overlapping groups of trades: grocers and cheesemongers (SIC 6416); chandlers (6417) and retailers of other provisions, including tea dealers and oilmen (6418). They are considered together because in practice so many individual businesses were involved in more than one of these activities. For example, Mary Dawson of 65 Wapping was described as a grocer, cheesemonger and chandler in 1821,¹ George Cropper of Salmons Lane, Limehouse as a grocer and oilman in the same year,² Thomas Bloomer of 22 Park St, Dorset Square as a chandler and oilman in 1825³ and Thomas Tatton of 1 Gerrard St as a grocer and tea dealer in 1823.⁴ Half a century earlier, Hannah Mara of Goswell St was described as a grocer and chandler in 1769⁵ and James Brown of 5 New Rd, Long Alley, Moorfields as a tea dealer, grocer and cheesemonger in 1777.⁶ In both periods there were scores of businesses described as grocer and cheesemonger, or vice versa. Examples are John Taylor of Fore St, Limehouse in 1774⁷ and John Warmington of 147 Union St, Borough in 1821.⁸

The distinction between the chandler and the grocer, cheesemonger, tea dealer or oilman was mostly about the scale of the business and the degree of specialisation. Campbell's dismissive description in 1747 would be echoed for the next century and more: "The Chandler's-Shop deals in all Things necessary for the Kitchen in small Quantities: He is partly Cheesemonger, Oil-Man, Grocer, Distiller, etc. This last Article brings him the greatest Profit, and at the same time renders him the most obnoxious Dealer in and about London."⁹ Campbell is rather more flattering towards the cheesemonger, if dismissive again of the oilman: "The Cheesemonger (is) a Retailer of Cheese, Butter, Eggs, Bacon and Ham. His Skill consists in the Knowledge of the Prices and Properties of these Kind of Goods...The Oil-Shop is furnished with Oils, Pickles, Soap, Salt, Hams...he is a mere Retailer."¹⁰ The overlap can be seen from his description of the grocer who deals in "Tea, Sugar, Coffee, Chocolate, Raisins, Currants, Prunes, Figs, Almonds, Soap, Starch, Blues...Oils, Pickles..."¹¹

The overlap can be further illustrated by contemporary tradecard and shopbills. Edward Cockerton, Oilman of 36 Ludgate St, issued a handbill in 1779 which listed as produce for sale "oils, pickles, hams and tongues, vinegar, pepper and spices, ketchup, ginger, herbs, mustard etc".¹² Another oilman, L Partridge of 17 Little Queen St, Lincolns Inn Fields, issued a tradecard in 1787 which listed, inter alia, anchovies, capers, cucumbers, nuts, mushrooms, onions, cabbage, beans, mangoes, ham and herrings.¹³ John Smith, Grocer and Tea Dealer of Fore St, Cripplegate, invoiced in 1767 for loaves, sugar, currants, raisins, rice, starch, blue, candy, saltpetre, salt, beeswax, hartshorn shavings, carraway seeds, pearl barley, pepper, nutmeg, mace, cloves, cinnamon and ginger.¹⁴

Taking all these retail trades together, the fire office registers yield data for 1435 businesses in the 1770s and 1363 in the 1820s, the latter is 51.5% of those listed in Pigot. Represented are 26 differently described retailers. In addition to cheesemongers, grocers, chandlers, oilmen and tea dealers are such trades as vinegar, butter, cocoa, spice, coffee, sugar, salt, pease, oil and pickle, honey, milk and cream, egg, pease, flour, lemon juice and mineral water dealers. It is worth noting that at the lowest end of the market, of 485 chandlers in the 1820s, the fire office registers show that 42, or just under 9%, were also engaged in non-retail trades. This suggests that retailing was only one of a number of ways of making a living at the subsistence level for the individual or family concerned.

Demand in all these trades was booming. McKendrick notes that tea consumption alone nearly doubled in the last 15 years of the 18th century, an increase seven times that of the growth in population.¹⁵ There is little reason to believe that this was not true also of many other commodities. Even so, most businesses were small. Taking them together, 45% insured for £100 or less and 42.5% for between £100 and £500 in the 1770s. In the 1820s, the proportions were 28% and 51.5%. However, for chandlers alone all businesses insured for £500 or less in the 1770s and all but two in the

1820s. For grocers and cheesemongers the proportion insuring for £500 or less was 78% in the 1770s, compared with 100% for chandlers and 50% compared with 99.5% in the 1820s. Nevertheless, most grocers and cheesemongers were also quite small; only 8.4% insured for over £1000 in the 1770s and 10.5% in the 1820s. For other provisions retailers the proportions were 8.2% and 12.6% respectively. For all businesses, the average value of capital insured was £305 in the 1770s and £442 in the 1820s. For chandlers alone, the figures were £91 and £123 compared with £471 and £557 for grocers and cheesemongers. The median values were £130 and £200 for all businesses, £100 in both periods for chandlers and £214 and £350 for grocers and cheesemongers.

In terms of capital insured, the two largest businesses in the 1770s both insured for £8000. These were John Moore and James Strange, cheesemongers of 2–3 Bishopsgate St Without in 1770¹⁶ and Robert Beachcroft and Reader Watts of 9 Queenhithe in 1774.¹⁷ Both would have been involved in the wholesale trade as well. George Cooper, Francis Garrett and James Taddy, tea dealers of 7 Thameside insured stock and utensils for £4500 in 1772.¹⁸ The largest 'oilman' was Sarah Hill of 82 West Smithfield. She insured stock and goods for £1200 in 1771.¹⁹ Typical chandlers were Gabriel Butcher of Stonecutter St, Fleet Market, who insured stock and utensils for £100 in 1769²⁰ and John Edwards of Castle St, Leicester Fields, who insured stock and utensils for £80 in the same year.²¹

In the 1820s, the two largest businesses were both cheesemongers, and again engaged in wholesale as well as retail trade. Robert Whalley and Joseph Henry Warther of 14–15 Aldgate High St insured stock, utensils and goods for £7000 in 1824²² and Edward Savage Senior and Junior of 28 Whitechapel insured for £6800 in 1822.²³ Already amongst the largest grocers were Fortnum and Mason of 182–3 Piccadilly. They insured stock and utensils for £4150 in 1824.²⁴ Edward Davies, a tea dealer of 9 Philpot Lane, insured stock and utensils for £1500 in 1824²⁵ and William Were, a

provisions dealer of 87 Lower Thames St, insured stock, utensils and livestock for £5200 in 1820.²⁶ An oilman on a larger scale of business was Francis Fourdin of 11 Wardour St. He insured stock and utensils for £1400 in 1822.²⁷ A typical chandler was John Shaw of 12 Little George St. He insured stock, utensils and goods for £80 in 1820.²⁸ Examples of other small businesses are William Watkins, a chandler, cheesemonger and milkman of 48 Carnaby St, who insured stock and utensils for £80 in 1820²⁹ and Peter Bean, a grocer, cheesemonger and oilman of 5 Southampton Court, Southampton Row, who insured stock, utensils and fittings for £250 in 1823.³⁰

Overall, there were quite substantial numbers of businesses the proprietors of which were women, 10.7% in the 1770s and 8.7% in the 1820s. The numbers were highest for chandlers, 17.2% and 16.3% respectively. They were much lower for grocers and cheesemongers, 5.9% and 5.4% respectively. Overall, the average capital for female-owned businesses was £121 in the 1770s compared with £305 for all businesses; in the 1820s it was £164 compared with £442. Median values were £70 compared with £130 and £100 compared with £200 respectively. Even for chandlers, the average capital insured by female-owned businesses was significantly lower, £69 compared with £91 in the 1770s and £100 compared with £123 in the later period. For grocers and cheesemongers, the average was £250 in the 1770s, compared with £471 for all businesses, and £270 compared with £557 in the 1820s. Apart from Sarah Hill mentioned above, typical female-owned businesses were Ann Gamm, a grocer and cheesemonger of Church Lane, Chelsea, who insured stock and utensils for £200 in 1771³¹ and Ann Finnimore, a chandler of 18 Minories, who insured stock and utensils for £130 in 1769.³² Fifty years later, Patience Walker, a grocer of 43 Houndsditch insured stock, utensils and fittings for £1000.³³ More typical were Mary Monk, a chandler of 25 Rosoman St, Clerkenwell, who insured stock and utensils for £130 in 1819³⁴ and Christiana Hale, an oilman of 157 Shoreditch, who insured stock and utensils for £150 two years later.³⁵

A very small proportion of businesses insured fixed capital, only just over one per cent in the 1770s and 4% in the 1820s. This was usually in the form of a warehouse. In 1777, Nicholas Jackson, a cheesemonger of 16 Holywell St, Shoreditch insured a counting house and warehouse for £150, as well as stock and utensils for £600.³⁶ In the same year, Thomas Bulmer, a grocer of 159 Holywell St insured both a warehouse and stock and utensils for £200.³⁷ In the 1820s, the Savages insured their warehouse for £1500.³⁸ Garwood Tokely, a grocer of 1 Hickman's Folly, Dockhead, insured his warehouse and stock and utensils for £500 each in 1823.³⁹

Only Kearsley in 1786 gave an estimate of the capital required to set up in business as a chandler. This was £5–£20. All gave estimates for a grocer. A lower limit of £500 was suggested by both 1747 publications, Collyer and Mortimer. Kearsley gave £100 and Whittock £300. The upper parameter varied much more widely: Campbell suggested £2000, Kearsley £5000 and Mortimer and Whittock £800. Lower estimates were made for a cheesemonger. Except for Collyer who suggested £100–£1000, all the other sources gave £100–£500. Estimates of the capital required by an oilman fell in between. The estimated lower limit varied from £100 to £500 and the ceiling from £500 to £2000. There was even greater variation for a teaman. All the 18th century publications agreed on a lower limit of £300, but both Mortimer gave £800 and Whittock only £100. The higher figure in the range varied from £1000 suggested by Campbell, Collyer and Kearsley to £1500 by Mortimer and only £500 by Whittock. Apart from the lone estimate for a chandler, all these estimates are high compared with the actual capital insured by very large numbers of businesses.

Businesses were to be found in large numbers throughout the capital. There was, however, one interesting trend. In the 1770s the proportions of chandlers and grocers or cheesemongers varied little between different parts of the capital. For example, 25% of grocer and cheesemongers were to be found in the City and 25% of chandlers also. Similarly, 20% of grocers and cheesemongers were to be found in west central

districts and 22% of chandlers. For the districts east of the City, the proportions were 20% and 18% respectively. However, by the 1820s a marked difference had appeared. Nearly 25% of grocers and cheesemongers were located in the City but only 19.5% of chandlers. Conversely, over 33% of chandlers were found in eastern districts compared with under 25% of grocers. This suggests a widening social distinction between the trades. Within the overall pattern it was true, of course that small-scale businesses would be found in every almost every street. At the upper end of the market, most of the trade in the earlier period concentrated around Gracechurch St for the City, Aldgate High St and Shoreditch for the districts to the east, St Martin's Lane to the west and Borough High St for Southwark.⁴⁰ By the later period, it had moved outwards with the new expanding suburbs and the City trade had concentrated around Eastcheap. The historian of Hanson's notes that by the 1830s, in addition to 46 wholesale grocers, there were 18 retail grocers, 69 tea and coffee merchants and 16 pickle and Italian warehousmen.⁴¹

The 1841 Census and *Post Office Directory* list 638 cheesemongers and 1737 people employed. Also listed are 1422 retail grocers and 4986 employees.

Overall, 7.5% of business in the 1770s took out policies in more than one year, and 18.7% in the 1820s. For chandlers the proportions were 2.6% and 10.3% respectively, compared with 10.3% and 22% for grocers and cheesemongers. This suggests that only a very small minority of businesses was likely to have had a longevity of up to about ten years or more, but far more grocers and cheesemongers than chandlers.

No great changes took place in the trade in respect of capitalization or organisation. However, throughout the period it was a trade of immense importance to London, with an ever-widening variety to the produce dealt in and a growing gap between the top and bottom ends of the market.

7.62 Wine, Beer and Spirits

The aggregated data for the 1770s and 1820s for wine, beer and spirit dealers and merchants (SICs 6421 and 6422) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	391	168
by Size of Capital (£)			
	100 and under	50	3
	101-500	192	38
	501-1000	85	31
	1001-5000	57	86
	5001-10000	5	5
	over 10000	2	5
by Proprietor			
	Male	325	128
	Female	12	2
	Multiple Male	49	38
	Mixed	5	
by Location			
	E	41	15
	EC	154	93
	W	44	10
	WC	93	28
	N	2	1
	NW		2
	SE	31	7
	SW	26	12
by Type of Capital			
	Working	389	156
	Fixed	1	4
	Both	1	8
Size of Maximum Capital (£)			
Average	All	813	2009
	Female Only	892	
Median	All	400	1200
	Female Only	235	
Highest		19000	25000
Lowest		10	50
Years of Entry			
	1	336	126
	2	44	31
	3	6	6
	4	4	3
	5	1	2

Pigot listed 853 wine, beer and spirit merchants or dealers in 1826/27, nearly 1.9% of all London businesses. The fire office registers contain records for 391 businesses in the 1770s and 168 in the 1820s. the latter is 20% of those listed in Pigot.

The sections below on distillers and brewers set out the huge increase in supply of and demand for alcohol over the period of this study. The increase in consumption extended equally to imported wines and spirits. Over 23,000 pipes of port were imported in 1823 alone.¹ The range of goods sold is exemplified by an invoice sent out in 1802 by John Foulds from his Wine and Brandy Vaults opposite London Bridge Waterworks. He sold "Wines, Brandy, Rum, Shrub, Holland's Geneva &c."² Rather more specialised was C Palk of 31 Mill Lane, Tooley St. His 1820 handbill promised "Real Devonshire Cyder sold here. Superior Bottled Perry."³ The contemporary *Wine and Spirit Merchant's Companion* lists the properties and characteristics of well over one hundred types of alcoholic drink.⁴

Businesses increased in size markedly between the 1770s and 1820s. In the earlier period, 62% insured for £500 or less and 16% for over £1000; by the 1820s, less than a quarter insured for £500 or less and 57.5% for over £1000, including 6% which insured for over £5000. The average value of capital insured rose from £813 in the 1770s to £2009 in the 1820s. Median values trebled from £400 to £1200. John Wild, a wine merchant of St Martin's Lane, increased his turnover from £200 in 1777 to £10,000 in 1790.⁴

There were a small number of other large businesses in the 1770s. In terms of capital insured, the largest were both brandy merchants and both insured stock and utensils for £19,000. They were William Timson and Robert Jones of 6 Little Tower St in 1774⁶ and Abraham Pitcher and Edward Wilson of 64 Lower Thames St the following year.⁷ Amongst less specialised dealers in spirituous liquors was Thomas Bramwell of Greek St. He insured stock and utensils for £1800 in 1772.⁸ Substantial cider and beer merchants were Robert Hilditch and Thomas Danne of 11 Morgan St, St Olave's St who insured stock, utensils and goods for £3000, also in 1772.⁹ A more modest dealer in beer was John Rogers of Charterhouse St. He insured stock and utensils for £200 in 1769.¹⁰ Fifty years later in 1819, William Mandall, a wine and brandy merchant of 39

St Mary at Hill insured stock, utensils and goods for £25,000.¹¹ Taber and Johnson, wine and spirit merchants of 1 Savage Gardens, Crutched Friars insured stock and utensils valued at £20,000 in 1825.¹² Another very large business was Thompson and Fearon, wine and spirit merchants of 94 Holborn Hill. They insured for £17,800 in 1824.¹³ The largest ale and beer merchant was William Allan of 32 Seething Lane. He insured for £1200 in 1820.¹⁴ A typical smaller business was John Breedon, a dealer in porter of 79 Lower Thames St, who insured stock and utensils for £100 in 1824.¹⁵

There were small numbers of female-owned businesses in the 1770s, just over 3% of the total. The largest was Bridget Allan, a wine merchant of 67 Mark Lane. She insured stock and utensils for £5000 in 1773.¹⁶ Rather more typical was Mary Mann, a dealer in spirituous liquors of Duck Lane, West Smithfield, who insured stock and utensils for £50 in 1772.¹⁷

Few businesses in the 1770s insured fixed capital; just over 7% did so in the 1820s. Amongst the few which did were: Joseph Charles and John Hibbert, wine, brandy, beer and spirit merchants of 17 Jewry St, Aldgate, who insured their cooperage for £400 and stock, utensils and goods for £7050 in 1821;¹⁸ Alfred Batson, a wine, spirit and beer merchant of Limehouse Causeway, who insured his warehouses for £1000 and stock and utensils for £1700 in 1823;¹⁹ and, George Killick, a wine merchant of 2 Brabant St, Philpot Lane, who insured his counting house for £300 and other commercial buildings for £150 in 1825, as well as stock and utensils for £1500.²⁰

Collyer estimated in 1761 that £2000 was required to set up as a wine merchant. Kearsley suggested £1500–£5000 in 1786 and Mortimer £1000–£2500 in 1819. However, the latter gave only £300–£600 for a wine and brandy merchant. Whittock suggested £250–£1000 for a cider merchant and £200–£300 for a bottled ale cellar in 1837. These estimates are reasonably consistent with actual capital insured.

In both periods, the largest concentrations of businesses were in the City or west central districts, exactly half in the 1770s and nearly three-quarters in the 1820s. Although the large majority of businesses took out policies in only one year, 86% in the 1770s and 75% in the 1820s, a significant minority may be assumed to have had a longevity of up to about ten years or more.

For these trades, capitalization was larger and increased over the period of this study to a greater degree than for food retailers. There were also significantly more very substantial businesses in the 1820s than in the 1770s.

7.63 Tobacco and snuff

The aggregated data for the 1770s and 1820s for tobacconists (SIC 6424) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	94	84
by Size of Capital (£)			Pigot 1826/7 226
100 and under		30	32
101-500		45	32
501-1000		7	7
1001-5000		11	13
over 10000		1	
by Proprietor			
Male		75	62
Female		6	13
Multiple Male		11	7
Multiple Female			1
Mixed		2	1
by Location			
E		9	20
EC		34	24
W		11	8
WC		28	22
NW			1
SE		8	5
SW		4	4
by Type of Capital			
Working		89	82
Fixed		2	
Both		3	2
Size of Maximum Capital (£)			
Average	All	591	559
	Female Only	242	104
Median	All	200	150
	Female Only	125	55
Highest		13500	5000
Lowest		20	20
Average No of Employees (1841)			4
Years of Entry	1	79	62
	2	13	15
	3	2	6
	4		1

Although a specialised trade, there were substantial numbers of tobacconists in London in the period of this study. Pigot listed 226 in 1826/27. There are extant fire office records for 94 in the 1770s and 86 in the 1820s, 37% of those listed in Pigot.

The stock of Fribourg and Treyer, Tobacconists of 34 Haymarket was described in an

invoice sent out in 1792 as "all Sorts of French Rappes, Spanish Portuguese, and Scotch Snuffs...Lundyfoot's high-dried Irish Snuffs. Likewise all Sorts of Foreign Canaster Tobaccos for Smoaking."¹

The large majority of businesses were small, over three-quarters insured for £500 or less in both the 1770s and 1820s. There was little change in average capital insured; it was £591 in the 1770s and £559 in the 1820s. Media values decreased from £200 to £150. In terms of capital insured, by far the largest business in the 1770s was Joseph Sales, John Pollard and William Yates, tobacconists of 71-2 Aldersgate St. They insured stock and utensils for £13,500 in 1777.² The next largest tobacconists were Robert Rayner and Robert Davies of 2 Aldgate Within who insured stock, utensils and goods for £3800 in 1769.³ More typical was John Thompson, a snuffman and tobacconist of King St, Seven Dials. He insured stock and utensils for £180 in 1774.⁴

The two largest tobacconists in the 1820s were Jabez Beynon of 10 Gracechurch St⁵ and Edward Polhill and John Jones of 35 Borough.⁶ The former insured stock and utensils for £5000 in 1824 and the latter for £4000 in 1822. An example of a dealer in tobacco and snuff was Archibald and John Menzies of 66 Whitechapel High St. They insured stock, utensils and fittings for £580 in 1819.⁷ Nearby and more typical was Joseph Mimms, a tobacconist of 48 Whitechapel Rd who insured stock and utensils for £150 in 1822.⁸

A number of tobacconists were female-owned, 6.3% in the 1770s and nearly 17% in the 1820s. Most were very small. Average capital insured was £242 in the 1770 and only £104 in the 1820s. In the 1770s, Dorothy Schoen of 75 Newgate St insured stock and utensils for £600 in 1771⁹ but more typical was Jane Hobson of 3 Long Lane, West Smithfield who insured stock and utensils for £130 in 1769.¹⁰ In the later period, Elizabeth Raymond of 125 Cheapside insured stock and utensils for £300 in 1825.¹¹ Two years earlier, Mary Lea of 25 Skinner St, Somers Town insured stock and utensils

for £40.¹²

Enormous ranges of capital were suggested to set up in business as a tobacconist. All the contemporary sources suggested £50 to £200 as a lower limit but their upper parameters varied from £400 suggested by Mortimer to £10,000 by the anonymous 1747 source. A century apart, both Campbell and Whittock suggested £5000. There were also several much lower estimates for a snuff shop. Campbell thought £50–£100 would suffice, but Kearsley estimated £100–£500 and Mortimer £250–£600. In all these cases, the lower limits seem realistic but the upper ceilings were very high compared with actual capital insured.

The 1841 Census and *Post Office Directory* list 511 tobacconists and 2060 people employed in the trade. A small minority of businesses took out policies in more than one year, 16% in the 1770s and 26% in the 1820s. These proportions may have had a longevity of up to about ten years or more.

This was not a retail trade where any significant change would appear to have taken place between the 1770s and the 1820s.

7.64 Confectionery and Newspapers

The aggregated data for the 1770s and 1820s for confectioners and news vendors (SICs 6423 and 6425) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	15	27
by Size of Capital (£)			
100 and under		4	9
101-500		3	12
501-1000		4	3
1001-5000		4	2
5001-10000			1
by Proprietor			
Male		12	24
Female			1
Multiple Male		3	1
Mixed			1
by Location			
E			4
EC		4	9
W		2	5
WC		7	4
NW			1
SE			3
SW		2	1
by Type of Capital			
Working		15	26
Both			1
Size of Maximum Capital (£)			
Average	All	763	553
Median	All	600	200
Highest		2000	5200
Lowest		70	20
Average No of Employees (1841)			5
Years of Entry	1	12	17
	2	2	8
	3	1	2

Pigot lists 230 confectioners (SIC 6423) and 98 news vendors (6425) in 1826/27 but very few records survive in the fire office registers, only 15 for the 1770s and 27 for the 1820s. The latter is only just over 8% of those listed in Pigot. There are too few surviving records for meaningful conclusions to be drawn. However, a few examples of individual businesses exemplify the trades. Some confectioners were very fashionable and located themselves at the most prestigious addresses. Thus, in 1771 Domenico

Negri and Luke Wetter of Berkeley Square insured stock and utensils for £2000.¹ Two years earlier, William Johnson and John Brown of 10 Fish St Hill insured stock and utensils for £1500.² Also in 1769, but rather more typically, Thomas Lyne of Old Bond St insured stock and utensils for £130.³

The largest confectioner in the 1820s was James Rix Hoffman of 3 Bishopsgate St Within. He insured utensils and goods for £5200 in 1822.⁴ Two years later, another confectioner, Benjamin Wood of 56 Houndsditch, insured stock and utensils for £1700.⁵ A much smaller example was Jacob Martin of 6 Red Lion Court, Spitalfields who insured stock and utensils for £100 in 1821.⁶ Two newsmen were John Bradbray of 10 Queen's Buildings, Brompton⁷ and James Mcfarlane of 71 Wilsted St, Somers Town.⁸ The former insured stock, utensils and goods for £200 in 1825 and the latter stock, utensils and fittings for the same amount in 1823. An interesting tradecard survives from about 1820 issued by Thomas Bagshaw, News Vendor of 31 Brydges St, Covent Garden. It states that "The Daily London News Papers sent to all parts of the United Kingdom" and goes on to list 13 daily newspapers, nine bi- or tri-weekly, 15 weekly and 15 Sunday papers.⁹

7.65 Apothecaries, Chemists and Druggists

The aggregated data for the 1770s and 1820s for apothecaries, chemists and druggists (SIC 6430) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	252	184 Pigot 1826/7 929
by Size of Capital (£)			
	100 and under	100	52
	101-500	118	89
	501-1000	14	21
	1001-5000	18	21
	5001-10000	2	1
by Proprietor			
	Male	220	159
	Female	11	5
	Multiple Male	20	20
	Mixed	1	
by Location			
	E	33	25
	EC	67	42
	W	59	34
	WC	58	33
	N		4
	NW		6
	SE	12	26
	SW	23	14
by Type of Capital			
	Working	250	172
	Fixed	1	2
	Both	1	10
Size of Maximum Capital (£)			
Average	All	379	513
	Female Only	71	200
Median	All	150	200
	Female Only	50	100
Highest		7500	5200
Lowest		10	10
Average No of Employees (1841)			4
Years of Entry	1	228	134
	2	22	38
	3	2	8
	4		2
	5		2

There were a very large number of London apothecaries, druggists and chemists and druggists in the last quarter of the 18th century and the first quarter of the 19th. Pigot listed 929 in 1826/27, just over 2% of all London businesses. The fire office

registers yield data for 252 in the 1770s and 184 in the 1820s, 20% of those listed in Pigot.

For the purposes of this study, druggists, chemists and druggists and apothecaries are taken as forming a common trade. That is to say that apothecaries are regarded as retailers of medicines and drugs and not as part of the medical profession. Geoffrey Tweedale emphasises that, while the apothecary cannot be regarded as simple the forerunner of the modern dispensing chemist, it is nevertheless true that the physician looked down on the apothecary as one engaged in mere trade: "the whole apparatus of the pharmacy – the shop, the stock of drugs, the shelves of bottles, the noisome making up of medicines, and their sale over the counter – all these bore the unmistakable imprint of shopkeeping."¹ Contemporary trade descriptions often stress the retailing aspect. Thus, for example, the 1819 Bankruptcy Commission file for James Coburn Hyde, an apothecary of Union Place, New Rd, describes his trade as "making and compounding medicines, and vending the same when made, and also by vending and selling drugs."² Similarly, another apothecary, Henry Edwards of Brunswick Square, has his trade described in 1830 in his bankruptcy file as "did use and exercise the trade and business of an Apothecary by buying drugs and compounding and selling the same out again..."³ The 1827 bankruptcy file of a chemist and druggist, John Hore Brown of Duke St, Manchester Square, uses virtually the same wording to describe his trade "buying large Quantities of Drugs and other Articles and selling the Same..."⁴ A handbill published in 1776 by Samuel Parkes, Chemist and Druggist of 68 Chiswell St lists over 60 drugs, oils and herbs.⁵ Over half a century later, Godfrey Cooke, Chemist of Southampton St, Covent Garden and Conduit St, Bond St, invoiced a customer for "Two Pint Bottles of the finest Cold Drawn Castor Oil" at a cost of one guinea.⁶ There is, of course, Campbell's famous description: "The Apothecary, simply as such, is only employed in composing of Medicines, by the Doctor's Prescriptions, without to their Quantities: His Knowledge, by his Profession, is confined to the Names of Drugs...There is no Branch of Business,

in which a Man requires less Money to set him up, than this very profitable Trade...His profits are unconceivable; Five Hundred per Cent is the least he receives..."⁷

Roy Porter's study of 'quackery' shows how indistinct was the line between the medical profession proper and the so-called 'quack'. Both advertised widely and relied heavily on the dispensation of drugs, often as doubtful in the one case as in the other. Indeed, quacks often had the same formal or academic qualification too.⁸ Porter regards 'quack' as a neutral term for "those who drummed up custom largely through self-orchestrated publicity: who operated as individual entrepreneurs...and who depended heavily upon vending secret nostrums."⁹ Nearly thirty years after the Apothecaries Act 1815 had elevated medicine on to a more professional plane, the Pharmaceutical Journal could complain in 1841 that,

"In the same street may be seen two shops, fitted up exactly alike. The windows of each are adorned with coloured show bottles, cut smelling bottles, medicine chests, tooth-brushes, and perchance a few proprietary medicines. One of these shops belongs to a member of the College of Surgeons, and a licenciate of the Apothecaries Company; the other is the establishment of a Chemist and Druggist who is probably a member of no society, and who is not obliged by law to know the difference between jolap and rhubarb, much less to distinguish fungus haematodes from a cancer, or peripneumonia from pleurisy."¹⁰

Also included in this trade classification are perfumers. Already they were linked with the other trades. Thus, Thomas Guest Blofield of 6 Middle Row, Holborn was described in his policies of 1821 and 1823 as a perfumer and dealer in patent medicines.¹¹ A tradecard issued in 1807 by Patey, Butts and Co, Perfumers of Lombard St, lists amongst the goods sold; soaps, tooth powders, razors, razor strops, perfumes, creams, lavender water and pomatum.¹²

In fact, as Campbell suggested, most businesses were small. In the 1770s, almost 40% insured for £100 or less and another 47% for between £100 and £500; in the 1820s it was 28% and 48%. Only 8% insured for more than £1000 in the 1770s and even by the 1820s this had risen only to 12%. The average value of capital insured increased from £379 in the 1770s to £513 in the 1820s; median values rose from £150 to £200.

However, there was a huge difference between druggists or chemists and druggists and apothecaries. The average values of capital insured for the former in the 1770s and 1820s were £1310 and £926 respectively; for the latter they were £146 and £191.

In the 1770s the two largest businesses in terms of capital insured were druggists: Coney, Gascoigne, Wilson and Jorden of 145 Leadenhall St insured stock and utensils for £7500 in 1771¹³ and William Sheppard of 103 Newgate St insured stock and utensils for £6000 the following year.¹⁴ The largest chemist and druggist was John Prime of 43 Newgate St. He insured stock and utensils for £1600 in 1772.¹⁵ Very untypical of apothecaries was Timothy Davis of Lemon St, Goodman's Fields who insured stock and utensils for £500 in 1773.¹⁶ More typical were William Cribb of Vine Tavern, Holborn, who insured stock and utensils for £135 in 1769¹⁷ and Thomas Andrews of Charing Cross, who insured stock and utensils for £100 in 1770.¹⁸ The largest perfumer was Richard Warren of Marylebone St, Golden Square. He insured stock and utensils for £1250 in 1771 and his warehouse for £100 three years later.¹⁹

In the 1820s, the largest business was that of Thomas Wilson and Co, chemists and druggists of 86 Snow Hill. They insured fixed and working capital for £5200 in 1822 and 1823.²⁰ Another chemist and druggist, Stanley Howard and Sons of 91 Cannon St, insured stock, utensils and goods for £4000 in 1820.²¹ James Barclay, a dealer in patent medicines of 95 Fleet Market, insured stock and utensils for £3900 in 1824.²² The largest apothecary was Charles John Fowler of 5 Seymour St, Euston Square. He insured stock and utensils for £500 in 1821.²³ More typical was Charles Thompson of 1 Back Lane who insured stock and utensils for £110 in 1822.²⁴ Interestingly, George Marsall of Brewer St was described as a druggist and apothecary when he insured stock valued at £2500 in 1824.²⁵ The largest perfumers were Thomas and William Francis Ross of 119–20 Bishopsgate St Within. They insured for £4700 in 1825.²⁶

There were small numbers of female-owned businesses, 4.4% in the 1770s and 2.7% in the 1820s. Most were very small. In the 1770s the average capital insured was only £71 compared with £379 for all businesses; in the 1820s, it was £200 compared with £513. In the earlier period, Ann Neerasoff, a perfumer of 3 Oxford St, insured stock and utensils for £200 in 1774.²⁷ More typical was Mary Smith, a dealer in medicines of 17 Albion Buildings, Bartholomew Close. She insured stock and utensils for £50 in 1772.²⁸ The largest female-owned business in the 1820s was also a dealer in (patent) medicines, Rebecca Ching of 4 Castle St, Newman St. She insured stock and utensils for £500 in 1821.²⁹ Mary Ann Clark, a dealer in perfumery of Old Bond St insured stock and utensils for £100 in 1823.³⁰

Virtually no businesses insured fixed capital in the 1770s; a small minority of 6.5% did in the 1820s. These included Thomas and William Francis Ross, who insured glass cases for £350 and looking glasses and chandaliers for £200 as well as stock and utensils for £4150 in 1825.³¹ Clearly, their's was a very up-market perfumers. Others included: Thomas Wilson and Co, who insured their warehouses for £700 in 1823;³² Peter Bailey, a herbalist of Bow St, Covent Garden, who insured his shop for £60 and stock and utensils for £1040 in 1819;³³ William Green, a chemist and druggist of 11 Tothill St, who insured his warehouse for £100 and stock and utensils for £875 in 1821;³⁴ and, John Powell, an apothecary of 62 Newman St, who insured his shop for £60 and stock and utensils for £80 in 1819.³⁵

Estimates of capital required to set up in business as an apothecary went up over the later 18th and earlier 19th centuries, but down for a druggist. For the former, £50 or £100 was regarded as a lower limit by all the 18th century sources compared with £300 by Mortimer and Whittock in 1819 and 1837. Conversely, Campbell and Collyer suggested a lower limit of £500 for a chemist and druggist while Mortimer and Whittock gave £300. For a perfumer, £50 to £150 was suggested as a lower limit. The ceiling for their ranges varied much more widely, Kearsley going up to £10,000 for a

druggist.

The 1841 Census and *Post Office Directory* showed 1806 people employed by 507 chemists and druggists and 337 employed by 70 retail perfumers. Small proportions of businesses took out policies in more than one year, 9.5% in the 1770s and 27% in the 1820s. This suggests that in the later period over a quarter of all businesses may have had a longevity of up to about ten years or more.

Overall, the fire policy evidence sustains Porter's view of apothecaries, chemists and druggists as a commercial trade , successfully stimulating demand in exactly the same ways as other retail trades, and as much a part of the 'consumer revolution'.³⁶

7.66 Tailors and Dressmakers

The aggregated data for the 1770s and 1820s for tailors and dressmakers (SIC 6451) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	650	452
by Size of Capital (£)			Pigot 1826/7 1833
100 and under		458	210
101-500		165	190
501-1000		16	27
1001-5000		11	24
5001-10000			1
by Proprietor			
Male		481	310
Female		115	94
Multiple Male		18	23
Multiple Female		35	25
Mixed		1	
by Location			
E		55	46
EC		157	99
W		127	118
WC		263	129
N		1	4
NW			1
SE		21	28
SW		26	27
by Type of Capital			
Working		636	429
Fixed		1	7
Both		13	16
Size of Maximum Capital (£)			
Average	All	146	291
	Female Only	63	170
Median	All	80	150
	Female Only	50	50
Highest		4000	5600
Lowest		5	5
Average No of Employees (1841)			3
Years of Entry	1	606	371
	2	42	60
	3	2	7
	4		4

To McKendrick, the outward spread of fashion in clothes from London to every part and class of the kingdom was both one of the most important engines of the 18th century consumer revolution, and one of its foremost identifying features. That phenomenon rested ultimately on thousands of tailors, dressmakers, milliners and other

like small businesses, as well as on the great master tailors. Their role is summed up as,

"All those tiny London satellites to the Lancashire cotton mills – the tailors, dressmakers, milliners and mantuamakers – would produce enough minor variations on the prevailing fashions to satisfy the market, keep its interests alive and allow the factories to churn out stripes or muslins or whatever was required – whether prevailing material or dominant colour – until the next major change was introduced – if possible stage-managed and timed to suit the needs of commerce."¹

The edifice resting on this foundation was the world of high fashion. Alison Adburgham describes the retailing response to the consumer demand posed by the "well-dressed Englishwoman". The retail trade in clothing and textiles is discussed in detail below in the context of hatters, glovers, hosiers, haberdashers, drapers and mercers, but it is worth noting that she describes Oxford St in 1817 as containing no dressmaker or milliner, and only one tailor, but 41 drapers, 16 bonnet or straw hat dealers, 29 haberdashers, hosiers and glovers, five lace warehouses, four silk mercers, four furriers, two muslin warehouses, two stay and corset warehouses and a ready made linen warehouse.²

Dodd was only slightly exaggerating when, in 1843, he remarked that "although scarcely any woven fabrics are produced in London...the arrangements for working up these materials into garments are here developed to an extraordinary extent. Tailors and dressmakers are to be reckoned, not by thousands, but by tens of thousands."³ In fact, tailors and dressmakers, the latter more usually described as mantua makers in the 1770s, were amongst the commonest of London trades. Pigot listed 1833 in the 1826/27 edition, nearly 4% of all businesses in London. The fire office registers yield data for 650 in the 1770s and 452 in the 1820s. The latter is 25% of those listed in Pigot. As well as tailors, dressmakers and mantua makers, there were also such trades as fancy dressmakers, gown makers, habit makers, robe makers and saque makers.

There are few surviving tradecards for the ordinary tailor or dressmaker. However, an

invoice sent out by Plumpton and Baker, Tailors of 40 Cheapside is headed "Ladies' Habits, Children's Dresses, Liveries, Naval & Military Uniforms...Patent India Rubber & Camlet Cloaks. And Capes in great variety."⁴ Another invoice, sent out in 1779 by Pritchard's Warehouse of 39 Tavistock St, described as Riding Habit and Robe Maker, states "Made, The Robe de Cour, Suits, Saques, Masquerade Dresses...Sold, Riding Habits and Coats, Stays, Hoops and Quilted Coats."⁵ J Albert, Tailor and Draper of 47 Fish St Hill, promised on his 1820 invoice that "A Suit of Clothes made at Six Hours Notice."⁶

Most businesses were very small. In the 1770s, over 70% insured for £100 or less. This fell to 46% in the 1820s. However, this only represented a shift into the size-band between £100 and £500; in the 1770s this accounted for 25% of businesses, in the 1820s for 42%. Although there were very larger businesses, the proportion insuring for over £1000 did rise from under 2% in the 1770s to 6% in the 1820s. Certainly, the average value of capital insured doubled, from £146 in the 1770s to £291 in the 1820s. Median values also increased sharply, from £80 to £150.

In both periods, there were a number of very substantial master tailors. The largest capital insured in the 1770s was by Patrick Nellewill and John Nugent of 10 Goldsmith St, Cheapside who insured stock and goods for £4000 in 1769.⁷ Another tailor, John Winter of St James St, insured fixed and working capital for £1900 in the same year.⁸ In 1777, Henry Friacke, a gown and habit maker of Tavistock St, insured stock utensils and goods for £1400.⁹ Rather more typical were such tailors from opposite sides of the capital as John Bruce of Sherrard St, Golden Square¹⁰ and James Bradshaw of Slaughter St, Spitalfields.¹¹ Both insured stock, utensils and goods in 1769, the former for £180 and the latter for £140. In the 1820s the larger businesses mostly described themselves as tailors and drapers. Edward and James Smith of 47-8 Houndsditch, insured stock and utensils for £5600 in 1819.¹² Samuel, Lewis and Simeon Solomon, tailors of 19 Charing Cross, insured stock and utensils for £2900 in

1823.¹³ A very much more typical tailor was James Booth of 3 Westmoreland Buildings, Aldersgate St. He insured stock and utensils for £170 in 1819.¹⁴

Most dress and mantua makers were women, but there were also examples of male-owned businesses and there were also female-owned tailoring businesses. Overall, 23% of businesses had female proprietors in the 1770s and 26.5% in the 1820s. Average capital insured was significantly lower for female-owned businesses. In the 1770s it was £63 compared with £146 for all businesses; in the 1820s it was £170 compared with £291. In the earlier period, the largest was Mrs Charles Bouteville, a mantua maker of Shepherd St, Hanover Square. She insured stock, utensils and goods for £350 in 1772.¹⁵ In the same year, another mantua maker, Sarah Mackrill of Fleet St, insured stock, utensils and goods for £150.¹⁶ Margaret Brodie and the exotically named Tryphosa Barker of Pall Mall were robemakers and insured stock, utensils and goods for £200 in 1769 also.¹⁷ In the 1820s, Ann Ford of 163 Strand was a very substantial tailor, insuring stock, utensils and goods for £1500 in 1820.¹⁸ Even larger was the dressmaking business of Ann Smith of 9 Waterloo Place, Regent St. She insured for £2500 in 1821.¹⁹ Rather more typical dressmakers were Eliza Bannister of 122 Jermyn St²⁰ and Martha Treadaway and Sarah Harley of 181 Piccadilly.²¹ The former insured for £150 in 1823 and the latter for £160 in 1825.

A small number of businesses insured fixed capital, 2.1% in the 1770s and 5.1% in the 1820s. John Winter, mentioned above, insured a workshop for £400 in 1772.²² Other examples of tailor's workshops were: Thomas Essex of Southampton St, Strand, who insured his for £100 in 1775, as well as stock, utensils and goods for £750;²³ William Morse of Conduit St, who insured his for £300 and stock, utensils and goods for £1000 in 1777;²⁴ and, Jane Mackintosh of 1 Lisle St, Leicester Fields, who insured hers for £70 and stock and utensils for £100 in the same year.²⁵ In the 1820s, Messrs Burns, tailors of 5 Nassau St, insured a workshop for £300 and stock, utensils and goods for £1500 in 1823.²⁶ Examples of other tailors were Duncan McKellar of 11 Old

Burlington St, who insured his shop for £500 in 1819, as well as stock, utensils and goods for £655,²⁷ and John Miller of 10 Hare St, who insured a workshop and stock and utensils for £100 each in 1822.²⁸

There is unusual uniformity in the contemporary estimates of capital required to set up as a tailor. All fell within a range of £50–£500. Only Whittock suggested a figure for a dressmaker and this falls within the same range. All are consistent with actual capital insured.

Although found in all parts of London, businesses were concentrated in the City, in the west central districts and the West End. What businesses there were east of the City and south of the river tended to be much smaller. In the 1770s, the overall average value of capital insured was £146 and in the City, the west central area and the West End £151, £166 and £140 respectively. In the districts to the east it was £110 and south of the river £84. In the 1820s, the overall average was £291: the equivalent figures to those above were £303, £299 and £313 compared with £200 and £192.

The 1841 *Post Office Directory* lists 1755 tailors and the Census 23,517 people employed in the trade. The large majority of these would probably have been self-employed and/or outworkers. Only a small minority of businesses took out policies in more than one year, 7% in the 1770s and 18% in the 1820s. This suggests that about one business in six in the latter period may have had a longevity of up to about ten years or more.

Overall, it may be concluded that, although most businesses were very small, they were capitalized to a significantly higher degree in the latter part of the period of this study. Larger master tailors were to be found throughout the period, but more in the 1820s than in the 1770s.

7.67 Staymakers

The aggregated data for the 1770s and 1820s for staymakers (SIC 6453) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	174
No. of Businesses	Total	73	37		
by Size of Capital (£)					
	100 and under	54	15		
	101–500	18	19		
	501–1000		2		
	1001–5000	1	1		
by Proprietor					
	Male	67	27		
	Female	4	8		
	Multiple Male	1			
	Multiple Female	1	1		
	Mixed		1		
by Location					
	E	3	4		
	EC	10	8		
	W	21	10		
	WC	37	7		
	SE		8		
	SW	2			
by Type of Capital					
	Working	73	35		
	Both		2		
Size of Maximum Capital (£)					
Average	All	124	212		
	Female Only	126	150		
Median	All	60	150		
	Female Only	30	130		
Highest		1950	1100		
Lowest		10	8		
Years of Entry	1	67	28		
	2	6	8		
	3		1		

Staymaking was a small but significant London trade in the period 1775–1825. Pigot lists 174 in 1826/27 and the fire office registers contain records for 73 in the 1770s and 37 in the 1820s, 21% of those listed in Pigot. Most businesses were very small. In the 1770s, nearly 74% insured for £100 or less and virtually all the remainder for £500 or less. Even by the 1820s, the proportion insuring for £500 or less was 92%, although only 40.5% insured for £100 or less. The average value of capital insured was £124 in the 1770s and £212 in the 1820s. Median values were £60 and £150.

By far the largest business in the 1770s was William Saltzman and John Croft, stay and sash makers of Henrietta St, Covent Garden. They insured stock, utensils and goods for £1950 in 1771.¹ The next largest was Frances Flamand, a staymaker of Francis St, Golden Square. She insured for £500 in 1777.² John Hinton of 30 Duke St, West Smithfield was a more typical example. He insured stock and utensils for £130 in 1777.³ The largest staymaker in the 1820s was William Marston of 25 Holywell St, Strand. He insured stock, utensils and goods for £1000 in 1821 and his shop for £100 four years later.⁴ John Harvey of 32 High St, St Giles insured stock and utensils for £600 in 1824,⁵ and Thomas Kemshead of 188 Tottenham Court Road insured a workshop for £100 and stock and utensils for £400 in 1825.⁶ On a much smaller and more typical scale was William Penny, a corset maker of 18 Tavistock St, Covent Garden. In 1823, he insured stock and utensils for £50.⁷

Although only 7% of businesses had female proprietors in the 1770s, by the 1820s it was nearly a quarter. Apart from Frances Flamand, an example from the 1770s was Anne and Jane Horner of 16 Lime St. They insured stock, utensils and goods for £50 in 1772.⁸ In 1825, Hannah Daft of 368 Oxford St insured stock and utensils for £280,⁹ and Elizabeth Mackintosh and Rebecca de Freitas of 6 Newington Causeway insured stock, utensils and fittings for £200.¹⁰

Between £40 and £100 was suggested as the lower limit for capital required to set up in business as a staymaker. The upper ceiling for the range was put at between £60 and £300. The estimates rose over time. Collyer suggested £50–£60 and Kearsley £40–£60, but Mortimer went up to £50–£100 and Whittock £100–£300.

The 1841 Census enumerated 1753 corset and staymakers but the *Post Office Directory* had no listing for staymakers.

7.68 Hats, Hosiery and Gloves

Even apart from the bespoke production of tailors and dressmakers, one of the foremost London retail trades in the last quarter of the 18th century and the first quarter of the 19th was textiles and clothing. For the purposes of this study, businesses other than tailors, dressmakers and staymakers, but engaged in retailing clothing, textiles and haberdashery are divided into four categories: hosiers, hatters, milliners and glovers (SIC 6454); haberdashers (6455); drapers and mercers (6456); and, slopsellers and dealers in ready made clothing and certain other items (6452 and 6459). However, a substantial number of businesses described themselves as covering several, or indeed all, of these trades. There are, for example, innumerable linen drapers and haberdashers. Not at all unusual was the description of the business of Thomas Creed and Frederick Keen of 10 Fore St, Cripplegate. They were shown in their 1822 policy as haberdashers, hosiers, lacemen, mercers, furriers, dealers in woollen cloths and fancy trimmings.¹ The invoice heading used by E Acworth of 8 Cornbury Place, Old Kent Rd is "Linen Draper, Silk Mercer, Haberdasher and Hosier".² Another invoice, issued by John Breach of 1 Aldgate in 1820 described the business as "Haberdasher, Hosier, Laceman and Glover".³ Businesses like these are given a fifth classification (6457) and are dealt with separately.

There is no equivalent to the last classification above in Pigot or any other trade directory so no direct comparison is made between the numbers of businesses listed in the 1826/27 edition of Pigot and the count of businesses derived from the fire office registers for the 1820s for any of the separate trade categories specified above. However, taken together the various retail clothing and textile trades account for 2571 businesses in Pigot, 5.6% of all London businesses. On the same basis, the fire office registers contain data for 1506 businesses in the 1770s and 1227 in the 1820s. The latter is 48% of those listed in Pigot.

The aggregated data for the 1770s and 1820s for hatters, hosiers and glovers (SIC

6454) are summarised and tabulated below,

		1770s	1820s
No. of Businesses Total		468	232
by Size of Capital (£)			
100 and under		121	60
101-500		215	85
501-1000		84	44
1001-5000		47	37
5001-10000		1	5
over 10000			1
by Proprietor			
Male		232	153
Female		151	38
Multiple Male		32	20
Multiple Female		49	19
Mixed		4	2
by Location			
E		41	31
EC		158	62
W		92	42
WC		116	57
N		1	1
SE		26	23
SW		34	16
by Type of Capital			
Working		466	228
Fixed		1	1
Both		1	3
Size of Maximum Capital (£)			
Average			
All		493	849
Female Only		301	315
Median			
All		300	375
Female Only		200	100
Highest		8100	19700
Lowest		10	10
Years of Entry			
1		423	177
2		35	39
3		9	12
4		1	1
5			3

A comprehensive description of the stock of a hosier and glover is contained in an invoice sent out in 1763 by Thomas Jones of Holborn Bridge: "all Sorts of Stockings, White & Colour'd Baize, Flannels, Linseys, & Swan-skins, Pieces for Waistcoats & Breeches, Worsteds, Swaites, Gloves and Mittens, &c."⁴ Just over 70 years later, the catalogue of the stock of a hatter, to be sold at an auction in Lombard St on 19 February, 1834, included 58 beaver hats or bonnets, 69 caps, variously made of cloth,

velvet, horse-hair, India rubber, leather, merino, seal-skin, oil-skin, fur and felt, three straw hats, ten silk hats and 12 other hats.⁵ With regard to milliners, Alison Adburgham points out that it was not until the latter part of the period of this study that they became exclusively identified with hats and bonnets; earlier they had also dealt in other fancy articles.⁶

Hatters, hosiers and glovers tended to be much smaller than haberdashers or drapers and mercers. In the 1770s, 72% insured capital valued at £500 or less, 26% for £100 or less. By the 1820s, the proportions were still 62.5% and 26% respectively. Only 10% insured capital valued at more than £1000 in the 1770s but by the 1820s this had risen to 18.5%. The average value of capital insured increased from £493 to £849 and the median value from £300 to £375. Average values can be compared with those for haberdashers and drapers and mercers; these were £777 and £1561 and £1146 and £2412 respectively in the 1770s and 1820s.

Nevertheless, there were a small number of very large businesses. In the 1770s, the largest capital insured was £8100. This was by Matthew Pleston and John Fuller, hosiers of 76 Houndsditch in 1769.⁷ In the same year, Sarah Hyde, a milliner of Parliament St, insured stock and utensils for £5000.⁸ The largest hatter was Thomas Davies of 83 New Bond St. He insured stock and utensils for £4000 in 1773.⁹ Two years earlier, William Hunt and John Cunningham of Piccadilly, hosiers, hatters and glovers, had insured stock and utensils for £2500.¹⁰ Examples of rather small businesses were Thomas Tamberlin, a hosier of John St, Golden Square, who insured stock and utensils for £300 in 1769¹¹ and Charles Edwards, a hatter and hosier of Wapping Wall, who also insured stock and utensils for £300, but in 1775.¹² Much the largest capital insured in the 1820s was £19,700 by James Robertshaw, a hosier of 99-100 Oxford St in 1823.¹³ Another hosier, Robert Romanis of 33 Cheapside, insured for £10,000 in 1825.¹⁴ Borrodale Sons and Ravenhill, hatters of 34 Fenchurch St, insured goods for £8000 in 1821¹⁵ and Thomas Hickox Wing, a glover of 20 Great

Newport St, insured stock, utensils and goods for £1600 in 1825.¹⁶ Amongst milliners, Elizabeth and Ann Green of 18 Cross St, Newington Butts insured stock and utensils for £1000 in 1821.¹⁷ Thomas Gardiner of 121 Whitechapel was a hatter, hosier and glover. He insured stock, utensils and fittings for £650 in 1821;¹⁸ the business survived until the second half of this century. Examples of smaller businesses were: Charles Haxell, a hosier of 92 Whitechapel, who insured stock and utensils for £400 in 1819;¹⁹ John Davis, a glover of 15 Frith St, Soho, who insured a warehouse for £200 and stock for the same amount in 1825;²⁰ and, George Lyne, a dealer in hats of Southampton St, Strand, who insured stock, utensils and goods for £200 in 1823.²¹

There were large numbers of female-owned businesses, mostly milliners. In the 1770s, nearly 43% had female proprietors and in the 1820s nearly 25%. The average capital insured was lower than for all businesses in both periods, £301 compared with £493 in the 1770s and £215 compared with £849 in the 1820s. In the earlier period, apart from Sarah Hyde mentioned above, Mary Driffield, a hatter of Worcester St, Southwark insured stock for £1800 in 1774²² and Susanna and Ann Burchall, milliners of Bank St, Cornhill, insured stock, utensils and goods for £1250 in 1777.²³ On a more modest scale, Susanna Steele, a milliner of 8 Henrietta St, Covent Garden, insured stock and utensils for £400 in 1774.²⁴ In the 1820s, Ann Allen, a hosier and glover of 10 Holborn insured stock and utensils for £1100 in 1822.²⁵ Mary and Sarah Bayfield, milliners of 3 Bonnet St, St James, insured stock and utensils for £500 in 1819.²⁶ Perhaps more typical was Sarah Woolcott Laxton of 3 Royal Arcade, Pall Mall. She insured stock and utensils for £200 in 1822.²⁷

The lower limit estimated for capital required to set up in business as a glover varied from £50 to £200. The ceiling to the range varied from £400 to £1000. For a hatter Campbell and Collyer suggested a lower limit of £100 but Mortimer and Whittock gave £300. Conversely, Campbell went up to £1000 and Mortimer and Whittock only up to £600. The 18th century estimates were much higher for a hosier. The lower limit

varied from £200 to £500 but the upper parameters went up to £5000. Mortimer and Whittock suggested £200–£500 and £200–£400 respectively. Again, there were wide variations for a milliner. Lower limits varied from £100 to £500 and the upper parameter from £300 to £1000. None of these estimates were inconsistent with the majority of actual insured values and in practice hosiers tended to insure for the greatest amounts.

In both periods, the largest numbers of businesses were to be found in the City, the West End and west central districts, 78% in the 1770s and 69% in the 1820s. The 1841 *Post Office Directory* lists 311 hosiers and glovers and the Census 677 people employed in those trades.

The large majority of businesses took out policies in only one year. However, just under 10% in the 1770s and nearly 24% in the 1820s insured in more than one year and may have had a longevity of up to about ten years or more. As with the other clothing and textiles retailing trades, there were a number of businesses of great longevity. James Lock and Co of St James St were founded in the 1720s, traded throughout the period of this study, and thereafter on into the 20th century.²⁸

Overall, all the retail clothing and textile trades experienced an increase in capitalization over the period of this study and an increase in the numbers of larger businesses. However, this trend was least marked for hatters, milliners, hosiers and glovers.

7.69 Haberdashers

The aggregated data for the 1770s and 1820s for haberdashers (SIC 6455) are summarised and tabulated below,

		1770s	1820s
No. of Businesses Total		202	105
by Size of Capital (£)			
100 and under		41	28
101-500		83	33
501-1000		34	16
1001-5000		43	22
5001-10000			5
over 10000		1	1
by Proprietor			
Male		133	65
Female		30	22
Multiple Male		25	10
Multiple Female		7	6
Mixed		7	2
by Location			
E		17	16
EC		65	24
W		42	18
WC		50	23
N			2
NW			1
SE		12	14
SW		16	7
by Type of Capital			
Working		201	105
Fixed		1	
Size of Maximum Capital (£)			
Average All		777	1146
Female Only		298	177
Median All		355	300
Female Only		150	105
Highest		12000	10150
Lowest		20	10
Average No of Employees (1841)			6
Years of Entry 1		183	84
2		17	14
3		2	3
4			2
5			2

The fire office registers contain data for 202 haberdashers and related retail traders from the 1770s and 105 from the 1820s. Related trades include button and trimming

sellers, lacemen and ribbon, braces and artificial flower dealers. Although there were few very highly capitalized businesses, there were also comparatively few that were very small. In the 1770s, just over 20% insured for £100 or less, 41% for between £100 and £500, 17% for between £500 and £1000 and nearly 22% for over £1000. By the 1820s, the slightly higher proportion of 24.6% insured for £100 or less but only 31.4% for £101–£500. A slightly higher lower proportion insured for between £500 and £1000 (15%) but more for over £1000 (27%). Although the average value of capital insured increased between the 1770s and the 1820s, from £777 to £1146, the median value fell from £355 to £300.

In terms of capital insured, by far the largest business in the 1770s was that of James Mawhood, John Paulin and John Coates, haberdashers of Tavistock St, Covent Garden. They insured stock and utensils for £12,000 in 1770.¹ Another large haberdasher was Edward Eaton and James Butler of 43 St Paul's Churchyard who insured stock, utensils and goods for £4600 in 1775.² Richard Wilson, George Burley and William Etty, lacemen of 31 Lombard St, insured stock and utensils for £4000 in 1771.³ Two large haberdashers in the 1820s were Thomas Sanders of 319–20 Holborn, who insured stock and utensils for £10,150 in 1820⁴ and George Swan and William Edgar of 10 Piccadilly, who insured stock and utensils for £7000 in 1820.⁵ George Swan died the following year but the business survived until the 1980s. Howell and James of 9 Regent St were haberdashers, lacemen and dealers in perfumery. They insured stock, utensils and fittings for £5000 and lace valued at £2000 in 1820.⁶ Another mixed business, but on a much smaller scale, was that of John Southey, a haberdasher and dealer in coals of 1 Princes St, Old Gravel Lane. He insured stock and utensils for £140 in 1821.⁷ Other examples of small businesses were Henry Smith and Francis Robinson, button and trimming sellers of 33 Eyre St Hill, who insured stock and utensils for £100 in 1822⁸ and John Deveulle, a haberdasher of 51 Bedford St, Covent Garden, who insured stock and utensils for £110 in 1825.⁹

A significant minority of businesses were female-owned, 18.3% in the 1770s and 26.7% in the 1820s. The average value of capital insured for such businesses was lower than for all businesses, particularly so in the 1820s when it was £177 compared with £1146; in the 1770s it was £298 compared with £777. In the earlier period, Mary Smith, a haberdasher of 107 Cheapside, insured stock and utensils for £3000 in 1775¹⁰ and Ann James, also a haberdasher, of Princes St, Leicester Fields, insured stock and utensils for £900 in 1771.¹¹ Rather more typical was Elizabeth Denbrick, a dealer in lace of Holland St, Soho, who insured stock and utensils for £200 in 1769.¹² There were no female-owned businesses on the scale of Mary Smith's in the 1820s. The largest, both haberdashers and insuring stock and utensils for £650 in 1821, were Emily Smith of 37 Blackman St¹³ and Mary Mitchell and Sarah Smyth of 51 Bermondsey St.¹⁴ Susannah Dee of 11 King St, Grosvenor Square, another haberdasher, insured stock and utensils for £100 in the same year.¹⁵

There were very wide ranges suggested for capital required to set up as a haberdasher. Campbell suggested £100–£2000, Collyer £100–£1000 and Kearsley £300–£1500. Mortimer and Whittock gave a much tighter estimate of £250–£500. For a laceman, the 18th century sources suggested a lower limit of £500 or £1000 and gave upper estimates of up to £10,000. Again, Mortimer and Whittock suggested a more realistic range of £300–£600.

In both periods, haberdashers were mainly to be found in the City, West End and west central districts, over three-quarters in the 1770s and 62% in the 1820s. The 1841 Census and *Post Office Directory* contain counts of 173 retail haberdashers and 1113 people employed and 61 lacemen and 153 employees.

Small minorities of businesses took out policies in more than one year, less than 10% in the 1770s and 20% in the 1820s. This suggested only a small proportion of businesses may have had a longevity of up to about ten years or more.

7.70 Drapers and Mercers

The aggregated data for the 1770s and 1820s for drapers and mercers (SIC 6456) are summarised and tabulated below,

	1770s	1820s	
No. of Businesses Total	404	387	
by Size of Capital (£)			
100 and under	22	24	
101-500	85	68	
501-1000	103	58	
1001-5000	179	202	
5001-10000	14	26	
over 10000	1	9	
by Proprietor			
Male	312	289	
Female	26	16	
Multiple Male	64	73	
Multiple Female	2		
by Location			
E	27	45	
EC	175	117	
W	47	74	
WC	118	91	
N		9	
NW		2	
SE	22	31	
SW	15	18	
by Type of Capital			
Working	402	376	
Fixed	1	2	
Both	1	9	
Size of Maximum Capital (£)			
Average	All	1563	2400
	Female Only	561	1061
Median	All	1000	1600
	Female Only	400	475
Highest		16000	31000
Lowest		10	4
Average No of Employees (1841)			5
Years of Entry			
1	314	244	
2	67	91	
3	18	34	
4	5	12	
5		5	
6		1	

Fire office registers contain records for 404 businesses in the 1770s and 387 in the 1820s. As well as linen and woollen drapers and mercers, there are retail furriers, shawl and flannel dealers, piece brokers and various cloth dealers. The 1826/27

edition of Pigot listed 442 retail linen drapers, 171 woollen drapers and 128 mercers.

An interesting list of goods stocked by a linen draper in the 1770s comes from a tradecard issued by Timothy Adams of Gravel Lane, Houndsditch. He sold "all Sorts of the finest Childbed Linnen, fine quilted Bed-gowns, Baskets and Cushions, Satin Mantles, Dimity Mantles, Blankets, Rowlers, with all sorts of the finest Small Linnen, Children's Dimity Coats, Flannel Coats, white and colour'd Frocks, Shoes, Stockings, Work'd Petticoats, with cambricks, Muslins, Calicoes, Bagg Hollands, and Isinghams, Irish, Garlick and Russia, Clouting Diapers, and Damask, printed Linnens, Striped Cottons, all Sorts of white and striped Flannels, white and colour'd Baize."¹

No trades were more central to the importance of London as a centre of fashion. This was, of course, recognised by contemporaries. The description of the trade of linen draper in the 1824 edition of *The Book of English Trades* says,

"The Linen Draper sells cloths which are made of flax and hemp; as Irish linnen, Russia towelling, Cambricks, etc. and, also, shawls, printed calicos, muslin etc., etc...In London, it is, in the numbers of the articles, much more circumscribed than it is in the country. Linen-drapers frequently, in the country,, combining with their trade that of a Silk-Mercer, whereas, in London, these two trades are wholly distinct.

We believe that there is no trade in England, in which more efforts are made to captivate the public, and more especially the ladies, by a display of goods; and in London, this display is carried to a most costly and sumptuous extent. In most of the principal streets of the metropolis, shawls, muslins, pieces for ladies' dresses, and a variety of other goods, are shown with the assistance of mirrors, and at night by chandaliers, aided by the brilliancy which the gaslights afford, in a way almost as dazzling to a stranger, as many of those poetical fictions of which we read in the Arabian nights' entertainment.

Some of the retail Linen-Drapers in the metropolis, transact daily, so much business as almost to exceed belief...We have known persons in this line, whose receipts have averaged £500 per day, for a long period. In such a shop, 20 or 30 persons, or more, are constantly employed...This is a business in which, we believe, more persons have failed than in any other in the United Kingdom, owing to its being liable to the fluctuations, unfortunately almost inherent in the manufacturing system, and to the great versatility in fashion and dress."²

Drapers and mercers represented the most highly capitalizes sector of the textile and clothing retail trades. Even in the 1770s, nearly half of all businesses insured capital

valued at over £1000, 4% for over £5000. By the 1820s, this had increased to over 61% and 9% respectively. The average value of capital insured rose from £1563 in the 1770s to £2400 in the 1820s; median values increased from £1000 to £1600.

There were some very highly capitalized businesses. In 1777, Thomas Rogers and Charles Greaves, linen drapers of 131 Cheapside, insured stock, utensils and goods for £16,000.³ In the same year, George Jeffery Senior and Junior of 26 Throckmorton St insured stock, utensils and goods for £9000.⁴ Seven years earlier, William Barlow, William Asburne, Richard Ellison and George Nelthorpe, mercers of King St, Covent Garden, insured stock and utensils for £10,000.⁵ A substantial woollen draper was Stephen Goddard of Crown Court, Pulteney St. He insured stock and utensils for £5750 in 1772.⁶ Typical businesses on a rather smaller scale were Thomas Rhodes, a silk mercer of Bedford St, Covent Garden, who insured stock and utensils for £500 in 1772⁷ and Samuel Liddon, a man's mercer of Stanhope St, who insured stock and utensils for £400 in 1775.⁸ There were a number of even larger businesses in the 1820s. Again, the largest was a linen draper. Matthew Halling, John Pearce and Edward Stone of 4 Carlton Chambers, Regent St insured for £31,000 with nine fire offices in 1820.⁹ Dawson and Williams, woollen drapers of 33 Cloth Fair, insured stock, utensils and goods for £10,500 in 1824.¹⁰ The largest retail furrier was George Smith of Gough Square, Fleet St. He insured stock, utensils and goods for £10,400 in 1823.¹¹ Other large businesses were Graham and Nixon, linen drapers and silk mercers of 293–4 High Holborn, who insured for £10,000¹² in 1824 and John Vickery Broughton and William Evered, men's mercers and woollen drapers of 382 Oxford St, who insured for £10,000 in the following year.¹³ Examples of much smaller businesses were Edward Brabrook, a mercer of 17 Cranbourn St, who insured stock and utensils for £500 in 1825¹⁴ and Thomas Rogers, a linen draper of 27 Red Lion St, Spitalfields, who insured for £400 in 1822.¹⁵ The latter is a good example of a business on a modest scale catering for a poorer neighbourhood, but satisfying essentially the same consumer demand for fashion as the huge West End and City shops.

There were small numbers of female-owned businesses, 7% in the 1770s and 4% in the 1820s. The average value of capital insured was substantial, but still much lower than for all businesses. It was £561 compared with £1563 in the 1770s and £1061 compared with £2400 in the 1820s. Nevertheless, there were some highly capitalized businesses. In 1775, Ann Hanckes, a piece broker of Hop Gardens, St Martin's Lane, insured stock and utensils for £1550.¹⁶ Four years earlier, Judith Thompson, a linen draper of 305 strand insured stock and utensils for £1400.¹⁷ More typical was Jane Ridley, a mercer of 8 Holiwell St. She insured stock and utensils for £200 in 1772.¹⁸ In the later period, Elizabeth Poland, a furrier of 90 Oxford St, insured stock and utensils for £4000 in 1825¹⁹ and Elizabeth Austin, a linen draper of 22 Rathbone Place, insured stock and utensils for £2800 in the same year.²⁰ The previous year, Alice Thurlborn, a silk mercer of 44 Holborn Hill, insured stock and utensils for £1300.²¹ On a smaller scale, Mary Hagerty, a piece broker of Rosemary Branch Alley, Rosemary Lane, insured stock and utensils for £180 in 1825.²²

Very few businesses insured fixed capital. In the 1770s, George Downing and John Barton, linen drapers of 133 Cheapside insured two warehouses for £400 in 1770, having insured stock and utensils for £5000 the previous year.²³ In 1819, James Ince, a silk mercer of 75 Oxford St, insured his showroom for £350 and stock and utensils for £3150.²⁴ In the same year, Robert Salmon, a linen draper of 112 High Holborn, insured his shop for £200 and stock and utensils for £1800.²⁵

All the contemporary sources agreed that a very substantial amount of capital was required to set up as either a linen or woollen draper, or a mercer or silkman. Indeed, these were the highest estimates for virtually any retail trade. For a linen draper, the two 1747 sources agreed that the lower limit was £1000 and Collyer suggested £900. Kearsley suggested a range of £300–£10,000. Whittock's estimate was £500–£1000. For a woollen draper the lower limit was £500 to £1000 and Campbell, Collyer and Kearsley went up to £5000. The lowest estimate for a mercer was £500–£2000.

Campbell suggested £1000–£10,000 and Whittock nearly a century later £500–£5000. For a silkman, Campbell suggested the capital required was "unlimited", Collyer and Kearsley that the lower limit was £1000 and Mortimer that the range was £5000–£15,000.

There were interesting variations in the average value of capital insured in different areas of London. In the 1770s, the overall average was £1561. However, it was only £1006 in east London and £1249 south of the river. In the City it was £1814. By the 1820s, the overall average had risen to £2408. Again it was much lower in east and south east London, £1164 and £2117. It was higher in the City and West End, £2915 and £2936 respectively, but highest at £3283 in the new shopping areas around Regent St.

The 1841 *Post Office Directory* and Census listed 598 retail linen drapers and 1939 people employed in the trade, 127 woollen drapers and 435 people employed and 87 silk mercers and 470 people employed. A substantial minority of businesses took out policies in more than one year, nearly a quarter in the 1770s and 37% in the 1820s. This suggests a considerable number achieved a longevity of up to about ten years or more.

Overall, these trades required a large and increasing capitalization over the period of this study, arising from their central role in satisfying the increasing and ever more sophisticated consumer demand for clothing and textiles.

7.71 Multiple Specialism Textile Goods Retailers

The aggregated data for the 1770s and 1820s for multiple specialism textile goods retailers (SICs 6457 and 6458) are summarised below,

		1770s	1820s
No. of Businesses Total		248	267
	by Size of Capital (£)		
100 and under		33	20
101-500		142	65
501-1000		47	49
1001-5000		24	109
5001-10000		2	17
over 10000			7
	by Proprietor		
Male		155	171
Female		61	33
Multiple Male		12	49
Multiple Female		15	4
Mixed		5	10
	by Location		
E		35	60
EC		50	62
W		57	56
WC		68	34
N		3	8
NW			3
SE		18	29
SW		17	15
	by Type of Capital		
Working		248	264
Both			3
	Size of Maximum Capital (£)		
Average	All	564	2034
	Female Only	434	425
Median	All	333	1000
	Female Only	200	250
Highest		10000	24550
Lowest		10	20
	Years of Entry		
	1	226	181
	2	21	53
	3	1	20
	4		10
	5		2
	6		1

These were the businesses engaged across a spectrum of the trades described in the previous three sections. The data set out above and the analysis below must be taken in conjunction with those data and analyses. There were 248 such businesses in the

1770s and 270 in the 1820s. They were of a substantially larger size in the 1820s than the 1770s. In the earlier period, over 70% insured capital valued at £500 or less, compared with only 31% in the 1820s. Conversely, by the 1820s half were insuring for over £1000 and nearly 10% for over £5000; in the 1770s these proportions had been 10.5% and less than 1%. The average value of capital insured increased from £564 in the 1770s to £2111 in the 1820s; median values rose from £333 to £1000.

Overall, the characteristics of businesses discussed in the previous three sections, especially that for drapers and mercers, apply to those businesses with a multiplicity of specialisms. Indeed, many of them were drapers and mercers amongst their other specialisms. The numbers of permutations of trades makes it difficult to draw any specific conclusions for these businesses. they can best be illustrated by example.

In 1769, Marmaduke Teasdale and Samuel Wilkinson, milliners and haberdashers of Tavistock St, Covent Garden insured stock, utensils and goods for £10,000.¹ Elizabeth Saunders, a haberdasher and hosier of Upper Shadwell, insured stock and utensils for £5600 in 1777² and Elizabeth Paterson, a haberdasher and furrier of the Cloisters, West Smithfield, insured stock and goods for £5000 in 1774.³ Smaller examples, all from 1769, were: Joseph Strange, a haberdasher, hosier and milliner of Clare St, who insured for £350;⁴ James Sperry, a linen draper, hosier and haberdasher of Vine St, Oxford Rd, who insured for £400;⁵ and, Margaret Wallis, a hoser and draper of Great Russell St, Bloomsbury, who insured for £600.⁶ Such businesses were both larger and involved in a greater variety of trades in the 1820s. Examples were: John Harvey, linen drapers and haberdashers of 15–17 Ludgate Hill, who insured stock and utensils for £25,550 in 1823;⁷ Wynn Ellis and William Brown, haberdashers, hosiers, lacemen, mercer and linen draper of 16 Ludgate St, who insured stock and utensils for £19,900 in 1819;⁸ and, George Drake Sewell and Thomas Cross, linen drapers, hosiers and mercers of 42 Frith St, who insured stock, utensils and goods for £18,200 in 1825.⁹ Smaller businesses included William Spooner, a linen draper, mercer, hosier, glover

and haberdasher of 85 Chiswell St, who insured stock, utensils and fittings for £1550 in 1825¹⁰ and Frederick Balaam, a linen draper, haberdasher, hosier and glover of 16 Southampton Row, who insured for £1000 in 1820.¹⁰

Amongst substantial female-owned businesses in the 1820s were Maria Williams, a hosier and linen draper of 26 Aldgate, who insured stock and utensils for £3000 in 1819¹² and Ann Abrahams of 53 Houndsditch, a dealer in child bed linen, hosiery and flannel who insured stock and utensils for £2000 in 1822.¹³

Also included in this section are a small number of dealers in umbrellas, parasols and walking sticks (SIC 6458). In 1775, Moses Willatt,¹⁴ a dealer in canes and sticks of 23 Poultry, insured stock valued at £1500. Exactly 50 years later, William Wilmott, a dealer in umbrellas and walking sticks of 3 Little Bell Alley, insured stock and utensils for £600.¹⁵

In the 1820s, one-third of businesses took out policies in more than one year and may have had a longevity of up to ten years or more, closely in line with drapers and mercers.

7.72 Retailers of Ready-made Clothing

The aggregated data for the 1770s and 1820s for retailers of ready-made clothing (SICs 6452 and 6459) are summarised and tabulated below,

	1770s	1820s	
No. of Businesses Total	184	233	
by Size of Capital (£)			
100 and under	57	63	
101-500	90	118	
501-1000	29	31	
1001-5000	8	20	
5001-10000		1	
by Proprietor			
Male	133	188	
Female	39	33	
Multiple Male	5	8	
Multiple Female	4	3	
Mixed	3	1	
by Location			
E	65	99	
EC	40	58	
W	14	16	
WC	53	37	
NW		1	
SE	10	16	
SW	2	6	
by Type of Capital			
Working	183	228	
Fixed	1	2	
Both		3	
Size of Maximum Capital (£)			
Average	All	335	454
	Female Only	190	331
Median	All	200	250
	Female Only	130	200
Highest		1450	7000
Lowest		5	8
Average No of Employees (1841)			
			4
Years of Entry	1	162	161
	2	18	52
	3	4	14
	4		5
	5		1

The work of Beverley Lemire amply demonstrates how, as part of the pre-occupation with material betterment that characterised the 18th century, an increasing demand for clothing that was both cheap and fashionable led to the manufacture of ready-made clothing on an extensive scale, and a network of retail dealers for its

distribution, both new and second-hand.¹ She points out that the second-hand trade flourished at a very early date. "Used apparel was available in the market place and, along with new garments, answered the needs of a significant segment of society, ranging from the middle ranks to labourers."² Campbell put it very succinctly as early as 1747: "The Salesmen deal in Old Cloaths, and sometimes in New."³ There were dealers in both new and used clothing and Beverley Lemire points out that the existence of a large and widespread market for second hand articles implies that people were used to buying clothes already made-up.⁴ She quotes the advertisement placed in the *Public Advertiser* in 1771 by Bromley's Linen and Shirt Warehouse in Charing Cross: "Any Gentleman having an immediate Call for ready made Shirts may be supplied with any Quantity, from 5s 6d to 21s finished in the neatest manner."⁵

Stanley Chapman has shown that hosiery and knitwear were produced in standard sizes from the 18th century and that shirtmaking was a sweated industry in London in the early 19th.⁶ Although the development of huge ready-made clothing retailers like L Hyam and Co, and especially E Moses and Son, did not come about until the middle of the 19th century, their precursors were well known in the 18th and the Moses family itself was involved in the trade by the 1820s.⁸

Throughout the period of this study, London was the centre of the ready-made clothing trade.⁹ By the 1820s, the trade was international. In 1827, John and William Dixon, Slopsellers of 50 Fenchurch St invoiced for jackets, coats, waistcoats, beaver hats, breeches and cloaks. The heading stated "Negro Cloathing for Exportation".¹⁰ That much of the trade was in second-hand clothing is exemplified by a tradecard of about 1760 issued by Charles Jones, Salesman of 2 Sharp's Buildings, Rosemary Lane. It stated that he sold "all sorts of Men and Boys' Cloaths, Both New and Second-hand, and all Sorts of Sea Cloaths, great Choice of women's Apparel, Both New and Second-hand...The greatest Price given for Left-off Cloaths."¹¹ Thomas Mortimer was quite wrong when he wrote in 1823 that "Ready made clothes...have recently become

an article of considerable interest in commerce.¹² They had long been so.

Certainly, there were substantial numbers of London dealers in ready-made clothing throughout the period of this study, both slopsellers (SIC 6452) and clothes dealers and salesmen (6459). The fire office registers contain data for 184 businesses in the 1770s and 233 in the 1820s. The 1826/27 edition of Pigot lists 85 slopsellers and 141 clothes salesmen. Contemporary use of the term 'salesman' is virtually synonymous with 'clothes salesman'. The large majority of these businesses were very small. In the 1770s, nearly 80% insured for £500 or less, 31% for £100 or less. Even by the 1820s, it was 78% and 51% respectively. However, by the 1820s over 9% insured for over £1000 compared with 4% in the 1770s. The average value of capital insured rose only from £335 to £454 and the median value from £200 to £250.

In terms of capital insured, the largest capital insured in the 1770s was by Richard Browne, a salesman of 10 Sparrow Corner, Minories. He insured stock and utensils for £1650 in 1775.¹³ The largest slopseller was George Pusdon of 97 Lower Thames St, who insured stock and utensils for £1600 in 1770.¹⁴ More typical were Moses Lyon, a dealer in clothes of 8 Heneage Lane, who insured stock for £200 in 1770¹⁵ and Joseph Brooks, a slopseller of Newington Causeway, who insured stock and utensils for £120 in the same year.¹⁶ In the 1820s, the largest business was Benn, Hill and Co, clothiers of 58–9 West Smithfield. They insured stock, utensils and goods for £7000 in 1821.¹⁷ Amongst slopsellers, Dixon and Co. of Fenchurch St insured stock and utensils for £4000 in 1821¹⁸ and Elizabeth Martin of 8–9 Little Hermitage St for £3000 the following year.¹⁹ Amongst clothes salesmen, Mosedon and Crockett of 7 Minories insured for £3050 in 1824.²⁰ That the terms were not regarded as synonymous is shown by the fact that there were a number of slopsellers and salesmen. Described in this way were Isaac and Mark Israel of 69 Lower East Smithfield, who insured stock and utensils for £1550 in 1821.²¹ Examples of much smaller businesses were: Moses Cohen, a slopseller of 8 Rosemary Lane, who insured stock and utensils for £200 in

1819;²² Richard Green, a dealer in clothes of 14 Long Alley, who insured for £200 in 1822;²³ and, Samuel and Moses Benjamin, dealers in wearing apparel of 74 Crawford St, Marylebone, who insured for £300 in 1820.²⁴

A substantial minority of businesses had female proprietors, 23% in the 1770s and 15.5% in the 1820s. In both periods, the average capital insured was lower than for all businesses, £190 compared with £335 in the 1770s and £331 compared with £454 in the 1820s. In 1770, Ann Villiers, a slopseller of St Bartholomew's Hospital Cloisters, insured stock and utensils for £800.²⁵ Smaller and more typical were Susanna Clarke, a dealer in clothes of 101 Fore St, Cripplegate, who insured stock and utensils for £150 in 1771²⁶ and Mary Harris and Elizabeth Mistrezatt of Shovell Court, Wood St, who insured stock, utensils and goods for £100 in 1772.²⁷ Mary Allan, a clothes saleswoman of 14 Sparrow Corner, insured stock and utensils for £800 in 1819.²⁸ On a smaller scale, Ann Hybart, a dealer in wearing apparel of 2 Lambeth High St, insured stock and utensils for £250 in 1823.²⁹

The contemporary estimates of capital required to start up in business as either a clothes salesman or slopseller were very high compared with actual values of capital insured. For a clothes salesman, the lower limit to the suggested ranges varied from £100 to £300 but Campbell, Collyer and Kearsley went up to £1000 and Whittock to £3000. Collyer's estimate for a slopseller was "thousands" and Kearsley's £200-£5000. However, Mortimer suggested £250-£500 and Whittock only £25-£100.

The large majority of businesses were found in the City, 22% in the 1770s and 25% in the 1820s, and more particularly, to the east around Rosemary Lane and the Minories (35% and 42.5%), and to the west around Monmouth St, Seven Dials (29% and 16%).

The 1841 *Post Office Directory* and Census listed 54 slopsellers and 141 people employed in the trade. There were also 31 salesmen and 242 clothes dealers

employed, and 53 outfitters with 103 employees. In the 1770s, 12% of businesses took out policies in more than one year. By the 1820s, it was nearly 31%. This suggests that up to about one-third had a longevity of up to about ten years or more.

These trades saw a small increase in capitalization between the 1770s and 1820s and a growth in the number of rather larger businesses. However, the trade as a whole was growing throughout the period in response to the increasing demand for ready-made clothing.

7.73 Shoemakers

The aggregated data for the 1770s and 1820s for shoemakers (SIC 6461) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	259	292
by Size of Capital (£)			Pigot 1826/7 1672
100 and under		137	100
101-500		106	156
501-1000		15	23
1001-5000		1	13
by Proprietor			
Male		247	273
Female		4	6
Multiple Male		8	10
Mixed			3
by Location			
E		37	51
EC		54	73
W		52	46
WC		86	58
N		1	3
NW			3
SE		13	44
SW		16	14
by Type of Capital			
Working		257	285
Fixed			2
Both		2	5
Size of Maximum Capital (£)			
Average	All	174	296
	Female Only	105	250
Median	All	100	200
	Female Only	110	200
Highest		1100	3700
Lowest		5	5
Years of Entry	1	240	235
	2	18	38
	3	1	14
	4		3
	5		1
	6		1

Boot and shoemaking was one of the commonest of London trades. The 1826/27 edition of Pigot lists 1672 businesses. The fire office registers contain records for 259 businesses in the 1770s and 292 in the 1820s. The latter is 17.5% of those listed in Pigot.

Demand for shoes was as much a part of the consumer-led revolution in clothing habits as other articles of dress. Dorothy George pointed out that as early as 1738, and probably before that, the London shoemaking trade had clear distinctions between bespoke business and ready-made products.¹ That there were retail outlets prior to the last quarter of the 18th century. A tradecard issued by Charles Bottrell, Shoemaker of Newgate St just before the latter years of the century states that he "Makes & Sells all sorts of Men's Shoes, Boots & Pumps, Likewise all sorts of Women's & Children's Shoes & Clogs, Wholesale & Retail."² Even more explicit was the advertisement published in 1828 by W Figg for his "Cheap Shoe Warehouse" at 29 Stonecutter St, Fleet Market. It read "Schools and Charities of every description served on the lowest terms. A great choice of Ladies' Fashionable and Strong Boots and Shoes of every description, Gentlemen's Strong and Light Shoes of every kind, Pattens and Clogs of every description made to order. Country Shopkeepers supplied."³ Retail business was even carried out side by side with an export trade. As early as 1761, Collyer described how "The master shoe-makers in London keep shop and employ many workmen and workwomen. Some of the export great quantities to our Plantations..."⁴

Both Dorothy George and, much later, Roy Church, describe how both large and small masters existed side by side,⁵ the large majority of businesses were very small. Over half insured capital valued at £100 or less in the 1770s and another 40% for between £100 and £500. Only 6% insured for more than £500. Although the proportion of businesses insuring £100 or less decreased by the 1820s, it was still over a third, and over 53% insured for between £100 and £500. However, over 12% insured for more than £500, of which 4.5% insured for over £1000. The average value of capital insured was £174 in the 1770s and increased only to £296 in the 1820s. Median values doubled from £100 to £200.

Only three shoemakers insured for £1000 or more in the 1770s. The largest, John

Hayter of King St, Westminster, insured stock and utensils for £1100 in 1770.⁶ George Murray of 15 Smock Alley, Petticoat Lane insured stock and utensils for £1000 in 1775.⁷ More typical were Richard Mills of Fountain Court, Strand⁸ and John Abbott of 52 Oxford St.⁹ The former insured stock and utensils for £150 in 1769 and the latter for £200 in 1771. Several businesses described as 'shoe warehousemen' and would have dealt in ready-made products. William Dorsett of Piccadilly insured stock and utensils for £800 in 1769¹⁰ and Thomas Godwin of 116 Fleet St insured stock and utensils for £700 in 1775.¹¹ There were several rather larger businesses in the 1820s. John and Henry Gamble, boot and shoemakers of 33 Fish St Hill insured stock, utensils and fittings for £3800 in 1823¹² and George Smith, a shoemaker of 34 Red Lion St, Holborn, insured stock and utensils for £2700 in 1820.¹³ An example of a smaller boot and shoemaker was John Salter of 41 Old Gravel Lane. He insured stock and utensils for £290 in 1825.¹⁴ A substantial boot and shoe warehouseman was William Bird of 21 Greville St, Hatton Garden who insured stock, utensils and goods for £1600 in 1824.¹⁵ There were a small number of female-owned businesses, none of any great size. In 1769, Ann Hamilton, a shoemaker of Great Portland St, insured stock and utensils for £150,¹⁶ and in 1825, Mary Louisa Horne, a boot and shoemaker of 84 Strand, insured for £500.¹⁷

A very small number of businesses insured fixed capital, most often in the form of a workshop. In 1772, Pierre L'Anglois, a shoemaker of 2 Stephen St, Rathbone Place, insured his shop for £200 and stock and utensils for the same amount.¹⁸ William Dunn of 8 Adam and Eve Court, Oxford St, also a shoemaker, insured his workshop for £5 in 1777, having insured stock and utensils for £150 in 1769.¹⁹ Fifty years later in 1819, John Blacklock, a shoemaker of 21 Everett St, Russell Square, insured a workshop for £100 in addition to stock and utensils for £350.²⁰ John Hawes, a boot and shoemaker of Kent St, Borough, insured a workshop for £50 in 1823 and stock, utensils and goods for £600 the following year.²¹

Only Mortimer and Whittock estimated the capital required to set up in business as a bootmaker or boot and shoemaker. Mortimer suggested £100–£200 for a boot and shoemaker. Whittock distinguished between £200–£300 for a boot and shoemaker and £100–£200 for a bootmaker.

Although boot and shoemakers were to be found everywhere, there were marked differences in the size of business between different areas. In the 1770s, when the average value of capital insured was £174, businesses in the West End and west central areas averaged £180 and £198 respectively, while those in the City and in the districts to the east averaged £145 and £163. Lowest of all were the areas south of the river, where the average was £129. In the 1820s the overall average was £296. Again, businesses south of the river had the lowest average of £161 and west central districts the highest at £429. However, the City was higher than average with £330 and the districts to the east much lower at £234. The West End was lower than average at £280.

The 1841 *Post Office Directory* listed 1132 retail shoemakers. The Census counted 28,574 people employed in the trade. However, the large majority of these would have been self-employed or the proprietors of their own bespoke businesses. Just over 7% of businesses took out policies in more than one year in the 1770s. By the 1820s it was nearly 20%. This suggests that only a small minority of businesses may have had a longevity of up to about ten years or more.

Overall, this was not a trade which changed much over the period of this study, either in technology or capitalization, although by the early 19th century a substantial proportion of wholesale manufacturing had moved to Northampton, Stafford, Wellingborough, Kettering and Daventry.²² Even so, there was both a small increase in the size of business and the number of larger businesses, again in response to increasing demand, both for bespoke and ready-made products.

7.74 Other Leather Goods

The aggregated data for the 1770s and 1820s for retailers of other leather goods (SIC 6462) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	25	19 Pigot 1826/7 51
by Size of Capital (£)			
	100 and under	2	2
	101-500	10	8
	501-1000	9	8
	1001-5000	4	1
by Proprietor			
	Male	22	17
	Multiple Male	3	2
by Location			
	E	1	2
	EC	11	4
	W		3
	WC	9	6
	N		1
	SE	5	3
by Type of Capital			
	Working	24	18
	Fixed		1
	Both	1	
Size of Maximum Capital (£)			
Average	All	782	583
Median	All	520	415
Highest		3000	2000
Lowest		40	100
Years of Entry	1	21	14
	2	4	4
	3		1

There were a small number of London leather sellers and dealers in grindery. Pigot lists 51 in 1826/27. The fire office registers contain records for 25 businesses in the 1770s and 19 in the 1820s. The latter is just over a third of those listed in Pigot. These numbers are too small for meaningful conclusions to be drawn, other than that most businesses were small. In both periods, nearly half insured capital valued at £500 or less and very few insured for over £1000. The average value of capital insured decreased from £782 in the 1770s to £583 in the 1820s.

A few examples exemplify the trade. In 1769, Daniel Remey, a leather seller of Newport Alley, Newport Market, insured stock and utensils for £3000.¹ Another leather

seller, Ebenezer Evans of Newgate St, insured for £2000 three years later.² On a smaller scale, Matthew Hewlett, a leather seller of Baldwin St, insured for £240 in 1771.³ The largest capital insured in the 1820s was £2000 by John Marshall, a leather seller and warehouseman of 1 Bell Court, Cannon St in 1822.⁴ The following year, Robert Johnson, a leather seller of 3 Commercial Rd, insured stock and utensils for £1000.⁵ A typical smaller business was James Johnson, a dealer in grindery of 208 Brick Lane, Spitalfields. He insured stock and utensils for £200 in 1819.⁶

7.75 Furnishing Fabrics and Household Textiles

The aggregated data for the 1770s and 1820s for retailers of furnishing fabrics and household textiles (SIC 6470) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	9	29
by Size of Capital (£)			
	100 and under	1	2
	101-500	4	9
	501-1000	1	9
	1001-5000	3	7
	5001-10000		2
by Proprietor			
	Male	4	19
	Female	3	4
	Multiple Male	2	3
	Multiple Female		2
	Mixed		1
by Location			
	E	1	5
	EC	4	10
	W	1	4
	WC	2	9
	SE	1	1
by Type of Capital			
	Working	9	29
Size of Maximum Capital (£)			
Average	All	767	1377
	Female Only	1100	380
Median	All	500	700
	Female Only	1500	390
Highest		1650	6000
Lowest		70	50
Years of Entry	1	7	21
	2	2	6
	3		1
	4		1

There were small numbers of specialised retailers of furnishing fabrics and household textiles in London in the last quarter of the 18th century and the first quarter of the 19th. Pigot listed 144 in 1826/27, of which over half were carpet warehouses. The fire office registers contain records for only a small number of businesses, nine in the 1770s and 29 in the 1820s. The latter is 20% of those listed in Pigot. Again, the numbers are too few and the range of specialised businesses too large for any general conclusions to be drawn. However, a number of examples illustrate the various trades.

In 1771, Thomas Lyford and James Griffith, carpet warehousemen of 60 Bread St insured stock, utensils and goods for £1650.¹ A dealer in mats, Letitia Clark of 29 Bishopsgate St Without, insured stock and utensils for £1600 in 1772² and the proprietor of a carpet and blanket warehouse, Elizabeth Tuneciffe of Piccadilly, insured stock and utensils for £1500 in 1769.³ Fifty years later in 1819, William Tomlinson, a carpet merchant of St Helen's Place, insured stock, utensils and goods for £6000⁴ and Ridley and Brooke, carpet and blanket warehousemen of 12 Castle St, Holborn insured stock, utensils and goods for £2000.⁵ A dealer in carpets and rugs, Maurice Evans of 15 Holborn Bars, insured for £3460 in 1823⁶ and a floor cloth warehouseman, Henry Maxwell of Newington Causeway, insured for £400 the previous year.⁷

7.76 Hardware and Ironmongery

The aggregated data for the 1770s and 1820s for hardwaremen and ironmongers (SIC 6481) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	123	147
by Size of Capital (£)			
	100 and under	16	17
	101-500	59	53
	501-1000	23	28
	1001-5000	24	42
	5001-10000	1	7
by Proprietor			
	Male	104	123
	Female	5	10
	Multiple Male	12	14
	Mixed	2	
by Location			
	E	15	20
	EC	47	43
	W	17	29
	WC	32	30
	N		1
	NW		1
	SE	9	19
	SW	3	4
by Type of Capital			
	Working	119	133
	Fixed	1	2
	Both	3	12
Size of Maximum Capital (£)			
Average	All	796	1250
	Female Only	220	589
Median	All	400	550
	Female Only	200	270
Highest		9500	8600
Lowest		20	40
Average No of Employees (1841)			3
Years of Entry	1	108	104
	2	12	34
	3	3	6
	4		3

The retail trade in household goods, hardware and ironmongery was one of the largest in London throughout the period of this study. These were basic trades, supplying the domestic market, but collectively of great importance. Pigot listed 2528 businesses in 1826/27, 12.6% of all retailers and 5.5% of all businesses in London. The fire office

registers contain records of 708 businesses in the 1770s and 788 in the 1820s. Hardwaremen and ironmongers were no longer craftsmen–shopkeepers but retailers of products which were as likely, if not more likely, to have been made in Birmingham as in the hundreds of small London producers of finished metal and other household goods. Pigot listed 859, 1.9% of all trades in the capital. Most common were retail ironmongers, 383 of which were listed. The fire office registers contain records of 123 businesses in the 1770s and 147 in the 1820s. the latter is 17% of those listed in Pigot. In practice, many businesses described themselves as both ironmongers and hardwaremen, like William Freke of Stanhope St, Clare Market, whose invoice of 1779 is headed Ironmonger and Hardwareman and states "All sorts of Ironmongery, Braziers and Cutlery".¹ A much more comprehensive description of the business of an ironmonger is contained in a tradecard of 1776 sent out by Edward and William Martin of Foster Lane, Cheapside. They,

"Sell all sorts of Files and Tools for Goldsmiths, Jewellers, Engravers, Clock and Watchmakers; also for Blacksmiths, Gun-makers, Braziers, Tin-men, Upholsterers, Carpenters, Joyners, Carvers, Turners, Coopers, Bricklayers, Shoemakers, and all other Artificers; Curriers' Knives, & Implements for Gardening, all Sorts of Nails, Locks, Hinges and Brass-work for cabinets &c, Furniture for Coffins; all sorts of Brass & Iron Wire; Spinet and Harpsichord ditto; Watch-keys, Glasses, Springs, Pinion-wire & other Materials for Watchmakers; Spunges, Fish-skins, Flints, Melting Pots of all Sorts; Emmery, Pumice & Rollen Stones, Turkey Oil-stones, Spelter or Zinc Spelter, Solder, Bisma or Tin Glass, Antimony & Regulus of Antimony, Salt Petre, Argol, Sandifer, Steel of all sorts, Houghs, Bills, Axes & other Iron Work for ye Plantations."²

A rather different range of goods was kept by Warner and Cooke, Ironmongers and Braziers of New Bond St. An invoice sent out in 1772 was headed "Locks, Hinges, Nails and Brass Cabinet Goods, Fine Grates, Bath-stoves, Kitchen-ranges, Smoke and windup-Jacks...Copper Utensils...Plated Goods, Japanned-Waiters, Table Knives & Forks & Gentlemen's Tool Chests."³

Most businesses were of a moderate size, though few were very large. Only 13% insured capital valued at £100 or less in the 1770s, and 11.6% in the 1820s. In the earlier period, 48% insured for between £100 and £500 compared with 36% in the

1820s. In both periods 19% insured for for between £500 and £1000. The main difference was that 34% insured for over £1000 in the 1820s compared with 20% in the 1770s. The average value of capital insured rose from £796 in the 1770s to £1250 in the 1820s. Median values increased from £400 to £550.

In terms of capital insured, the largest business in the 1770s was Richard Townsend and Samuel Crosley, ironmongers of 3 Gracechurch St. They insured stock, utensils and goods for £9500 in 1770.⁴ Another large ironmonger was William Gaskill of 49 Bread St who insured stock and utensils for £4000 in 1772.⁵ The largest hardwareman was Robert Abney of Spreadeagle Court, Finch Lane. He insured stock and utensils for £3800 in 1769.⁶ The largest ironmongers in the 1820s were Henry Marriott of 89 Fleet St⁷ and John Hillman of Foster Lane, Cheapside.⁸ The former, who was also a manufacturer of portable water closets, insured stock, utensils and goods for £8600; the latter insured stock and utensils for £7000, both in 1825. The largest hardwareman was Morris Edward Emanuel of 1 Bevis Marks. He insured stock and utensils for £7000 in 1819.⁹ Another hardwareman, George Thomas Goodbehere of 9 Wellclose Square, insured stock and utensils for £6100 in 1821.¹⁰

A small proportion of businesses were female-owned, 4% in the 1770s and 7% in the 1820s. The average capital insured by these businesses was considerably lower than for all businesses, £220 compared with £796 in the 1770s and £589 compared with £1250 in the 1820s. There were no large female-owned businesses in the 1770s.

Typical were Mary Waterhouse, a hardware and toywoman of 46 Holborn who insured stock and utensils for £400 in 1775¹¹ and Sarah Fletcher, an ironmonger of Kensington who insured stock and utensils for £200 in 1771.¹² In 1821, Ann Barber, an ironmonger of 19 Rotherhithe, insured stock and utensils for £3200.¹³ More typical was Hannah Thompson, a dealer in hardware of 26 Bridges St, Covent Garden. She insured stock, utensils and goods for £240 in 1824.¹⁴

Small numbers insured fixed capital, 3% in the 1770s and just under 10% in the 1820s. In 1777, John Oliver and Edward Bayley, ironmongers of 38 Cow Lane, insured a warehouse for £300 as well as stock and utensils for £2500.¹⁵ Two years earlier, another ironmonger, John How of 204 Holiwell St, Shoreditch, insured a workshop for £100 and stock and utensils for £600.¹⁶ In 1825, Susannah Hughes of 11 Brewer St, Golden Square, a dealer in turnery, insured a workshop for £500 and stock and utensils for £300.¹⁷ William Browne, an ironmonger of 117 Great Surrey St, St George's Rd, insured stock and utensils for £3500 in 1824 and a warehouse for £100 the following year.¹⁸

The estimated capital required to set up in business as an ironmonger reduced over the period covered by the contemporary sources, In 1747, Campbell suggested £500–£1000. Kearsley gave a much wider range of £200–£3000 in 1786, but Mortimer and Whittock in 1819 and 1837 both suggested only £300–£600. Estimates were higher for a hardwareman. The anonymous author of 1747 suggested £500–£2000 and Kearsley £250–£6000. Mortimer and Whittock both suggested £250–£1000. The lower limits suggested accorded well with the actual capital insured by a large proportion of businesses, but few ran to the upper levels estimated.

In both periods, the largest concentrations of businesses were in the City and west central area. The 1841 Census and *Post Office Directory* enumerated 37 retail hardwaremen and 96 people employed, and 374 retail ironmongers with 1173 people employed.

The large majority of businesses took out policies in only one year, 86% in the 1770s and 71% in the 1820s. However, this still left a significant minority, especially in the later period which may well have had a longevity of up to about ten years or more.

7.77 Oils, Candles and Paints

The aggregated data for the 1770s and 1820s for retailers of oils, candles and paints (SIC 6482) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	376
No. of Businesses Total		229	224		
by Size of Capital (£)					
100 and under		14	14		
101-500		158	121		
501-1000		36	55		
1001-5000		20	32		
over 10000		1	2		
by Proprietor					
Male		203	195		
Female		8	13		
Multiple Male		17	14		
Multiple Female			1		
Mixed		1	1		
by Location					
E		44	48		
EC		76	61		
W		33	44		
WC		42	24		
N			8		
NW			1		
SE		24	29		
SW		10	9		
by Type of Capital					
Working		217	210		
Fixed		2	2		
Both		10	12		
Size of Maximum Capital (£)					
Average					
All		514	727		
Female Only		378	264		
Median					
All		300	400		
Female Only		275	250		
Highest		10800	11000		
Lowest		43	50		
Average No of Employees (1841)					3
Years of Entry					
1		195	147		
2		31	56		
3		3	16		
4			3		
5			2		

The principal trades covered in this section are wax and tallow chandlers and oil and colourmen, though there are a number of other related trades. Pigot listed 376 businesses in 1826/27. The fire office registers contain records for 229 in the 1770s and 224 in the 1820s. The latter is 60% of those listed in Pigot.

A typical statement of the tallow chandler's business is to be found in a tradecard of 1794 issued by James Elmer of 69 Cannon St. He "Sells Soap, Starch & Blues, Makes and Sells Mould and Stove Candles."¹ The trades of tallow chandler and oil and colourman overlapped. Thus, for an oil and colourman there is the heading of an invoice presented in 1830 by Henry Smith of 146 High St, Shoreditch: "Colours prepared in Oil or water for Painting, Painter's Brushes & Varnishes of every description. Pitch, Tar, Resin, Oils, Turpentine, &c, &c. Matts, Brushes & Mops of all Sorts. Fine Mould & Store Candles."²

Most businesses were of a middling size, 69% insuring for between £100 and £500 in the 1770s and 54% in the 1820s. The proportion insuring for more than £1000 increased from 9% in the 1770s to 15% in the 1820s. The average value of capital insured rose from £514 in the 1770s to £727 in the 1820s. Median values rose from £300 to £400.

In terms of capital insured, by far the largest business in the 1770s was that of Richard Moore, Thomas Smith and Christopher Sack, oil and colourmen of 99 High Holborn. They insured stock and goods for £10,800 in 1775.³ Another oil and colourman, Thomas Day of 174 Aldersgate St, insured stock, utensils and goods for £3300 in 1777.⁴ The largest tallow chandler was Thomas Merrigan of 53 Burr St who insured stock and utensils for £3200 in 1771.⁵ Two very large oil and colourmen each insured capital valued at £11,000 in the 1820s, Mayor, Mayor and Yates of 52 Little Britain in 1820⁶ and Tucker and Everett of 18 Queenhithe two years later.⁷ Thomas Edridge, a tallow chandler of 1 Oxford St, insured stock and fittings for £3100 in 1824.⁸

Small numbers of businesses were female-owned, 3.5% in the 1770s and 6.2% in the 1820s. In 1770, Elizabeth Blackburn, a dealer in oils of the Strand, insured stock and

utensils for £1300.⁹ In the same year, Judith Michell, a tallow chandler of the Borough, insured stock and utensils for £350.¹⁰ Fifty years later in 1820, Nancy Paxton, an oil and colourwoman of 37 Barbican, insured stock, utensils and fittings for £600.¹¹ On a smaller scale, Hannah Williams, a tallow chandler of 3 Tottenham Court Rd, insured stock and utensils for £300.¹²

In the 1770s, just over 5% of businesses insured fixed capital; in the 1820s it was 6%. In the earlier period, Joseph Langfer, a tallow chandler of Lemon St, Goodman's Fields, insured a warehouse for £100 in 1770, as well as stock and utensils for £2200.¹³ In 1777, Thomas Bradshaw, an oil and colourman of 52 Ratcliffe Highway, insured a warehouse for £40 and stock and utensils for £1260.¹⁴ Mayor, Mayor and Yates in 1820 insured their warehouse for £2000.¹⁵ In the same year, Samuel King, an oil and colourman of 53 Bishopsgate St Without, insured stock and utensils for £2000 and a shop, counting house and warehouse for £1000.¹⁶ On a smaller scale, another oil and colourman, James Grout of 55 Gainsford St, Horsleydown, insured stock and utensils for £280 and a workshop and warehouse for £120.¹⁷

Contemporary estimates of the capital required to set up as a colourman or oil and colourman suggested a lower limit of £200 or £250. Campbell went up to £1000, other estimates set an upper parameter of £500. A distinction was drawn between wax and tallow chandlers. There was no consistency with regard to which required the higher start-up capital. The two 1747 sources suggested a higher figure for a wax chandler; Collyer, Kearsley and Mortimer gave estimates the other way about. For both, all agreed that the lower was between £100 and £500. Kearsley and Mortimer went up to £1000 for a tallow chandler. In practice, none of the estimates were far from the majority of sums actually insured.

The 1841 Census and *Post Office Directory* list 510 oil and colourmen and 1344 people employed, and 230 wax and tallow chandlers and 1076 people employed. Although

only 15% of businesses took out policies in more than one year in the 1770s, by the 1820s it was 34%. This suggests that by the 1820s a third may have had a longevity of up to about ten years or more.

These businesses were to be found in all parts of the capital. The main change between the 1770s and 1820s was a decrease in the proportion to be found in the City and west central area from 51.5% to 38.5%.

As with most retail trades, there was a small shift towards greater capitalization between the 1770s and 1820s, and rather more large businesses emerged.

7.78 Cutlery and Plated Goods

The aggregated data for the 1770s and 1820s for retailers of cutlery and plated goods (SIC 6483) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	28	37
by Size of Capital (£)			
	100 and under	4	6
	101-500	16	18
	501-1000	8	8
	1001-5000		5
by Proprietor			
	Male	20	30
	Female	5	5
	Multiple Male	3	1
	Mixed		1
by Location			
	E	5	4
	EC	11	12
	W	2	8
	WC	8	9
	SE	1	1
	SW	1	3
by Type of Capital			
	Working	26	37
	Both	2	
Size of Maximum Capital (£)			
Average	All	362	678
	Female Only	324	321
Median	All	235	350
	Female Only	210	200
Highest		1000	3400
Lowest		50	40
Average No of Employees (1841)			4
Years of Entry	1	28	30
	2		6
	3		1

Cutlery was typical of the retail trades in household goods in that the articles sold were less and less likely to have been made in London, either by the shopkeeper himself or by anyone else. As early as 1747 Campbell had noted that cutlery manufactured in Birmingham and Sheffield was as good as anything produced in London, and much cheaper.¹ Nearly a century later Dodd noted that such products were merely finished in London.² Pigot listed 175 retail cutlers in 1826/27 and the fire office registers contain data for 28 in the 1770s and 37 in the 1820s. The latter is

21% of those listed in Pigot. The 1796 tradecard of John Bright's Sheffield Plate Company Warerooms in Bruton St, Berkeley Square offered "Dinner Services in Dishes, Covers, Plates, Water Plates, Turners, Epergues, Bread-Baskets, Candlesticks & Branches, Tea-Equipages, Vases, Kettles & Lamps, Tea-pots, Coffee-pots, etc. etc."³

Too few records survive for meaningful conclusions to be drawn. Most businesses were of a middling size; 57% insured capital valued at between £100 and £500 and 29% between £500 and £1000 in the 1770s, and 49% and 22% in the 1820s. However, in the 1820s nearly 14% insured for over £1000 where none had done so in the 1770s. The average value of capital insured was £362 in the 1770s and £678 in the 1820s. Median values also rose from £235 to £350. In terms of capital insured, the largest business in the 1770s was a pewterer, Thomas Burford and James Green of 31 Poultry. They insured stock and utensils for £1000 in 1769.⁴ Mary Marechoux, a cutler of Haymarket, insured stock and utensils for £850 in 1773.⁵ Examples of two smaller cutlers were James Blackwell of Bedford Court, Bedford St, who insured stock and utensils for £300 in 1777⁶ and Elizabeth Pollard of the Strand, who insured for £210 in 1769.⁷ Two large cutlers in the 1820s were George Machin of 60 Leadenhall St, who insured stock and utensils for £3400 in 1820⁸ and John and Edward Thomas Rotton of 25 Sackville St, who insured for £3000 the previous year.⁹ Susanna Cocks, a pewterer of 61 Shoe Lane, Holborn, insured stock, utensils and goods for £900 in 1825.¹⁰ Examples of smaller and more typical businesses were John Green, a cutler of 31 Drury Lane, who insured stock, utensils and goods for £200 in 1825¹¹ and Sarah Savory, a pewterer of 4 Church St, Bethnal Green, who insured stock, utensils and fittings for £350 in 1824.¹²

Estimates of the capital required to set up in business rose from £50-£200 suggested by Campbell to £200-£300 by Kearsley, £400-£500 by Mortimer and £200-£500 by Whittock. The 1841 Census and *Post Office Directory* counted 141 cutlers and 657 people employed in the trade.

7.79 China, Glass and Earthenware

The aggregated data for the 1770s and 1820s for retailers of china, glass and earthenware (SIC 6485) are summarised and tabulated below,

	1770s	1820s
No. of Businesses Total	143	141 Pigot 1826/7 466
by Size of Capital (£)		
100 and under	57	33
101-500	47	62
501-1000	21	16
1001-5000	15	25
5001-10000	3	2
over 10000		3
by Proprietor		
Male	120	115
Female	11	14
Multiple Male	10	9
Multiple Female	1	3
Mixed	1	
by Location		
E	18	31
EC	45	38
W	18	24
WC	43	19
N		3
NW		2
SE	7	15
SW	12	9
by Type of Capital		
Working	138	132
Both	5	9
Size of Maximum Capital (£)		
Average	All	589
	Female Only	273
Median	All	200
	Female Only	140
Highest		10000
Lowest		20
Average No of Employees (1841)		
Years of Entry		2
1	123	96
2	16	31
3	4	11
4		1
5		2

China, glass and earthenware was a major London retail trade throughout the period of this study. Pigot listed 466 businesses in 1826/27. Of these, 340 were dealers in china, glass and earthenware (eight being specialist dealers in foreign china and porcelain) and 91 glass cutters and sellers. The fire office registers contain data for

143 businesses in the 1770s and 141 in the 1820s. The latter is 30% of those listed in Pigot. A typical chinaman was John Cowper of 111 Jermyn St. An invoice of 1788 says that he "Sells all Sorts of Useful China Ware, Worcester China, the best double Flint Glass, cut, plain & flower'd in the neatest manner. NB Great variety of Staffordshire Ware..."¹

Many businesses were very small. In the 1770s, nearly 40% insured for £100 or less and another 33% for between £100 and £500. Although only 23% insured for £100 or less in the 1820s, nearly 44% insured for between £100 and £500. The difference was that the proportion insuring for over £1000 increased from 13% in the earlier period to over 21% in the later. The average value of capital insured rose from £589 to £1196 and median values from £200 to £290.

In terms of capital insured, the largest business in the 1770s was Isaac Akerman and John Headley Scrivenor of 3 Fenchurch St. They insured stock and utensils for £10,000 in 1770.² William Parker, a dealer in china, glass and earthenware of 69 Fleet St insured for £6000 in 1769 and 1772.³ Smaller and more typical china, glass and earthenware dealers were James Holmes of 264 Wapping, who insured for £550 in 1775⁴ and Samuel Clayton of Pall Mall, who insured for £300 the previous year.⁵ In the 1820s, the largest businesses were mostly the London showrooms of the great Staffordshire potters. In 1824, James Davenport and Co. insured for £24,500 at their premises at 82 Fleet St.⁶ In the same year, Josiah Wedgwood insured for £14,000 in York St, St James.⁷ There was nothing new about this. In 1771 the original Josiah Wedgwood, describing himself as a Staffordshire warehouseman and aware of the value of a London warehouse in providing access to a market accustomed to "fine prices", had insured stock and utensils for £3000 at an earlier showroom in Great Newport St.⁸ Even earlier, Elizabeth Adams describes how the St Paul's Churchyard warehouse of the Longton Hall factory had insured stock valued at £800 in 1758 and the Chelsea porcelain warehouse in Pall Mall had insured stock for £2000 in 1752.⁹ In

1820, Josiah Spode and William Copeland insured for £6000 at Parkgate St, Lincoln's Inn Fields.¹⁰ Another very large business was that of Thomas Bailey, a glass and Staffordshire warehouseman of 8 St Paul's Churchyard. He insured stock, utensils, goods and fittings for £15,000 in 1822.¹¹ Smaller dealers in china, glass and earthenware are exemplified by John Larard of 29 Great Russell St, who insured fixed and working capital for £1700 in 1820,¹² and Charles Membrey of 12 Whitechapel Rd, who insured stock and utensils for £300 in 1821.¹³

A small number of businesses had women as proprietors, 8% in the 1770s and 12% in the 1820s. The average value of capital insured was £273 in the 1770s, compared with £589 for all businesses and £485 in the 1820s, compared with £1146 for all businesses. Two china, glass and earthenware dealers in the 1770s were Margaret Briscoe of Haymarket, who insured stock and utensils for £600 in 1777¹⁴ and Ann Bell of Orange St, Red Lion Square, who insured for £100 in 1769.¹⁵ Half a century later in 1822, Susannah Minton of the Staffordshire pottery family insured for £2500 at the prestigious address of 150 Regent St.¹⁶ On a smaller scale, Sarah Price, a dealer in china, glass and earthenware of 12 Arlington Place, St John St, insured stock and utensils for £240 in 1824.¹⁷

The large majority of businesses insured only working capital, 96.5% in the 1770s and 93.6% in the 1820s. Where fixed capital was insured it was usually in the form of a warehouse, workshop or shop. In the 1770s, William Parker had insured a warehouse for £500 in 1769 and stock and utensils for £5500 three years later.¹⁸ James Holmes insured his warehouse for £100 in addition to stock and utensils for £450.¹⁹ In the 1820s, James Davenport and Co. insured their warehouse for £500²⁰ and John Larard his for £200.²¹ In 1825 John Keel, a glass cutter of 17 Vine St, Saffron Hill, insured a workshop for £70 and stock and utensils for £250²² and Lazarus Woolfe, a dealer in china, glass and earthenware of 136 Whitechapel Rd, insured his shop for £50 and stock and utensils for £500.²³

Although Campbell estimated that £500–£2000 was required to set up in business as a chinaman, Collyer put it at only £100. Kearsley covered all possibilities with £100–£5000 and Mortimer and Whittock suggested much lower requirements, £150–£250 and £150–£500 respectively. For an earthenware shop £50 to £100 was the lower limit and only Campbell went as high as £500 for his upper parameter. Glass sellers fell in between. The lower suggested limit was £100 to £300 and the upper parameter £300 to £500. Most of these figures were consistent with actual capital insured by most businesses.

In the earlier period, nearly two-thirds of businesses were to be found in the City or west central area. By the 1820s this had decreased to 40% and there was a far greater spread across all districts. The 1841 *Post Office Directory* listed 243 china, glass and earthenware dealers and the Census 554 people employed in the trade.

Although only 14% of businesses took out policies in more than one year in the 1770s, by the 1820s this had increased to 32%. Thus suggests that up to one-third achieved a longevity of up to about ten years or more by the later period.

7.80 Pictures and Prints

The aggregated data for the 1770s and 1820s for picture and printsellers (SIC 6486) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7 98
No. of Businesses	Total	12	21	
by Size of Capital (£)				
	100 and under	5		
	101-500	4	13	
	501-1000	2	2	
	1001-5000	1	3	
	5001-10000		2	
	over 10000		1	
by Proprietor				
	Male	9	16	
	Female	3	1	
	Multiple Male		3	
	Multiple Female		1	
by Location				
	EC	5	3	
	W	1	10	
	WC	4	5	
	SE	1	1	
	SW	1	2	
by Type of Capital				
	Working	12	21	
Size of Maximum Capital (£)				
Average	All	365	2156	
	Female Only	157		
Median	All	145	400	
	Female Only	20		
Highest		1300	20000	
Lowest		10	200	
Average No of Employees (1841)				
			2	
Years of Entry	1	11	17	
	2	1	4	

This was a comparatively small and specialised London trade within which Pigot listed 98 businesses in 1826/27. The fire office registers contain data for 12 in the 1770s and 21 in the 1820s. The latter is just over a fifth of those listed in Pigot. This is too small a number from which to draw conclusions. In the 1820s there were a few much larger businesses than existed in the earlier period. This results in a much higher average value for capital insured of £2156 in the 1820s compared with £365 in the 1770s. Median values also rose sharply from £145 to £400.

In terms of capital insured, the largest business in the 1770s was Samuel Hooper, a printseller of 25 Ludgate Hill. He insured stock and utensils for £1300 in 1771.¹ Another larger printseller was Thomas Snelling of 163 Fleet St, who insured stock and utensils for £1000 in 1777.² Two smaller printsellers were Benedict Shield of 28 Cloth Fair, who insured stock and utensils for £450 in 1773,³ and Ann Roberts of Clare St, Drury Lane, who insured stock and utensils for £250 in 1775.⁴ There were several very much larger businesses in the 1820s. Hurst, Robinson and Co., printsellers of 90 Cheapside, insured stock, utensils and goods £20,000 in 1819.⁵ Four years later, another printseller, Colnaghi and Co. of 23 Cockspur St, insured stock valued at £7500.⁶ Montague Levoi, a dealer in pictures and curiosities of 52 Greek St, insured stock, utensils and goods for £600 in 1820.⁷ Another example of a business of middling size was Antonia Nosedá, a printseller and dealer in curiosities of 33 Coventry St, who insured stock and utensils for £900 in 1819.⁸

The lower limit for capital required to set up as a printseller was very small. All the contemporary sources suggested £50 or £100. However, most set their upper parameter at £1000 and Kearsley went up to £2000.

The 1841 Census and *Post Office Directory* enumerated 126 people employed by 46 picture dealers and 83 employed by 51 printsellers.

7.81 Music and Musical Instruments

The aggregated data for the 1770s and 1820s for dealers in music and musical instruments (SIC 6487) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	8	27
by Size of Capital (£)			Pigot 1826/7 76
100 and under		2	6
101-500		2	10
501-1000		3	8
1001-5000		1	2
5001-10000			1
by Proprietor			
Male		7	22
Female		1	
Multiple Male			4
Mixed			1
by Location			
E			1
EC		1	7
W		2	9
WC		4	7
SE			1
SW		1	2
by Type of Capital			
Working		8	27
Size of Maximum Capital (£)			
Average	All	645	828
Median	All	450	300
Highest		2200	9500
Lowest		6	20
Average No of Employees (1841)			2
Years of Entry	1	8	21
	2		4
	3		2

There were only a small number of specialist London dealers in music and musical instruments. In practice, many musical instruments makers also dealt in them. Even so, Pigot listed 76 retailers in 1826/27 and fire office registers contain records for eight in the 1770s and 27 in the 1820s. The latter is 36% of those listed in Pigot. Again, few conclusions can be drawn from such small numbers. Most businesses were of a middling size. In the 1820s, exactly half insured for over £500. The average value of capital insured was £645 in the 1770s and £828 in the 1820s. The median value

was £450 in the 1770s and £300 in the 1820s.

The two largest businesses in the 1770s were both music sellers. Peter Welcher of Gerrard St insured printed music to the value of £2200 in 1773,¹ and William Napier of the Strand insured stock and utensils for £1000 in 1772.² Mary Hodgson of Maiden Lane, Covent Garden, described as a music warehousewoman, insured stock and utensils for £700 in 1775.³ John Johnson, a dealer in music and musical instruments of Lancaster Court, Strand insured stock, utensils and goods for £600 in 1769.⁴ As with most retail trades, there were several rather larger businesses in the 1820s. On a different scale to any other was Mary Birchall, Christopher Lonsdale and Richard Mills, music and musical instrument sellers of 140 New Bond St. They insured stock, utensils and goods valued at £9500 in 1821.⁵ Another music and musical instrument seller, Ewer and Co. of 1 Bow Churchyard, insured stock and utensils for £1500 in 1824.⁶ The largest music seller was William Pynock of 267 St Clement's Churchyard. He insured stock and utensils for £1000 in 1825.⁷ An example of a smaller business was James Platts, a music seller of 9 John St, Oxford St who insured stock and utensils for £500 in 1820.⁸

Estimates of capital required to set up as a music seller were high. Kearsley suggested £200–£600, Mortimer £250–£500 and Whittock £1000–£2000. The latter figure is greater than the value of capital actually insured in most cases.

The 1841 Census and *Post Office Directory* show 117 people employed and 80 music and musical instrument sellers.

7.82 Furniture and General Household Goods

The aggregated data for the 1770s and 1820s for dealers in furniture and general household goods (SICs 6484, 6488 and 6489) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	478
No. of Businesses	Total	165	191		
by Size of Capital (£)					
	100 and under	54	35		
	101-500	97	110		
	501-1000	10	28		
	1001-5000	4	17		
	5001-10000		1		
by Proprietor					
	Male	149	166		
	Female	12	14		
	Multiple Male	1	8		
	Multiple Female	1			
	Mixed	2	3		
by Location					
	E	29	48		
	EC	47	50		
	W	26	29		
	WC	46	23		
	N	2	2		
	NW		4		
	SE	13	27		
	SW	2	8		
by Type of Capital					
	Working	162	179		
	Both	3	12		
Size of Maximum Capital (£)					
Average	All	253	493		
	Female Only	291	374		
Median	All	200	265		
	Female Only	200	323		
Highest		1400	5400		
Lowest		20	25		
Years of Entry					
	1	150	138		
	2	13	35		
	3	2	13		
	4		3		
	5		1		
	6		1		

Apart from cabinet makers, there were a large number of dealers in furniture and general household goods. Most were known as 'brokers' in the 1770s and 'brokers of household goods' in the 1820s. There was a very real social distinction between the cabinet maker and the broker, illustrated in Thackeray's *The Newcomes*, "The fine

house in Tyburnia was completed by this time, as gorgeous as money could make it. How different it was from the old Fitzroy Square mansion with its ramshackle furniture, and spoils of brokers' shops, and Tottenham Court Rd odds and ends."¹

Pigot listed 478 such businesses in 1826/27 and the fire office registers contain data for 165 in the 1770s and 191 in the 1820s. The latter is 40% of those listed in Pigot. Also represented in the fire office registers are a few more specialised businesses such as bedstead dealers, looking glass dealers, portable desk dealers and writing desk dealers. Many of these businesses dealt in second-hand and used articles. The tradecard of Joseph Hubbard, Broker of 10 Marshall St, Carnaby Market stated in 1779 that he "Appraises, Buys and Sells all manner of Household Furniture".² Over 40 years later another tradecard from the 1820s, issued by James March, Furniture Broker of 15 Coburg Place, Borough Rd, Southwark, promised "A fair price given for all sorts of Household Furniture, Books, Prints &c."³ Another broker, Jackson and Hind of 1-2 Harp Alley, Shoe Lane, Fleet St, invoiced in 1803 for five bedsteads, four flock beds and bolsters, four rugs and 12 blankets.⁴

In the 1770s, most businesses were very small; 33% insured for £100 or less and another 59% for between £100 and £500. Only 2% insured for more than £1000. By the 1820s, only 18% insured for £100 or less and 56% for between £100 and £500. However, 15% insured for between £500 and £1000 and 9% for over £1000. Even so, the average value of capital insured increase only from £253 in the 1770s to £493 in the 1820s. Median values rose even less markedly, from £200 to £265.

In terms of capital insured, the largest business in the 1770s insured for only £1400. This was William Croft, a broker of Broker's Alley, Drury Lane in 1769.⁵ Charles Parker, an upholstery warehouseman of 124 Holborn, insured stock, utensils and goods for £1350 in 1775.⁶ A number of businesses described themselves as brokers and cabinet makers like Thomas Gardiner of 5 Harp Alley, Fleet Market. He insured stock

and utensils for £1200 in 1772.⁷ Examples of smaller and more typical brokers were John Smallman of Castle St, Long Acre⁸ and Richard Green of Islington.⁹ Both insured for £250 in 1770 and 1772 respectively. As with most retail trades, there were a number of rather more highly capitalized businesses in the 1820s. The largest was Peter Jackson, a broker of household goods of 1 Harp Alley, Fleet Market. He insured fixed and working capital for £5400 in 1819.¹⁰ Two printed furniture warehousemen were William Kinsey of 125 New Bond St¹¹ and Thomas and William Bragg of 28 Southampton St, Covent Garden.¹² The former insured stock and utensils for £4500 in 1823 and the latter stock, utensils and goods for £3700 the following year. Examples of very much more modest sized brokers of household goods were Harry Wrainch of 35 Middlesex St, Somers Town, who insured stock, utensils and goods for £270 in 1822¹³ and James Clark of 11 Lower Marsh, Lambeth, who insured stock and utensils for £300 in 1825.¹⁴

There were small numbers of female-owned businesses, 8% in the 1770s and 7% in the 1820s. In the earlier period, they had a slightly higher average capital than all businesses, £291 compared with £253. In the 1820s, it was lower, £374 compared with £493 for all businesses. The largest female-owned business in the 1770s was that of Dorothy Fish, a broker of Southwark. She insured stock and utensils for £1100 in 1769.¹⁵ Ann Hewlett had a child bed warehouse at 14 Houndsditch, a business she insured for £500 in 1771.¹⁶ Fifty years later in 1821, Mary Iley, a broker and cabinet maker of 77 Marylebone High St, insured stock and utensils for £500.¹⁷ In 1825, Ann Asals, a broker of household goods of 230 Whitechapel, insured stock and utensils for £800.¹⁸

Very few businesses insured fixed capital, less than 2% in the 1770s and only 6% in the 1820s. In 1771, Henry Shakespear, a broker of 3 Red Lion St, Spitalfields, insured a workshop for £70 and stock, utensils and goods for the unusually precise sum of £897.¹⁹ Peter Jackson in 1819 insured a warehouse for £300 as well as stock and

utensils for £5100.²⁰ William Hope, a broker of household goods of 36 Rathbone Place, insured a workshop for £300 and stock, utensils and goods for £1400 in 1820.²¹ Another broker of household goods, William Day, of 17 City Terrace, City Rd, insured a warehouse for £200 and stock and utensils for £700 in 1823.²³

There are few contemporary estimates for capital required to set up in business in these trades. The anonymous 1747 author suggested £100–£200 for a broker of household goods. In the next century, Mortimer and Whittock estimated £150–£300 and £100–£500 for a furniture broker. The latter suggests a higher range of £300–£600 for a furniture warehouse. All these are closely in line with actual insured values.

In both periods, the largest concentration of businesses was in the City, 28.5% in the 1770s and 26.2% in the 1820s. However, in the earlier period the next largest number (27.8%) was to be found in the west central area. By the 1820s, that proportion had fallen to 12% while that in the districts to the east increased from 17.6% to 25.1%. A higher proportion of businesses took out policies more than one year in the 1820s than in the 1770s, nearly 28% compared with 9%. This suggests that in the 1820s at least, over a quarter may have had a longevity of up to about ten years or more.

Overall, these were like most retail trades in their low level of capitalization. However, it did rise over the period of this study, as did the number and size of larger businesses.

7.83 Booksellers

The aggregated data for the 1770s and 1820s for booksellers (SIC 6531) are summarised and tabulated below,

No. of Businesses Total		1770s	1820s
by Size of Capital (£)		120	200 Pigot 1826/7 685
100 and under		12	23
101-500		51	82
501-1000		31	27
1001-5000		23	47
5001-10000		2	11
over 10000			10
by Proprietor			
Male		106	159
Female		5	12
Multiple Male		9	23
Multiple Female			3
Mixed			3
by Location			
E		2	16
EC		45	60
W		21	33
WC		41	60
N		1	4
NW			5
SE		4	10
SW		6	12
by Type of Capital			
Working		119	196
Both		1	4
Size of Maximum Capital (£)			
Average	All	980	2386
	Female Only	220	738
Median	All	500	500
	Female Only	200	200
Highest		8100	71000
Lowest		20	10
Average No of Employees (1841)			8
Years of Entry	1	96	141
	2	22	33
	3	2	14
	4		9
	6		1
	7		2

Bookselling was a major London trade that grew in importance throughout the period of this study. In practice, it is far from easy to distinguish booksellers from publishers,

printers and bookbinders on the one hand, and stationers on the other. This section needs, therefore, to be taken in conjunction with those sections. Pigot lists 685 booksellers in 1826/27, nearly 1.5% of all businesses in London. The fire office registers contain data for 120 in the 1770s and 200 in the 1820s. The latter is over 29% of those listed in Pigot. Maxted quotes a growth in numbers from 151 in 1735 to 308 in 1802, and to 335 in 1817 and 479 in 1822.¹ It is worth noting that in the 1820s nearly 18% of booksellers and stationers taken together described themselves as involved in both trades; in the 1770s it had been just over 15%.

Maxted draws attention to the specialised nature of many of the larger businesses, such as Taylor's Architectural Library in Holborn and Egerton's Military Library in Whitehall. Others dealt largely in imported books, like Joseph de Boffe in Gerrard St for French works and Griffiths in Paternoster Row for German. They often combined to act as publishers. Maxted quotes the examples of 40 London booksellers who combined to publish Johnson's *Poets* in 1777 and 35 for John Charnock's *Marine Architecture* in 1800.² In 1837, Whittock places booksellers at the bottom of a five-tier pyramid: wholesale booksellers and publishers, who buy copyrights from authors, publish at their own expense and sell to ordinary booksellers; specialist publishers of, for example religious or children's books; publishers of works in parts; publishers of periodicals; and, retail booksellers.³ Alison Adburgham quotes James Lackington, a bookseller of Chiswell St, who claimed in his *Memoirs* in 1792: "I suppose that more than four times the number of books are sold now than were sold twenty years ago."⁴

Many booksellers were very large, especially by the 1820s. Comparatively few were very small, only 10% insured for £100 or less in the 1770s, 11.5% in the 1820s. Similar proportions insured for between £100 and £500 in both periods, 42.5% and 41% respectively. However, whereas only 21% insured for over £1000 in the 1770s, and less than 2% for over £5000, by the 1820s these proportions were 34% and 10.5%

respectively. Between the 1770s and 1820s, the average size of capital insured more than doubled, from £980 to £2386. On the other hand, the median value remained unchanged at £500, resulting from the emergence of a small number of very large businesses by the 1820s.

In the 1770s, the largest amount insured was £8100 in 1777. This was by James Dodsley of Pall Mall.⁵ In the same year, John Bell of 132 Strand insured stock, utensils and goods for £5045.⁶ An examples of a smaller business was Alexander Richie of the Strand. He insured stock, utensils and goods for £440 in 1770.⁷ In 1775, Thomas Longman of 39 Paternoster Row insured stock and utensils for £5000.⁸ The business had been founded by his father in 1726. By the 1820s the firm, now Longman and Co, was the largest London bookseller in terms of capital insured. This was £71,000 in 1822.⁹ Other very large booksellers were John Murray of 50 Albermarle St¹⁰ and George Whitaker and Co. of 13–14 Ave Maria Lane.¹¹ The former insured stock, utensils and goods for £25,350 in 1820 and the latter stock, utensils and goods for £22,000 the following year. There were, of course, many smaller businesses like Joseph Grove of 1 Vinegar Yard, Russell St, who insured stock, utensils and goods for £500 in 1821.¹²

Small numbers of businesses were female-owned, 4% in the 1770s and 7.5% in the 1820s. The average capital insured was only £220 in the 1770s compared with £980 for all businesses; in the 1820s it was £738 compared with £2386. None were very large in the earlier period. Ann Shuckburn of King St, Bloomsbury insured £400 in 1769.¹³ Much larger was the business of Mary Collingwood of 138 Strand. She insured a warehouse for £1000 in 1821 and goods for £2500 1825.¹⁴ Jane Laycock of 2 High St, St Giles insured stock, utensils and goods for £2550, also in 1825.¹⁵ Much smaller and more typical was Eleanor Marshall of 140 Fleet St, who insured for £200 in 1824.¹⁶

Estimates of capital required to set up as a bookseller varied considerably. Collyer in 1761 put it at £100–£200 but Campbell had set it at £500–£1000 in 1747 and Mortimer and Whittock suggested £250–£1000 in 1819 and 1837. Kearsley put it at £100–£5000 in 1786. All of these were in line with actual capital insured except Collyer.

Maxted stresses that the bookselling trade was not localised.¹⁷ Nevertheless, a substantial majority were to be found in the City, especially around Paternoster Row, and in west central districts like the Strand. These areas accounted for 72% of businesses in the 1770s and 60% in the 1820s. The 1841 Census and *Post Office Directory* enumerate 5499 employees and 741 chart or booksellers.

A significant minority of businesses took out policies in more than one year, 20% in the 1770s and 24.5% in the 1820s. This is a measure of the numbers which may have had a longevity of up to about ten years or more.

The most striking features of the bookselling trade were both its expansion in overall numbers between the 1770s and 1820s, and the growth in the number of very highly capitalized businesses as demand increased enormously over the period.

7.84 Stationers

The aggregated data for the 1770s and 1820s for stationers (SIC 6532) are summarised and tabulated below,

		1770s	1820s
No. of Businesses Total		111	151
by Size of Capital (£)			
100 and under		20	24
101-500		56	84
501-1000		23	21
1001-5000		10	20
5001-10000		1	2
over 10000		1	
by Proprietor			
Male		96	110
Female		3	16
Multiple Male		10	24
Multiple Female			1
Mixed		2	
by Location			
E		5	18
EC		43	59
W		20	16
WC		33	31
N			3
NW			4
SE		3	16
SW		7	4
by Type of Capital			
Working		106	147
Both		5	4
Size of Maximum Capital (£)			
Average			
All		627	640
Female Only		895	238
Median			
All		300	300
Female Only		645	180
Highest		12000	8000
Lowest		10	10
Average No of Employees (1841)			3
Years of Entry			
1		96	127
2		13	14
3		1	7
4		1	3

There were a great many London stationers in the period 1775-1825. The link with booksellers has already been noted in that section above, but their activities also overlapped with paper manufacturers. Maxted quotes 164 in 1735, 247 in 1802, 241 in

1817 and 345 in 1822.¹ Pigot lists 501 in 1826/27, which is over one per cent of all businesses in London. Of those listed in Pigot, 127 were law stationers and 17 fancy stationers. The fire office registers contain data for 111 stationers in the 1770s and 151 in the 1820s. The latter is 30% of those listed in Pigot. Typical activities of a stationer were set out in an invoice from about 1810 sent out by Coles and Galpin of 21 Fleet St: "Account Books Ruled to and Pattern, & Bound in Various Bindings, Fine Parchment & Drawing Vellums, Writings Neatly Engrossed & Copied".²

Maxted suggests that, together with booksellers, stationers were the wealthiest group in the London book trades.³ However, the data tabulated above suggests that they were a long way behind. The average value of capital insured was £627 in the 1770s and £640 in the 1820s. For booksellers, the equivalent figures were £980 and £2386. Median values were £300 in both periods, compared to £500 in both periods for booksellers. In fact, the average capital insured by printers, although smaller in the 1770s (£533), was much higher in the 1820s (£1541). In the 1770s, just over 70% of businesses insured for £500 or less; in the 1820s it was even higher at 71.5%. In the earlier period, only 11% insured for more than £1000; in the later period it was 14.6%.

In terms of capital insured, the largest business in the 1770s was that of Matthew Bloxham and Henry Fourdrinier of 11 Lombard St. A tradecard of 1772 makes it clear that they were both retail and wholesale stationers: "Makes & Sells all Sorts of Merchants and other Account Books, in the neatest manner. Also every Article of stationery Wholesale & Retail."⁴ Later they were to become paper manufacturers but in 1777 they insured their warehouse for £3000 and stock, utensils and goods for £9000 as stationers.⁵ Nearly fifty years later, in 1825, and by now major paper manufacturers, they nevertheless insured stock and fittings for £2000 as stationers.⁶ There are indications of other policies on a much larger scale, but these have not survived. In 1770, Thomas Wright and William Gill of Abchurch Lane insured stock and utensils for £6200⁷ Typical smaller stationers were William Marsh of Duke St, Lincolns

Inn Fields, who insured stock and utensils for £250 in 1771⁸ and Richard Lewis of 1 Lothbury, who insured stock and utensils for £300 in 1777.⁹ In the 1820s, the largest stationers were John Richard and George Wilson of 26 St Martin's Lane¹⁰ and William Dobson of 166 Strand.¹¹ The former insured stock and utensils for £8000 in 1825 and the latter stock, utensils and goods for £6100 in 1820. The largest law stationer was Lucas Houghton of 30 Poultry and 119 Chancery Lane. He insured stock, utensils and goods for £2000 in 1825.¹² Examples of more typical businesses were Edward Hill, a law stationer of 5 Mitre Court, Fleet St, who insured stock and utensils for £300 in 1820¹³ and William Lloyd, a stationer of 19 Great Bush Lane, who insured for £270 the following year.¹⁴

There were very few female-owned businesses in the 1770s. However, in the 1820s they comprised over 11% of the total. The average capital insured was only £238, compared with £640 for all businesses. The largest amount insured was stock valued at £800 in 1825 by Sarah Barry, a stationer of 2 Bridge St, Westminster.¹⁵ A more typical example was Mary Ford, a stationer of 69 Wood St, Cheapside. She insured stock and utensils for £100 in 1819.¹⁶

The 18th century sources suggested lower limits for the capital required to set up as a stationer of £50 or £100. Campbell set an upper parameter of £2000 and Kearsley put it at £10,000, doubtless with wholesalers in mind. Mortimer in 1819 and Whittock in 1837 suggested rather more realistic ranges of £400–£800 and £200–£700.

In both periods, a majority of businesses were located either in the City or west central area, 66% in the 1770s and 60% in the 1820s. The 1841 Census and *Post Office Directory* list 515 people employed by 153 law stationers and 1705 employed by 580 other stationers. The large majority of businesses took out policies in only one year, 87% in the 1770s and 84% in the 1820s. This suggests that very few may have had a longevity of up to about ten years or more.

7.85 Coal and Fuel

The aggregated data for the 1770s and 1820s for dealers in coal and other fuels (SIC 6541) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	145	107
by Size of Capital (£)			Pigot 1826/7 593
100 and under		66	66
101-500		74	36
501-1000		3	4
1001-5000		2	1
by Proprietor			
Male		134	99
Female		3	4
Multiple Male		7	3
Multiple Female			1
Mixed		1	
by Location			
E		28	34
EC		31	21
W		22	18
WC		27	8
N		2	3
NW		1	
SE		22	15
SW		12	8
by Type of Capital			
Working		132	96
Fixed		1	2
Both		12	9
Size of Maximum Capital (£)			
Average	All	190	168
	Female Only	180	170
Median	All	130	100
	Female Only	200	200
Highest		3950	2500
Lowest		15	10
Average No of Employees (1841)			6
Years of Entry	1	138	92
	2	6	14
	3	1	
	5		1

Pigot lists 593 coal merchants in 1826/27. The fire office registers contain data for 145 dealers in coal, or wood as a fuel, in the 1770s and 107 in the 1820s. In practice, many chandlers and other small retailers were also small scale dealers in coal, 234 in the 1770s and 89 in the 1770s. The large majority of coal dealers were

very small. In the 1770s, over 45% insured for £100 or less and most of the rest for between £100 and £500. Only 3% insured for over £500. In the 1820s, the equivalent proportions were 61%, 33% and 5%. The average value of capital insured decreased from £190 in the 1770s to £168 in the 1820s. Median values also fell, from £130 to £100. This was one of the lowest capitalized of all London retail trades.

In the 1770s, the largest business in terms of capital insured was that of John Green, a dealer in coals of 196 Upper Thames St. He insured stock and utensils for £2950 in 1771 and a warehouse for £1000 in 1774.¹ Athelston Savage, a woodmonger of Bullhead Yard, Newington Causeway, insured stock and utensils for £1300 in 1771.² Considerably more typical was John Jarvis, a dealer in coals of 7 Little New St Hill, Shoe Lane, who insured stock and utensils for £150 in 1769.³ Fifty year later in 1819, Thomas Hubert, a dealer in coals and wood of St Anne's St, Westminster, insured stock and utensils for £2500.⁴ A number of the smaller businesses also dealt in potatoes because of the similarity in bulk transport requirements. Richard Hedley of 95 Wapping was a dealer in coals and potatoes who insured stock, utensils and goods for £100 in 1820.⁵ James Thurtell of 17 Sydney Place, Commercial Rd was a dealer in coal, coke and potatoes. He insured for £110 in 1823.⁶ There were very few female-owned businesses. In 1777, Mary Salter, a dealer in coals of Narrow St, Limehouse insured for £300.⁷ Esther Clark of 30 Fleet Lane, another coal dealer, insured stock, utensils and goods for £200 in 1825.⁸

Small numbers of businesses insured fixed capital, 9% in the 1770s and 10% in the 1820s. In 1777, Thomas White, a dealer in coals of 152 Whitecross St, insured stock and utensils for £540, a coal shed for £60, carts for £60 and stables for £50.⁹ In the later period, Peter Duval, a dealer in coal, wood and potatoes of 150 Houndsditch, insured stock and utensils for £560 and a warehouse and sheds for £140 in 1825.¹⁰

Only Mortimer and Whittock gave estimates of the capital required to set up in

business as a coal dealer, £200–£300 and £25–£250 respectively. Whittock also suggested £12–£25 to set up a coal and firewood shed.

The 1841 Census and *Post Office Directory* list 3407 employees and 614 coal merchants and dealers. Very small proportions of businesses took out policies in more than one year, 5% in the 1770s and 13% in the 1820s. This suggests that comparatively few businesses had a longevity of up to about ten years or more.

7.86 Jewellery

The aggregated data for the 1770s and 1820s for retail jewellers, goldsmiths and silversmiths (SIC 6544) are summarised and tabulated below,

No. of Businesses Total		1770s	1820s
by Size of Capital (£)		151	180 Pigot 1826/7 375
100 and under		28	13
101-500		73	64
501-1000		31	34
1001-5000		18	59
5001-10000		1	8
over 10000			2
by Proprietor			
Male		140	145
Female		3	4
Multiple Male		8	30
Multiple Female			1
by Location			
E		7	17
EC		72	65
W		16	32
WC		46	52
N		1	2
NW			1
SE		3	5
SW		6	6
by Type of Capital			
Working		146	173
Fixed		1	
Both		4	7
Size of Maximum Capital (£)			
Average	All	554	1541
	Female Only	467	1084
Median	All	350	700
	Female Only	400	700
Highest		5500	12700
Lowest		40	20
Years of Entry			
	1	127	136
	2	19	33
	3	4	9
	4	1	1
	6		1

The comprehensive list of London goldsmiths, jewellers, bankers and pawnbrokers from 1200 to 1800 compiled by Sir Ambrose Heal includes 566 involved in the retail jewellery trade between 1760 and 1780. The overlap with other trades is considerable.

Besides working gold or silversmiths, there are cutlers, spoon makers, haft makers, silver turners, toymen, hardwaremen, watch and watch case makers, plate workers, gold lacemen, necklace makers, diamond merchants, pawnbrokers, and, at very different ends of the spectrum, artificial teeth makers and bankers.¹ It is, of course, very difficult to distinguish between businesses involved in bespoke production for the individual customer, retailing the products of other craftsmen or manufacturers and small-scale manufacture. In practice, many businesses were involved in all three. However, this section includes all businesses where the fire office records suggest there was a predominant measure of retail sales, either of bespoke products or the products of others.

Undoubtedly there was a strong retail element in the trade. Heal includes an illustration from the tradecard of Phillips Garden of St Paul's Churchyard which clearly shows a comprehensively equipped and well stocked retail shop interior from the period 1739–62.² Another, from about 1780, illustrates the shop front of John Flude of 2 Gracechurch St and shows a shop window filled with trays of jewellery.³ An advertisement placed in the 1830s by S Alderman, Jeweller, Silversmith and Cutler of 41–2 Barbican and 16 Norton Folgate, infers that the jewellery to be seen in the "Extensive Showroom and Warehouse at the back of the Premises" is manufactured by them but the cutlery and plate by others. The business had been established in 1796 and insured capital valued at £3500 in 1825.⁴

Pigot listed 375 businesses in 1826/27. The fire office registers contain data for 151 in the 1770s and 180 in the 1820s. The former is 27% of those listed by Heal and the latter 48% of those listed in Pigot. Besides Jeweller, goldsmiths and silversmiths, other trades represented in the fire office registers include bead and pearl dealers, lapidaries and necklace dealers. Most businesses were quite substantial, especially in the 1820s. In the 1770s, two-thirds insured capital valued at £500 or less; by the 1820s this had fallen to under 43%. Conversely, over 38% insured for over £1000 in

the 1820s compared with under 13% in the earlier period. The average value of capital nearly trebled from £554 in the 1770s to £1541 in the 1820s. Median values doubled from £350 to £700.

In terms of capital insured, the largest business in the 1770s was that of Henry Shephard, a goldsmith and toyman of 85 Cornhill. He insured stock, utensils and goods for £5500 in 1772.⁵ Two years later, Jacob Bird and Thomas Branston, goldsmiths, toyman and sword cutlers of 39 Cornhill, insured stock, utensils and goods for £3000.⁶ Rather smaller examples, both from 1772, were William Simons, a goldsmith of 6 Barbican, who insured stock, utensils and goods for £460 and a workshop for £40⁷ and Samuel Bellamy, a jeweller of Round Court, Strand, who insured stock and utensils for £370.⁸ On a much larger scale were John Harker and George Charles Wiltshire, goldsmiths and jewellers of 6 Old Bond St. They insured stock and utensils for £7500 and jewels, precious stones and diamonds for £5200 in 1825.⁹ Another goldsmith and jeweller, Thomas Wilkinson of 38 Piccadilly, insured stock, utensils and goods for £10,500 in 1821.¹⁰ Robert, James and Sebastian Garrard, already silversmiths in Panton St, insured for £9000 in 1822.¹¹ An interesting policy was that of Francis Lambert, a goldsmith and jeweller of 11–12 Coventry St. He insured the glass in his shop front for £200 in 1819, as well as stock and utensils for £3100.¹² The latter included gold valued at £2000 and silver at £1000. A typical more modest sized jeweller was John Samson of 11 Denmark St. He insured for £800 in 1820.¹³ Although there were very few female-owned businesses, several were quite large. In 1772, Louisa Poupard, a goldsmith of Smock Alley, Petticoat Lane insured stock and utensils for £800.¹⁴ In the 1820s, Esther West, a silversmith and jeweller of 3 Ludgate St, insured stock and utensils for £3000 in 1825.¹⁵

Contemporary sources suggested that very large amounts of capital were required to set up in business as a goldsmith. The lower limit was set at £500 or £600 and no-one suggested an upper parameter below £2000. Kearsley went up to £10,000.

Campbell and Kearsley estimated a lower limit for a jeweller of only £50 or £100; Mortimer and Whittock put it at £500. All set upper parameters between £1000 and £5000. Estimates for a silversmith were very varied. Collyer suggested £80–£500, Kearsley £500–£5000 and Mortimer £250–£500.

Most businesses were to be found in the City, the west central area or the West End, 89% in the 1770s and 83% in the 1820s. In the 1770s, the average value of capital insured was greatest in the west central area and least in the West End, £642 and £340 respectively compared with £574 in the City and an overall average of £554. In the 1820s, the position was reversed. The average value was £1980 in the West End, compared with £1341 in the west central area and £1623 in the City. The overall average was £1541. The 1841 *Post Office Directory* listed 493 goldsmiths and jewellers and the Census 3971 people employed in these trades, although many would probably have been self-employed. Also enumerated were 23 lapidaries and 133 people employed.

Significant minorities of businesses insured in more than one year, 16% in the 1770s and over 24% in the 1820s. These may have had a longevity of up to about ten years or more. Heal provides evidence that over 27% of businesses trading in the latter part of the 18th century survived for ten years or more, much the same proportion as the fire office registers suggest for the 1820s.

These were retail trades where capitalization increased substantially over the period of this study. There was also the emergence of a small number of very much larger businesses. Both these factors suggest that this was a trade illustrating the revolution in consumer demand.

7.87 Other Specialised Non-food Retailing

The aggregated data for the 1770s and 1820s for other specialised non-food retailers (SICs 6545, 6546 and 6547) are summarised and tabulated below,

		1770s	1820s	Pigot 1826/7	186
No. of Businesses	Total	30	53		
by Size of Capital (£)					
	100 and under	10	12		
	101-500	9	26		
	501-1000	5	6		
	1001-5000	5	6		
	5001-10000	1	3		
by Proprietor					
	Male	20	43		
	Female	3	4		
	Multiple Male	7	5		
	Multiple Female		1		
by Location					
	E	1	8		
	EC	14	18		
	W	1	6		
	WC	10	12		
	SE	2	7		
	SW		2		
by Type of Capital					
	Working	29	45		
	Fixed		3		
	Both	1	5		
Size of Maximum Capital (£)					
Average	All	936	989		
	Female Only	233	144		
Median	All	375	250		
	Female Only	200	150		
Highest		6000	9500		
Lowest		20	20		
Years of Entry	1	23	39		
	2	3	11		
	3	3	2		
	4		1		
	5	1			

There were small numbers of other specialised non-food retailers in London. The three groupings covered in this section are flowers, plants and seeds (SIC 6545), pets and feedstuffs (SIC 6546) and other retailers (6547). The latter includes such trades as toymen and dealers in firearms, minerals and shells, toothpicks and mathematical instruments. Pigot listed 186 such businesses in 1826/27, of which 109 were toymen

and 41 seedsmen. The fire office registers contain data for 30 such businesses in the 1770s and 53 in the 1820s. The latter is 28.5% of those listed in Pigot. Such small numbers spread across a wide range of quite separate retail trades preclude any meaningful analysis. However, a number of examples exemplify the variety of trades. Some of the most interesting were seedsmen. Thomas Gibbs and Co. of Piccadilly sent out an invoice in 1822 which promised "the best selected Grass & other Agricultural Seeds, Kitchen Garden & Flower Seeds, Fruit and Forest Trees, Shrubs, Greenhouse & Hothouse Plants, Dutch Bulbs, etc., etc."¹

In both periods, the largest businesses were seedsmen. Timothy Topping of 14 Swan Lane, Upper Thames St insured stock and utensils for £1500 and warehouses for £4500 in 1772.² Coles Child, a toyman of 123–4 Upper Thames St insured stock and utensils for £1650 in 1771.³ The same business, by then Child and Co, insured stock, utensils and goods for £9000 fifty years later in 1821.⁴ However, the largest business in the 1820s was Robert Allan and Henry Shearman, seedsmen of 67 Strand. They insured for £8500 in 1825.⁵ Another large seedsman was William Minier, William Nash and Thomas Adams of 60 Strand. They insured their warehouses for £2000 in 1819 and stock, utensils and goods for £5000 the following year.⁶ Examples of two other businesses were Anthony Sarthou, a dealer in tortoiseshells of 44 St Mary Axe⁷ and Edward Cross, a dealer in birds and beasts of Exeter Change, Strand.⁸ In 1819 the former insured stock and utensils for £700 and the latter for £3400.

Cambell, Collyer and Kearsley all estimated that £100–£500 was required to set up in business as a seedsman. Mortimer suggested £200–£400 and Whittock £100–£1000. The lower limit for a toyman was estimated at £150 or £200, but the 18th century sources went up to between £1000 and £5000 whereas Mortimer went no higher than £300.

The 1841 *Post Office Directory* and Census count 113 seedsmen and florists with 492 employees and 73 toy dealers with 146 employees.

7.88 General Shopkeepers

The aggregated data for the 1770s and 1820s for general shopkeepers (SIC 6560) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	50	9
	by Size of Capital (£)		
	100 and under	16	6
	101-500	31	3
	501-1000	3	1
	by Proprietor		
	Male	39	7
	Female	10	1
	Mixed	1	1
	by Location		
	E	20	4
	EC	10	1
	W	1	
	WC	3	
	N	2	
	SE	14	3
	SW		1
	by Type of Capital		
	Working	50	9
	Size of Maximum Capital (£)		
	Average		
	All	226	167
	Female Only	130	
	Median		
	All	168	100
	Female Only	100	
	Highest	900	650
	Lowest	20	50
	Years of Entry		
	1	49	8
	2	1	1

The importance of petty shopkeepers at the margin of the retail trade, and their exclusion from contemporary accounts of shopkeeping, such as Colquhoun's of 1803, have been a matter of controversy. The Muis deal with the subject at length and suggest that there is no contemporary count of them until Pigot included the designation 'shopkeeper' in the 1834/35 edition, when 2192 were listed.¹ However, their exclusion is, perhaps, more apparent than real. Small numbers of businesses describing themselves as 'shopkeeper' or 'general shopkeeper' are to be found in the fire office registers throughout the period of this study, 50 in the 1770s and just nine in the 1820s. It is probably these that Christopher Hibbert is thinking of when he

describes them as "small and dark, their wares stacked behind the counter in piles which reached as high as the ceiling. Some of them were little more than shacks propped up against the sides of houses..."² It is precisely these smallest of retail businesses which would have described themselves in their fire insurance policies as 'chandler', indeed the term 'shopkeeper' is not used at all by the Sun Fire Office in the 1820s. All the surviving examples are from the Royal Exchange or London Assurance. For chandlers, there are fire office records for 621 in the 1770s and 416 in the 1820s. 'Chandler' is not a term used by Pigot either. Nevertheless, Pigot lists nearly 3300 grocers or dealers in provisions in 1826/27 and numbers of these are found in the fire office registers under the description 'chandler' and undoubtedly traded on the smallest scale. As has been noted above, 45% of grocers and other dealers in provisions in the 1770s insured for £100 or less and 28% in the 1820s. For chandlers alone, the proportions were 76% and 60%. Furthermore, the Muis own research underlines the fact that businesses in almost any trade were likely also to be general retailers, especially of provisions. Thus, 27% of those described by the Muis as London's principal tea dealers were not in the provisions trade, indeed 20% were not in the retail trade at all.³ If this was true of principal tea dealers, how much more true would it have been of the typical small business.

Most such businesses were very small. The average value of capital insured was only £226 in the 1770s and £167 in the 1820s. In 1770 John Winning of King's Stairs, Rotherhithe insured stock and utensils for £900.⁴ The following year, John Mills of 1 Princes's St, Rotherhithe insured stock and utensils for £750.⁵ Catherine Johanna Boujonwar of 48 St Mary Axe insured for £350 in 1775.⁶ The largest 'shopkeeper' in the 1820s was John Bishop of 29 Charlotte Place, Lambeth Marsh. He insured stock and utensils for £650 in 1824.⁷ More typical was Susanna Crosson of 52 Shadwell High St who insured for £100 in 1822.⁸ In the 1770s, one-fifth of businesses were owned by women. It is also worth noting that 68% were to be found in the poorer areas to the east of the City or south of the river.

7.89 Victuallers, Hotels, Inns, Coffeehouses and Eating Places

The aggregated data for the 1770s and 1820s for victuallers, hotels, inns, coffeehouses and eating houses (SICs 6610, 6620 and 6650) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	2864	1725 Pigot 1826/7 3863
by Size of Capital (£)			
100 and under		798	199
101-500		1876	1179
501-1000		168	241
1001-5000		22	101
5001-10000			5
by Proprietor			
Male		2687	1606
Female		152	99
Multiple Male		17	9
Multiple Female		1	2
Mixed		7	9
by Location			
E		596	369
EC		707	447
W		372	242
WC		561	255
N		33	53
NW		8	38
SE		375	227
SW		212	93
by Type of Capital			
Working		2837	1679
Fixed		3	13
Both		24	33
Size of Maximum Capital (£)			
Average	All	234	441
	Female Only	195	528
Median	All	200	300
	Female Only	150	260
Highest		3700	7900
Lowest		100	5
Average No of Employees (1841)			3
Years of Entry			
1		2679	1453
2		166	233
3		17	42
4		2	4
5			3

Pigot lists 3863 public houses, hotels, inns, taverns and coffee houses in London in

1826/27. This is 8.4% of all London businesses and means that one in every twelve businesses was devoted to provision of food, drink or accommodation. The fire office registers contain data for 2864 such businesses in the 1770s. Since this cannot be a full count, it suggests that at least one in ten of London's estimated 30,000 businesses was in the victualling trades. For the 1820s there are extant records of 1725 businesses, 44.7% of those listed in Pigot.

Such establishments played as major a role in the economy of London as they did in its social life. J A Chartres has noted how the prolonged development of London's inns began with the rapid expansion of commercial stage coach and carrier services to the capital in the second half of the 17th century and remained a central feature of the transport system until the railway age in the 1840s. He describes the close association between particular groups of London inns and specific parts of the country. Thus, for example, the West Midlands was served by inns in Friday St, Bread St and Wood St.¹ Certainly, the fire office registers show that 32% of coachmasters in the 1770s also described themselves as victuallers or innkeepers, and 24% in the 1820s. Barker and Savage mention that Edward Sheerman, coachmaster and proprietor of the Bull and Mouth Inn in Aldersgate St owned 1700 horses in 1814.²

In another direction, Dorothy George describes the role of inns as employment agencies: "for a large number of trades, the public house was the recognized employment agency. There were houses of call for hatters, smiths, carpenters, weavers, boot- and shoe-makers, metal workers, bakers, tailors, plumbers, painters and glaziers, and bookbinders, and others. They were probably often kept by members of the trade concerned."³ This would seem to have been much more an 18th century phenomenon than a 19th century one. The fire office registers show that 123 victallers described themselves as having 57 other non-victualling trades in the 1770s. Carpenters, turners, coopers and the furniture making, building and shipbuilding trades were the most common, but many other trades were also represented. By the 1820s,

only 21 described themselves as involved in 11 non-victualling trades, of which carpenters, turners and smiths were the most common.

Although alehouses had to be licensed by JPs, it is not easy to distinguish between coffee or eating houses (SIC 6610), public houses or licensed premises (6620) and hotels and inns (6650). Much the most frequent term used in fire insurance policies was 'victualler'. This could mean a coffee house or eating house, but in the large majority of cases meant licensed premises. There was also an overlap between inn, tavern and hotel. Pigot listed 3545 public houses compared with 318 hotels, inns, taverns and coffee houses. The fire office policies are nearly 90% victuallers in the 1770s and 86% in the 1820s. The overlap in activities can be illustrated from surviving bills and invoices. A bill of 1830 from Nathaniel Hartley of the Axe Inn in Aldermanbury describes it as "Tavern, Hotel and Coffee House".⁴ Similarly, Richardson of Covent Garden described his establishment as Coffee House, Tavern and Hotel in his tradecard of 1793.⁵ William Rusby of the Ship Tavern, Water Lane sent out an invoice in 1824 which states "Importer of Foreign Wines & Spirits. Fine Ales, Bottled Stout & Porter. Beds &c. Excellent Accommodation for Passengers arriving from or passing to the Continent."⁶ A bill from W Tatner of the Red Lion in Clements Lane, Lombard St promises "Dinners on the shortest notice for large or small parties."⁷

Another very interesting group of businesses are the cooks or pastry cooks. The term usually meant a supplier of outside catering. Two receipts from 1769 and 1788 describe the business of Samuel Cannadine, Cook at the Haunch of Venison, 76 Cheapside, as "Dinners dressed at Home & abroad on the shortest Notice. Turtles dress'd, French Pyes, & all Kinds of made Dishes in the most elegant Taste. Deserts for Publick or Private Entertainments."⁸ The day book of Lucas Birch, Pastry Cook of 15 Cornhill describes 74 dinners catered in 1776, mostly for livery companies.⁹

Most businesses in the hotel and catering trades were very small. In the 1770s, nearly

28% insured capital valued at £100 or less and another 65.5% insured for between £100 and £500. Less than one per cent insured for over £1000. By the 1820s, the proportion insuring for £100 or less had declined to 11.5% but over 68% insured for between £100 and £500. Just over 6% insured for over £1000. The average value of capital insured was £234 in the 1770s. Although it nearly doubled by the 1820s, it was still only £441. Median values rose by half from £200 to £300.

The two largest businesses in the 1770s were innholders. Thomas Poultney of 64 London Wall insured for £3700 in 1774¹⁰ and John Handforth of the Castle Inn, Wood St, Cheapside for £3020 the following year.¹¹ Two substantial victuallers were Alexander Robertson of Lower East Smithfield¹² and Samuel Brinckley at the King's Arms, Tothill St.¹³ The former insured stock and utensils for £1600 in 1769 and the latter for £1400 in 1773. Thomas Griffith, a coffeeman at the Cocoa Tree Coffee House in Pall Mall, insured stock and utensils for £1350 in 1774.¹⁴ Five years earlier in 1769, John Graves, a cook at the Pig and Beehive in Honey Lane insured stock and utensils for £600.¹⁵ Examples of the smaller and more typical businesses were: George Ward of Ward's Coffee House in Wells St, Oxford Rd, who insured stock and utensils for £200 in 1769;¹⁶ Charles Bates, a victualler of the Admiral Vernon, Bishopsgate St, who insured stock and utensils for £220 in the same year;¹⁷ and, John Smith, a cook of White's Alley, Chancery Lane, who insured stock and utensils for £300 in 1777.¹⁸ As with most trades, there were several rather larger businesses in the 1820s. Again, the largest was an innholder. Joseph Hearn of the King's Arms, Holborn insured for £7900 in 1820.¹⁹ There were several substantial hotel keepers. In 1825, John Bailey of the Thomas Hotel, Berkeley Square insured for £7700²⁰ and David Hickinbotham of the St Petersburg Hotel in Dover St, Piccadilly for £7000.²¹ Henry Hales, a victualler at the Dover Castle, Mount Royal, Westminster Rd, Lambeth insured stock, utensils and goods for £3850 in 1823.²² In the same year, Robert Chatham, a coffee house keeper of the Furnivale Inn Coffee House, Holborn Hill insured stock, utensils and goods for £2000.²³ Martha Wood, a cook of 54-6 Great Tower St insured stock and

utensils for £2000 in 1819.²⁴ A few examples give a flavour of the many hundreds of much smaller businesses: Isaac Macey, a cook of 6 Little Charlotte St, Rathbone Place insured for £300 in 1821;²⁵ and, John Fell, a victualler of the George and Vulture, 39 Ratcliffe Highway insured for £280 in 1819.²⁶

A number of victuallers were proprietors of more than one licensed house. There were at least 13 in the 1770s and 15 in the 1820s. In the 1770s, Thomas Webb kept the Three Compasses at Little Wild St, Lincolns Inn Fields, the Edinburgh Castle in Lower East Smithfield and the Red Lion in Redcross St, Southwark. Between them, these were insured for £540.²⁷ In the 1820s, John Simpson had five premises, insured together for £1500. They were the Seymour Arms in Seymour Place, Bryanston Square, the Dolphin in Tonbridge St, Somers Town, the Star and Garter in Upper St, Islington, the Champion in Goswell Rd and the Three Tons at Billingsgate.²⁸

A significant number of businesses were female-owned, 5.3% in the 1770s and 5.9% in the 1820s. In the earlier period, the average value of capital insured was £195, little different to the overall average of £234. In the 1820s, the average was £528, rather higher than that for all businesses (£448). Jane Goodchild, a victualler at the Tumbledown Dick, Borough insured stock and utensils for £1050 in 1769.²⁹ More typical was Mary Heard, a victualler at the Black Horse in Queen St, Little Tower Hill. She insured stock and utensils for £200, also in 1769.³⁰ In the 1820s there were several rather larger female-owned businesses. In 1822, Sarah Ann Mountain an innholder at the Saracen's Head in Snow Hill insured fixed and working capital valued at £7680.³¹ Martha Wood has already been mentioned but Mary Green, a victualler of 95 Shadwell insured stock, utensils and goods for £2500 in 1822.³² A more typical victualler was Elizabeth Gibbs of the White Hart, Chancery Lane. She insured stock, utensils and goods for £300 in 1823.³³

A small number of policies specified the valuation of the premises. In 1777, John

Errington, a victualler at the Robin Hood in Lower Turning, Shadwell insured the public house for £500 as well as stock and utensils for £250.³⁴ In the same year, George North insured the King's Head at Walworth for £800³⁵ and Richard Nickson the Three Compasses in New St, Shadwell for £500.³⁶ In 1769, John Lee, an innholder at the King's Head, Borough, had insured his tap house for £400, other buildings for £450 and stock and utensils for £250.³⁷ In the 1820s, Sarah Ann Mountain insured the tavern for £1600.³⁸ William Avis, a victualler of 94 Grub St, Barbican insured the Boot for £800 in 1825, as well as stock for £350.³⁹ The previous year, John Elliott, a victualler of the Jolly Angler, 42 Bath St, City Rd, insured the inn for £500 and stock, utensils, goods and contents for £850.⁴⁰ Another victualler, Avery Weston of Cold Bath Fields, insured the Queen's Head public house for £800.⁴¹ John Bailey insured the building of the Thomas Hotel for £5500 and fittings for £2000.⁴²

There are a number of contemporary estimates of the capital required to set up in business in the catering trades, but few used the same trade descriptions. However, lower limits between £50 and £300 were suggested for most and few gave a limit higher than £500 for their range. The only exception is Mortimer who went up to £1000 for a publican or tavern keeper. These estimates reflect the large majority of actual capital values insured.

Businesses were to be found in large numbers in all parts of London. In the 1770s, those in the City and west central area had a significantly higher average capital insured than elsewhere, £268 and £260 compared with an overall average of £234. The districts to the north of the City and south of the river were significantly lower, £184 and £176 respectively. In the 1820s, it was the West End and west central area and the City which were higher than the average, £573, £478 and £463 compared with £441. The lowest average was again south of the river (£341). East of the City the average was also significantly lower (£360). These figures reflect the greater preponderance of larger coaching inns in the City, west central area and, later, the

West End.

The 1841 Census and *Post Office Directory* provide comparable data for employment and numbers of businesses for a number of trades,

	Businesses	Employees
Coffee rooms	373	708
Dining rooms	160	348
Hotels, inns taverns	427	1166
Lodging and boarding houses	192	1888
Publicans	2839	4861

The large majority of businesses took out policies in only one year, 93.5% in the 1770s and 84.2% in the 1820s. This suggests that only a small minority may have had a longevity of up to about ten years or more with the same proprietor.

Apart from coaching inns, and later hotels, these were not highly capitalized trades and very little change occurred between the 1770s and 1820s. However, there was a significant upward trend in size, reflecting their increasing importance to the life and economy of London throughout the period of this study.

Transport and Storage

7.90 Stablekeepers and Coachmasters

The aggregated data for the 1770s and 1820s for stablekeepers and coachmasters (SICs 7221 and 7222) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	232	131
Pigot 1826/7 307			
by Size of Capital (£)			
100 and under		37	15
101-500		142	39
501-1000		36	34
1001-5000		17	41
5001-10000			2
by Proprietor			
Male		209	117
Female		5	5
Multiple Male		18	7
Mixed			2
by Location			
E		23	9
EC		70	31
W		60	42
WC		45	26
N		2	3
NW			4
SE		19	8
SW		13	8
by Type of Capital			
Working		182	70
Fixed		12	16
Both		38	45
Size of Maximum Capital (£)			
Average	All	411	1045
	Female Only	190	380
Median	All	300	650
	Female Only	100	250
Highest		2150	6450
Lowest		20	50
Average No. of Employees (1841)			7
Years of Entry	1	212	97
	2	17	25
	3	3	8
	4		1

An efficient transport system is an essential part of the infrastructure for any industrial economy. Britain had one by the 18th century and London was its focal point. Writing eighty years ago, W T Jackman saw good roads as both the cause and

result of 18th century prosperity.¹ The road system reached its pre-railway zenith by the 1830s, by which time 20,000 miles had been turnpiked.² To Chartres and Turnbull "London was the great hub of road passenger carriage before 1800." Indeed, by 1750 "the stagecoach system linking London with the major provincial cities was over a century old." Thereafter, "as incomes in general rose between 1750 and 1850, and as those of middle-income groups in particular rose substantially in real terms, so too expenditure on the luxury of travel increased at least proportionately."³ They show that road passenger mileage from London to particular provincial destinations increasing as follows,

Year	000s of miles
1765	123
1773	183
1796	1040
1816	2043
1840	2369 ⁴

This suggests that over the period of this study, passenger mileage grew from about 150,000 to about 2.2 million, a nearly fifteen-fold increase.

Journey times were slashed. Jackman noted that in 1772 the London to Manchester service took two days in the summer and three in the winter; by 1824 it took 22 hours all the year round. Similarly, London to Leeds took 2½ days in 1769 and only 26 hours in 1821.⁵ Certainly, by the 1770s every provincial centre of any importance had a direct scheduled coach service to London. Paul Langford points out that even as relatively insignificant a centre as Salisbury had 32 coach and carrier departures a week to London by 1769.⁶ By the close of the period of this study, in 1825, John Copeland notes that the City Police Committee estimated that 418 vehicles were making 1190 journeys a day from the City alone. By 1830, 300 coaches a day were passing through the Hyde Park Corner turnpike. He quotes the *Huntingdon Gazette* of 15 May 1830: "a person has 1500 opportunities of leaving London in the course of 24 hours by stage coaches which ply the short distances." In addition, there were coaches to the following destinations,

Destination	No. of Coaches
Brighton	40
Birmingham	84
Chester	19
Manchester	70
Liverpool	20
Preston	12
York	18
Hull	12
Newcastle	6
Glasgow	13
Edinburgh	39
Inverness	3 ⁷

The terms 'stablekeeper' and 'coachmaster' were often linked and sometimes regarded as virtually synonymous. Thus, George Williamson of Swan Yard, Garden Lane, Westminster described himself as a coachmaster in a policy taken out in 1769 and as a stablekeeper in a policy the following year.⁸ Pigot listed 307 in 1826/27. The fire office registers contain records for 232 in the 1770s and 131 in the 1820s. The latter is nearly 43% of those listed in Pigot.

There was a considerable increase in capitalization between the 1770s and 1820s. In neither period were there many businesses insured for £100 or less, 16% in the 1770s and 11.5% in the 1820s. However, whereas over 61% insured for between £100 and £500 in the 1770s, by the 1820s it was under 30%. Conversely, only 7% insured for more than £1000 in the 1770s compared with 33% in the 1820s. The average value of capital insured more than doubled, from £411 to £1045. Median values also more than doubled, from £300 to £650. Stage coach services were sometimes run by syndicates and it is unfortunate that the person with the largest such interest, William James Chaplin, insured only for his hotel in John St, Adelphi in 1823.⁹ However, Barker and Savage show that he had an interest in no less than 68 coaching syndicates. He also owned 1800 horses and supplied them to 14 out of the 27 mail coach services out of London. Copeland puts his annual turnover at £500,000 by the 1830s.¹⁰

In the 1770s, the largest individual business for which fire office records survive was that of John Sargeant, a coachmaster of 69 Great Queen St, Lincolns Inn Fields. He

insured for £2150 in 1773.¹¹ Two years later, another coachmaster, Richard Sexton of 180 Old Swan Yard, Bishopsgate St insured stock and utensils for £2000.¹² Thomas Field, a stablekeeper of the Talbot Livery Stables, Grays Inn Lane insured for £1960 in 1774.¹³ In the later period, Richard Dixon, a stablekeeper of the City Depository, Barbican insured for £6450 in 1820.¹⁴ Another stablekeeper, Joseph Aldridge of Newport St, insured for £5330 in 1825.¹⁵ The largest coachmaster was Richard Ironmonger of the George and Blue Boar Inn, High Holborn. he insured for £5000 in 1822.¹⁶ George Cross of 12 Whitcomb St¹⁷ and George Friend of 29 Chapel St, Grosvenor Square¹⁸ were coachmasters and stablekeepers. The former insured for £3100 in 1825 and the latter for £2450 in 1822. There were very few female-owned businesses, but Ann Lloyd, a coachmistress of Vine Yard Aldersgate St insured stock and utensils for £350 in 1769¹⁹ and Eliza Nichol, a livery stablekeeper at the Adam and Eve in Kensington insured stock, utensils and goods for £900 in 1823.²⁰

A substantial proportion of businesses insured fixed capital, 21.6% in the 1770s and 46.6% in the 1820s.. This was mainly in the form of stables and coach houses. In the 1770s, Thomas Field insured stables and coach houses for £1700²¹ and George Williamson insured stables for £500 and coach houses for £400 in 1770, having insured stock and utensils for £300 the previous year.²² In the later period, Richard Dixon insured stables, lofts and carriages for £2500 and a granary for £150.²³ Joseph Aldridge insured stables for £5150 and a counting house for £150²⁴ and George Cross stables and coach houses for £1700.²⁵

Only Mortimer and Whittock gave estimates for the capital required to set up as a coachmaster or stablekeeper. The lower limit was put at £100 or £150 with upper parameters between £200 and £500.

In both periods, three-quarters of all businesses were to be found in the City, the west central area or the West End. The 1841 Census and *Post Office Directory* list

437 people employed and 192 livery stable keepers. The Census also lists 650 coach, cab and omnibus drivers and 5428 coachmen.

Less than 9% of businesses took out policies in more than one year in the 1770s. By the 1820s, it was 26%. This suggests that about a quarter may have had a longevity of up to about ten years or more by the 1820s.

Overall, this was a vital service sector of the London economy which was growing in both size and importance over the period of this study. Businesses did increase their capitalization and there were more of middling size.

7.91 Carriers and Carmen

The aggregated data for the 1770s and 1820s for carriers and carmen (SIC 7230) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	38	36
by Size of Capital (£)			Pigot 1826/7 878
100 and under		8	8
101-500		23	16
501-1000		5	4
1001-5000		2	7
over 10000			1
by Proprietor			
Male		33	29
Female		4	3
Multiple Male		1	4
by Location			
E		14	10
EC		8	10
W			7
WC		4	4
N		2	
SE		7	5
SW		3	
by Type of Capital			
Working		26	23
Fixed			1
Both		12	12
Size of Maximum Capital (£)			
Average	All	354	1148
	Female Only	253	90
Median	All	250	235
	Female Only	200	100
Highest		1700	16550
Lowest		20	20
Years of Entry	1	31	29
	2	6	4
	3	1	2
	4		1

Even more fundamental to any economic infrastructure than an efficient system for carrying passengers is one for efficiently conveying goods. Chartres and Turnbull describe the London carriers as "the 'blue ribband' operators" of this period, employing the largest wagons, utilizing the most capital and requiring the most complex organisation. Over the period of this study, the largest carriers ceased to operate from inn yards and acquired their own goods yards.¹ Chartres and Turnbull have calculated

the huge increase in output of the road haulage industry in London to selected provincial centres,

Year	Weekly Ton Miles
1765	80,356
1773	84,752
1786	135,996
1816	275,356
1840	458,516 ²

Over the period of this study, the increase was of the order of 350%.

As an example, Copeland shows that in 1822 wagons for 16 destinations left Nelson's General Coach and Waggon Office in Bull Inn Yard, Aldgate. The destinations ranged from Manchester in the north, to Bristol in the west, Yarmouth in the east and Southampton in the south.³ More specifically, returns for the Shenfield Gate show that on Sunday, 26 February 1838 13 wagons passed through for London carrying 35¼ tons; a week later 22 wagons headed out from London carrying 94 tons.⁴ These wagons would have been heading for the Home Counties and East Anglia. The historian of Charringtons mentions regular services to and from these areas carrying grain and farm produce into London and returning loaded with coal.⁵

The sophisticated level which such transport services had reached by the end of the period of this study is exemplified by an 1830 tradecard circulated by the London Carrier Company of 69 Great Queen St, Lincolns Inn Fields: "The Public are respectfully informed, that this Company is Established to Facilitate the Conveyance of Goods and Parcels of any description, not exceeding two cwt. to every part of the Metropolis and its Vicinity...Numerous receiving Houses are appointed in various parts of London...at which, directions for Carts to call at any House, will be received..."⁶ Typical, too, was the service referred to on an invoice sent out in 1797 by Morpew at the Queen's Head Inn, Borough: "Stage Waggons Which load Tuesdays and Fridays, at Noon, for Tonbridge, Tunbridge Wells, and Places adjacent."⁷

The 1826/27 edition of Pigot lists 878 London carriers and carmen. This was nearly 2% of all businesses in the capital, a measure of their importance. Unfortunately, the fire office registers contain very few records of such businesses, only 38 in the 1770s and 36 in the 1820s. The latter represents only just over 4% of those listed in Pigot.

There was a considerable increase in the number of rather large carriers and carmen in the 1820s compared with the 1770s. In the earlier period, nearly two-thirds insured capital valued at between £100 and £500 and 21% for less than that. By the 1820s, these proportions were 44% and 22%. The major difference was that in the 1820s over 22% insured for more than £1000 compared with only 5% in the 1770s. The average value of capital insured trebled, from £354 in the 1770s to £1148 in the 1820s. However, median values actually fell, from £250 to £235. This is because the largest businesses in the later period were much larger than in the earlier.

In terms of capital insured, the largest carmen in the 1770s were Thomas Griffin of 6 Winkworth's Buildings, Hoxton Fields⁸ and William Philpot of Northumberland St.⁹ The latter insured for £1700 and the latter for £1030, both in 1775. Another carman, George Spencer of 8 Church St, Rosemary Lane, insured stock and utensils for £1000 in 1772.¹⁰ Far and away the largest business in the 1820s was that of Daniel Deacon, a carrier and innholder at the White Horse in Cripplegate. He insured for £16,550 in 1822, 1823 and 1825.¹¹ Richard Snell and John Robins, carriers of 87 London Wall insured stock, utensils and goods for £5000 in 1824.¹² The largest carman was Francis Drake of 63 Rosemary lane. He insured stock, utensils and livestock for £1000 in 1823.¹³ There were a few female-owned businesses exemplified by Elizabeth Gentleman, a carwoman of 46 Lower Thames St, who insured for £430 in 1769¹⁴ and Ann Potter, a carwoman of Church Lane, Cable St, who insured stock, utensils and livestock for £150 exactly 50 years later.¹⁵

In both periods about one-third of businesses insured fixed capital. In the 1770s,

Thomas Griffin and William Philpot insured stables for £260 and £200 respectively.¹⁶ In the later period, Daniel Deacon insured his wagon office and stables for £4100, a warehouse for £300 and stock, utensils and hay for £12,150.¹⁷ Another carrier, John and William Stanbury of the White Hart Inn, Borough, insured stables and warehouses for £1500 in 1823, in addition to stock, utensils and goods valued at £2100.¹⁸

The lower limit for capital required to set up in business as a carman was set at between £50 and £100 by all the contemporary sources. They also all suggested between £100 and £200 as the upper parameter. These estimates accord with actual insured values for most businesses. The 1841 *Post Office Directory* lists 14 carmen and the Census 3899 carriers, carters and waggoners, many of whom would have been self-employed.

The data is insufficient for any further meaningful analysis. Overall, the small sample suggests that most businesses changed very little, but that a number of very much larger businesses had emerged by the 1820s.

7.92 Inland Water Transport Services

The aggregated data for the 1770s and 1820s for wharfingers and lightermen (SIC 7260) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	65	29
by Size of Capital (£)			
100 and under		18	6
101-500		19	7
501-1000		6	4
1001-5000		18	6
5001-10000		2	4
over 10000		2	2
by Proprietor			
Male		48	21
Multiple Male		15	7
Mixed		2	1
by Location			
E		19	6
EC		11	11
WC			1
N			1
SE		33	9
SW		2	1
by Type of Capital			
Working		47	11
Fixed		7	10
Both		16	8
Size of Maximum Capital (£)			
Average	All	1392	2547
Median	All	300	750
Highest		10500	15040
Lowest		15	20
Average No of Employees (1841)			23
Years of Entry	1	55	20
	2	7	4
	3	2	4
	4	1	1

Another vital element in London's transport infrastructure was the servicing of ships loading and unloading on the river and its docks, the wharfingers who operated the wharves and the lightermen who serviced the ships at anchor and moved cargo in dock. The first quarter of the 19th century saw a huge expansion of London's docks to cope with the enormous increase in trade.¹ The data for wharfingers and lightermen must be looked at in conjunction with that for granary keepers in the section below,

especially in the 1820s. A number of businesses combined these trades, for example James Smith of 1 Bennet's Hill, Upper Thames St who was described as lighterman, granary keeper and warehouseman.² Pigot listed 218 businesses in 1826/27, of which 144 were lightermen and 74 wharfingers. The fire office registers contain data for 65 in the 1770s but only 29 in the 1820s. However, as will be seen below, there are records for 15 granary keepers in the 1820s, a designation not found in the registers for the earlier period. The 1820s count of 29 represents just over 13% of those listed in Pigot. During the 1770s, the fire office records show that nearly a quarter of wharfingers and lightermen specifically described themselves as dealing in coal and nearly 10% in corn. In the 1820s, over a third described themselves as also granary keepers or dealers in corn, and 10% as dealing in coal or hops.

Although 57% of businesses in the 1770s and 45% in the 1820s insured capital valued at £500 or less, there were significant numbers of larger businesses. Over one-third insured for more than £1000 in the 1770s and 6% for over £5000. In the 1820s, it was 41% and 21%. The average value of capital insured nearly doubled from £1392 to £2547. Median values more than doubled from £300 to £750.

Two wharfingers insured for more than £10,000 in both periods. David Griffin, Thomas Liscoe and Thomas Cox of Hayes Wharf, Hayes St, Southwark insured stock, utensils and goods for £10,500 in 1772³ and Thomas Smith and William Speck of Pickle Herring insured for £10,100 in 1769⁴. Thomas Sears, a lighterman of Church St, Horsleydown insured stock, utensils and goods for £6900 in 1775.⁵ There were also two very large wharfingers in the 1820s. Joseph Barker and Robert Smith of Lower Thames St insured for £15,040 in 1820⁶ and Pomeroy and Brander of Shad Thames for £15,000 in 1820.⁷ Mark Browne, another wharfinger of Shad Thames, insured for £8500 in 1819 and 1823.⁸ The largest lighterman was James Smith, already mentioned above, who insured stock, utensils and goods for £3300 in 1820.⁹

Over one-third of businesses in the 1770s insured fixed capital; in the 1820s it was nearly two-thirds. In 1775, Sands Chapman and Richard Davis, wharfingers of Smith's Wharf, Pickle Herring insured warehouses and cranes for £9500.¹⁰ Another firm of wharfingers, Barfoot, Smout and Bowen of Hermitage Dock, Lower East Smithfield insured warehouses for £1200 in 1769 and a wharf for £100 and stock and utensils for £800 two years later.¹¹ In the 1820s, Joseph Barker and Robert Smith insured warehouses for £7430, a counting house for £780, cranes for £830, as well as stock, utensils and goods for £6000.¹² Mark Browne insured a counting house, warehouse and cranes for £5500.¹³ In 1824, George Stapleton, a lighterman of Whitefriars Wharf, Whitefriars insured seven lighters for £1600.¹⁴

The only estimate of capital required to set up in business was by Mortimer in 1819 for a wharfinger. He suggested £500–£1000.

All businesses were located by the river, virtually all either in the City or to the east or south east. The 1841 *Post Office Directory* listed 264 lightermen and wharfingers and the Census 5852 people employed as wharfingers or barge, lighter or watermen.

7.93 Shipowners

The aggregated data for the 1820s for shipowners (SIC 7401) are summarised and tabulated below,

No. of Businesses Total		1820s
by Size of Capital (£)		55
100 and under		2
101-500		5
501-1000		6
1001-5000		10
5001-10000		9
over 10000		13
by Proprietor		
Male		40
Multiple Male		13
Mixed		2
by Location		
E		15
EC		34
SE		6
by Type of Capital		
Working		8
Fixed		45
Both		2
Size of Maximum Capital (£)		
Average	All	7084
Median	All	2000
Highest		37000
Lowest		70
Years of Entry		
	1	34
	2	7
	3	6
	4	2
	5	2
	6	3
	7	1

Neither the 1826/27 edition of Pigot nor the fire office registers for the 1770s use the designation 'shipowner' or 'owner'. However, both occur in the registers for the 1820s. In practice, the data for the 55 businesses described in those terms must be taken in conjunction with that for merchants. There were a number of businesses for which both descriptions were used. Martin Daunton describes how there were few specialist owners and ownership was usually divided into shares of eighths, sixteenths, thirty-seconds and so on, often held by ten or twenty individuals who spread their

investment amongst a number of vessels to minimize the risk.¹

Of the owners brokers and agents shown in the policies for the 1820s, nearly 80% insured capital valued at over £1000, 40% at over £5000 and nearly a quarter at over £10,000. The average amount insured was £7084 and the median value £2000.

Amongst the largest were: John Chapman and Co. of 2 Leadenhall St, who insured 20 ships valued at £37,000 in 1822;² Henry Blanchard of the City, who insured only one ship for £35,000 in 1825;³ John McTaggart of 38 Mincing Lane, who insured a ship for £25,000 in 1819;⁴ and, William and Thomas King of 1 New St, Broad St who insured three ships for £15,000 in 1825.⁵

Some policies gave full details of the ships insured. Isbister and Horsley of 11 Leadenhall St insured four ships in 1825. The *Ganges* of 672 tons was insured for £10,000, the *Columbus* of 350 tons for £6000, the *Georgina Ford* for £9000 and another vessel of 467 tons for £5000.⁶

The large majority of owners were located in the City. The remainder were to be found in the riverside districts to the east and south east.

Nearly 40% took out policies in more than one year. Urquart and Co. of 7 St Michael's Alley, Cornhill insured different vessels in each year from 1819 to 1825. In 1819 they insured four for £15,500, in 1820 two for £2480, in 1821 two for £6500, in 1822 one for £3000, in 1823 two for £6000 and in 1824 and 1825 one for £4000.⁷

7.94 Granary Keepers

The aggregated data for the 1820s for granary keepers (SIC 7702) are summarised and tabulated below,

No. of Businesses Total		1820s
by Size of Capital (£)		15 Pigot 1826/7 18
501-1000		1
1001-5000		5
5001-10000		2
over 10000		7
by Proprietor		
Male		7
Multiple Male		8
by Location		
EC		2
SE		13
by Type of Capital		
Working		4
Both		11
Size of Maximum Capital (£)		
Average	All	26273
Median	All	9000
Highest		102650
Lowest		1000
Years of Entry	1	1
	2	3
	3	4
	5	1
	7	6

Pigot listed 18 granary keepers in 1826/27. The fire office registers for the 1820s contain data for 15. The term is not used in the registers for the 1770s. However, as has been seen in the various sections below, they must be taken in conjunction with corn merchants and factors, and with lightermen and wharfingers. They were amongst the most highly capitalized businesses in London. Nearly half insured for over £10,000. The average value of capital insured was £26,273 and the median £9000. In terms of capital insured, the largest granary keeper was William Landell and Son of 40 Thomas St, Horsleydown who described themselves as granary keepers and corn factors. They insured for £102,650 in 1820.¹ Very little behind were William and George Jones, granary keepers and lightermen of 24 Gainsford St, Horsleydown, who insured for

£93,000 in 1821,² and Joseph Blackstone Senior and Junior of 20 Gainsford St, who insured for £75,600 in 1820.³ Other very large businesses were James and William Burgess of 32 Horsleydown Lane, who insured for £35,300 in 1821⁴ and James Lyon and Co. of Gardner's Lane, High Timber St, who insured for £28,700 in 1819.⁵ The very smallest business was that of Alexander Frederick Merrett of 45 Gainsford St. He insured stock and utensils for £420 and barges for £580 in the same year.⁶

Most granaries were located around Horsleydown. Virtually all of them took out policies in more than one year, 40% in all seven years from 1819 to 1825.

Financial, Professional, Personal and Other Services

7.95 Pawnbrokers

The aggregated data for the 1770s and 1820s for pawnbrokers (SIC 8151) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	285	77 Pigot 1826/7 245
by Size of Capital (£)			
100 and under		17	1
101-500		131	7
501-1000		54	13
1001-5000		80	40
5001-10000		3	15
over 10000			1
by Proprietor			
Male		227	62
Female		34	2
Multiple Male		16	11
Multiple Female		4	
Mixed		4	2
by Location			
E		99	14
EC		75	18
W		20	10
WC		34	13
N		1	2
NW			3
SE		40	13
SW		16	4
by Type of Capital			
Working		285	76
Both			1
Size of Maximum Capital (£)			
Average	All	1021	3117
	Female Only	720	
Median	All	500	2670
	Female Only	400	
Highest		7000	14000
Lowest		20	50
Average No of Employees (1841)			4
Years of Entry	1	236	40
	2	46	21
	3	2	11
	4	1	3
	5		2

Pawnbrokers were an essential part of London life throughout the period of this study. Pigot listed 245 in 1826/27. The fire office registers contain data for 285 in the 1770s

but only 77 in the 1820s, nearly a third of those listed in Pigot. Heal shows how pawnbrokers overlapped with gold and silversmiths at one end of the spectrum,¹ but at the other end there was also the overlap with dealers in used clothes described by Beverley Lemire.² In practice, the fire office registers demonstrate that most pawnbrokers separately valued and insured three categories of risk: plate and watches; stock as a salesman, that is mainly used clothes; and, general 'pledges'.

Campbell in 1747 had an unusually good word for the pawnbroker who he described as "a Kind of Broker for the Poor...they are so necessary to the poor labouring Tradesman in this Metropolis."³ Their function is summarised in a tradecard already noted. It was distributed in 1780 by John Flude, Pawnbroker and Silversmith of 3 Gracechurch St: "Lends Money on Plate, Watches, Jewells, Wearing Apparel, Household Goods, & Stock in Trade. NB Goods Sent from any Part of ye Country directed as above, shall be duly attended to and the Utmost Value lent thereon."⁴

It was predominantly the small pawnbroker for which there are no records in the 1820s. In the 1770s, well over half insured for £500 or less; by the 1820s it was little more than 10%. In the earlier period, 29% insured for over £1000; in the later 74%. Although there are nearly four times as many extant records from the 1770s than the 1820s, the number insuring over £5000 was five times greater in the later period. The average value of capital insured trebled, from £1021 in the 1770s to £3117 in the 1820s. Median values rose from £500 to £2670.

In terms of capital insured, the largest business in the 1770s was Timothy and Nathaniel Parker of Princes St, Leicester Fields. They insured pledges valued at £7000 in 1775.⁵ Thomas Renshaw of Russell St, Covent Garden insured pledges and plate for £5800 in 1771.⁶ In the same year, but on a smaller scale, Richard Jackson of 10 Somerset St, Whitechapel insured goods valued at £500.⁷ In the 1820s, the largest risk insured was pledges valued at £14,000 by Filmer and Sons of Kent Rd in 1823.⁸

The previous year, John Daton Harrison had insured pledges for £6700, late and watches for £1000 and other stock for £400.⁹ One of the comparatively few smaller pawnbrokers was William Matthews of 36 Stanhope St who insured pledges for £300, plate and watches for £180 and stock and utensils for £50 in 1825.¹⁰

There were very few female pawnbrokers in the 1820s, but 13% in the 1770s. Average capital insured by them was only a little smaller than for all pawnbrokers, £720 compared with £1021. The median values was even closer, £400 compared with £500. In 1771, Esther Wallace of 119 Bishopsgate St insured pledges and plate for £2300.¹¹ In the same year, Mary Day of Old St insured pledges for £600.¹²

Very large sums were estimated to be required to set up in business as a pawnbroker. The two 1747 sources put the lower limit at £500, as did Whittock in 1837. In between, Collyer in 1761, Kearsley in 1786 and Mortimer in 1819 put it at £1000. Upper ceilings varied from £2000 to £3000. These estimates are higher than actual insured capital for the 1770s but reasonably accurate for the 1820s.

Pawnbrokers were, of course, to be found in all parts of the metropolis. However, in the 1770s there was a large concentration in the poorer districts to the east and south east (49%) and in the City itself (25%). In the 1820s there was a much more even distribution throughout London. The 1841 Census and *Post Office Directory* list 1017 employees and 259 pawnbrokers.

Substantial minorities of businesses took out policies in more than one year, 17% in the 1770s and 48% in the 1820s. This means that up to nearly half may have had a longevity of up to about ten years or more by the latter period.

Overall, pawnbrokers would seem to have required substantially greater capital to carry out their business in the 1820s than in the 1770s.

7.96 Professional and Technical Services

The aggregated data for the 1770s and 1820s for professional and technical services (SICs 8310, 8341, 8370, 8391 and 8392) are summarised and tabulated below,

		1770s	1820s	
No. of Businesses	Total	26	17	Pigot 1826/7 120
by Size of Capital (£)				
100 and under		12	2	
101-500		9	9	
501-1000		3	2	
1001-5000		2	4	
by Proprietor				
Male		23	16	
Female		1		
Multiple Male		2	1	
by Location				
E		1	4	
EC		7	3	
W		2	1	
WC		9	4	
N		1		
NW			1	
SE		3	4	
SW		3		
by Type of Capital				
Working		25	17	
Fixed		1		
Size of Maximum Capital (£)				
Average	All	318	734	
Median	All	190	450	
Highest		1400	3000	
Lowest		30	5	
Average No of Employees (1841)				3
Years of Entry	1	25	15	
	2	1		
	3		2	

Half of the 120 businesses listed by Pigot in 1826/27 under this heading were appraisers and auctioneers. There are very few surviving records for such businesses in the fire office registers, only 26 in the 1770s and 17 in the 1820s. the latter is 14% of those listed in Pigot.

With such a small sample across so many separate trades, it is not possible to draw any meaningful conclusions. However, the range of businesses is illustrated by the

following examples. In 1769, James Christie, already in business as an auctioneer in Pall Mall, insured stock, utensils and goods for £1400¹ and in 1775 William Rhodes, a surveyor of Great Marlborough St insured stock and utensils for £500.² In the 1820s, James Smallbone, an auctioneer of 47 High St, Bloomsbury insured stock for £3000 in 1824.³ In the same year, Percival Norton Johnson, an assayer of metals and minerals of 79 Hatton Garden, insured stock, utensils and goods for £880.⁴ Two other examples, both from 1819, were William Francis Verdier, an appraiser of 39 Drury Lane, who insured stock and utensils for £200⁵ and Hyam Hyams, a bullion dealer of 7 Castle St, Houndsditch, who insured stock and utensils for £500.⁶

The 1841 *Post Office Directory* and Census list 370 auctioneers and appraisers and 135 surveyors with 851 and 653 people employed respectively.

7.97 Sanitary and Public Services

The aggregated data for the 1770s and 1820s for sanitary and public services (SICs 9210, 9230 and 9691) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	10	11 Pigot 1826/7 10
by Size of Capital (£)			
	100 and under	4	2
	101-500	5	5
	501-1000		2
	1001-5000	1	2
by Proprietor			
	Male	7	10
	Female	1	
	Multiple Male	2	1
by Location			
	E	1	1
	EC	5	4
	W	2	2
	WC	1	2
	SW	1	2
by Type of Capital			
	Working	10	6
	Fixed		1
	Both		4
Size of Maximum Capital (£)			
Average	All	322	816
Median	All	200	400
Highest		1570	3000
Lowest		20	50
Years of Entry			
	1	9	7
	2	1	3
	3		1

Normally hidden from view are such necessary trades as scavengers, nightmen, lamp lighters and chimney sweeps. Pigot lists only 10, no more than the 10 to be found in the fire office registers for the 1770s and less than the 11 in the 1820s. The data is far too scanty to draw any conclusions but the trades can be exemplified. The 1783 tradecard of Samuel Foulger, Nightman of 5 Denmark St, Ratcliffe Highway illustrates how the trade operated: "Gentlemen &c. may depend on having their Business decently performed, being at the Work himself, and having the New Invented Machine for the Quick dispatch of Business. NB to be heard of every day at the 3 Pigeons, Butcherhall Lane, Newgate St & Black Moor's Head, Cartwright St, Rosemary Lane."¹ A

tradecard of 1816 describes a chimneysweep and nightman. H Kermot of 4 New Rents, St Martin's le Grand promised "Privies, Drains and Cesspools, emptied...Smoak Jacks Cleaned, Oiled, and Repaired, Chimnies swept by the Year."²

Examples from the 1770s are: Balchen, Search, Spencer and Lucas, lamplighters of Rupert St, who insured stock and utensils for £1570 in 1772;³ Christopher Hall, a scavenger of Cold Bath Fields, who insured stock for £350 in 1769;⁴ William Hanson, a nightman of 16 Oxford St, who insured stock and utensils for £200 in 1777;⁵ and, Thomas Gill, a chimney sweep of Portpool Lane, who insured stock and utensils for £30 in 1773.⁶ There were several rather higher capitalized businesses in the 1820s. John Gore, a chimney sweep and nightman of 17–18 Harrow Rd, Paddington insured warehouses for £1000 in 1823 and stock, utensils and livestock for £2000 the following year. He was also a dealer in hay, straw and manure.⁷ Examples of other trades were: William Cooper, a scavenger of 26 St Ann St, Westminster, who insured warehouses and sheds for £1200, a counting house and smith's shop for £200 and a wheeler's shop for £100 in 1825, as well as stock and utensils for £1100;⁸ William Spratley, a lamp contractor of 51 Long Acre, who insured stock, utensils and goods for £800 in the same year;⁹ and, John Baker and George Goddard, dustmen of Digby St, Bethnal Green, who insured a workshop and stables for £50 in 1824.¹⁰

Kearsley suggested that £1–£5 was sufficient capital to set up in business as a chimney sweep; Whittock went a little higher with £15–£25. For a lamplighter, Whittock suggested £100–£300.

Although the 1841 *Post Office Directory* lists only 14 rubbish carters and one lamp contractor, who appears to have had 10 employees, the Census counts 1033 chimney sweeps and 254 scavengers and nightmen, most of whom would have been self-employed.

7.98 Artistic and Recreational Services

The aggregated data for the 1770s and 1820s for artistic and recreational services (SICs 9760, 9770 and 9790) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	9	17
by Size of Capital (£)			Pigot 1826/7 140
100 and under		7	4
101-500		2	11
501-1000			1
1001-5000			1
by Proprietor			
Male		9	16
Female			1
by Location			
E		1	1
EC		3	5
W		1	
WC		3	6
N			1
SE			1
SW		1	3
by Type of Capital			
Working		9	16
Both			1
Size of Maximum Capital (£)			
Average	All	101	302
Median	All	50	200
Highest		400	1050
Lowest		11	6
Average No of Employees (1841)			5
Years of Entry	1	9	14
	2		2
	3		1

Included in this section are such businesses as circulating libraries, billiard table keepers, tennis court keepers, lottery office keepers and artistic services like limners and herald painters. Pigot listed 140 such businesses in 1826/27, half being circulating libraries. The fire office registers contain data for only nine businesses in the 1770s and 17 in the 1820s. The latter is 12% of those listed in Pigot.

Widely differing examples from contemporary tradecards are Robert Morris, Herald Painter of 3 Bennet's Hill, Doctors Commons and Bowen's Circulating Library of

Dockhead, Bermondsey. The former is dated about 1800 and states that he "Paints Achievements, Escutcheons, & all Trophies for Funerals, Companies' Banners, Streamers, & Ensigns for the Army, Also Arms & Pedigrees Painted on Vellum".¹ The latter was circulated about the same time and states that "Books are lent to read at Ten Shillings and Sixpence per Year, Three Shillings per Quarter, One Shilling and Three Pence per Month, Or by the Single Book...Likewise, Magazines and Weekly Publications, as soon as published."²

Again there are too few businesses spread over too many separate trades for meaningful conclusions to be drawn, except that virtually all were very small. Examples from the 1770s are: Isaac Lazarus, a glass engraver of 74 Butcher's Row, East Smithfield, who insured stock and utensils for £400 in 1769;³ Thomas Langford, a tennis court keeper of St Martin's St, who insured stock and utensils for £50 in 1775;⁴ William Smith, a lottery office keeper of 152 Drury Lane, who also insured for £50 in 1775;⁵ and, William Sherlock, a limner of 17 Newman St, who insured stock and utensils for £80 in 1774.⁶ Examples from the 1820s are: William Stuckey, a clubhouse keeper of 36 Bloomsbury Square, who insured for £1050 in 1825;⁷ William Lees, a billiard table keeper of 27 Little Moorfields, who insured his tables for £400 in 1824;⁸ George Raggett, a subscription house keeper of 43 St James St, who insured stock and utensils for £500 in 1819;⁹ and, Alexander Smith, a librarian of 12 Orange St, Red Lion Square, who insured stock and utensils for £300 in 1823.¹⁰ J H Plumb notes that the consumer revolution of the 18th century had its impact on the commercialisation of leisure and that one phenomenon was the considerable number of circulating libraries in London, often involving an investment in thousands of books.¹¹

The 1841 Census and *Post Office Directory* list 47 people employed as glass stainers, embossers and painters by 24 businesses and 67 herald painters employed by 15 firms. The Census also counted 34 billiard table keepers, 99 librarians and two tennis court keepers.

7.99 Laundering

The aggregated data for the 1770s and 1820s for laundering (SIC 9810) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	107	88
	by Size of Capital (£)		
	100 and under	96	79
	101-500	11	9
	by Proprietor		
	Male	14	13
	Female	88	74
	Multiple Female	5	1
	by Location		
	E	10	23
	EC	21	17
	W	36	10
	WC	16	9
	N		2
	NW		4
	SE	12	15
	SW	12	8
	by Type of Capital		
	Working	107	86
	Both		2
	Size of Maximum Capital (£)		
	Average		
	All	74	54
	Female Only	74	54
	Median		
	All	50	30
	Female Only	50	30
	Highest	400	450
	Lowest	10	10
	Years of Entry		
	1	107	85
	2		3

Pigot has no listing for laundering in the 1826/27 edition. Nevertheless, the fire office registers contain data for 107 such businesses in the 1770s and 88 in the 1820s. As well as laundresses or launderers, there were clear starchers, manglers and silk stocking, lace and breeches cleaners.

Most were very small. In both the 1770s and the 1820s, nearly 90% insured for £100 or less and all the rest for under £500. The average capital insured was £74 in the 1770s and £54 in the 1820s. Median values were £50 and £30 respectively. The large

majority of businesses were female-owned, although 13% were male-owned in the 1770s and 15% in the 1820s. Despite the low level of capitalization these businesses provided an essential service. At least two circulated tradecards in the first quarter of the 19th century which exemplify businesses of some substance. E Dench, Clear Starcher of 30 New St Square, Fetter Lane stated "Gauze, Crape, Tifanys, and Muslins, also Point, Brussels, Blond, and all Kinds of Lace, cleaned and mended."¹ Mrs Hazell, Laundress of 24 Wellington St, Pentonville advertised "Mangling, by Baker's Patent, 1½d per Dozen. Excellent Drying Ground."²

In terms of capital insured, the largest business in the 1770s was that of Ann Holmes, a laundress of Richardson Gardens, Kensington. She insured utensils and goods for £400 in 1777.³ Another laundress, Mrs Thomas Bathurst of Looker's Court, King St, Golden Square, insured goods to the value of £265 in 1771.⁴ Reine Labroix, a lace and silk stocking cleaner of Grafton St, Soho insured goods valued at £200 in 1777⁵ and Mary Paull, a clear starcher of Peter St, Berwick St insured goods for £100 in 1775.⁶ Fifty years later in 1825, Mary Crowther, a laundress of 15 Tinker Row, City Rd insured stock, utensils and goods for £450.⁷ Another laundress, Sarah Arnold of 7 Maida Hill, Paddington, insured stock, utensils and goods for £250 in 1819.⁸ A male-owned business was that of John Davis, a mangler of 41 Museum St, Bloomsbury. He insured stock, utensils and goods valued at £100 in 1821.⁹ A typical clear starcher was Mrs John Trowton of 14 Beaufort Buildings, Strand. She insured stock, utensils and goods for £20 in 1822.¹⁰

The real scale of this trade within the economy of London is shown by the fact that the 1841 Census counted 16,363 launderers, washers, manglers and lace cleaners.

Very few businesses either insured fixed capital or took out policies in more than one year.

7.100 Hairdressing, Beauty Treatment and Public Baths

The aggregated data for the 1770s and 1820s for hairdressing, beauty treatment and public baths (SIC 9820) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	35	70
	by Size of Capital (£)		
	100 and under	38	45
	101-500	5	23
	501-1000	1	2
	1001-5000	1	
	by Proprietor		
	Male	31	68
	Female	2	2
	Multiple Male	1	
	Mixed	1	
	by Location		
	E	2	17
	EC	12	26
	W	9	9
	WC	7	14
	SE	1	1
	SW	4	1
	by Type of Capital		
	Working	33	70
	Fixed	1	
	Both	1	
	Size of Maximum Capital (£)		
	Average All	151	140
	Median All	50	93
	Highest	1125	700
	Lowest	11	10
	Average No of Employees (1841)		6
	Years of Entry		
	1	33	56
	2	2	10
	3		3
	4		1

The 1826/27 edition of Pigot has no heading for hairdressers, although 10 public baths are listed. The fire office registers contain data for 35 businesses in the 1770s and 70 in the 1820s, most of these hairdressers.

Most of the larger businesses were located in the more fashionable areas and were hairdressers and perfumers. J Dickenson, Hairdresser of 3 Tavistock Row, Covent

Garden circulated a tradecard in 1820 which promised "Hair cut in the most fashionable style. Gentlemen's Perukes, Ladies' Head Dresses, Dealer in all kinds of Perfumery, Braces, Gloves, etc."¹ However, the large majority of businesses were very small. In the 1770s, 80% insured for £100 or less; by the 1820s it was still 64%. No hairdresser insured for more than £500 in the 1770s and only two in the 1820s. In terms of capital insured, the two largest businesses in the 1770s were bagnio keepers. For hairdressers alone, the average value of capital insured was £124 in the 1770s and £140 in the 1820s. Median values were £50 and £93.

The two substantial bagnio keepers in the 1770s were William Ross of Bagnio Court, Newgate St² and John Farnell of the Royal Bagnio, Long Acre.³ The former insured utensils for £50 and the baths for £1075 in 1770 and the latter the bath house for £1000 in 1777. The two largest hairdressers were both located at fashionable addresses, William Parr at Duke St, Grosvenor Square⁴ and Robert Blackhall in Jermyn St.⁵ Both insured for £400, the former in 1775 and the latter two years later. Interestingly, John Dore at the very unfashionable address of Lower Queen St, Rotherhithe, called himself a barber. He insured stock, utensils and goods for £100 in 1769.⁶ In the 1770s, hairdressers were often peruke makers too. An example is Walter Turnbull of 13 Throckmorton St, who insured stock, utensils and goods for £100 in 1773.⁷ The three largest businesses in the 1820s were all hairdressers and perfumers: Richard Swift of 28 High Holborn insured stock, utensils and fittings for £700 in 1820;⁸ John Barr of 154 Cheapside insured stock and utensils for £530 in 1824;⁹ and, Peter Truefitt of 20–1 Burlington Arcade insured stock and utensils for £500 in 1822.¹⁰ An example of a smaller and more typical hairdresser was William Johnson of Cross St, Islington. He insured stock and utensils for £150 in 1820.¹¹

Although the term was little used in the fire office registers, all the contemporary sources gave estimates of the capital required to set up in business as a barber. In every case the lower limit fell was £10 to £50 and the upper parameter no more than

£100. Mortimer and Whittock gave separate estimates for a hairdresser of £25–£150 and £20–150 respectively.

The 1841 *Post Office Directory* listed 361 hairdressers and perfumers and the Census 2243 people employed as hairdressers. Many of the latter would have been self-employed. No significant number of businesses took out policies in more than one year in the 1770s but by the 1820s it was 20%. This suggests that about one in five may have had a longevity of up to about ten years or more.

Overall, hairdressing was not a trade where any significant change took place between the 1770s and 1820s.

7.101 Undertakers

The aggregated data for the 170s and 1820s for undertakers (SIC 9891) are summarised and tabulated below,

		1770s	1820s
No. of Businesses	Total	17	23
by Size of Capital (£)			Pigot 1826/7 200
100 and under		5	4
101-500		9	14
501-1000		2	2
1001-5000		1	3
by Proprietor			
Male		14	17
Female		3	3
Multiple Male			3
by Location			
E		3	8
EC		3	6
W		4	3
WC		4	3
N			1
SE		2	2
SW		1	
by Type of Capital			
Working		15	18
Fixed			1
Both		2	4
Size of Maximum Capital (£)			
Average	All	376	557
	Female Only	213	648
Median	All	150	300
	Female Only	150	275
Highest		2050	3800
Lowest		20	15
Average No of Employees (1841)			4
Years of Entry	1	13	22
	2	2	1
	3	2	

The 1826/27 edition of Pigot lists 200 undertakers in London. The fire office registers contain data for only 17 in the 1770s and 23 in the 1820s. However, 38 other businesses were also undertakers in the 1770s and 28 in the 1820s. Most often the trade was subsidiary to that of a carpenter or cabinet makers who also made coffins, but there were also appraisers, brokers of household goods, upholders, hosiers and glovers, watchmakers, carvers, victuallers and painters. The tradecard of Joseph

Hubbard of 10 Marshall St, Carnaby Market has already been quoted in the section on furniture retailers. He described himself in 1779 as "Undertaker, Broker, Appraiser and Auctioneer" and amongst his other services promised "Coffins and Shrouds ready made, and Funerals Perform'd...Funeral Furniture let at Hire and the Trade Furnish'd."¹

The level of capitalization was low for most businesses. Around 80% insured for £500 or less in both periods, although there were a small number of very much larger businesses. The average value of capital insured was £376 in the 1770s and £557 in the 1820s. The median values were £150 and £300.

In terms of capital insured, the largest business in the earlier period was Thomas Jarvis of Duke's Court, St Martin's Lane. He insured for £2050 in 1777.² Michael Downes of Piccadilly insured for £850 in 1770.³ Two businesses survived from the 1770s to the 1820s. In 1775, William Craswell of 75 Whitechapel insured stock, utensils and goods for £400.⁴ By 1821, the business had moved to 5 Whitechapel Rd and the surname had changed slightly to Cressall. John Cressall insured stock and utensils for £1200 and a manufactory, presumably for coffins, for £700.⁵ William Ayscough Senior and Junior of 1 Fore St, Cripplegate insured stock and utensils for £575 and a workshop for £125 in 1771.⁶ In 1819 the business, now Thomas Ayscough and Francis Sadler, but still at the same address, insured stock and utensils for £3800.⁷ Two smaller businesses were Anthony Fry of Chapel St, Westminster, who insured stock and utensils for £170 in 1771⁸ and James Woodill of 22 Goswell Rd, who was also a manufacturer of both wooden and iron coffins and insured stock and utensils for 1825 in 1825.⁹

There were a small number of female undertakers. In 1774, Lucy Lawrence of Greek St, Soho insured stock and utensils for £400¹⁰ and in 1825 Ann Reid of 53 Goodge St, who was also a coffin maker, insured for £1400.¹¹

A small number of businesses insured fixed capital, usually in the form of a workshop. In the 1770s, Thomas Jarvis insured his for £150.¹² In the later period Ann Reid insured her's for £250.¹³ William Ganney of 146 Ratcliffe High St insured a workshop for £500 in 1820, in addition to stock, utensils and goods for £150.¹⁴

The lower limit for capital required to set up as an undertaker varied from £50 to £200. Campbell's upper parameter was £500 in 1747, as was Whittock's in 1837. Mortimer suggested £100–£200 in 1819. Kearsley provided his usual very wide range, in this case £200–£3000.

The 1841 Census and *Post Office Directory* enumerated 721 employees and 175 businesses.

It has been noted that two undertakers continued in business from the 1770s through to the 1820s. However, very few took out policies in more than one year.

8 The London Businesswoman 1775-1825

The numbers and characteristics of businesses owned by women have been examined separately for each industry or group of industries in this study. Overall, 1301 businesses out of 16,699 had one or more females as proprietors in the 1770s, that is 7.8%. In the 1820s, the proportion was slightly lower at 7.1%, that is 1002 businesses out of 14,022. In both periods, just under one per cent of all businesses had a mix of male and female proprietors. By grossing up from the sample to the estimated total number of businesses in the two periods, an estimate can be made of just over 2300 female owned businesses in total in London in the 1770s and nearly 3700 in the 1820s, an increase of over 1300.

The average fixed and/or working capital insured by female owned businesses was £261 in the 1770s, compared with £672 for all businesses. In the 1820s it was £291 compared with £1510. The median values of insured capital were rather closer: £100 in the 1770s compared with £200 for all businesses: and, £140 compared with £320 in the 1820s. This indicates both that the largest businesses in most trades were much less likely to be female owned, and that those areas of the economy where capital employed was largest were not usually those where women were found as proprietors. Overall, 57.4% of female owned businesses had an insured capital valued at £100 or less in the 1770s compared with 31.6% for all businesses: in the 1820s the proportions were 53% and 21.4%. Conversely, only two out of 328 businesses in the 1770s with an insured capital of over £5,000 were female owned, and three out of 780 in the 1820s. The largest female owned businesses were Ann Varnham, a fellmonger of Five Foot Lane, Southwark who in the 1770s insured capital valued at £7388;¹ and Sarah Ann Mount, an innholder at the Saracen's Head in Snow Hill who in the 1820s insured capital valued at £7680.² In comparison, the largest insured capitals recorded in the fire office registers were £45,700 in the 1770s and £167,000 in the 1820s.

The table below shows the numbers of businesses with female proprietors for the main groupings of trades and industries used in this study,

Trade/Industry	Number of Businesses (female owned)		Average Capital Insured (£) (female owned)	
	1770s	1820s	1770s	1820s
Market gardeners/cowkeepers	25	63(3)		536(629)
Manufacture				
Glass, glassware, ceramics	35(1)	21		
Other non-metallic products	30(1)	16		
Paints, varnishes, inks & dyes	30(1)	32		
Soap		33(1)	18	
Other chemicals	27	64(2)		
Foundries	31(2)	33		
Bolts, nails & metal treatment	19(1)	9		
Finished metal goods	306(8)	202(8)	372(110)	769(398)
Mechanical equipment	25(1)	55(3)		878(190)
Guns & ammunition		47	32(1)	
Shipbuilding	131(2)	51(1)		
Coachbuilding	150(5)	138(1)	540(206)	
Mathematical & optical instrument	36	27(2)		
Clocks & watches	255(4)	158(4)	214(163)	375(180)
Distilling	69(1)	24		
Brewing	120(1)	57		
Food & tobacco manufacturing	68(2)	85(4)		2440(523)
Wool, cotton, silk, flax, hemp & jute	192(10)	201(5)	1033(178)	2374(32)
Textile finishing	171(13)	120(11)	1264(872)	1798(463)
Hosiery, carpets & misc textiles	88(4)	106(5)	770(104)	1662(284)
Leather tanning & dressing	112(2)	164(11)		2243(980)
Saddles & harnessing	55(4)	61	276(133)	
Luggage & other leather goods	48(6)	41(4)	317(388)	1013(148)
Hats	36(3)	109(21)	756(273)	1368(200)
Other clothing & footwear	322(18)	48(5)	143(144)	663(75)
Household & other made-up textiles	72(13)	34(8)	1107(165)	1225(123)
Fur goods	17(1)	24(1)		
Coopers & other wooden container makers	142(7)	78(3)	1100(764)	770(255)
Carpenters, turners etc	541(10)	287(7)	185(246)	202(269)
Furniture	510(6)	511(18)	479(168)	708(290)
Other timber trades	38(3)	11	158(85)	
Cork, baskets & brushes	39(2)	62(8)		1163(471)
Paper & board	34	36(4)		3791(80)
Printing & publishing	202(5)	269(10)	533(1222)	1541(235)
Jewellery	158(5)	100(3)	150(216)	657(533)
Musical instruments		56	48(2)	
Miscellaneous manufacturing	47(3)	90(10)	296(253)	465(237)
Construction				
General building	531(4)	329	1120(1145)	
Installation of fixtures & fittings & building completion work	234(5)	182(2)	406(104)	
Wholesale distribution				
Agricultural/textile raw materials		95(1)	74(1)	
Fuels, ores, metals		35(1)	39(1)	
Timber & building materials	86	96(1)		

Textiles, clothing, leather goods	129(2)	332(3)		
Food drink & tobacco	23(1)	52(1)		
Merchants	450(2)	356(1)		
Other wholesale distribution	12	69(9)		1402(74)
Dealing in scrap/waste materials	35(6)	21(5)	198(98)	393(470)
Retail Distribution				
Meat & poultry	280(10)	327(22)	117(184)	144(133)
Bakers	348(12)	481(18)	160(121)	306(178)
Fruit & vegetables	59(6)	133(11)	137(185)	170(115)
Fish	14	40(4)		153(95)
Grocery & provisions	1435(154)	1363(119)	305(121)	442(164)
Wine, beer & spirits	391(12)	167(2)	813(892)	
Tobacco & snuff	94(6)	84(14)	591(242)	559(104)
Confectionery & newspapers	15	27(1)		
Apothecaries, chemists, druggists	252(11)	184(5)	379(71)	513(200)
Tailors & dressmakers	650(150)	452(119)	146(63)	291(170)
Staymakers	73(5)	37(9)	124(126)	212(150)
Hats, hosiery & gloves	468(200)	232(57)	493(301)	849(315)
Haberdashery	202(37)	105(28)	777(298)	1146(177)
Drapers	404(28)	387(16)	1563(561)	2400(1061)
Multi specialism textile goods	248(76)	267(37)	564(434)	2034(425)
Other ready made clothing	184(43)	233(36)	335(190)	454(331)
Shoemakers	259(4)	292(6)	174(105)	296(250)
Furnishing fabrics & household textiles	9(3)	29(6)	767(1100)	1377(380)
Hardware & ironmongery	123(5)	147(10)	796(220)	1250(589)
Oils, candles & paints	229(8)	224(14)	516(378)	727(264)
Cutlery & plated goods	28(5)	37(5)	362(324)	678(321)
China, glass & earthenware	143(12)	141(16)	589(273)	1146(506)
Pictures & prints	12(3)	21(2)	365(167)	
Music & musical instruments	8(1)	27		
Furniture & general household goods	165(13)	191(14)	253(191)	493(374)
Booksellers	120(5)	200(15)	980(220)	2386(738)
Stationers	111(3)	151(17)	627(895)	640(238)
Coal & fuel	145(3)	107(5)	190(180)	168(170)
Jewellery	151(3)	180(5)	554(467)	1541(1084)
Other non-food	30(3)	53(5)	936(233)	989(144)
General shopkeepers	50(10)	9(1)	226(130)	
Victuallers, inns coffee houses	2864(154)	1725(101)	234(195)	441(528)
Stablekeepers & coachmasters	232(5)	131(5)	411(190)	1045(380)
Carriers & carmen	38(4)	36(3)	354(253)	1191(90)
Pawnbrokers	285(38)	77(2)	1021(720)	
Professional & technical services		26(1)	17	
sanitary & public services	11(1)	11		
Artistic & recreational services		9	17(1)	
Laundering	107(88)	88(74)	74(74)	54(54)
Hairdressing, beauty treatment, public baths	35(2)	70(2)		
Undertakers	17(3)	23(3)	376(213)	557(648)

Very few businesses in manufacturing trades were female-owned, other than in clothing and textiles. Nevertheless, there were very few trades where there was not a handful of businesses with women as proprietors. Thus, in the 1820s over 6% of

leather tanners, dressers and fellmongers and 4% of metal goods manufacturers were female, and in the 1770s over 3% of coachbuilders and 5% of coopers. In the 1820s there are records of 18 furniture makers with female proprietors and 10 carpenters and turners, some of them very substantial businesses. Within the textile manufacturing trades, 27 out of 451 businesses, or 6% were female owned in the 1770s and 21 out of 427 (5%) in the 1820s. For clothing and footwear manufacturing, the proportions were 7.8% in the 1770s (35 out of 447), and over double that in the 1820s 16.3% or 35 out of 215. However, in both periods and for both sectors the average size of business was much lower, in the 1770s varying from £104 to £872 compared with a range of £143 to £1264 for all businesses, and in the 1820s ranging from £32 to £463 compared with £663 to £2374. Only a handful of female-owned businesses were to be found in wholesale distribution or amongst commission agents, though there were always one or two. It is also interesting that only two female merchants are to be found in the 1770s and only one in the 1820s.

In practice, most female owned businesses were to be found in retailing. In total, some 831 out of 6726, or 12.4% were female owned in the 1770s. In the 1820s, the proportion was lower, but still 9.7%, that is 615 out of 6352. The largest concentrations of female owned businesses were in groceries and provisions (10.7% in the 1770s and 8.7% in the 1820s), tailoring and dressmaking (23.1% and 26.3% respectively), hosiery and millinery (42.7% and 24.6%), general haberdashery & drapery (16.5% and 10.7%), dealing in ready made clothes (23.4% and 15.5%), china, glass and earthenware (8.4% and 12.1%) and furnishings (7.9% and 7.3%). Throughout the retail trades, the average size of capital insured by female owned businesses was much closer to the average for all businesses than in other trades. In some cases it was higher. For example, for butchers in the 1770s the average insured capital was £184 for female owned businesses compared with £117 for all businesses, for greengrocers and fruiterers it was £185 compared with £137 and for wine, beer and spirit merchants it was £892 compared with £813. Even so businesses in those parts

of the retail sector where capital tended to be largest were still characterised by smaller insured values for female owned businesses than others. For example, although in the 1820s the average size of insured capital for female owned drapers and mercers was £1061, it was £2400 for all such businesses. Similarly, the average insured capital for female owned booksellers was £738, but this was still less than a third of the average for all booksellers, which was £2386.

There were large numbers of female proprietors amongst victuallers, coffee house keepers and innkeepers. In the 1770s, the proportion was 5.4%, representing 154 out of 2864. In the 1820s it was slightly larger at 5.9%, representing 101 out of 1725. In the latter period, the average value of capital insured was significantly larger for female owned businesses than for all businesses, £528 compared with £441. Female owned businesses were found in significant numbers in two other sectors, though in one only in the 1770s. In the 1770s, over 13% of pawnbrokers were women, 38 out of 285. Only two were to be found in the registers for the 1820s. The one trade which was overwhelmingly female owned was laundering. Although most businesses were very small, over 10% did insure capital valued at over £100.

Overall, and unsurprisingly, most female-owned businesses were to be found in the retail sector, and there mostly in food, textiles and clothing. There were comparatively few female owned businesses in manufacturing, other than in textiles and clothing. As with all London businesses, capital employed tended to rise over the period, though in both periods average capital employed was smaller than for all businesses in most trades. Even so, there were both examples of female owned businesses in most trades and of very large businesses the proprietors of which were women.

9 Bankruptcy Commission Files Capital, Commercial Property and Profits

Chapter 2 on the sources used for this study discusses the data to be derived from the Bankruptcy Commission files held in the Public Record Office. Obviously, neither the numbers nor the range of industries and trades covered compares with the database created for this study from the fire office registers. Nevertheless, the sample of 403 bankrupt London businesses with surviving bankrupt balance sheets from the period 1820 to 1831 does yield data both to complement that derived from the fire office registers and to provide tentative estimates for which there is no other source. For the purposes of this study, the bankrupt balance sheets contain three sets of data of particular usefulness: a figure for capital employed at the date of commencement of trading; a statement of the value of such items as stock, utensils, goods, plant, equipment and industrial buildings at the date of cessation of trading; and, a statement of profit over a stated period of time prior to bankruptcy, usually several years or more. Of the 403 files utilised for this study, 237 contain a statement of start-up capital, 300 a valuation of stock etc. and 319 a record of profit over a stated time.

Capital and Commercial Property

There are only a limited number of individual trades or industries, or groups of closely related trades or industries, where there are sufficient businesses in the sample to enable a comparison to be made of start-up capital and/or valuation of stock etc. with insured values derived from the fire office registers. Nevertheless, it is possible to make a more accurate comparison for all businesses. Obviously, the make-up of the sample derived from the bankruptcy commission files is very different to that of the economy of London as a whole. Many trades are represented by very small numbers. Of even greater importance is the fact that very small businesses are virtually unrepresented. To enable a comparison to be made, the average value of

start-up capital and the final valuation of the bankrupt's commercial property have been calculated for each of the size-bands used in this study and these have been grossed up to the proportions of businesses found in these size-bands in the database derived from the fire office registers. This calculation gives an average value of start-up capital of £1374 and a valuation of final stock etc. of £1279. This is of the same order of magnitude as the average value of insured capital of £1510 for the 1820s. Because of the small numbers, this grossing up process cannot be applied to most individual industries or trades. However, a cruder comparison can be made for a few trades or industries where there are at least ten businesses to be found in the sample. For the purpose of comparison, all businesses insuring capital valued at £100 or less are excluded. The trades or industries for which comparisons can be made are,

Trade or Industry	Averages (£)	
	Bankruptcy Files Capital	Fire Office Registers Capital Insured
Textile manufacturing	3455	2516
Furniture makers		943
Construction		1034
Wholesale distribution	4626	5024
Retailing		
Grocers & cheesemongers	947	587
All food	924	486
Drapers & mercers	2774	2554
All clothing & textiles	2245	1571
Household goods	950	1014
Booksellers		2687
Jewellers, gold and silversmiths		1654
Inns etc		488

It is not possible to draw very many conclusions from these examples. However, it is clear that they do offer some independent measure of verification of the values of capital insured by businesses in at least a few trades or industries. In no case are the values very different despite the very small size of the sample provided by the bankruptcy files.

Profits

Over three-quarters of the sample of bankruptcy files, 319 out of 403, contain

statements of profits made by the business over a stated period of time. From this a common annual profit can be calculated. Across the whole range of businesses, and using the grossing up procedure described above, the annualised profit figure is £583. There are some 16 trades or industries, or closely related groups of trades or industries, where the sample size is over ten and a calculation can reasonably be made of average profits. These are set out below,

Trade or Industry	Annual Profit (£)
Textile manufacturing	598
Furniture makers	559
Construction	364
Warehousemen	572
All wholesale distribution	881
Commission agents	567
Retail distribution	
Grocers & cheesemongers	623
All food	527
Drapers & mercers	860
All clothing & textiles	770
Household goods	517
Booksellers	504
Jewellers, gold & silversmiths	725
Inns etc	595

There is comparatively little variation from trade to trade. In no case are there annual average profits of above £881 or below £364. Most fall very close to the average of £538. Again because of the very small numbers, it is difficult to compare annual profits with start-up capital. However, there are a few trades where a tentative comparison can be made.

Trade or Industry	Start-up Capital (£)	Annual Profit (£)	Profit as % of Capital
Textile manufacturing	3455	654	18.9
Furniture makers	2410	559	23.2
Construction	1424	364	25.6
Wholesale distribution	4426	881	19.9
Retailing			
Food	924	527	57.0
Clothing & textiles	1571	770	49.0
Household goods	950	517	54.4
Booksellers	736	484	65.8
Inns etc	1818	595	32.7

Even from these very crude and partial data, it can be seen that the return on capital

was very much greater for the retail trades than for wholesale distribution, the construction trades and manufacturing. The catering trades fell in between. A very few bankrupt balance sheets contain an actual statement of profit as a percentage of turnover. Some examples are: James Lucas, a builder of Cromer St, Brunswick Square, who showed a profit of 15% over six years on a turnover of £23,745;¹ Andrew Panton, a bookseller and stationer in Oxford St, who showed a profit of £532 (15.4%) on sales of £3465 over four years;² John Moody Pontin, a wireworker and sieve maker of Turnmill St, who showed a profit of £3574 (28%) on a turnover of £12,766 over 8½ years;³ Samuel Woolston, a boot and shoemaker of Bloomsbury High St, who showed a profit of £542 (20%) on a turnover of £2745 over three years;⁴ and, John Wood Whitehead, a linen draper of Pleasant Row, Battle Bridge, who showed a profit of 10% on a turnover of £7808 over two years.⁵

A small number of balance sheets showed profits separately year by year. Again, a few examples give a flavour of the annual variation in profits for individual businesses. James Henry Arthur, a stationer of Garlick Hill, Queenhithe, showed profits rising each year from £297 in 1823 to £646 in 1828. His original capital was £980 and he had stock valued at £1668 when trading ceased.⁶ On an original capital of £600, George Cross, a butcher in Clare Market, showed a profit of £700 in 1820. This reduced to £350 in 1824 but increased to £400 in 1825 and 1826, when he ceased trading.⁷ John and Henry Hall, iron merchants of Sun Wharf, Upper Thames St, showed their profits for the ten years between 1812 and 1821. Their bankrupt's balance sheet showed an initial capital of £1231. Profits rose sharply from £3102 in 1812 to £4070 in 1814. They remained above £3000 until 1818 when they dipped to £2102. They then went into a steep decline to only £305 in 1821, when the business failed. At that point stock in trade was valued at £3662.⁸ The balance sheet of John Paterson, an ironmonger of New Bridge St, who was bankrupted in 1827, showed profits from 1820 to 1826. The business started with a capital of £1000. Profits rose sharply from £160 in 1820 to £1510 in 1823. They then fell away to £716 in 1825 and £236 in 1826.

Goods and tools were valued at only £80.⁹ Finally, Clement Sharpe and William Dodds Clarke, upholsterers and cabinet makers of Berners St, started the business with a capital of £1500. Their balance sheet showed profits each year from 1816 to 1826. Over the ten years 1816–25, profits fluctuated between £788 in 1818 and £1406 in 1823, but with no trend up or down. They then fell to £120 in 1826. Bankruptcy occurred in 1828 when their stock was valued at £1932.¹⁰

11 Conclusion

The primary purpose of this study has been to present the data which will enable the debate about what was happening to the economy of London during the last quarter of the 18th century and the first quarter of the 19th to be placed on a sound quantitative footing. The overview it provides fills a statistical vacuum in the form of a unique series of measures of the development and growth of London business, trade and industry during this key period in the evolution of the world's first modern industrial economy in the country at large. Of course, there was no dramatic transformation, but equally the data do not reveal an economy which was standing still, nor one which was losing ground to other parts of the country. During this period, and against the background of a huge increase in population, the economy of London expanded at a much faster rate than that determined simply by the demographic explosion. This growth was characterised by even greater diversity, complexity and specialisation, the many threads of which can be drawn together in a number of overall conclusions.

Capital

With regard to the overall growth in the economy of London over the period of this study, the average value of capital insured, as a measure of the size of an individual business, increased between the 1770s and 1820s in 87 out of 99 trades or industries, or groups of closely related trades or industries, where a direct comparison can be made. Virtually all the exceptions are either in wholesale or retail distribution or personal services such as hairdressing or laundering. Overall, the average value of capital insured rose by 125%, from £672 to £1510. In 44% of trades or industries it more than doubled, and in 15% more than trebled. Within this overall trend, the average capitalization of manufacturing businesses exactly doubled, from £712 to £1415. It more than doubled from £595 to £1294 in transport services. Where capitalization was of the greatest significance, it increased still faster. For wholesale

distribution the increase was 133%, from £1982 to £4619, and for merchants, factors and brokers 187%, from £3605 to £10,336. Where there was neither technological change nor the necessity for large scale investment, the increases were less dramatic. The retail trades as a whole saw an increase of 75%, from £462 to £808, catering trades 88% from £234 to £441 and personal and other services 47% from £659 to £967. The construction trades experienced a small fall, from £902 to £861, within which this study reveals that the value of uncompleted or unsold property remained static.

On its own, the total value of capital insured is an inadequate measure of the growth of London trade and industry. Nevertheless, it is *one* invaluable measure. Grossing up the capital insured for businesses for which records have been derived from the fire office registers to the overall totals estimated for the 1770s and 1820s in the section above on total numbers of businesses in London, industry by industry wherever possible, gives a figure of £22.9 million for the earlier period and £72.9 million for the later. This is an increase of 218%, compared with an increase in population of the order of 75%. In other words, the value of capital insured rose about three times the rate of population growth. Although for some trades or industries the grossed up values of capital insured must be regarded as very tentative, because of the small size of the sample, it is possible to reach some broad conclusions.

The more precise measure can be taken for the 1820s because the 1826/27 edition of Pigot provides an accurate bench-mark for the very large majority of trades or industries. Of the grossed up figure for capital insured of just under £72.9 million, manufacturing accounted for £17.6 million, of which textiles and clothing represented £3.7 million and food and drink £3 million. The construction trades represented £1.4 million. The total for wholesale distribution was £9.7 million, for commission agents £6.2 million and for merchants £16.4 million. Retail trades as a whole accounted for £15.8 million, of which £5.4 million was for textiles, clothing and footwear, £4.1

million for food and drink, £2.5 million for household goods and £2 million for books and stationery. Victuallers, hotels, inns, coffee house and eating places accounted for £1.7 million and transport services £1.9 million.

For a few broad groupings of trades and industries, a comparison can be made between the 1770s and 1820s as a measure of the growth of the economy of London. The grossed up estimate of capital insured by merchants, factors and brokers is £6.3 million for the 1770s; for the 1820s it is £22.6 million, an increase of 259%. Wholesale and retail distribution together represented an insured capital of £7.6 million in the 1770s. By the 1820s this had increased by 236% to £25.5 million. Finally, for manufacturing and construction as a whole, the increase was 184%, from £6.7 million to £19 million. Comparison can also be made for three individual trades. For furniture making, the increase was from £360,000 to £1,216,000, or 238%. For the book trades, the grossed up total for the 1770s is £740,000 compared with £2.86 million in the 1820s, an increase of 286%. For victuallers, hotels, inns, coffee houses and eating houses, the increase was 44%, from £1.18 million to £1.7 million.

Another measure of the increase in capitalization of businesses is provided by the 24 individual firms records for which are to be found in the fire office registers in both the 1770s and 1820s. In two cases there was virtually no change in the value of capital insured between the two periods. In the case of the other 22, there were increases, often very large increases indeed. Of the 22, three saw increases in insured capital of well over 1000%, three others were over 500%, seven more were over 200% and three over 100%. Three had increases of between 50% and 100% and only three had increases of less than 50%.

Yet another measure is the increase in numbers of very highly capitalized businesses. In the 1770s, there were only 26 which insured capital valued at £20,000 or more, and none insured for as much as £50,000. By the 1820s, there was a six-fold increase

insuring over £20,000 to 155. Of these, 34 insured for £50,000 or more and eight for £100,000 or more.

However, measuring changes in the size of businesses in London over the period of this study is necessarily relative, comparing one point in time with another. Absolute criteria against which to test the changing patterns do not exist. Nevertheless, there is a measure which can reasonably be applied to businesses in London which is external to both the geographical location and the particular trades and industries which characterised the metropolis and which, if not an *absolute* criterion, is at least a *neutral* and *consistent* one. Cotton is in many ways the archetypal industry of the Industrial Revolution. Investment in cotton set the pace and the standard for other industries. A great deal of research was carried out in the 1960s and 1970s on investment in cotton mills in the last three decades of the 18th century and the opening years of the 19th. This established that a number of standard designs were adopted, especially in the mills designed by Arkwright. Stanley Chapman shows that there were a number of types of varying size but the most common during the first phase of investment from 1770 to 1803 were three or four storey functional buildings, about 90 feet in length and 30 feet wide. They were designed for a ten horse-power water wheel to operate about 1000 spindles, and would have employed 200 to 300 people. Most commonly, such a mill was insured for £3000 in total, made up of £1000 for the buildings, £1000 for the power unit, machinery and transmission system and £1000 for stock. An incomplete census of 1788 recorded 208 such mills. Arkwright's second Crompton mill of 1777 and the Bakewell mill of 1782 were both valued at £3000, as was Strutt's first Belper mill. In fact, 39 out of 125 Midlands cotton and worsted mills erected between 1770 and 1803 were valued at exactly £3000 and another 27 at between £2000 and £4000, that is over half in total.¹

There were, of course, many larger mills, especially in Lancashire and Scotland, but it is nevertheless the case that the typical Arkwright middle sized mill represented a

large investment and that anything beyond that size was *very large* indeed. To put it into perspective, a typical fulling mill was insured for £100–£200 and even a calico printing works was usually insured for under £2000.² Since a valuation of £3000 for an Arkwright mill is based on capital insured with the same London fire offices as businesses of all types in London itself, it is possible to use it as a consistent criterion against which to determine the relative size of businesses in the metropolis. If any business insuring capital valued at £3000 or more is judged to be large, then there were already 759 in London in the 1770s. This was 4.5% of the total of 16,699. By the 1820s, the number of large businesses had risen to 1534 out of 14,022, or 10.9%. This means that the number more than doubled over the period of this study, and the proportion increased by 6.5 percentage points, which is a proportionate increase of 144%. In manufacturing, the number of large businesses, defined by this criterion, rose by 84% from 241 to 443. For merchants, commission agents, factors and brokers and wholesale distribution the number rose by 103%, from 283 to 574. There was an even larger increase of 203% in the service industries, from 37 to 112. In retailing it was 163%, from 146 to 384.

The fire office registers show that 9% of businesses had more than one person insuring the capital at risk in the 1770s; by the 1820s this had increased to 13.5%. Such businesses insured very much higher capital values than the average for all businesses: £2563 compared with £672 in the 1770s; and, £5890 compared with £1510 in the 1820s. If small family businesses are excluded, that is those where the proprietors are self-evidently husband and wife, father and son, or sisters and/or brothers, and so on, the average capital insured rises to £2941 in the 1770s and £6502 in the 1820s. The latter figures are over four times average values which suggests not only the obvious point that large businesses frequently required more than one person to raise the necessary capital, but that a spread of risk was becoming increasingly common over the period of this study, well before the introduction of limited liability. Interestingly, the number of businesses where more than one member of the same family definitely shared the risk was only 280 in the

1770s, just 1.7% of all businesses. It rose a little to 500, which was still only 3.6%, in the 1820s. This suggests that in London the family was not necessarily the major source of capital for a business.

The point can be further demonstrated by reference to those individual industries or trades which required most capital. Thus, for example, in the 1770s over 30% of soapmakers and warehousemen had more than one person named in the fire policy and these very different sectors of the economy had average insured values of capital of £2018 and £2172 respectively, compared with £672 for all trades. For merchants and brewers the proportions were over 35% and the average capital insured was £4059 and £2621. For sugar refiners and distillers, the proportions were well over 40% and the average values insured £4913 and £2719. In the 1820s, the average value of capital insured for all businesses was £1510 and the average proportion with more than one person insuring the risk was 13.5%. For distillers the proportion was 75% and the average capital insured £10,328, for sugar refiners 65% and £5620, for soapmakers 56% and £4760, for warehousemen 51% and £4760, for merchants 49% and £11,882 and for brewers 44% and £6607.

Manufacturing

As has been noted in Chapter 1 above, the traditional view that the industrial revolution passed London by has become much modified in recent years. Indeed, it is not too much to say that throughout the last quarter of the 18th century and the first quarter of the 19th London was one of the Country's most important industrial centres, if not *the* most important. In 1843 Dodd described at length 21 different industries where there were to be found factories on a massive scale.³ More generally, he observed that,

"Those dwellers in and visitors to the 'Great Metropolis' who cross Southwark Bridge from the City to the Borough can scarcely fail to have observed the array of tall chimneys which meets the eye on either side of its southern

extremity; each one serving as a kind of beacon or guide-post to some large manufacturing establishment beneath – here a brewery, there a saw-mill, further on a hat factory, a distillery, a vinegar factory, and numerous others. Indeed Southwark is as distinguishable at a distance for its numerous tall chimneys and the shrouds of smoke emitted by them, as London is for its thickly-congregated church-spires."⁴

Even in the City he noted that in Shoe Lane there were "many factories for articles of copper, and also of brass, lead, tin, and other metals",⁵ while in Long Acre more than 50 out of 140 houses were occupied by the workshops of coachmakers.⁶ Everywhere the "way to wealth" in London was "generally through some narrow, dirty, dark, and crowded street, bounded on either side by ranges of factories, warehouses, or wharfs; with waggons and porters and cranes and bales of goods meeting the eye at every few steps."⁷ Impressionistic though this description is, the detailed picture built up in this study places it firmly within a statistical framework.

Throughout the sections above on individual trades, reference has been made to the use of steam power in London. There can be few better illustrations of the extent to which London was a major industrial and manufacturing centre throughout the period of this study than the use of steam power. Kanefsky and Robey's quantitative research into the numbers of steam engines at work in 18th century Britain show that London already had seven steam engines at work before 1733, though these would have been for pumping rather than power. Nevertheless, another 20 had been installed by 1780.⁸ The first Boulton and Watt engine was installed in Cooke and Co's distillery at Stratford in 1776, albeit just the other side of the River Lea from the boundary of the metropolis used for this study.⁹ By 1780, 4.5% of all steam engines installed in Britain were in London. Between 1781 and 1800 there was a huge increase in numbers. 1566 were installed, of which 109 or 7% were in London. To put this into perspective, the 109 installed in London was far more than in Durham (38) or Northumberland (37), much the same number as in Shropshire and Staffordshire (111 each) and nearly half the number in the whole of either Lancashire (240), the West Riding (228) or the rest of Britain, including the whole of Scotland and Wales (226).¹⁰ This is a measure of the extent to which London shared the industrial advances made

in the more traditionally recognized centres of manufacturing growth.

A contemporary account takes the data into the first quarter of the 19th century. Writing in 1827, John Farey claimed to have visited every establishment in London utilising steam power in 1804 and 1805 and to have found 112 engines. Breweries topped the list with 17, followed by 10 foundries and machine makers and eight dye houses and distilleries. There were also tanneries, vinegar makers, calico printers, sailcloth weavers, colour and starch makers, drug and mustard mills, cutlers, ropemakers, glass and diamond cutters, silversmiths and a number of others. In all, he noted the use of steam power in 21 different London industries in 1804/5.¹¹ By the 1820s this had increased to 29 trades in which fire office registers show steam engines were insured. In 1827, Farey noted that there were 290 steam engines in use in London, an increase of 159% since 1804/5. He compared this with 240 in Manchester, 130 in Leeds and 80 to 90 in Glasgow.¹²

Another measure of the scale of manufacturing in London is employment. Amongst individual enterprises, it has been seen that 1500 people were employed in Christy's hat factory, 600 by Harwood and Co's wallpaper manufactory, up to 800 by the shipbuilders Green and Wigram and 400 by Seddons the cabinet makers. Unreliable though they are, it is still of interest to note that the 1831 Census showed that just over 30% of males over the age of 20 were employed in manufacturing trades. By 1841, this had increased to nearly 33%.

Although a number of manufacturing industries moved away from London during this period, or just before its outset, like hosiery, calico printing or papermaking, the scale of manufacturing as a whole did not decline. The data presented in this study is evidence in depth for each separate sector. The data necessarily concentrates on the employment of capital. Nevertheless, a number of the themes discussed with regard to individual trades and industries are brought together to place in context the

complexity and diversity of the economy within which business functioned in London.

Specialisation

Martin Daunton has recently re-assessed the long-running controversy about the validity of the early classical economists' views on the British economy as a model which had achieved the limits of its potential for growth.¹³ To the father of them all, Adam Smith, who published *The Wealth of Nations* in 1776, at the beginning of the period of this study, the key to economic growth was specialisation. What cannot be in doubt is that London over the half century subsequent to 1776 was a prime example of an economy specialised and diversified to an enormous and unprecedented degree. There are many possible measures of the extent to which these two phenomena were to be found in London between the 1770s and the 1820s. One revealed by this study is that the fire office registers record 754 separate trades in the earlier period and 1042 in the later, an increase of 288 or 38.2%. In the manufacturing trades, while some undoubtedly lessened in importance, the increase was nevertheless from 478 separately identifiable trades to 614, an increase of 136 or 28.5%.

Detailed analysis of the trades to be found in the fire office registers shows those which occur in both the 1770s and 1820s. Very rarely is an individual trade to be found in the 1770s but not in the 1820s. However, it is common to find trades in the 1770s which were not represented in the earlier period. Particular examples within individual manufacturing trades are: glass, glassware and ceramics, where 24 separate trades are represented in the fire office registers but 13 of them are not found in the 1770s but only in the 1820s; paints, varnishes, inks and dyes, where 26 trades are represented, 10 only in the 1820s; finished metal goods, where 77 separate trades are to be found, 28 only in the 1820s; leather manufacture, where 46 are to be found, 18 only in the 1820s; hatmaking, where there were 24 separate trades, 15 to be found

only in the 1820s; and, musical instruments, where 19 separate trades are represented, 11 only in the 1820s. Two of the best examples are coachbuilding and furniture manufacture, both very large-scale London manufacturing trades. In the former, 18 separate trades are to be found represented in the fire office registers, of which 10 are to be found only in the 1820s; in the latter, the equivalent figures are 32 and 18. Similarly, 112 separate wholesale trades are to be represented, but 66 are only to be found in the 1820s. Within retailing, there were 78 separate clothing and textiles trades, 24 of which are to be found only in the 1820s.

The Consumer Revolution

During the period of this study, London not only exhibited all the characteristics to be expected from an economy undergoing the consumer revolution described by McKendrick but was one of the major driving forces behind it: "England possessed another prime advantage for the creation of a consumer society in the size and character of its capital city".¹⁴ The debate over precise numbers of retail businesses, and their overlap with wholesalers on the one hand and small-scale manufacturers on the other, should not detract from the main thrust of the argument. The data produced for this study clearly demonstrates that by the end of the third quarter of the 18th century London had a network of retail shops which both specialised to a bewildering degree and reached down to every class in society. The fire office registers show that in the 1770s there were businesses describing themselves as involved in 164 separate retail trades: by the 1820s this had increased to 245. For retailers of clothing and textiles the increase was only from 55 to 61, demonstrating how far the consumer revolution in those trades had advanced by the 1770s. However, for household goods the increase was from 26 separate trades to 59, and for food from 33 to 49. Even in those trades at the upper end of the market, retailers were to be found in large numbers in the poorest neighbourhoods. Thus, for example, while 43% of linen drapers and mercers were to be found in the City and 41% in the west

central area and West End in the 1770s, there were still 12% to be found in the poorer areas to the east and south east of the City. By the 1820s, 73% of such retail businesses were still to be found in the City, West End and west central area, but the proportion in the East End and south east London had increased to 20%. More specifically, by the 1820s there were at least 20 linen drapers to be found in Wapping, Shadwell, Whitechapel, Rotherhithe and Bermondsey, half of whom insured capital of £2000 or more. Undoubtedly, therefore, the period of this study saw a further intensification of the earlier 18th century phenomenon of a revolution in consumer demand and habits characterised by a widening market for ever more specialised products which reached further and further down the social scale.

The work of Beverley Lemire has already been noted in demonstrating how far down the social scale used clothes salesmen and pawnbrokers and the like responded to new and expanding consumer demand for the newly fashionable in clothing, or as nearly new as could be afforded. In 1826/27 Pigot listed 336 such businesses in London, and another 448 responding to the same demands for cheap and used household goods. The fire office registers show that the number catering for the demand for cheap ready-made and used clothes increased by 21% between the 1770s and 1820s, and the number dealing in cheap household goods by 16%.

Behind these trends was another phenomenon revealed quantitatively by this study. The dividing line between retail and wholesale business became better defined and wholesalers, and behind them merchants, commission agents, factors and brokers increased both in numbers and size. The number to be found in the fire office registers increased from 1016 to 1203 between the 1770s and the 1820s, that is from 6.1% of all businesses to 8.6%, and the average value of capital insured by them also increased by 140% from £2910 to £6982.

All this is, of course, to describe the impact of the consumer revolution only on the

retail and wholesale distribution network. This rested on the more profound impact of new consumer demand on London's manufacturing infrastructure. At one level, McKendrick describes how,

"small items of household consumption offered the lure of profit for those who flocked to make and sell them. There was a vast and growing market clamouring to buy. For those with the skills to manufacture and to market, the opportunities were legion. It was not for nothing that the first industries to blossom in the Industrial Revolution were more characteristically to be found in the consumer sector than the heavy industrial sector."¹⁵

At another level, the orgy of spending described by McKendrick meant both demands for new products by consumers at the luxury end of the market and for a much wider range of old, and formerly luxury, products from new consumers lower down the social scale. The important point about this is that to a very large extent it was the trades and industries of London itself which were manufacturing as well as distributing the products to satisfy many of the new demands. What most distinguished London in the period of this study was not that in very many cases it kept up with the newly emergent manufacturing districts of the Midlands and North, though it did, but that it was overwhelmingly predominant in a large number of luxury manufacturing trades as diverse as clocks and watches, coaches and carriages, furniture, wallpaper, jewellery and silks. In the same study, J H Plumb includes within the "commercialization of leisure" the huge growth in the book trades.¹⁶ These seven trades alone involved 5669 businesses in the 1826/27 edition of Pigot, 12.3% of all businesses in London. Although there was not a large increase to be found in the fire office registers in the numbers of businesses in these trades between the 1770s and the 1820s, only by 4% from 1725 to 1795, the total capital insured by them rose from £913,000 in the earlier period to £2,330,000 in the later, an increase of 155%. By the 1820s, this represented over 11% of all capital insured.

Service Industries

Not only was London still, indeed an increasingly, important industrial and

manufacturing centre, it was also a service economy on a very large scale. Quite apart from the financial and professional services not covered by this study, and the wholesale and retail distribution sector which is discussed above in the context of the consumer revolution, London had long been the focal point for a highly complex and rapidly growing transport system and there was also a large catering and personal services sector. Both of these, together with many other services, were part of the trend towards "commercialization of leisure".

Although under-represented in the fire office registers, Pigot lists over 1400 businesses involved in the inland transport of passengers and freight. It has already been shown that London based carriers increased their volume of business fifteen-fold in the former case and by 350% in the latter. The massive increase in both is further evidence for the revolution in consumer demand.

At a humbler level, the large numbers of inns and taverns and coffee and eating houses on the one hand, and the large number of businesses involved in the provision of personal services on the other, also exemplify the growing and widening consumer demand. By the close of the period of this study, Pigot listed over 4600 such businesses, more than one in ten of all London businesses. For the catering trades alone, it had already been shown that the data suggests an increase insured capital for the trade as a whole between the 1770s and 1820s of 44%. With respect to personal services, the number of hairdressers to be found in the fire office registers exactly trebled between the 1770s and the 1820s.

Conclusion

Illustrations of these themes could be multiplied endlessly. In practice, they are exemplified in detail for scores of trades and industries in the sections above. The overall conclusion must be that the last quarter of the 18th century and the first

quarter of the 19th saw a steady growth in the size, complexity, diversity and specialisation of business, trade and industry in London so that, by the mid-1820s, what had emerged was the economy of the capital of a modern industrial state on a scale never yet seen in the world and recognisably the immediate progenitor of the world city of the middle and late Victorian years.

Notes

Abbreviations

BLTC	Heal Collection of trade cards and shopbills, British Library
Globe	Globe Fire Office register, Guildhall Library, Ms 11679
GLTC	Guildhall Library collection of tradecards, invoices, advertisements and shop bills
H in H	Hand in Hand Fire Office registers, Guildhall Library, Ms 8674
London	London Assurance Fire Office registers, Guildhall Library, Ms 8747
PRO B3	Bankruptcy Commission files, Series B3, Public Record Office
RE	Royal Exchange Fire Office registers, Guildhall Library, Ms 7253
Sun	Sun Fire Office registers, Guildhall Library, Ms 11936

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2. Maxted
3. The Museum of London Index of Craftsmen was started by the late Stuart Turner and is now carried on by Miss M Mumford and a group of volunteers who have compiled a card index of all Sun policies for certain years for 412 trades. Excluded for the most part are retail food trades, construction, transport, catering, merchants and a number of other retail trades such as booksellers. The years covered within the period of this study are 1765-7, 1770-2, 1776-8, 1780-2, 1814-16, 1819-21, 1824-6 and 1829-31. The card index for London is held in the Museum of London Library, for the textile, furniture and print trades outside London, the index is held at the Victoria and Albert Museum, other non-London trades are held at the Tower of London and the National Maritime Museum.

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13. Sun, 1770, 194, 279983
14. Sun, 1819, 478, 954549
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10. Sun, 1777, 256, 382041, 259, 386842
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15. Sun, 1825, 504, 1035498
16. Sun, 1772, 214, 311617, 1774, 231, 338830

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1. Sun, 1820, 478, 964183
2. Sun, 1819, 481, 954325
3. Sun, 1819, 479, 951873
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3. Sun, 1771, 207, 299804
4. Sun, 1824, 497, 1012442
5. Sun, 1820, 483, 967000
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8. Sun, 1824, 502, 1021495/6
9. Sun, 1819, 478, 953316
10. Sun, 1769, 192, 273900
11. Sun, 1774, 231, 340411
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16. Sun, 1775, 239, 354045

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19. Sun, 1824, 503, 1023176/7
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7. Sun, 1825, 500, 1037603, 1037609/10, 501, 1029909/10, 1037913, 503, 1035133
8. Sun, 1774, 231, 338396
9. Sun, 1777, 254, 380873
10. Sun, 1820, 478, 966755
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13. Sun, 1821, 485, 978513–5
14. Sun, 1825, 501, 133297, 1033495, 1033497

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11. Sun, 1821, 485, 980058
12. Sun, 1819, 481, 958128/9
13. Sun, 1821, 486, 985056
14. Sun, 1819, 482, 953597
15. Sun, 1825, 509, 1039165
16. Sun, 1821, 486, 978015
17. Sun, 1772, 210, 306311
18. Sun, 1775, 242, 360233
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10. Sun, 1819, 482, 958400
11. Sun, 1770, 194, 279907
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2. Sun, 1820, 487, 968667
3. Sun, 1769, 191, 270934
4. Sun, 1822, 490, 995172
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16. Sun, 1824, 499, 1023057
17. Sun, 1771, 209, 303167

18. Sun, 1772, 210, 306320
19. Sun, 1825, 503, 1029683, 1037577/8
20. Sun, 1775, 243, 359236
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22. Sun, 1824, 496, 1017172, 503, 1023877, 1021526
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2. CLTC
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6. Sun, 1825, 504, 1031343/4
7. Sun, 1819, 479, 954009
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9. Sun, 1825, 503, 1026430
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11. Sun, 1775, 240, 356241
12. Sun, 1773, 218, 320684
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16. Sun, 1825, 502, 1037912, 503, 1029196, 1031956
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18. Sun, 1770, 202, 290976, 1771, 204, 296570, 1772, 212, 309406, 1774, 232A, 341789, 1775, 238, 355114/5, 355134, 177, 258, 386280
19. Sun, 1820, 486, 972120, 1821, 485, 981752/3, 1822, 490, 995162/3, 1823, 495, 1006200, 1824, 500, 1019534, 1825, 503, 1035134

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12. Sun, 1820, 480, 964458, 485, 972583, 1821, 486, 980858
13. RE, 1819, 78, 312715
14. Sun, 1825, 500, 1037637
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6. Sun, 1821, 485, 976928, 486, 985022, 1822, 490, 997839
7. Sun, 1777, 259, 388087
8. Sun, 1820, 485, 974752

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3. Sun, 1819, 480, 953695, 481, 951570, 1821, 485, 980064, 487, 978858
4. Sun, 1771, 202, 293581, 206, 300080
5. Sun, 1825, 500, 1029900, 505, 1039540, 507, 1039849
6. Sun, 1821, 485, 981218
7. Sun, 1820, 483, 962845, 968527
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9. Sun, 1771, 204, 294424, 209, 303084, 208, 301076
10. Sun, 1824, 499, 1016933
11. Sun, 1819, 480, 962294
12. Sun, 1823, 497, 1005227, 1824, 496, 1017181
13. Sun, 1819, 478, 958202, 480, 953016, 1820, 484, 974018, 485, 968378/9, 974190, 1821, 485, 981219, 489, 986966, 1822, 490, 993430, 1823, 492, 1001827, 1003140, 497, 1005274, 1824, 495, 1016410, 497, 1017238, 1825, 500, 1029900, 505, 1039540, 507, 1039849

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7. Sun, 1820, 480, 966456, 481, 962354
8. Sun, 1820, 485, 968800
9. Sun, 1820, 478, 962423, 962426, 486, 968988
10. Sun, 1822, 491, 995285, 492, 991007, 493, 995760
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13. Sun, 1777, 255, 380758
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17. Sun, 1825, 509, 1037472
18. Sun, 1825, 502, 1031777
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1. GLTC
2. Sun, 1777, 255, 379058, 379076, 261, 390698
3. Sun, 1821, 486, 976291, 980534
4. Sun, 1820, 485, 974733
5. Dodd, 2-3
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7. Sun, 1774, 232B, 344482
8. Sun, 1822, 490, 993453/4
9. Sun, 1820, 481, 966562
10. Sun, 1777, 257, 381991
11. Sun, 1822, 491, 995823/4
12. Sun, 1820, 485, 968820
13. Sun, 1772, 217, 316773
14. Sun, 1819, 479, 951867
15. Sun, 1772, 216, 315767
16. Sun, 1820, 478, 964652, 966192, 484, 970213
17. Sun, 1775, 239, 354877, 1777, 254, 380800, 257, 383513
18. H in H, 1824, 148, 94282
19. Sun, 1769, 188, 268082
20. Sun, 1821, 484, 980548
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11. Sun, 1775, 239, 354169
12. Sun, 1777, 255, 381711
13. Sun, 1772, 214, 311995
14. Sun, 1819, 481, 954973
15. London, 1822, 3, 100572
16. Dodd, 4
17. Sun, 1774, 232A, 342763, 235, 346492
18. Sun, 1822, 484, 980520, 1823, 492, 1001298
19. Sun, 1819, 479, 951400, 1821, 486, 974981, 1822, 489, 989644, 1823, 496, 1003511

7.24 Wool, Jute, Flax and Hemp

1. Sun, 1771, 209, 300079
2. Sun, 1775, 238, 353264, 1777, 259, 387184
3. Sun, 1771, 204, 294739
4. Sun, 1821, 488, 974897, 1822, 493, 987426
5. Sun, 1820, 478, 962437, 481, 966580, 486, 974326
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8. Sun, 1819, 479, 952391
9. Sun, 1820, 480, 966468
10. H in H, 1824, 148, 101269

11. Sun, 1821, 487, 976122, 1823, 490, 1001539
12. Sun, 1821, 485, 985575
13. Sun, 1769, 190, 272113
14. Sun, 1771, 209, 301991
15. Sun, 1819, 481, 958174
16. Sun, 1821, 486, 976551
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24. Sun, 1819, 479, 962053

7.27 Leather Tanning, Dressing and Fellmongery

1. Sun, 1769, 191, 271637
2. Sun, 1771, 210, 304454
3. Sun, 1777, 255, 379051
4. Sun, 1769, 188, 267315
5. Sun, 1769, 193, 276956
6. Sun, 1821, 485, 976966/7
7. Sun, 1777, 257, 384352
8. Sun, 1819, 480, 956975
9. Sun, 1822, 489, 995536/7, 491, 995968
10. Sun, 1824, 495, 1014330, 497, 1019449
11. Sun, 1824, 494, 1014755, 495, 1012800, 1014326, 1017513, 497, 1015015, 1014556, 501, 1023449, 502, 1019815
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4. Sun, 1777, 261, 390931
5. Sun, 1824, 503, 1023194/5
6. Sun, 1769, 193, 275281
7. Sun, 1820, 481, 968025, 485, 968825
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3. Sun, 1769, 193, 275652
4. Sun, 1771, 204, 296511
5. Sun, 1825, 500, 1029258, 1029857/8, 502, 1029593
6. Sun, 1825, 504, 1035474
7. Sun, 1822, 493, 991427
8. Sun, 1819, 478, 958878
9. Sun, 1822, 493, 991189
10. Sun, 1777, 256, 385085
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12. Sun, 1823, 498, 1008167
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14. Sun, 1824, 501, 1023412, 1023465
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25. Op. cit.

7.31 Other Clothing and Footwear

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2. Sun, 1777, 254, 381635
3. Sun, 1771, 204, 295195
4. Sun, 1819, 479, 954056
5. Sun, 1820, 484, 968765
6. Sun, 1775, 238, 355110
7. Sun, 1777, 261, 389890
8. Sun, 1769, 193, 275770
9. Sun, 1777, 254, 381524
10. Sun, 1824, 501, 1019733
11. Sun, 1824, 496, 1017694
12. Sun, 1822, 493, 995073

13. Sun, 1822, 492, 991601
14. Sun, 1825, 504, 1029351
15. Sun, 1823, 491, 1001778
16. Sun, 1825, 503, 1031879
17. Sun, 1770, 195, 279449
18. Sun, 1777, 203, 291230
19. Op. cit.
20. Op. cit.
21. Op. cit.

7.32 Household and Other Made-up Textiles

1. Dodd, 13
2. Sun, 1775, 239, 354540/1, 243, 359210
3. Sun, 1772, 214, 311112, 217, 317337
4. Sun, 1820, 479, 966384
5. London, 1825, 4, 102742
6. Sun, 1819, 479, 951853-6, 481, 951016
7. Sun, 1769, 265540, 190, 272121
8. Sun, 1771, 260, 389702
9. Sun, 1771, 205, 294227
10. Sun, 1821, 487, 976631/2
11. Sun, 1820, 487, 970325
12. Sun, 1819, 481, 954340
13. Sun, 1777, 260, 390844
14. Sun, 1769, 188, 266806, 192, 276371
15. Globe, 1825, 88659
16. Sun, 1822, 492, 997555
17. Sun, 1825, 500, 1033814
18. *A Catalogue of the Elegant and Fashionable Stock in Trade...of Mr Henry Fremont, Embroiderer...A Bankrupt...which will be sold by Auction...on March 14, 1783*, Guildhall Library, PAM 11189
19. Op. cit.
20. Op. cit.
21. Sun, 1777, 256, 384108
22. Op. cit.
23. Op. cit.
24. Sun, 1822, 492, 995908

7.33 Fur Goods

1. PRO B3 1570
2. Sun, 1822, 491, 993665
3. Sun, 1823, 497, 1003612, 1824, 496, 1014923
4. Sun, 1824, 494, 1017436, 497, 1017873
5. Sun, 1777, 255, 379063
6. Op. cit.
7. Op. cit.

7.34 Coopers and Wooden Container Makers

1. Mortimer, 239

2. Ibid, 80
3. GLTC
4. Sun, 1774, 231, 340767
5. Sun, 1777, 257, 383024, 384912, 260, 391222
6. Gourvish and Wilson, 93
7. Dodd, 68
8. Sun, 1771, 207, 298701
9. Sun, 1774, 229, 335550
10. Sun, 1769, 187, 266020, 1774, 230B, 341182, 1775, 239, 354849
11. Op. cit.
12. Sun, 1771, 206, 299630, 210, 303782
13. Op. cit.
14. Sun, 1822, 489, 993334
15. Sun, 1824, 497, 1012428
16. Sun, 1821, 487, 978250

7.35 General Carpenters and Turners

1. Illustrated in Heal, 5
2. Sun, 1775, 236, 350661
3. Sun, 1825, 500, 1031473, 502, 1031758/9
4. Sun, 1777, 260, 391461
5. Sun, 1822, 493, 995458
6. Sun, 1770, 202, 292560
7. H in H, 1824, 148, 66379
8. Sun, 1769, 192, 275524
9. RE, 1822, 83, 333786
10. Sun, 1777, 261, 389090
11. Sun, 1769, 190, 272822
12. Sun, 1771, 204, 294056
13. Sun, 1769, 192, 275189
14. Sun, 1772, 216, 316197
15. Sun, 1824, 501, 1026036
16. Sun, 1821, 485, 980657
17. Sun, 1825, 501, 1028312
18. Sun, 1825, 500, 1028108, 501, 1029490
19. Sun, 1777, 260, 391414
20. Sun, 1773, 223, 326657
21. Sun, 1821, 484, 980504
22. Sun, 1821, 487, 980950/1
23. Op. cit.
24. Op. cit.
25. Op. cit.
26. Op. cit.
27. Sun, 1824, 499, 1019308, 1019324
28. Sun, 1823, 499, 1010761
29. Op. cit.

7.36 Furniture Making

1. Heal, passim
2. Campbell, 169–170
3. *Book of English Trades*, 73
4. GLTC

5. Heal, 22
6. Dodd, 7
7. Sun, 1777, 218, 318699
8. Sun, 1774, 228, 334848, 230B, 341132
9. Sun, 1824, 499, 1021072, 1021388, 1023685
10. Sun, 1821, 976465, 493, 987146
11. Sun, 1771, 207, 298022, 208, 302186
12. Sun, 1822, 490, 989255
13. Op. cit., 161–162
14. Sun, 1771, 206, 297376
15. Sun, 1823, 499, 1010786
16. Sun, 1775, 242, 359101
17. Sun, 1771, 208, 300987
18. Sun, 1772, 214, 310304
19. Sun, 1771, 210, 304417
20. Sun, 1775, 237, 350017
21. Sun, 1825, 501, 1035577
22. Sun, 1823, 496, 1010140
23. Sun, 1822, 490, 995640
24. Sun, 1819, 480, 962213
25. Sun, 1771, 292, 293753
26. Sun, 1819, 480, 960125
27. Sun, 1819, 482, 956567/8
28. Sun, 1777, 260, 391459
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31. Op. cit.
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34. Op. cit.
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36. McKendrick, Neal, Brewer, John and Plumb, J H., *The Birth of a Consumer Society*, (London, 1982), 28

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1. Sun, 1777, 255, 379210
2. Sun, 1772, 214, 313785
3. Sun, 1819, 479, 9534755
4. Sun, 1821, 484, 980507
5. Sun, 1769, 187, 266256
6. Sun, 1775, 240, 355383
7. Sun, 1822, 493, 997376/7
8. RE, 1825, 89, 351629

7.38 Cork, Baskets and Brushes

1. GLTC
2. GLTC
3. Sun, 1775, 243, 359850, 359858/9

4. Sun, 1769, 190, 272505
5. Sun, 1821, 484, 978325-7
6. Sun, 1822, 493, 997039, 997740
7. Sun, 1823, 494, 1003890, 1008882
8. Sun, 1773, 223, 326594
9. Sun, 1825, 502, 1028940, 1031733/4
10. Sun, 1772, 218, 317554
11. Sun, 1823, 497, 1010246, 1010825, 498, 1001308
12. Sun, 1822, 490, 997865
13. Sun, 1769, 193, 275659
14. Sun, 1774, 230A, 337961, 1775, 237, 349701
15. Sun, 1777, 258, 387751
16. Op. cit.
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18. Op. cit.
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3. Op. cit., 168
4. Rosoman, Treve, *London Wallpapers, Their Manufacture and Use 1690-1840*, (London, 1992), 2-3
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10. Sun, 1770, 195, 280241, 280295
11. Sun, 1771, 202, 293789
12. Sun, 1772, 17, 314298
13. Sun, 1774, 228, 335667
14. Sun, 1777, 257, 383426
15. Sun, 1820, 486, 970631/2
16. Sun, 1819, 479, 954696
17. Sun, 1822, 489, 999263/4, 491, 987764/5
18. Sun, 1825, 504, 1026977
19. Sun, 1825, 505, 1039590/1
20. Globe, 1824, 86250
21. Sun, 1823, 498, 1005764
22. Sun, 1825, 509, 1039277
23. Op. cit.
24. Op. cit.
25. Op. cit.
26. Op. cit.
27. Op. cit.
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7.40 printing and Publishing

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2. Maxted, xxix-xxxii
3. Ibid, xxx
4. Quoted in Ramsden, Charles, *London Bookbinders 1780-1840*, (London, 1956), 3
5. GLTC
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7. Sun, 1773, 223, 326689/90
8. Sun, 1820, 484, 970229, 486, 970616
9. Op. cit., 77 and 216-217
10. Sun, 1820, 480, 964480/1
11. Sun, 1775, 239, 354594
12. Sun, 1775, 242, 360770
13. Sun, 1772, 218, 319178
14. Sun, 1820, 479, 966372, 480, 962794
15. Sun, 1823, 496, 1008505
16. Sun, 1821, 488, 974847/8
17. Sun, 1819, 481, 951512, 958643, 1821, 491, 987281
18. Sun, 1822, 493, 995425
19. Sun, 1777, 260, 390250
20. Sun, 1771, 205, 294638
21. Sun, 1775, 243, 361666
22. Sun, 1824, 499, 1017337
23. Sun, 1822, 490, 991951
24. Sun, 1772, 214, 310760
25. Sun, 1772, 218, 318665
26. Sun, 1822, 489, 993346
27. Sun, 1820, 483, 970991
28. Op. cit.
29. Sun, 1820, 479, 966391
30. Sun, 1821, 488, 981579/80
31. Op. cit.
32. Sun, 1819, 479, 956772
33. Sun, 1820, 485, 968330, 1824, 494, 1017948
34. Sun, 1819, 481, 953749, 1820, 479, 964775, 1821, 484, 978349, 1822, 491, 993176, 1823, 494, 1005490, 1824, 494, 1017464, 1825, 500, 1031445

7.41 Jewellery

1. Hamilton, 242-243
2. GLTC
3. GLTC
4. GLTC
5. Sun, 1771, 206, 297714
6. Op. cit., 268
7. Sun, 1771, 208, 301322
8. Sun, 1770, 195, 279547
9. Sun, 1777, 260, 388800
10. Sun, 1777, 258, 386772
11. Sun, 1771, 209, 301222
12. Sun, 1771, 209, 302372
13. Sun, 1775, 239, 355282
14. Sun, 1824, 497, 1017821, 1825, 501, 1037927, 503, 1029140, 1029146
15. Sun, 1822, 492, 989511, 1825, 503,

1029137

16. Sun, 1820, 481, 962946
17. Sun, 1821, 486, 983438/9
18. London, 1825, 4, 102556
19. Sun, 1825, 504, 1033680
20. Sun, 1821, 488, 976403
21. Sun, 1825, 503, 1031270
22. Sun, 1820, 480, 964413
23. Sun, 1825, 509, 1037736
24. RE, 1824, 85, 343300
25. Sun, 1777, 258, 388501
26. Sun, 1773, 223, 325877
27. Sun, 1823, 498, 999700
28. Op. cit.
29. Op. cit.
30. Op. cit.
31. Op. cit.
32. Op. cit.
33. Op. cit.

7.42 Musical Instruments

1. *Book of English Trades*, 267
2. Sun, 1769, 191, 273496
3. Sun, 1771, 206, 300306
4. Sun, 1771, 206, 299938
5. Sun, 1771, 204, 295695
6. Sun, 1775, 242, 360650
7. Sun, 1777, 261, 390373
8. Sun, 1819, 480, 954883
9. Sun, 1819, 480, 954856
10. Sun, 1824, 501, 1023402/3
11. Sun, 1825, 504, 1028246
12. RE, 1824, 85, 342461, 86, 345788
13. Sun, 1822, 493, 993572/3
14. Sun, 1819, 479, 956784
15. Sun, 1824, 503, 1023785
16. Sun, 1825, 504, 1933941
17. Sun, 1824, 503, 1023186
18. Sun, 1824, 499, 1019382
19. Op. cit.
20. Op. cit.
21. Op. cit.

7.43 Manufacture of Miscellaneous Goods

1. Dodd, 10
2. CLTC
3. Sun, 1777, 257, 383901
4. Sun, 1772, 216, 316523
5. Sun, 1777, 261, 390613
6. Sun, 1775, 240, 355523
7. Sun, 1775, 239, 354443
8. Sun, 1775, 240, 356271
9. Sun, 1771, 206, 299612
10. Sun, 1769, 193, 275715
11. Sun, 1773, 223, 326555
12. Sun, 1824, 492, 987932

13. Sun, 1824, 497, 1016197, 1016791, 501, 1026082
14. Sun, 1820, 484, 974024
15. Sun, 1823, 494, 1006064, 1006067
16. London, 1822, 3, 100068
17. Sun, 1823, 498, 1010001
18. Sun, 1824, 502, 1021973
19. Sun, 1822, 490, 997809
20. Sun, 1823, 494, 1006052/3

Construction

7.44 General Building and Construction

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2. Sun, 1819, 482, 953218, 953857, 1820, 483, 968234, 970563
3. Sun, 1771, 206, 297329/30, 298234, 210, 305226
4. Sun, 1775, 239, 353406/7, 353587-94, 242, 361994-362000
5. Sun, 1775, 236, 350701/2, 237, 349290-2, 1777, 254, 379794/5
6. Sun, 1774, 230B, 346086-91, 1777, 254, 379520, 379599, 257, 384267, 261, 391838
7. Sun, 1777, 257, 383156/7, 263, 392366/7
8. Sun, 1825, 500, 1035348-53, 509, 1037457-66
9. Sun, 1819, 482, 956830/1, 958727-9, 1820, 483, 964346, 970554, 972357-9, 1821, 488, 978457/8, 981815-8, 985113-8, 1822, 493, 999011-4, 1823, 498, 1008145-8, 1824, 499, 1014612/3, 1016933, 1019615-8, 1825, 504, 1028732
10. Sun, 1821, 488, 981535-8, 1822, 493, 995094/5, 999045-9, 1923, 498, 1001622-4, 499, 1010701-8, 1824, 499, 1023932-7, 501, 1019740/1, 1825, 504, 1035255, 509, 1035814
11. Op. cit.
12. RE, 1825, 88, 350355
13. RE, 1825, 87, 354824
14. Sun, 1823, 497, 1008680
15. Sun, 1771, 203, 293326/7, 1772, 212, 306866
16. Sun, 1771, 205, 295364/5
17. Sun, 1774, 230A, 338248
18. Op. cit., 648
19. Sun, 1770, 202, 290933, 1772, 214, 313204. 1774, 229, 336711
20. Sun, 1819, 478, 956096, 480, 960608, 1821, 485, 981776, 1824, 502, 1019882
21. Sun, 1769, 190, 272044, 191, 272348, 1770, 203, 292376, 1771, 203, 292730,

207, 298375, 1773, 218, 320247, 1774, 228, 334810, 230B, 340085, 1775, 239, 352145, 1777, 256, 384889

7.45 Installation of Fixtures and fittings and Building Completion Work

1. CLTC
2. CLTC
3. Rosoman, 54-57
4. Sun, 1771, 206, 298298/9
5. Sun, 1775, 236, 348497, 350695
6. Sun, 1777, 258, 388115/6
7. Sun, 1774, 229, 335977
8. Sun, 1825, 502, 1035714
9. Sun, 1819, 482, 954120
10. Sun, 1819, 482, 956266, 1823, 498, 1005939
11. London, 1823, 3, 100802-4
12. Sun, 1771, 202, 293706
13. London, 1822, 3, 70118
14. Sun, 1824, 499, 1016068/9
15. Sun, 1822, 489, 991820

Wholesale Distribution

7.46 Agricultural and Textile Raw Materials

1. Muis, 290
2. Sun, 1771, 209, 301243
3. Sun, 1775, 243, 359823
4. Sun, 1823, 496, 1010623, 1824, 497, 1017855
5. Sun, 1820, 479, 966857, 485, 972524
6. Sun, 1819, 478, 951192, 481, 954996/7
7. Sun, 1772, 214, 312480
8. Sun, 1771, 203, 293486
9. Sun, 1777, 259, 385621
10. Sun, 1771, 203, 293469
11. Sun, 1777, 257, 382897
12. Sun, 1819, 478, 960937
13. Sun, 1823, 498, 999619
14. Sun, 1819, 482, 958062/3
15. Sun, 1823, 495, 1006080
16. Sun, 1822, 492, 991005, 993707, 995929
17. Sun, 1821, 488, 983821
18. Sun, 1819, 481, 953721
19. Sun, 1777, 254, 380337
20. Sun, 1774, 229, 337865
21. Op. cit.
22. Op. cit.
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24. Sun, 1820, 483, 972617
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7.47 Fuels, Ore, Metals and Industrial

Materials

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3. CLTC
4. PRO B3, 1033
5. PRO B3, 2490
6. Sun, 1775, 236, 348499
7. Sun, 1777, 254, 381595
8. Sun, 1774, 229, 336380
9. Sun, 1775, 242, 359707
10. Sun, 1771, 209, 303510
11. Sun, 1820, 483, 962577
12. Op. cit., 278
13. Sun, 1822, 489, 993344
14. Sun, 1823, 497, 1005825/6
15. Sun, 1822, 492, 991070
16. H in H, 1820, 147, 100785
17. Op. cit.
18. Op. cit.
19. Sun, 1822, 490, 989218
20. Op. cit.
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7.48 Timber and Building Materials

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2. Sun, 1774, 231, 340348, 235, 347251
3. Sun, 1777, 253, 378271
4. Sun, 1777, 256, 382456, 261, 389498
5. Sun, 1819, 478, 953946, 956074, 479, 951304, 956714, 480, 958511, 481, 951014
6. Sun, 1819, 478, 960985/6, 479, 958912, 480, 960164-6, 960607, 960680
7. Sun, 1820, 481, 962986, 966550, 485, 968376, 970451, 972053, 486, 974215
8. RE, 1822, 82, 329335
9. RE, 1825, 87, 350899, 351050
10. Op. cit.
11. Op. cit.
12. Sun, 1777, 259, 386339
13. Sun, 1820, 479, 962608, 481, 962980
14. Sun, 1823, 492, 1001832
15. Op. cit.
16. Op. cit.
17. Sun, 1822, 491, 995887

7.49 Clothing and Textiles

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3. Ibid, 168, see also Kynaston, David, *The City of London, I, A World of its Own*,

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6. Sun, 1777, 261, 388870
7. Sun, 1771, 206, 299641
8. Sun, 1772, 212, 308224, 1777, 257, 382167
9. Sun, 1777, 262, 392607
10. Op. cit., 168
11. London, 1822, 3, 100554
12. Sun, 1824, 495, 1014363, 497, 1016800
13. Sun, 1822, 492, 995385/6, 491, 989464
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15. Sun, 1824, 497, 1014016
16. Sun, 1825, 500, 1028605
17. Sun, 1824, 496, 1014473
18. Sun, 1924, 495, 1017063, H in H, 1825, 148, 95654
19. Sun, 1825, 501, 1033285&7
20. Op. cit.
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22. Sun, 1771, 208, 302590, 1823, 489, 999806
23. Hull, William, *The History of the Glove Trade*, (London, 1834), 50

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3. Sun, 1771, 204, 295587, 207, 298849
4. Sun, 1775, 242, 359757
5. Sun, 1772, 216, 314434
6. Sun, 1771, 209, 302708
7. Sun, 1823, 495, 1005586
8. Sun, 1820, 478, 966168, 479, 962616
9. Sun, 1823, 492, 1003163, 494, 1006025, 1008828, 495, 1008393
10. Sun, 1824, 494, 1017996, 495, 1017565, 1019124
11. Sun, 1820, 478, 966148, 484, 968174, 487, 968642, 1821, 492, 987385/6
12. Sun, 1825, 500, 1028638/9, 1029801, 1031431/2, 501, 1033295
13. RE, 1819, 76, 311255, 78, 315685, Sun, 479, 951865
14. Sun, 1825, 502, 1028947
15. London, 1825, 4, 102354
16. Sun, 1821, 487, 976127
17. Godwin, Charles, *Hanson of Eastcheap*, (London, 1947), 3

7.51 Other Wholesale Distribution

1. Sun, 1771, 209, 302702
2. Sun, 1769, 193, 274038
3. Sun, 1822, 491, 995228
4. Sun, 1820, 486, 970633
5. Sun, 1820, 486, 970608
6. Sun, 1821, 492, 987394
7. Sun, 1820, 481, 968042, 485, 968393
8. Sun, 1819, 481, 954334
9. RE, 1825, 87, 355739
10. Sun, 1823, 495, 1008914
11. Sun, 1821, 485, 980052, 487, 980302

7.52 Merchants

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3. Chapman, *Merchant Enterprise*, 129-130
4. Ibid, 129
5. Ibid, 156
6. Mortimer, *The Universal Director*, (London, 1763), 3-78
7. Sun, 1772, 216, 317171, 316277, 316300, 217, 316690, 316955
8. Sun, 1771, 203, 292981, 206, 300007, 207, 300426, 208, 302240, 209, 300802, 209, 302485, 302680, 303008
9. Sun, 1770, 194, 280617, 202, 291709, 292220, 203, 291692, 291958
10. Sun, 1772, 216, 314433, 317115, 218, 317816, 317931, 319884, 319979
11. Sun, 1772, 212, 307336
12. Sun, 1769, 186, 265639/40, 194, 279112
13. Sun, 1771, 202, 293029/30, 1772, 217, 316988
14. Sun, 1820, 481, 962367, 485, 970498, 487, 972226/7
15. Sun, 1821, 484, 978997, 981670-5, 485, 983946, 985507/8, 486, 974979, 983472, 487, 980310, 980319
16. London, 1825, 4, 102214, 102241/2, 102319, 102401, 102403, 102411, 102420, 102432, 102436, 102572, 102633, 102695, 102768, 102792-4, 102797, 102802, 102821, 102832, 102851
17. London, 1822, 3, 100336
18. Sun, 1822, 489, 989694, 1825, 501, 1026709, 1033206
19. London, 1821, 3, 69985/6
20. RE, 1825, 86, 351149/50, 88, 353799
21. Sun, 1819, 480, 953628
22. Sun, 1820, 486, 972199
23. London, 1821, 3, 69967

24. Sun, 1823, 495, 1003384

7.53 Dealing in Waste Materials

1. Sun, 1775, 237, 351276
2. Sun, 1775, 237, 348769
3. Sun, 1774, 229, 336212
4. Sun, 1777, 260, 389704/5
5. Sun, 1777, 260, 391895
6. Sun, 1819, 481, 954991
7. Sun, 1825, 501, 1037301
8. RE, 1825, 87, 354839
9. Sun, 1777, 259, 388367
10. Sun, 1775, 238, 355018
11. Sun, 1821, 487, 985850
12. Sun, 1819, 480, 956952
13. Sun, 1821, 485, 981740

Commission Agents

7.54 Agricultural Raw Materials

1. Sun, 1777, 255, 380602, 261, 390687-9, 391084-7, 262, 392201
2. Sun, 1775, 239, 354191, 240, 355552, 242, 359138
3. Sun, 1772, 216, 314424
4. Sun, 1770, 203, 291696
5. Sun, 1772, 212, 306731, 218, 319822
6. Sun, 1820, 479, 964288, 966339, 484, 974014, 485, 968859, 970497, 486, 972760
7. Sun, 1821, 485, 976353
8. Sun, 1823, 492, 1001835, 1001837, 494, 1005482, 495, 1003381, 1008385, 496, 1005133, 497, 1003667, 1003684, 1006538
9. Sun, 1824, 494, 1014114, 496, 1014440, 497, 1019471, 500, 1021711
10. Sun, 1824, 495, 1014370, 496, 1014965/6, 1017607, 502, 1021435, 1021439
11. Sun, 1821, 484, 976891, 485, 983389, 486, 981990, 983469, 487, 985819, 490, 987030
12. Op. cit.
13. Sun, 1773, 223, 325795, 1774, 232A, 341350
14. Sun, 1769, 195, 278555, 1771, 202, 293084, 204, 293992
15. Op. cit.
16. Sun, 1824, 503, 1023163/4

7.55 Textiles and Textile Raw Materials

1. See below, 265-269
2. Mortimer, 140
3. Sun, 1775, 242, 361061

4. Sun, 1770, 202, 290910
5. Sun, 1774, 228, 336967
6. Sun, 1772, 218, 319525
7. Sun, 1777, 258, 386434
8. Sun, 1771, 205, 296265
9. Sun, 1825, 501, 1028808
10. Sun, 1821, 490, 987083
11. Sun, 1820, 486, 968446, 972788
12. Sun, 1825, 501, 1028849
13. London, 1823, 3, 100632
14. Sun, 1819, 480, 951447
15. Sun, 1823, 485, 974137-9

7.56 Other Agents, Factors and Brokers

1. Sun, 1770, 203, 291645
2. Sun, 1771, 209, 300747
3. Sun, 1769, 190, 270203, 195, 278905
4. Sun, 1777, 260, 389122
5. Sun, 1822, 490, 987664, London, 3, 100560
6. Sun, 1821, 487, 976132, 486, 985622/3
7. Sun, 1822, 489, 991893
8. Sun, 1820, 484, 968741
9. Sun, 1822, 491, 991535, 1823, 492, 1001820
10. London, 1825, 4, 102598
11. London, 1825, 4, 102148
12. Kynaston, 52

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7.57 Meat and Poultry

1. McKendrick, Brewer and Plumb, 9
2. Ibid, 21
3. Muis, 3 and 200
4. Alexander, 5-6 and 24
5. Adburgham, Alison, *Shopping in Style*, (London, 1979), 98
6. Porter, *London*, 199-200
7. Ibid, 143-145
8. Ellis, Joyce, 'On the Town, Women in Augustan England', *History Today*, 45, 12, 1995, 23
9. Hibbert, 148
10. Sun, 1771, 206, 299007
11. Sun, 1769, 192, 276331
12. Sun, 1775, 240, 356655, 243, 359300
13. Sun, 1771, 210, 305235
14. Sun, 1773, 223, 325408, 327295
15. Sun, 1771, 208, 301724
16. Sun, 1820, 484, 970270
17. Sun, 1823, 494, 1010968
18. Sun, 1820, 483, 970391, 972683
19. Sun, 1820, 484, 970800
20. Sun, 1825, 500, 1031437, 501,

- 1037247
 21. Sun, 1821, 485, 983303
 22. Sun, 1820, 478, 966791, 1822, 489, 993999
 23. Sun, 1820, 478, 964264
 24. Sun, 1823, 497, 1006896
 25. Sun, 1775, 240, 355564
 26. Sun, 1771, 209, 303026
 27. Sun, 1820, 483, 972375
 28. Sun, 1823, 496, 1005148
 29. Op. cit.
 30. Op. cit.
 31. Op. cit.
 32. Op. cit.
 33. Op. cit.
 34. Op. cit.
 35. Op. cit.
 36. Sun, 1823, 494, 1010495, 495, 1008347
 37. Op. cit.
 38. Op. cit.

7.58 Bakers

1. Sun, 1777, 255, 381338
2. Sun, 1774, 232B, 344391
3. Sun, 1771, 209, 303543
4. Sun, 1769, 192, 275540
5. Sun, 1822, 490, 993472, 995143, 1825, 500, 1026624, 501, 1028484, 503, 1028511
6. Sun, 1823, 491, 999773/4, 1825, 501, 1037830
7. Sun, 1821, 486, 985671
8. Sun, 1824, 495, 1014384
9. Sun, 1822, 491, 989481
10. Sun, 1771, 205, 296259
11. Sun, 1774, 231, 339842
12. Sun, 1821, 488, 978424
13. Sun, 1824, 499, 1014257
14. Op. cit.
15. Op. cit.
16. Sun, 1820, 478, 966797, 487, 970745
17. Op. cit.
18. Sun, 1819, 480, 953636, 1820, 483, 964327, 1821, 486, 978697, 1822, 491, 991508, 1823, 495, 1003377, 1824, 497, 1016705, 1825, 500, 1028628

7.59 Fruit and Vegetables

1. BLHC
2. Godwin, 1
3. Sun, 1770, 195, 280013
4. Sun, 1773, 218, 320202
5. Sun, 1771, 203, 293185
6. Sun, 1775, 237, 351245
7. Sun, 1821, 488, 974807/8

8. Sun, 1825, 503, 1037514
9. Sun, 1825, 503, 1029698-700
10. Sun, 1820, 487, 974293
11. Sun, 1824, 497, 1019499
12. Sun, 1777, 256, 382618
13. Sun, 1769, 189, 267530
14. Sun, 1820, 483, 970954
15. Sun, 1824, 499, 1023638

7.60 Fish

1. CLTC
2. CLTC
3. Sun, 1770, 195, 280356
4. Sun, 1772, 214, 311150
5. Sun, 1769, 193, 276456
6. Sun, 1769, 189, 269135
7. Sun, 1820, 479, 966393
8. Sun, 1824, 494, 1012575
9. Sun, 1821, 484, 983793
10. Sun, 1821, 485, 983355

7.61 Grocery and Provisions

1. Sun, 1821, 484, 985353
2. Sun, 1821, 486, 981941
3. RE, 1825, 86, 350732
4. Sun, 1823, 494, 1008893
5. Sun, 1769, 195, 278560
6. Sun, 1777, 256, 384658
7. Sun, 1774, 235, 346898
8. Sun, 1821, 489, 985954
9. Campbell, 280
10. Ibid, 281
11. Ibid, 188
12. CLTC
13. CLTC
14. CLTC
15. McKendrick, Brewer and Plumb, 29
16. Sun, 1770, 195, 279211
17. Sun, 1774, 228, 335349, 335758
18. Sun, 1772, 212, 307801, 214, 310310
19. Sun, 1771, 208, 301353
20. Sun, 1769, 192, 275880
21. Sun, 1769, 191, 271701
22. Sun, 1824, 495, 1017576&8
23. H in H, 1823, 148, 80880
24. Sun, 1824, 499, 1013330
25. Sun, 1824, 496, 1014464
26. Sun, 1820, 481, 966595/6
27. Sun, 1822, 493, 991166
28. Sun, 1820, 481, 962375
29. Sun, 1820, 483, 964380
30. Sun, 1823, 494, 1010446
31. Sun, 1771, 205, 294949
32. Sun, 1769, 192, 275034
33. Sun, 1819, 480, 956315
34. Sun, 1819, 480, 956319

35. Sun, 1821, 487, 976653
36. Sun, 1777, 261, 389666
37. Sun, 1777, 258, 388486
38. Op. cit.
39. Sun, 1823, 496, 1010673
40. Stern, 231
41. Godwin, 3

7.62 Wine, Beer and Spirits

1. Francis, A D., *The Wine Trade*, (London, 1972), 296
2. GLTC
3. GLTC
4. Hartley, Joseph, *The Wine and Spirit Merchant's Companion*, (London, 3rd ed. 1850)
5. Wild, Charles James, *John Wild, 1729-1901*, (Harpenden, 1914), pages not numbered
6. Sun, 1774, 235, 348043
7. Sun, 1775, 243, 361736/7
8. Sun, 1772, 216, 316522, 218, 319981
9. Sun, 1772, 217, 317361
10. Sun, 1769, 190, 270393
11. Sun, 1819, 480, 954879/80
12. Sun, 1825, 500, 1033736
13. Sun, 1824, 496, 1019223, 497, 1010064, 1014098, 500, 1023814, 502, 1019834
14. Sun, 1820, 484, 968194
15. Sun, 1824, 495, 1012744
16. Sun, 1773, 228, 334541
17. Sun, 1772, 217, 315881
18. Sun, 1821, 484, 983775
19. Sun, 1823, 496, 1003562/3
20. RE, 1825, 87, 350805

7.63 Tobacco and Snuff

1. GLTC
2. Sun, 1777, 256, 382245
3. Sun, 1775, 194, 278064
4. Sun, 1774, 235, 346075
5. Sun, 1824, 495, 1019151
6. Sun, 1822, 490, 989268
7. Sun, 1819, 479, 958952
8. Sun, 1822, 489, 993927
9. Sun, 1771, 209, 303031
10. Sun, 1769, 192, 275118
11. Sun, 1825, 501, 1037872
12. RE, 1823, 83, 339085

7.64 Confectionery and Newspapers

1. Sun, 1771, 209, 303505
2. Sun, 1769, 188, 268391
3. Sun, 1769, 190, 273386

4. London, 1822, 3, 100234
5. RE, 1824, 83, 344330, 85, 342576
6. Sun, 1821, 487, 976104
7. RE, 1825, 89, 355684
8. Sun, 1823, 489, 999853
9. BLHC

7.65 Apothecaries, Chemists and Druggists

1. Tweedale, 2
2. PRO B3, 2281
3. PRO B3, 1630
4. PRO B3, 575
5. GLTC
6. BLHC
7. Campbell, 64-65
8. Porter, Roy, *Health for sale, Quackery in England, 1660-1850*, (Manchester, 1989), 4-44
9. Ibid, vii
10. Op. cit., 6
11. Sun, 1821, 491, 987224
12. GLTC
13. Sun, 1771, 209, 300714
14. Sun, 1772, 214, 311976
15. Sun, 1772, 212, 307099
16. Sun, 1773, 223, 325496
17. Sun, 1769, 186, 265687
18. Sun, 1770, 202, 291077
19. Sun, 1771, 206, 298264, 1774, 231, 338411
20. Sun, 1822, 492, 993224, H in H, 147, 61516
21. Sun, 1820, 486, 972780
22. Sun, 1824, 502, 1026218
23. London, 1821, 3, 69998-70004
24. Sun, 1822, 490, 995176
25. Globe, 1824, 84467
26. Sun, 1825, 502, 1026838
27. Sun, 1774, 231, 338474
28. Sun, 1772, 217, 316766
29. Sun, 1821, 487, 983633
30. Sun, 1823, 498, 1008144
31. Op. cit.
32. Op. cit.
33. Sun, 1819, 482, 956846/7
34. Sun, 1821, 488, 981509
35. Sun, 1819, 482, 954131
36. Op. cit., 41 and 91

7.66 Tailors and Dressmakers

1. McKendrick, Brewer and Plumb, 21
2. Adburgham, Alison, *Shops and Shopping, 1800-1914*, (London, 1964), 14
3. Dodd, 5
4. GLTC
5. GLTC

6. GLTC
7. Sun, 1769, 187, 266270
8. Sun, 1769, 190, 272853
9. Sun, 1777, 258, 386761
10. Sun, 1769, 190, 273685
11. Sun, 1769, 194, 277455
12. Sun, 1829, 479, 956152
13. Sun, 1823, 498, 1005702
14. Sun, 1819, 478, 960959
15. Sun, 1772, 217, 314651
16. Sun, 1769, 193, 274151
17. Sun, 1769, 193, 276798
18. Sun, 1820, 483, 964015
19. Sun, 1821, 486, 978768
20. Sun, 1823, 499, 1012037
21. Sun, 1825, 504, 1028242
22. Op. cit.
23. Sun, 1775, 239, 355238
24. Sun, 1777, 261, 390484
25. Sun, 1777, 258, 388138
26. Sun, 1823, 497, 1008697
27. Sun, 1819, 482, 958754
28. Sun, 1822, 489, 999232

7.67 Staymakers

1. Sun, 1771, 202, 293745
2. Sun, 1777, 254, 379518
3. Sun, 1777, 257, 381992
4. Sun, 1821, 488, 978755
5. Sun, 1824, 494, 1016870
6. Sun, 1825, 502, 1035023
7. Sun, 1823, 498, 1006310
8. Sun, 1772, 214, 313298
9. Sun, 1825, 504, 1033035
10. London, 1825, 4, 102265

7.68 Hats, Hosiery and Gloves

1. RE, 1822, 83, 334487
2. GLTC
3. GLTC
4. GLTC
5. *Catalogue of a Hatter's Stock, to be sold by auction on 19th September 1834 at 36 Lombard St, Guildhall Library PAM 6739*
6. *Adburgham, Shops and Shopping, 27*
7. Sun, 1769, 188, 266979, 267359, 190, 273233
8. Sun, 1769, 186, 265651
9. Sun, 1773, 223, 326144
10. Sun, 1771, 206, 298987
11. Sun, 1769, 189, 268414
12. Sun, 1775, 239, 353145
13. Sun, 1823, 498, 999670
14. Sun, 1825, 501, 1033280
15. London, 1821, 3, 70046
16. Sun, 1825, 504, 1029711

17. Sun, 1821, 484, 980597
18. Sun, 1821, 486, 978049
19. Sun, 1819, 481, 953191
20. Globe, 1825, 89802
21. Sun, 1823, 498, 1008422
22. Sun, 1774, 228, 335343, 231, 338302
23. Sun, 1777, 255, 380150
24. Sun, 1774, 228, 335669
25. Sun, 1822, 493, 997349
26. Sun, 1819, 477, 951231
27. Sun, 1822, 493, 995751
28. See Morgan

7.69 Haberdashery

1. Sun, 1770, 195, 280201
2. Sun, 1775, 243, 358992
3. Sun, 1771, 208, 301785
4. Sun, 1820, 485, 972019, 974184
5. Sun, 1820, 486, 968946
6. Sun, 1820, 483, 966677
7. Sun, 1821, 485, 976932
8. Sun, 1823, 493, 999056
9. Sun, 1825, 504, 1031631
10. Sun, 1775, 238, 352242
11. Sun, 1771, 205, 294998
12. Sun, 1769, 188, 268706
13. Sun, 1821, 486, 974910
14. Sun, 1821, 487, 976125
15. RE, 1821, 80, 325724

7.70 Drapers and Mercers

1. GLTC
2. *Book of English Trades, 226-230*
3. Sun, 1777, 263, 392640
4. Sun, 1777, 254, 378956
5. Sun, 1770, 202, 291397
6. Sun, 1772, 216, 315316
7. Sun, 1772, 218, 319188
8. Sun, 1775, 240, 357749
9. Sun, 1820, 483, 972970
10. Sun, 1824, 496, 1012836
11. Sun, 1823, 497, 1005892
12. Sun, 1824, 497, 1012470
13. Sun, 1825, 509, 1037438
14. Sun, 1825, 509, 1037189
15. Sun, 1822, 490, 997268
16. Sun, 1775, 236, 348645
17. Sun, 1771, 204, 296572
18. Sun, 1772, 217, 314692
19. Sun, 1825, 509, 1035898
20. Sun, 1825, 504, 1031359
21. Sun, 1824, 496, 1016550
22. Sun, 1825, 501, 1037838
23. Sun, 1770, 202, 292290
24. Sun, 1819, 482, 954795
25. RE, 1819, 76, 313875

7.71 Multiple Specialism Textile Goods Retailers

1. Sun, 1769, 195, 277955
2. Sun, 1777, 259, 388443
3. Sun, 1774, 235, 347252
4. Sun, 1769, 187, 266047
5. Sun, 1769, 190, 273319
6. Sun, 1769, 191, 273076
7. RE, 1823, 82, 336187/8, 84, 339388, Sun, 494, 1008207
8. RE, 1819, 76, 311993, Sun, 480, 954812
9. Sun, 1825, 504, 1028273, 509, 1039299
10. Sun, 8125, 501, 1033837
11. Sun, 1820, 485, 974197
12. Sun, 1819, 960834
13. Sun, 1822, 491, 991528
14. Sun, 1775, 235, 348152
15. Sun, 1825, 502, 1028453

7.72 Retailers of Ready-Made Clothing

1. Lemire, Beverley, 'Developing Consumerism and the Ready-Made Clothing Trade in Britain, 1750-1800', *Textile History*, 15, 1, 1984, 21-44
2. Lemire, Beverley, 'Peddling Fashion: Salesmen, Pawnbrokers, Taylors, Thieves and the Second-hand Clothes Trade in England, 1700-1800', *Textile History*, 22, 1, 1991, 67
3. Campbell, 338
4. Lemire Beverley, *Fashion's Favourite: The Cotton Trade and the Consumer in Britain, 1660-1800*, (Oxford, 1991), 178
5. Quoted by Lemire, *Developing Consumerism*, 41
6. Chapman, S D., 'The Innovating Entrepreneurs in the British Ready-made Clothing Industry', *Textile History*, 1993, 24, 1, 7
7. Ibid, 14-22
8. Henry Moses insured stock, utensils and fittings for £1600 in 1824, (Sun, 499, 1017137, 494, 1014776). David Moses of 2 Harrow Alley insured stock, utensils and fittings for £400 in 1819, (Sun, 481, 956495) and Moses Moses of 143 Rosemary Lane insured stock and utensils for £150 in 1824 (Sun, 495, 1014332). All described themselves as slopsellers.
9. Chapman, 5
10. CLTC
11. CLTC
12. Mortimer, 980
13. Sun, 1775, 242, 360719

14. Sun, 1770, 195, 280591
15. Sun, 1770, 194, 279177
16. Sun, 1770, 202, 291763
17. Sun, 1821, 485, 983359
18. Sun, 1821, 487, 983128
19. Sun, 1822, 489, 991872
20. Sun, 1824, 495, 1019144
21. Sun, 1821, 485, 981763
22. Sun, 1819, 481, 953740
23. Sun, 1822, 489, 993983
24. Sun, 1820, 483, 970352
25. Sun, 1770, 194, 279627
26. Sun, 1771, 206, 299480
27. Sun, 1772, 214, 311999
28. Sun, 1819, 478, 956688
29. Sun, 1823, 494, 1008885

7.73 Shoemakers

1. George, 196-197
2. CLTC
3. CLTC
4. Quoted in George, 197
5. Ibid and Church, Roy, 'Labour Supply and Innovation 1800-1860: The Boot and Shoe Industry', *Business History*, XII, 1, 26
6. Sun, 1770, 202, 292651
7. Sun, 1777, 260, 391213
8. Sun, 1769, 190, 273674
9. Sun, 1771, 210, 305203
10. Sun, 1769, 192, 274324
11. Sun, 1775, 240, 357898
12. Sun, 1823, 494, 1010465
13. Sun, 1820, 487, 972267, 485, 972541
14. Sun, 1825, 503, 1035964
15. Sun, 1824, 494, 1016880
16. Sun, 1769, 188, 268139
17. Sun, 1825, 509, 1039143
18. Sun, 1772, 313221
19. Sun, 1769, 268992, 1777, 254, 378539
20. Sun, 1819, 960068
21. Sun, 1823, 497, 1008601, 1824, 501, 1023464
22. Church, 25

7.74 Other Leather Goods

1. Sun, 1769, 186, 265663, 193, 276744
2. Sun, 1772, 212, 307345
3. Sun, 1771, 203, 292747
4. Sun, 1822, 492, 995972
5. Sun, 1823, 489, 1003009
6. Sun, 1819, 479, 951329

7.75 Furnishing Fabrics and Household Textiles

1. Sun, 1771, 208, 301338

2. Sun, 1772, 218, 317899
3. Sun, 1769, 190, 270710
4. Sun, 1819, 478, 953978
5. Sun, 1819, 478, 951128
6. Sun, 1823, 491, 1001736
7. Sun, 1822, 490, 999348

7.76 Hardware and Ironmongery

1. GLTC
2. GLTC
3. GLTC
4. Sun, 1770, 194, 279651
5. Sun, 1772, 217, 317340
6. Sun, 1769, 189, 268556
7. Sun, 1825, 500, 1028170, 502, 1035753, 503, 1031920
8. H in H, 1825, 148, 14338
9. Sun, 1819, 480, 948971
10. Sun, 1821, 485, 978520
11. Sun, 1775, 239, 354033
12. Sun, 1771, 204, 297087
13. Sun, 1821, 484, 982771
14. Sun, 1824, 499, 1017335
15. Sun, 1777, 255, 381017
16. Sun, 1775, 239, 354098
17. Sun, 1825, 504, 1031078
18. Sun, 1824, 494, 1014170, 1825, 503, 1035992

7.77 Oils, Candles and Paints

1. GLTC
2. GLTC
3. Sun, 1775, 237, 349695, 242, 359531, 361855
4. Sun, 1777, 261, 392095
5. Sun, 1771, 208, 301434/5
6. Sun, 1820, 481, 962959/60
7. Sun, 1822, 492, 991083, 997584
8. Globe, 1824, 84953
9. Sun, 1770, 202, 291031
10. Sun, 1770, 202, 291483
11. Sun, 1820, 481, 968048
12. Sun, 1821, 488, 980452
13. Sun, 1770, 202, 292293
14. Sun, 1777, 256, 382623
15. Op. cit.
16. Sun, 1820, 486, 970668
17. Sun, 1825, 500, 1031430

7.78 Cutlery and Plated Goods

1. Campbell, 239
2. Dodd, 14-15
3. GLTC
4. Sun, 1769, 193, 276431
5. Sun, 1773, 223, 326584

6. Sun, 1777, 258, 387494
7. Sun, 1769, 192, 276367
8. Sun, 1820, 480, 962756, 484, 968188
9. Sun, 1819, 482, 956537
10. RE, 1825, 87, 349225
11. Sun, 1825, 509, 1037797
12. Sun, 1824, 500, 1023296

7.79 China, Glass and Earthenware

1. GLTC
2. Sun, 1770, 194, 279742&4, 202, 290979
3. Sun, 1769, 191, 272726, 1772, 216, 317104
4. Sun, 1775, 240, 358540
5. Sun, 1774, 231, 339831
6. Sun, 1824, 494, 1016249, 1017943/4, 496, 1016515
7. Sun, 1824, 499, 1016614
8. Sun, 1771, 210, 304306 and see McKendrick, N, 'Josiah Wedgwood: an eighteenth century Entrepreneur', *Economic History Review*, XII, 1960, 418-419
9. Adams, 'The Bow Insurances', 80
10. Sun, 1820, 484, 974095
11. Sun, 1822, 491, 997421
12. Sun, 1820, 486, 968925
13. Sun, 1821, 484, 976267
14. Sun, 1777, 257, 383450
15. Sun, 1769, 194, 278048
16. Sun, 1822, 493, 987498
17. Sun, 1824, 502, 1023501
18. Op. cit.
19. Op. cit.
20. Op. cit.
21. Op. cit.
22. Sun, 1825, 501, 1028387
23. Sun, 1825, 502, 1031707/8

7.80 Pictures and Prints

1. Sun, 1771, 204, 294052
2. Sun, 1777, 257, 383892
3. Sun, 1773, 223, 326983
4. Sun, 1775, 236, 350345
5. Sun, 1819, 481, 951525
6. Globe, 1823, 83327
7. Sun, 1820, 483, 966628, 485, 972503
8. Sun, 1819, 482, 960746

7.81 Music and Musical Instruments

1. Sun, 1773, 223, 324561
2. Sun, 1772, 212, 307945
3. Sun, 1775, 242, 360740
4. Sun, 1769, 188, 269967, 189, 269045
5. Sun, 1821, 488, 980764

6. Sun, 1824, 495, 1017078
7. Sun, 1825, 504, 1035657
8. Sun, 1820, 483, 974396

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1. Thackeray, W M., *The Newcomes*, (1855, World Classics Oxford ed., 1995) 824
2. GLTC
3. GLTC
4. GLTC
5. Sun, 1769, 188, 268144
6. Sun, 1775, 238, 353845
7. Sun, 1772, 214, 311562
8. Sun, 1770, 202, 291868
9. Sun, 1772, 214, 311673
10. Sun, 1819, 481, 958121
11. Sun, 1823, 498, 1003790
12. Sun, 1824, 499, 1016381
13. Sun, 1822, 492, 993795
14. Sun, 1825, 502, 1039448
15. Sun, 1769, 191, 270872
16. Sun, 1771, 207, 299818
17. Sun, 1821, 488, 978110
18. Sun, 1825, 503, 1031274
19. Sun, 1771, 204, 294317
20. Op. cit.
21. Sun, 1820, 483, 966989
22. Sun, 1823, 494, 1003857/8

7.83 Booksellers

1. Maxted, xxii-xxvi
2. *ibid*, xii
3. Whittock, 38-67
4. Adburgham, *Shopping in Style*, 52
5. Sun, 1777, 257, 383489
6. Sun, 1777, 255, 380234
7. Sun, 1770, 202, 291866
8. Sun, 1775, 239, 354048, 240, 358574
9. London, 1822, 3, 100157, H in H, 147, 96461
10. Sun, 1820, 483, 970593
11. Sun, 1821, 487, 976150, 489, 985948
12. Sun, 1821, 488, 981542
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3. Sun, 1769, 191, 271378
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3. Sun, 1771, 205, 295487
4. Sun, 1821, 487, 976686
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- 1. Sun, 1769, 192, 273952
- 2. Sun, 1775, 242, 361925
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- 4. Sun, 1824, 494, 1014734, 496, 1016552
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- 2. GLTC
- 3. Sun, 1772, 218, 319139
- 4. Sun, 1769, 189, 267462
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- 7. Sun, 1823, 1010097, 1824, 499, 1023061
- 8. Sun, 1825, 509, 1039222
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