

A Survey of the Soda Water Industry in Victoria 1839–1862

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A thesis submitted in total fulfilment of the
requirements for the degree of
Master of Arts

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October 2021

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Abstract

Little research has been done on the soda water industry and its bottles to date. This is more notable in Australia, where historical archaeologists rely heavily on the past research of bottle collectors for soda water bottle identification. This study aims to address the shortfall of archaeological research on this topic.

The National Library of Australia's *Trove* database of old newspapers was used to carry out a survey of the soda water industry in Victoria for the period 1839–1862. The results show this industry was one of the first to become established in new settlements. The survey identified 229 soda water manufacturers for the study period, in urban, coastal, goldfields and 'stopping point' towns and communities.

Manufacturers could establish themselves quickly because machinery and supplies were commonly shipped on consignment to Victoria. Their fizzy drinks were more desirable in the warmer months, particularly in the goldfields, where drinking water was often a health hazard. It was found that manufacturers generally supplied the trade: hotels, shops, and eateries. The product distribution range appears to have been limited to a day trip for a horse and delivery cart, which was approximately 20 kilometres. Therefore, even though less than five per cent of the manufacturers identified used branded bottles, bottles found from this period were likely to have been last filled locally.

Merchant advertisements were used with shipping information to identify the few aerated water and ginger beer bottle forms that existed at the time and their ports of origin. All those that could be traced were made in Britain. The high cost of bottles meant repeated reuse was necessary for a profit to be made, but bottle losses were evidently common.

The range of information found in this study sheds light on the soda water industry for archaeologists, facilitating a greater understanding of it. This thesis provides the background for recognising patterns of the soda water industry in the archaeological record. In a broader context, it has created a window into the development of industrial Victoria and its urban environments.

Statement of authorship

Except where reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis accepted for the award of any other degree or diploma. No other person's work has been used without due acknowledgement in the main text of the thesis. This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

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19 October 2021

This work was supported by an Australian Government Research Training Program Scholarship.

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Acknowledgements

I wish to acknowledge several individuals and groups for their assistance during the thesis research and writing processes. Firstly, a big thank you to my supervisor for the duration of the process, Professor Susan Lawrence, whose excellent guidance, encouragement, critiques and sharing of knowledge I gratefully accepted. A second thank you goes to the Graduate Research School's Research Education and Development team and workshop educators. These wonderful people taught me many new tricks and kept me connected during a pandemic circumstance that did its best to disconnect us all. The RED classes were responsible for major developments in my research skills, which made a difference to the final thesis. I also appreciated the connection to the PhD students of the archaeology department on Monday morning Zoom chats: Sarah, Catalina, Greg, Adam, and Raquel. They were inclusive, happy to chat and answered any odd questions I had. I also thank my Progress Committee: Professor Susan Lawrence, Dr. Peter Davies, and Dr. Anita Smith. I am grateful to my copyeditor, Sophie Dougall of Sophista editing service, who taught me some of the finer points of grammar and hyphen and dash use while restricting my previously prolific use of commas. For a last read-through of my post-examination edits, a well-read Robyn Jewell was a star in recommending corrections.

For the embryonic honours stage of the research, I wish to thank Dr. Edwina Kay for her chats and responses to sections of writing and my many questions, all of which encouraged me to think outside the square. I wish also to give a huge thank you to my partner Martin, who has sacrificed so much to be able to support me throughout this project and my preceding years as an undergraduate.

Finally, I would like to acknowledge the Traditional Owners and Custodians of the lands which are discussed in this work, and pay my respects to Indigenous Elders past, present and emerging. Sovereignty has never been ceded in the state of Victoria (and broader Australia). It always was and always will be, Aboriginal land.

Measures and currency

A variety of imperial and other measures occur in the text and tables. Some conversions are provided in brackets within the text, in approximate numbers.

1 dozen = 12

1 gross = 12 dozen or 144

1 mile = approximately 1.6 kilometres (metric)

1 acre = approximately 0.4 hectare (metric)

1 acre = 4 roods

1 rood = 40 perches



A hogshead was a size of cask or barrel often used to transport bulk goods, both liquid and solid. The standard volume for a hogshead and a few other sizes were as follows (Staniforth 1987:21).

1 barrel = 164 litres

1 tierce = 191 litres

1 hogshead = 245 litres

1 puncheon = 327 litres

1 cwt (1 imperial hundredweight) = 50.8kg

In 19th century colonial Victoria, the unit of currency was the English pound (£).

1 pound = 20 shillings (s)

1 shilling = 12 pence (d)

Chapter 1. Introduction



Figure 1: S.T. Gill (1852) *Forest Creek, Mount Alexander diggings, from base of Red Hill near Argus Office looking towards Castlemaine*. Detail (right) of lemonade and ginger beer tent (and possibly sly-grog), opposite and near the Argus office. (Source: National Gallery of Victoria)

Our hill has become quite a village lately, and a square has been formed in front of the Argus and Post Offices, of about ninety feet. On one side, a row of tents, composed of an eating-home, two lemonade establishments, a druggist's and barber's, form the line, while on the other, a green-grocer's, soda-water manufactory, doctor's tent, and three others in course of erection, form the other.

(*Argus* 25 Feb. 1852:2)



S.T. Gill's picture of Red Hill (Figure 1), which includes a red sign indicating the direction of the *Argus* office. Even allowing for artistic licence and the possibility that Gill's illustration represents a later, more advanced development, his illustration matches the place described in the *Argus* reporter's article above. Therefore, somewhere in the vicinity of this scene, there was a soda water manufactory. Finding good drinking water in the goldfields was a problem when water in general was often short. In a

tent city without sanitation, and before the establishment of reliable water storage facilities, diggers hard at work often relied on aerated waters or adulterated alcohol to quench their thirst (Dingle 1984:45).

Research focus and objectives

This project sought to identify the aerated water manufactories from Victoria's early years and the factors that influenced their existence. These factors included supply, costs, new, permanent or transient populations, and the economic changes of the period. In addition, the general business of running an aerated water manufactory was investigated. The most effective way of finding this information was to use *Trove*, the National Library of Australia's database, where a set of digitised newspapers was surveyed. This method will be explained further in Chapter Four. Ideally, archaeologists will use these survey results to understand better the aerated water industry, that is, the background leading up to the bottles found in deposits.

Why is this study significant for archaeologists?

Archaeologists require reliable resources to identify and date artefacts recovered from sites. Together with the complex social history that the artefacts represent, this information contributes to site analyses and therefore site interpretation. To that end, many archaeologists focus their studies on artefacts (e.g. Boow 1991, Brooks 2005) rather than an assemblage, site, or landscape (Brauner 2000; Karklins 2000). These studies usually only identify artefacts and their historical use, in contrast to the analysis of a collection of artefacts to establish how, where, and why they relate to one another in the context of the site. The study of artefacts and structures, how they were made and how and why people used them, is classified as material culture studies. There is very little existing archaeological research on the soda water industry and its bottles, especially in Australia. Instead, archaeologists have had to refer to the often-unreliable publications of bottle collectors for information on this topic, for example Arnold (1985, 1987, 1990) or Vader and Murray (1979). This study partly addresses this shortfall. In this material culture study, a holistic view of the aerated water industry is taken, which incorporates the historical context behind the bottle artefacts that remain. The study of artefact typologies alone is not enough. When and where an artefact was created, traded, how it was used, reused, and discarded can all contribute to a site analysis and its place history. Furthermore, archaeologists need to consider the social context, individual agency, and historical

narrative in relation to the artefact (Shanks & Tilley 2000). The history of an artefact is integral to its analysis.

What can be learnt from glass and ceramic containers in archaeology

Glass commonly occurs within assemblages of Victoria's historical period. Bottles make up the majority of the glass found, so the analysis of glass bottles is important (Lawrence and Davies 2011:297). Ceramic bottles also commonly occur, including forms designed for ginger beer that were used by aerated water companies. Archaeologists can use these bottles to gain several types of evidence influential to their interpretation of an artefact or site:

1. The containers reflect the manufacturing industries and their country of origin. Using this information to place the artefact within a specific time period is possible because glass bottle manufacturing techniques have changed over time (Boow 1991; Jones *et al.* 1989).
2. These artefacts represent examples of trade in material culture, both as bottles imported into and distributed within the colony and as the distribution of the product in the bottles.
3. If manufactory names and places are imprinted or embossed on the bottles, this information can be linked to when the company existed and where the product within came from. As implied previously, a date range for bottles may assist to date a deposit.
4. Aerated water bottles represent part of the material cultural evidence for what people were eating and drinking at the time, surviving as containers once used and re-used for a product.

In this manner, the bottles provide clues to the patterns in people's daily lives (Lawrence and Davies 2011:279). Archaeologists can therefore gain a wealth of information from any diagnostic information present on the bottles they examine. This knowledge can only be gained by the existence of available related resources and studies. This project is designed to facilitate the improved analysis and interpretation of specific glass and ceramic artefacts for historical archaeologists. Researchers may ask questions of the archaeological record about trade, economy, social implications, human behaviour, ethnicity, and household habits in their analyses and interpretation (Staski 1984:38). This thesis provides perspectives that will be a foundation for more general analyses of consumption. Fewer assumptions can be made based on soda water and ginger beer bottle remains when the researcher possesses the information contained in this study. For instance, it will become apparent in this thesis that the number of soda water bottles entering the archaeological record cannot be assumed to be identical to the contents consumed.

Research scope

Several factors set the limitations on the project's scope. The period from white settlement until the end of 1862 was chosen for this study for the following reasons. Firstly, the short time allocated to the study process required a manageable and therefore restricted temporal scope to focus on. Secondly, the major railway lines linking Melbourne to Ballarat and Bendigo were opened in 1862, implementing an important change to the way goods were transported to those locations. Consequently, the use of transporting goods via railway was encouraged by the significant drop in freight costs. Therefore, the use of the railways was important as a potential means to increase the product distribution area. In this way, the new railways put locals within potential reach of competition from urban manufacturers.

The onset of the COVID-19 pandemic, brought on access limitations. It put paid to any possibility of constant, reliable access to non-digitised archival material to supplement the online research. Therefore, the research was largely restricted to digitised material that could be easily accessed online. As a result, newspapers from some settlements, Ararat, Daylesford, and Warrnambool, for example, could not be surveyed because they were not available in digital form.

Thesis outline

The following chapters examine the aerated water manufactories of this period and the manner of their business. Firstly, Chapter Two reviews a combination of academic and non-academic literature relevant to the study. The historical background to the study period is outlined next in Chapter Three to help the reader understand the historical context of the study period. Next, the data collection methods and analysis and the reasoning for them are explained in Chapter Four. Chapter Five explores the aerated water business in general, from sourcing supplies to the delivery of products. Chapter Six focuses on the bottles used, including where they came from, which forms existed and how these were used. Timelines for each district's aerated water manufacturers are presented in Chapters Seven and Eight and their historic context is discussed. The historical and archaeological implications of the findings are discussed and theorised in Chapter Nine before Chapter Ten summarises and presents conclusions to the thesis.

Chapter 2. Literature review

The most encountered evidence of the soda water industry in the archaeological record is the bottles they used. Both archaeologists (Boow 1991; Jones and Sullivan 1989) and bottle collectors have been responsible for the existing literature about soda water bottles, but studies of soda water manufacturers are largely due to collectors. It is important to note that the production of the containers is a separate industry from that of the product within. A review of several Australian publications showed bottles designed to hold artificially aerated waters were almost exclusively made from glass, and ginger beer bottles from stoneware (Arnold 1985, 1987, 1990; Boow 1991; Jones 2009). The majority of the literature concerns glass bottles.

History of archaeologists studying bottle glass

Terminology and bottle types

In the discussion of glass, a standardised terminology is important for communication. After White (1978) introduced a glossary to use to describe a bottle and its parts, a more accurate and comprehensive glossary was created for Parks Canada (Jones and Sullivan 1989), that standardised the terminology for glass artefacts and their characteristics. Consequently, due to its universal relevance, the latter resource became a reference tool for describing and classifying glass further afield. The terminology in this thesis is based on this glossary, supplemented by the Society of Historical Archaeology's bottle identification and information website, which is an updated format (Lindsey 2020). From Olive Talbot's (1984) history of bottles for carbonated drinks and Boow's (1991) descriptive work on glass, it becomes clear that the dominant glass bottle used for aerated waters during the study period is described as an ovate or egg-shaped bottle (or torpedo or Hamilton to bottle collectors). The term 'egg-shaped' will be used henceforth because it was commonly used to describe the bottle during the mid-19th century.

Manufacturing bottles

Most bottles used in Victoria during the study period were manufactured outside Australia. James Boow (1991) outlined the different manufacturing techniques, forms and finishing

types in his comprehensive explanations of the bottle making process. The egg-shaped bottles appear to have been made using a two-piece mould, sometimes with an interchangeable engraved plate mould for embossed names (Boow 1991:56–57). Despite the existence of the latter technology, Boow (1991:58–59) argues that the percentage of dateable or marked egg-shaped bottles in existence is small. Harrop (2007:3) states that most early Australian glassmaking activity was in small flint glass works that made household glassware rather than bottles of any quantity. Therefore, we look elsewhere for the glassworks responsible.

There are three principal components used to make glass: silica (sand), a flux and a stabiliser (Jones and Sullivan 1989:10). The preferred mix for aerated water bottles in the 19th century used soda (sodium oxide) for flux and lime (calcium oxide) as a stabiliser (Jones and Sullivan 1989:10–11). These bottles retained a green, aqua or light blue tint due to the iron impurities in the sand (Lockhart 2006:50). Boow (1991:24) states the purity of ingredients used to create pale flint glass (colourless or light green, rather than dark coloured) was restricted, and this glass was highly taxed between 1746 and 1845. Therefore, the market for light-coloured glass improved after 1845. Indeed, from the archaeological investigation of an English site, Gregory, Dungworth, Wild and Hughes (2018:256) conducted ‘a scientific analysis of glass working debris’ from the former Powell and Ricketts Bottle Works, Bristol. They discovered that after 1845, the glassworks utilised ‘more pure’ ingredients to produce their soda-lime-silica (SLS) bottles (Gregory *et al.* 2018). As yet, no archaeological studies appear to have connected early aerated water bottles found in Victoria to their glassworks.

Few studies appear to have discussed the manufacture of stoneware ginger beer bottles from the study period. One exception is Anthony Bagshaw’s (2018) investigation of stoneware made by early Sydney and Van Diemen’s Land potters. Archaeological studies of early potteries in Victoria certainly appear to be scarce.

Bottle usage in a broader context

It was Edward Staski (1984:47) who observed the potential of bottles—both their characteristics and contexts—to say a lot about human behaviour, providing the right questions are asked of them in the right manner. When interpreting the past, it is better to take into consideration associated artefacts, contexts, and the broader assemblage and site,

rather than analysing glass artefacts in isolation. For instance, Peter Davies (2006:347) used bottles and other artefacts from Melbourne's Casselden Place to identify the trade networks involved in the wide range of commodities sourced by the site's former residents. Further research focussed on medicinal use. From mid-19th century assemblages in New York, Bonasera and Raymer (2001) used medicine, mineral and soda water bottles, and archaeobotanical remains to investigate the social lives of the residents and their range of remedies. As for patent medicine bottles, Kirstienne Graham (2005) proved that archaeologists can use these often-overlooked bottles as a dating tool or to provide information about those who used them. Davies (2001) used this type of information when examining an early 20th-century remote bush community's response to health and medicine. In his study, historical research of the environmental and social context played a significant part in understanding the physical evidence found on site. Then Michelle Knehans (2005) used a history of the pharmaceutical industry to help understand its remnants (bottles and other artefacts) in the archaeological record. The pharmaceutical industry rapidly developed in Victoria according to need, perhaps similar to that of aerated water manufacturers (Knehans 2005:46).

Bottle reuse

Archaeologists have also investigated bottle reuse. Busch (1987) noted a common time lag between manufacture and disposal, arguing that a simplistic interpretation of bottle use may be misleading or inaccurate. Indeed, the last contents of a bottle might not match the bottle's original purpose (Busch 1987, Morgan 1990:206–207). Boow (1991:24) emphasised the value of empty bottles and, therefore, their frequent reuse, recognising that archaeologists need to consider the deposition lag when dating a site. Stuart (1993) further illustrated that bottle recycling, altering the bottle form, also took place. This highlights that a broad range of human behaviour existed in relation to bottles, and incorrect assumptions of a bottle's function can be made only too easily. In her examination of bottle reuse, Bronwyn Woff (2014) agreed, arguing that any excavated bottles need to be carefully considered in relation to their context. This is notwithstanding the need for aerated waters requiring specifically made containers and their likelihood to be refilled with a similar product (Woff 2014). Ellis and Woff (2018) built upon the latter's study of bottle merchants' sites from 1875 to 1914, noting a high proportion of bottles in deposits, none of which were found intact. In the context of reuse, they argued for bottles to be treated as containers whose content types may change. Woff (2019) then provided a framework for assessing the relationship of a

bottle's form to its function. To understand the extent of reuse, Platts and Smith (2018) examined the use-wear on bottles in Christchurch, New Zealand assemblages and found the greatest extent of use-wear on bottles used for alcohol and soda water.

Bottles, consumption and context

While the practice of bottle reuse suggests a bottle's function may not have remained the same, archaeologists have used archival research to correct previous assumptions. After reinterpreting a cordial factory site at Parramatta, Martin Carney (1998) argued that to assume the function first for a glass artefact is to stunt the best analysis possible for a context. Archaeologists had previously assumed the function of the bottles from the site had remained the same, which resulted in a mistaken site analysis. Carney (1998) argued that a wide range of archival research was necessary to better understand a site's history (Carney 1998). Peter Morgan (1990) also used archival sources to estimate alcohol consumption and distribution within the colony in his analysis of the glass bottle assemblage recovered from a Port Phillip shipwreck. In doing so, Morgan highlighted that bottles themselves were shipped as commodities. He argued that archaeological analysis is dependent on a sound knowledge of and a background to the material culture artefacts involved. The last two papers provide a research framework for not only archival research, but also some assumptions to avoid when doing so.

In another context study, Anthony Bagshaw (2001) examined antique bottle collecting behaviour and highlighted the value of using antique bottles and their distribution to contribute to archaeological studies of past consumer behaviour.

History of bottle collectors studying bottles

Bagshaw (2001:22–23) states that between the 1970s and 2000s, bottle collectors rather than archaeologists were responsible for most of the literature produced about antique bottles. Vader and Murray (1979) described the different types and forms brought into Australia. However, some of the soda water bottle information was incorrect, so this publication was superseded by those that followed. Ross and Christine Roycroft (e.g. 1992) published several illustrated price guides for collectors, showing the different forms and functions. Then Ken Arnold (1985, 1987, 1997, 2002, 2005) created his informative series that included histories of glass bottle manufacturing and the development and change in

production and bottle design. The works of these collectors are useful for archaeologists in identifying bottle forms and functions but less likely to include an accurate or even estimate date range for the same. In addition, these works rarely provide references for their information and are primarily driven by branded bottles. However, David Jones (2017) did produce reliable dates and references in his extensive, significant work on aerated water patents. He corrected several misconceptions that others had repeated before. For instance, he clarified that the 1809 Hamilton patent was for the method of carbonation, not the egg-shaped bottle form that became referred to as a 'Hamilton patent'.

Historians and the aerated waters (soda water) industry

Bottle collectors and historians have also largely been responsible for studies of the aerated water industry. In Britain, Colin Emmins (1991) provided a generic introduction to the history of soft drinks. Then in his study of Sydney's soft drink manufacturers, Jones (2009) used extensive archival research and extant bottles to describe the social histories of Sydney's pre-1945 manufacturers.

For Victoria, Keith Deutsher's (1999) history of Australian breweries included some that made aerated waters. However, Ken Arnold (1990) created the most informative work about the social histories of Victorian aerated water companies and their bottles. Arnold (1990:xv) used primary sources available in the State and regional libraries to compile his list of manufacturers in existence by 1930. He does not supply a list of references, however, so his sources cannot be verified. Boow (1991), on the other hand, mostly used available collectors' publications to create a quick reference to brands and trademarks related to the industry that may be useful to the historical archaeologist. His list of Australian soft drink distributors, manufacturers and bottles, names only 14 pre-1860 Victorian aerated water companies compared to Arnold's (1990) 160. However, Arnold's (1990:xv) list does not discriminate between 'aerated water, cordial, hop and ginger beer, bitters and sarsaparilla manufacturers'. When an extracted sample from the publications of Arnold (1990), Boow (1991) and to a lesser extent, Deutsher (1999) was compared to entries in contemporary newspapers, all three authors include the occasional unknown or inaccurate date ranges for companies. Arnold's (1990) date ranges appear to be the most reliable, but even he cautions that his dates may contain inaccuracies. These publications appear to be the most comprehensive on this topic currently for aerated water bottle identification and analysis.

Therefore, to date, Victoria's historical archaeologists are heavily reliant on the past research of collectors for this information.

Research gaps and the significance of the proposed approach

Interpretation is surely impossible without data, and awareness of the potential of this data is impossible without adequate description and classification.

(Brooks 2005:3)

Clearly, more has been written about the bottles used by aerated water companies than the companies themselves. Prior to 1872, most, if not all, aerated water bottles came from Britain (Arnold 1990:vii). However, the specific glasswork or pottery connections do not appear to have been discussed to date. This is because, as Jones (2009:5) points out, not only were most bottles plain and unbranded during the study period but also lacked marks from the glassworks responsible. It is the marked bottles, whether whole or partial, that appears to drive the research for bottle collectors.

Archaeological discussions of 19th-century aerated water manufacturers and their sites, or comparisons between sites, do not exist to date. In addition, although the machinery shipped from Britain for carbonating water has been described (Arnold 1990; Jones 2009), little analysis of its historical use has been carried out. Much more has been discussed about the containers (bottles) used.

An archaeological point-of-view of Victoria's aerated water manufacturers has significant value to archaeological analysis. Following Brooks (2005:3) quoted above, access to descriptive, accurate data for reference purposes is crucial. Furthermore, a holistic view of the industry can help to answer research questions that consider globalisation, capitalism, or colonial trade. Therefore, details of Victoria's aerated water companies, their industry practices and trade connections could be further illuminated. This study intends to compile a reliable resource about the companies, manufacturing, transport, their use of the bottles, and parts of the lifecycle of the bottles. In doing so, some misconceptions of early aerated water bottles will be corrected. In short, this thesis will shed new light on the early period of the soda water industry in Victoria. Given that literature for this period does not exist to date, the information contained in this study will be important for early sites.

Chapter 3. Historical background

For Victoria, the environmental factors, material culture imports and the expanding European settlement all combined to create the need and opportunity to manufacture aerated waters on a commercial scale. This chapter will explore the historical context of the study period, but first, an introduction to aerated waters.

What is aerated water?

In the context of this study, aerated waters are defined as a collective of artificially carbonated effervescent waters and soft drinks rather than the naturally carbonated version found in mineral springs. Of these, soda water was initially marketed as medicinal, containing mineral salts (Emmins 1991:10). Sugar and fruit flavourings were added to soda water to make lemonade and other varieties (Lawrence and Davies 2011:296). Sugar and fruit flavourings were also added to cordial, but with the difference that cordial was a flavour concentrate and not aerated. Soda water was the only one of the aerated waters that improved with age, while on the other hand, ginger beer spoiled if kept too long, making it inappropriate for a long sea voyage (*Argus* 17 Feb. 1872:2; *Ballarat Courier* 7 Mar. 1870:2). Therefore, it was beneficial to manufacture aerated waters and ginger beer in the colony.

In Victoria, commercial aerated water manufacturers were referred to in contemporary periodicals as soda water, aerated water, or ginger beer manufacturers. Given that those who made aerated waters mostly made ginger beer, those referred to in periodicals only as ginger beer makers have been included in this study; those referred to only as cordial makers have not. In the following chapters, soda water, lemonade, and ginger beer makers will generally be referred to as soda water manufacturers, a commonly used term.

The beginnings of carbonated water

The history of the invention of artificially aerated waters has been well chronicled. According to Jones (2017:4), scientists Johannes Baptista van Helmont, Richard Bewley, Joseph Priestley, and John Mervin Nooth all contributed to the development of artificial mineral waters in the late eighteenth century, producing carbon dioxide gas or what was

called ‘fixed air’ to aerate water. Inspired by Priestley’s discovery, in 1783, Swiss Johann Jacob Schweppe invented a suitable apparatus to begin the mass production of aerated waters (Jones 2017). By 1794, Schweppe was operating in Bristol, England. He eventually exported his bottled product to British colonies, including Australia (Jones 2017; Vader and Murray 1979). Suitable machinery continued to evolve, and one of the earliest commercially produced was Hayward Tyler’s 1840-patented beam-action machine (Jones 2017:8). This was one of several offered by Tyler’s company for British and international customers in the beverage industry (Jones 2017:8).

European settlement patterns in Victoria pre-1863

Up until the gold rushes of the 1850s, places of European settlement in the Port Phillip colony (Victoria after 1 July 1851) generally reflected what was still a sea-based world and each settlement’s reliance on the sea (Lawrence and Davies 2011:69). Early settlements such as Portland, Melbourne, Geelong and Port Albert all began with an outwards focus to the sea and, therefore, their import and export connections. The first of these permanent settlement sites was established in 1834 at Portland, then at Melbourne in the following year (Dingle 1984:21). The discovery of gold in 1851 changed everything. The period after 1851 was a time of major change in Victoria, economically and socially. Gold migrants caused the population to increase dramatically, with Victoria’s population growing from 77,355 in 1851 to 540,322 in 1861 (Bate 1988:8). Public infrastructure was implemented at a rapid rate to provide for it. While the resultant inland goldfield settlements expanded, the previously sea-based focus turned inland.

There were many gold rushes, both minor and major. Populations were dynamic and continuously fluctuating as people moved from one location to another at the drop of a hat. The name of a settlement was sometimes allocated to one or more temporary settlements in an area before one became permanent. The names themselves were even more changeable, many evolving during the study period. It was important to become aware of the different place names for this study to recognise them during research, then be able to research them in turn.

The economies of a regional community depended largely on the nature and location of the goldfields; a frantic and short-lived alluvial mining stage often meant a frantic, uncertain

and short-lived settlement (Bate 1988:10–11). If deeper gold was found, the extended extraction process and long-term occupation sustained a more stable population.

Push and pull factors

Environmental factors such as the water quality and hot weather created a need for soft drinks. In the goldfields, water was in great demand for mining purposes. Miners worked the creeks and gullies, disturbing the natural water supplies in the process, meaning the drinking water was often poor quality, unhealthy and unreliable (Lawrence and Davies 2011:161). The infrastructure of municipal water supplies had yet to be created in regional towns. Therefore, aerated waters and ginger beer were an attractive and possibly necessary alternative for thirsty diggers and their families, particularly during the warmer months.

Gold triggered opportunities. Trade connections and communication with Britain had already introduced the technology, machinery, and equipment for manufacturing soda water to the colony and imported the awareness of the technology's existence. This availability (and advertising) encouraged potential manufacturers to take opportunities in a dramatic, promising period. The nature of goods imported on speculation meant supplies could be on hand quickly for a new business venture. Then again, some unsuccessful diggers may have been pushed to invest their remaining capital (or borrowed funds) into an alternative form of income. Making aerated waters may have appeared to be a way to make a lot of money over summer, even if the reality turned out to be quite different.

The temperance social movement, which spread from the United States, England, and

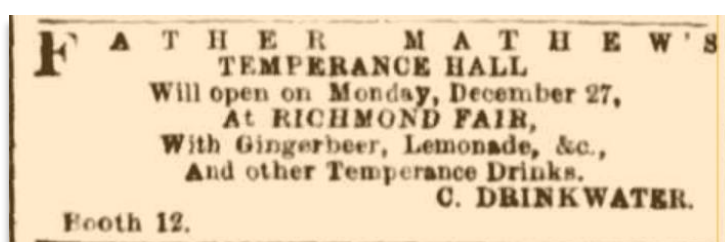


Figure 2: An advertisement encouraging the consumption of non-alcoholic drinks. (Source: Argus 20 Dec. 1858:8)

Ireland, also encouraged the consumption of aerated waters (Figure 2). Temperance societies spread the radical ideology that alcohol (mainly spirits) was the problem rather than the drinker, and

drunkenness was the cause of social issues (Allen and Thomas 2021:7, 13). In America, middle-class reformers transitioned from assimilative attempts to control the poor and ethnic groups to coercive approaches, their campaigns resulting in restrictive liquor laws

as early as 1857 (Reckner and Brighton 1999:64, 81). However, in Australian society during the study period, the social influence of temperance had yet to become popular or politicised enough to bring about restrictive laws and regulations (Allen and Thomas 2021:10-11). Nevertheless, while the ideology marketed temperance or total abstinence as a more respectable way of life than drunkenness, soda water and ginger beer were logical alternatives by default.

Temperance societies and halls grew from the colony's early stages. For example, The Port Phillip Temperance Society was formed in Melbourne near the end of 1837 to address the social issue of drunkenness (*Port Phillip Gazette* 3 Nov. 1838:3). In Geelong, the first foundation stone of its original Temperance Hall was laid in March 1846, before Moore's Temperance Hotel was built in 1853, the proprietor of which prohibited any 'spirits or intoxicating liquors ... upon the premises' (*Geelong Advertiser and Squatters' Advocate* 5 Dec. 1846:1; 25 Jan. 1853:2). Local soda water and cordial maker Uther was conveniently situated next door to the first Hall. By 1860, Total Abstinence Societies were active in Ballarat (its Temperance Hall built on Bakery Hill by 1856), Portland, Amherst, Bendigo and Castlemaine (*Bendigo Advertiser* 27 Jan. 1857:3; *Maryborough and Dunolly Advertiser* 1 Jun. 1858:3; *Mount Alexander Mail* 7 Sep. 1857:1; *Portland Guardian and Normanby General Advertiser* 9 Feb. 1854:1; *Star* 6 Sep. 1856:3). The consumption of soft drinks was encouraged as an alternative to alcohol, 'for temperance's sake' (*Geelong Advertiser and Intelligencer* 24 Sep. 1853:5).



Figure 3: F. Cogne (1859) Part of Main Road, Ballarat East, 1859. Detail including the Temperance Hall. (Source: National Library of Australia)

Transport: connections and supplies

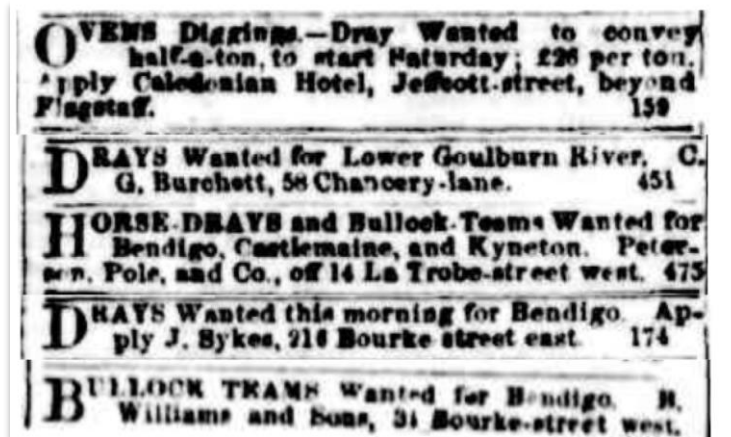


Figure 4: Drays wanted to cart stores to the goldfields, 1854. (Argus 16 Nov. 1854:1)

River ports. Overland bullock or horse drays were the main form of transport delivering supplies to the goldfields (Figure 4). Otherwise, people travelled by smaller horse-drawn vehicle, riding a horse or by foot. The often-difficult access from the coast to the goldfields protected inland industries from competition (Bate 1988:5).

Before 1862, when the railways were constructed between Melbourne and the main goldfields, travel in Victoria was often quicker by sea or river than overland. Regular steamer services ran between coastal ports, and from the 1850s, paddle steamers supplied inland Australia from the Murray

Chapter 4. Methods and methodology

Given the importance of data and its “adequate description and classification” for the interpretation of archaeology, this study searched for a broad range of information to do with the soda water industry in the study period (Brooks 2005:3). This chapter outlines the methods used for the research and explains the methodologies behind the process. The sources used and the reasons why are explained, along with how the data was collected, selected, collated, and interpreted.

Research framework

To create a reliable list of the first soda water manufactories in Victoria, primary resources were used to collect the information required. This was in preference to secondary resources, where a repetition of previous assumptions would inevitably occur. The approach follows that of Kirstienne Graham (2005), who surveyed patent medicine advertisements in Melbourne’s *Argus* newspaper to compile information to use as a dating tool. By doing so, she proved the potential of using newspaper entries to inform archaeology about the inhabitants of a site (Graham 2005). In her survey, Graham (2005) used copies of old newspapers recorded on microfiche to sample the first issue of every month, and for over 50 years of editions, recorded frequencies of each patent medicine type. However, patent medicines were commonly advertised products, whereas soda water manufacturers proved less likely to advertise theirs. Therefore, all the available newspapers from Victoria for the study period were surveyed.

Significantly, the methods used to search old newspapers have radically changed since Graham’s study. In 2009, the National Library of Australia launched the *Trove* online database, a portal to the digital material in Australian institutions, including libraries and universities (<https://trove.nla.gov.au/>). *Trove* has grown since then and has been continuously developed. To use this database mechanism, search terms can be applied to all or a range of digitised resources, facilitating the rapid collection of data. For this study, the terms soda water, aerated water, lemonade and ginger beer were applied to digitised historical newspapers to find as many references to soda water manufacturers and their industry context as possible. This method allowed a far greater number of editions to be

surveyed than for Graham's study. The introduction of *Trove* has revolutionised the way these types of studies can be carried out, meaning the data is available in a new way, so have the methods of acquiring it.

Significantly, *Trove* came into existence after the publication of the soda water company and bottle resources to which archaeologists currently refer. Consequently, the use of *Trove* was expected to reveal a vast amount of new material in this survey, therefore providing new insights into the soda water industry.

Resources used for the survey

Textual sources used, and what could be found in them

All Victorian historical newspapers that were available in digital form were surveyed. The process of data collection was split into two stages. The first stage, researching regional Victoria, was completed during 2020. The second stage, Melbourne, was completed by April 2021. Far from all regional newspapers that existed were available, so it was expected that the survey would obtain only a limited glimpse into those districts. In all, relevant information was found within a range of articles. References to manufactories came from product, staff and partnership advertisements. They also came from insolvency, dissolution of partnership and other business notices, news and law reports, and even letters to the editor. All references to named companies were collected, so that any significant changes to them could be identified, and a known date range created for analysis.

Given some manufactories may not appear in newspapers, other textual resources were also investigated. These included commercial business directories, almanacs, lists of Victorian insolvencies and government gazettes. The first two contain names, addresses and type of business. The last two include lists of individual insolvents, which is helpful information relating to the end of a business. Although these latter resources yielded only a small percentage of data, they were particularly useful when information could not be found in the newspapers or directories.

During the data collection process, general data relevant to the soda water industry was also gathered. Details of the machinery, equipment and ingredients used, suppliers, and

transport could be found within merchants' advertisements, auctioneers' notices and news reports. In addition, shipping import lists and reports often included packaging details, the ports of origin and bottle values. The collection of this data was important for understanding the industry, trade and material culture background to inform archaeology in practice.

Visual sources

Several types of visual resources were used. When compared to textual information, historical maps of settlements and mining areas were able to provide the locations of historical places and their spatial relationships. These maps included survey and parish plans, the use of which will be discussed in more detail later in this chapter. Parish plans show property boundaries, section and allotment numbers, property size, dimensions and the name and date of the first transfer from Crown land. Therefore, these plans are particularly relevant when studying early settlement activity.

Images of extant bottle examples used by manufacturers identified in this study have been included in the appendices. These came from the world of bottle collecting, in online auction catalogues and bottle collecting literature (Arnold 1990, 2002, 2004; Dunn 2020). Archaeologists can use these images as a guide to the bottle forms and styles of embossing and impressed marks used during the time period. This can give a better understanding of the variations that existed in different periods and the development of the bottle styles in a broader sense. The existence of a bottle embossed with the company name and location confirms that the manufacturer used a branded bottle, even if the exact time frame is unknown. This bottle information could not be obtained from researching newspapers.

Inclusion or exclusion: the discrimination of data

Several decisions were made when interpreting and compiling the data found. The inclusion of a manufactory depended on the following criteria:

1. Stated as soda water, ginger beer, aerated water or lemonade maker
2. A general district location in Victoria was necessary, with a specific city, town or district stated.

The following were excluded from this survey:

3. If it is clear a person or business sold aerated waters or ginger beer, but unclear if they also manufactured the product. These beverages were also imported by the hogshead.

4. If the manufacturer's location was ambiguous
5. If it is not clear whether the person manufactured the product for sale or personal use
6. If it is not clear in an advertisement whether the contact was a manufacturer or not, without any other data to clarify the matter, as in Figure 5.

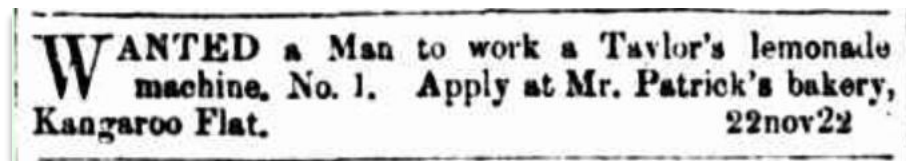


Figure 5: Worker wanted to operate a lemonade machine. It is not apparent if the bakery was a manufacturer or an intermediary contact for one. Some advertisers appeared to use shops, newspaper offices or hotels in this way. (Source: Bendigo Advertiser 22 Nov. 1855:3)

Data collection methods

Initial, main newspaper search

The version of *Trove* used for this study changed during the research process, but the search process framework did not change. Data was collected from one district at a time, one newspaper at a time. Once onto the *Trove* database, the following process was followed:

1. Search term: “Soda Water” OR “Aerated Water” OR Lemonade OR “Ginger beer”. For the second data collection stage (Melbourne), this was refined to “Soda Water” OR Sodawater OR “Aerated Water” OR Lemonade OR “Ginger beer”
2. Limits:
 - a. Newspapers and Gazettes
 - b. Victoria
 - c. (Newspaper title)
 - d. 1830s, 1840s, 1850s, then 1860, 1861, and 1862
 - e. Sort by: Year (earliest first)
3. The number of results was noted, then each result visually scanned in chronological order to find the highlighted text
4. For each relevant and unique piece of data: a screenshot was taken, copied then pasted into a Word working document, accompanied with reference details, and kept in chronological order.

In practice, searching became more efficient the further it progressed. Inefficiencies with the search term were discovered well into the research process, so visual scanning techniques were refined. For example, searched text was not always highlighted on the newspaper's page, meaning it was necessary to scan the entire page manually to find it. The

first search term had failed to highlight ‘ginger beer’ in many results. This was a consequence of the original search term being too long. Therefore, a second screen concurrently running with only the tail end of the search term, being ‘ginger beer’, enabled these results to be found quickly. Consequently, some data was inevitably missed in the early stages of data collection.

The list of newspapers that were researched is shown in Table 1. Many of the search results were judged to be irrelevant, such as law reports for soda water or ginger beer bottles used as weapons (which they often were). In another example, references to imported soda water (the liquid) were largely ignored, in contrast to soda water bottles (empty bottles), which were not. Otherwise, each unique item was collected and repeats ignored where obvious. From each newspaper, the extracted data was collected and pasted in one Word document until completed. The data was then sorted into separate documents, one for each soda water manufacturer or theme. Further documents were added at different stages during the research process when new, reoccurring themes became apparent. A final list of themed data collated into separate Word documents is shown in Table 2.

Table 1: List of newspapers searched and the number of results from the initial search.

Newspaper and available date range	Initial search results	General industry data	References to companies
MELBOURNE			
<i>Port Phillip Patriot and Melbourne Advertiser</i> (1839–1842, 1845)	157	26	5
<i>Port Phillip Gazette</i> (1839–1845, 1851)	217	50	10
<i>Weekly Free Press and Port Phillip Commercial Advertiser</i> (1841)	11	2	–
<i>Melbourne Times</i> (1842–1843)	27	9	1
<i>Melbourne Weekly Courier</i> (1844–1845)	4	–	–
<i>Melbourne Courier</i> (1845–1846)	6	5	1
<i>Port Phillip Patriot and Morning Advertiser</i> (1845–1858)	110	23	3
<i>Port Phillip Gazette and Settler’s Journal</i> (1845–1850)	212	27	2
<i>Melbourne Argus</i> (1846–1848)	72	11	3
<i>Argus</i> (1848–1862)	5,662	1454	674
<i>Melbourne Daily News and Port Phillip Patriot</i> (1848)	4	2	–
<i>Melbourne Daily News</i> (1848–1851)	291	22	4
<i>Banner</i> (1853–1854)	194	23	1
<i>Age</i> (1854–1862)	2463	415	120
<i>Williamston Chronicle</i> (1856–1860)	100	3	1

<i>Bell's Life in Victoria and Sporting Chronicle</i> (1857–1862)	46	2	–
<i>Colonial Mining Journal, Railway and Share Gazette</i> (1859)	7	2	–
<i>Colonial Mining Journal, Railway and Share Gazette and Illustrated Record</i> (1860–1861)	5	1	–
<i>Victorian Farmer's Journal and Gardener's Chronicle</i> (1860–1861)	16	1	5
<i>Melbourne Leader</i> (1861)	13	–	4
<i>Herald</i> (1861–1862)	251	100	20
<i>South Bourke Standard</i> (1861–1862)	1	–	–
<i>Leader</i> (1862)	19	–	4
<i>Farmer's Journal and Gardener's Chronicle</i> (1862)	5	2	–
GEELONG			
<i>Geelong Advertiser</i> (1840–1845; 1847–1851; 1859–1862)	1,466	103	35
<i>Geelong Advertiser and Squatters' Advocate</i> (1845–1847)	15	–	–
<i>Geelong Advertiser and Intelligencer</i> (1851–1856)	688	68	30
PRE-GOLDFIELDS SETTLEMENTS			
<i>Portland Guardian and Normanby Advertiser</i> (1842–1843, 1854–1862)	330	12	2
<i>Hamilton Spectator and Grange District Advertiser</i> (1860–1862)	34	5	2
<i>Gippsland Guardian</i> (Port Albert, 1855–1862)	69	6	5
<i>Gippsland Times</i> (Sale, 1861–1862)	13	2	1
<i>Kyneton Observer</i> (1856–1862)	217	5	6
GOLDFIELDS			
<i>Mount Alexander Mail</i> (Castlemaine, 1854–1862)	1,135	27	52
<i>Star</i> (Ballarat, 1855–1864)	583	60	75
<i>Bendigo Advertiser</i> (Bendigo, 1855–1862)	919	92	97
<i>Ovens and Murray Advertiser</i> (Beechworth, 1855–1862)	333	31	19
<i>Maryborough and Dunolly Advertiser</i> (1857–1862)	717	18	29
TOTAL	16,412	2,609	1,211

Table 2: Data themes identified and placed into separate documents.

<i>Bottles</i>	<i>General</i>
Alcohol shipped in soda water bottles	Accidents: manufactory
Bottle breakage rates	Accidents: transport
Bottle dealers	Building types
Bottle or contents patents	Chemists with powders
Bottle form and fabric	Glassworks and bottle making
Bottle prices and value	Ingredients and equipment
Bottles wanted advertisements	Laws and confectioner's licenses
Carrara water bottles	Machinery and technology
Embossed glass bottles	Making aerated waters
Imports: glass and stoneware	Making ginger beer

Packaging sizes and relative bottle numbers	Product pricing
<i>Personnel advertisements</i>	Schweppe & Co.
Bendigo staff or positions wanted	Shipping times taken
<i>Potteries</i>	Statistics: population, insolvencies
British	Suppliers
Australian	Temperance movement
Ballarat pottery	Transport to the diggings
Bendigo Pottery/Guthrie	Water sources

Many newspaper titles were published in Melbourne during the study period, so businesses had multiple options for advertising. Differences were observed in the use of them. Between 1848 and 1862, the *Argus* was the newspaper of choice for both soda water makers and their merchant suppliers. Next in line was the *Age*, which commenced publication in 1854. A comparison of advertisements placed by soda water makers in these two main newspapers during 1855 showed the *Age* contained 11 per cent of them and the *Argus*, 89 per cent. The percentage in the *Age* diminished over time for the remainder of the decade. It is worth noting also that the advertisements placed in the *Age* were often duplicates of those in the other newspaper. A common type of advertisement to be duplicated across newspapers was when a manufacturer was looking for a person by name. Merchants and auctioneers were more likely than the manufacturers to advertise broadly across two or more newspapers.

Limitations to the newspaper data search

The search results were affected by the availability of newspapers. The coverage of historical newspapers available on *Trove* is representative, rather than comprehensive. A wealth of Melbourne newspapers available online meant a reasonable coverage for that district, but there are some notable omissions for regional Victoria. The unavailability of Port Fairy's *Belfast Gazette* newspaper, which began in 1845, meant no data could be collected for this settlement. Likewise, the port of Warrnambool, the gold-rush established towns of Ararat, Stawell, Creswick or Clunes, did not have newspapers available. However, some Creswick and Clunes data appeared in either the *Ballarat Times* or the *Maryborough and Dunolly Advertiser*. In other digitised newspapers used to collect data, many were missing their first years or, in Geelong's case, two-and-a-half years in the middle (Aug. 1856 – Dec. 1858). In addition, a typical delay between settlement and a newspaper publication was often one or two years. Consequently, this survey contained gaps which

resulted in representative rather than comprehensive data being collected for early regional Victoria.

Searching methods could never be perfect because *Trove* uses electronically translated text. Errors regularly occur as a result. This means a variety of experimental search strategies is required to find data in the digital newspapers. However, the best collection of search strategies will still not find it all. In practice, the initial search process will produce most of the data, while further, targeted searches will reveal an ever-diminishing number of new results, but never all of it. It is also true that even an incomplete search on *Trove* will probably find more information than was possible to compile using the old methods.

Data searching methods: supplementary

The aim of a follow-up search strategy was to find more information to clarify or fill gaps in the data already collated. Before this stage could begin, the Word documents for each manufacturer were used to create data tables for all, each table containing a summary of evidence for the maker's name, location, timeframe and products manufactured. These manufactory tables are to be found in Appendix A. During this process and, as gaps in the data became apparent, the second stage of data searching took place. This involved searching *Trove* for:

- Name and location
- Name
- Insolvent and name, in the wider Victorian newspaper database.

The Melbourne data, in particular, required a greater range of detective work to build on often slight evidence for unidentified soda water manufacturers. It seemed that there was greater secrecy regarding manufactory dealings because evidence in newspapers was sparse. Although many loose ends remained unresolved, the following searches were useful in several cases:

- Street address
- Confectioner's license, using the search term: Confection* AND licens*.

Often these searches added significantly more information to the initial results. Firstly, the confectioners' licenses were issued to sellers of both ginger and spruce beers and were therefore relevant to this study. News relating to the issue of these licenses could be found in newspaper searches, information that was useful to locate the temporal extent of ginger beer makers. In this manner, the license information could be used to supplement data

already collected, but not used in isolation to identify ginger beer manufacturers. The licenses included not only the manufacturers of this fermented beverage, but also its retailers, who were irrelevant to this study. Secondly, research often needed to be carried out in post-1862 newspapers in attempts to clarify any significant irregularities and ambiguities or to provide clearer or distinct temporal landmarks of those makers who continued afterwards. These landmarks (e.g. moving premises) were documented to provide practical and therefore more useful date ranges for archaeological artefact analysis.

Additional targeted research was also required for some themed collections of data. For instance, import information for soda water and ginger beer bottles was mainly contained within Melbourne newspapers. However, for data consistency purposes, the search terms were applied to all digitised Victorian newspapers prior to 1863. The following search term was applied: Imports AND (“soda water bottles” OR “sodawater bottles”). A similar search term was used for ginger beer bottles. Another search using the ship’s name within a date range identified the ship’s arrival date and port of origin. These searches added significantly to the original data and effectively completed the imports data for the study period.

Other data resources

The Public Record Office of Victoria (PROV) holds further items to that which could be found in the newspaper searches relating to the confectioners’ licenses mentioned earlier. Some relevant digitised documents could be accessed online through the PROV, such as correspondence approving the issue of licenses, but only a very limited number from the 1840s. The registers of license applications, which also would have been useful for this study, were not available online to date.

Although most of the data came from newspapers, other resources that were useful were found in *Trove* and elsewhere. Those accessed via *Trove* are listed in Table 3. Unfortunately, search terms were sometimes ineffective for almanacs, so a laborious manual scan of the document was necessary at times. For Melbourne, the commercial business directories were invaluable because most of its soda water makers did not advertise their business in the newspapers. The reason for this is a matter for speculation. Perhaps they could afford not to when they could be listed under their profession in the annual directories instead. The directories also proved to be useful for finding who was at what address, or where the business was situated spatially on the street or in relation to

others. For consistency purposes in manufacturer timelines, the date of 1 January has been assumed for each Melbourne directory.

Table 3: A list of non-newspaper resources found to contain manufactory data.

Resource	Type of data found
Glass's almanac and directory of Castlemaine for 1861	Castlemaine businesses
Geelong, Ballarat and Creswick's Creek commercial directory and almanac for 1856	Geelong businesses, local map
Kerr's Melbourne Almanac and Port Phillip Directory for 1841	Melbourne business names, addresses and locations
Mouritz's Port Phillip Almanac and Directory for 1847	Melbourne business names, addresses and locations
Sands & Kenny's commercial and general Melbourne directories for 1857, 1858 and 1859	Melbourne business names, addresses and locations
Sands, Kenny & Co's commercial and general Melbourne directory for 1860 and 1861	Melbourne business names, addresses and locations
Sands & McDougall's commercial and general Melbourne directory for 1862	Melbourne business names, addresses and locations
The Victorian insolvent list from 1842, to the end of June 1862 (Wilson 1862)	Individual soda water manufacturer insolvents (not a comprehensive list)

The use of maps

In interpreting the spatial references, historical maps and parish plans were useful to this study for two main reasons. Firstly, the maps were used in conjunction with the survey data, as a visual reference to understand both the contemporary layout and nomenclature used at each settlement. The second use was for mapping as many manufactory locations as possible. The latter required a base map for each location, ideally a historical map or plan with a clean design and uncomplicated layout to add details. Plans that included allotment and section numbers for properties were preferred so future researchers could use these property references.

For the mapping of Melbourne's manufacturers, initially, an address or a spatial reference to a business with a known location was cross-referenced with details from Melbourne's commercial directories. Then a variety of available maps, modern and historical, were examined to deduce each location where possible. Historical plans of the city and, to a smaller extent, Collingwood and Prahran suburbs ([?Bibbs] c. 1856; Clarke 1855a; Samson & Forbes 1856), were particularly useful, with hotels, churches and other buildings, rights-

of-way, and laneways illustrated in place. These maps also proved to be vital in understanding both spatial and place references in the newspaper data, including superseded ones. This was important when used in conjunction with Melbourne's commercial directories.

However, there were several roadblocks to identifying or approximating some Melbourne locations. No pre-1857 commercial directories were available online. This meant that several earlier manufactory locations could not be located with any reasonable accuracy. For those in the Richmond, Emerald Hill, Williamstown, or Sandridge settlement areas, insufficient spatial information was available to place some of the manufactories on a map or determine their approximate positions on the street. For other soda water manufacturers, a street or even a suburb reference was lacking from the survey result. The manufactories that could be placed in these instances were due to stated spatial relations to buildings or other landmarks.

For regional settlements, fewer resources were available to place manufactories on a map. Heath and Cordell's (1856) business directory for Geelong was the only online directory to list businesses in spatial order rather than alphabetical order. Therefore, many Geelong manufactories could be mapped. In contrast, the mapping of several Ballarat manufactories was possible due to contemporary building landmarks marked on a historical plan of the town (Brache 1861). Many of these landmarks were referred to in the newspaper data. In Bendigo's case, it was possible to use rate book entries with a historical map (Collis 1859) to locate Bendigo manufactories for one section of the town. Modern maps were also appropriate in this instance because some buildings that were referred to in the data are still standing today. Other regional towns fared less well regarding resources available, so mapping was not carried out for them.

Parish plans had a particular use for locating manufactories. The fixed property references are more relevant than an old street address, the terminology and numbers of which were often subject to change. Given that the name and date of the first transfer from Crown land is marked on the plan, the locations of some soda water or ginger beer manufacturers could be found if they were named as the first purchaser of their block. In some other cases, the location references (section and allotment numbers) were often included within the auction notice when the property of a soda water manufactory was to be sold; thus the property can

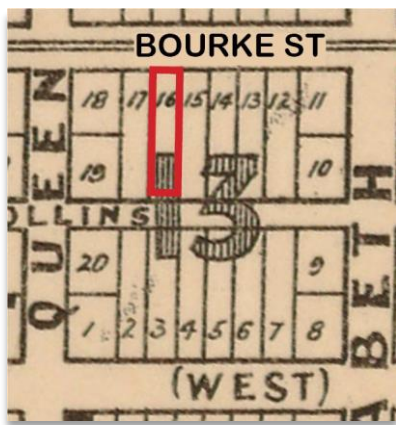


Figure 6: Allotment 16, Section 13 highlighted in red, in which John Jennings purchased his several portions of land in Melbourne. (Detail from Green 1900. Source: State Library of Victoria)

be precisely located on the map. For instance, in the insolvency reporting of Melbourne soda water maker John Jennings, references were made to the land on which his manufactory was situated: being part of Allotment 16, Section 13 (*Argus* 6 Aug. 1858:6). The location of this property could then be identified as within the red area shown in Figure 6. For quickly locating Melbourne properties in these instances, rather than referring to a parish plan, a larger-scale plan with less detail (e.g. Green 1900; Mason 185[?]) was more useful.

The use of population statistics

To find population numbers for given times, a range of newspaper census reports and secondary sources were investigated. However, the temporal scale of the official censuses, two or three years apart at times, was too broad to capture much that mattered in the study period. These could not identify the rapid and fluctuating local and state-wide changes in between that typically occurred during the gold rush period of the 1850s. Therefore, a decision was made to limit the reliance on census statistics in the thesis.

Issues with data interpretation

Spelling errors and inconsistencies

Spelling was open to interpretation because conflicting versions of names or addresses could be found. One can imagine handwritten instructions given to the printer to read and the occasional inevitable errors that resulted. Where discrepancies were found, some effort was made to clarify the spelling of the name. For example, Sandhurst maker John Sarsfield Pillon, as he was named in the local newspaper, was named John Sarsfield Sillow in the Victorian insolvents list, so the former version was chosen (*Bendigo Advertiser* 6 Aug. 1861:2; Wilson 1862). Some names may remain misspelt in this thesis. In general, names of places and manufacturers have retained the spelling of their data source.

Interpreting business relationships

For data analysis purposes, dissolved business partnerships resulting in one partner or more carrying on, were treated as separate businesses. In other situations, it was sometimes ambiguous whether persons listed in an advertisement or notice were involved in the same or separate businesses. Supporting data clarified that the individuals from the first notice in Figure 7 were the proprietors of three separate businesses. The second notice lacked any supporting evidence to distinguish whether the two makers worked together or separately. Therefore, in this case, Noblett and Forrest were cautiously treated as one business. Unfortunately, sometimes a tangle of business relationships could not be untangled.

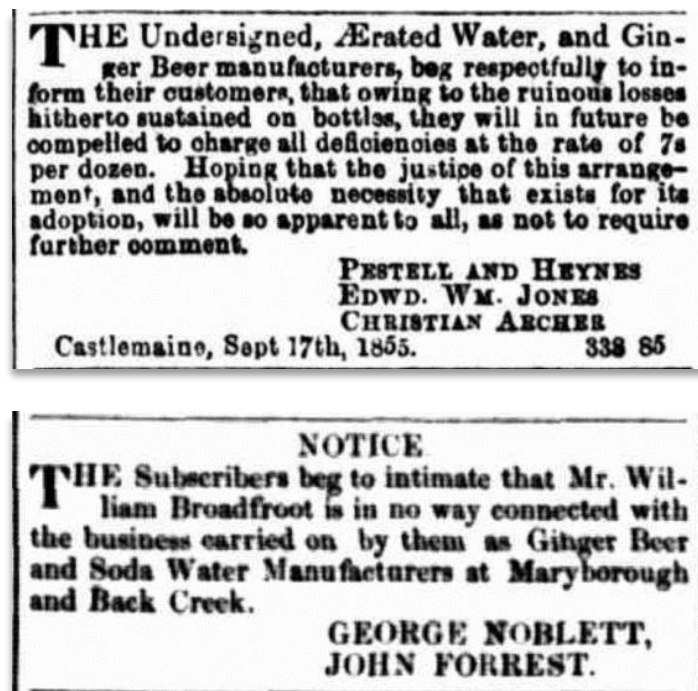


Figure 7: Business associates and separate businesses. (Sources: Maryborough and Dunolly Advertiser 20 Jun. 1859:3; Mount Alexander Mail 21 Sep. 1855:3)

The interpretation of general industry advertisements

Abbreviations, descriptions, and information from another era are not always in straightforward language that is easy to understand. The advertisement in Figure 8 contains some terms that became familiar during the research process. Other terms remained unknown.

THIS DAY.
Sodawater Bottles.
To Sodawater Manufacturers, Dealers, and Others.
SYMONS and PERRY have received instructions from Messrs. Miles, Kington, and Co. to SELL, by AUCTION, at their rooms, Collins-street, on Thursday, January 20, at 12 o'clock,
Ex William Jackson,
 hogsheads — 12 hhds. sodawater bottles, about 75 gross.
Ex Shepherdesse,
 30 crates sodawater bottles, each 2 3-12 gross
 80 do, 2 do.
 ditto — **Ex Tasmanian,**
 17 crates sodawater bottles, each 2 3-12 gross
 8 hhds. do, containing 60 do.
 To be sold in lots to suit purchasers.
 No reserve.
 Terms at Sale.

Names of ships that imported the goods

Possibly 2 gross plus 3 dozen = 334

Figure 8: How to interpret import and package information found in advertisements. 12 dozen = 1 gross. (Source: adapted from an advertisement, Argus 20 Jan. 1859:2)

Resources, methods, and interpretation: a critique

A good research process allows for the unexpected. Originally, one or two newspaper references led to others, before the need for targeted research on the topic was recognised. In this survey experience, the more that was discovered and learnt, the broader the search criteria became, to incorporate new, relevant data. One example is the discovery that confectioners' licenses were required for all ginger beer manufacturers and sellers. The discovery prompted another data search for information related to the licenses. The process showed how important it was to follow any leads. In addition, it highlighted the fact that people's business activities were not all directly visible in newspapers. Therefore, inevitably, broader searches became necessary.

The method of copying and pasting data into separate Word files worked so that data was arranged in chronological order within themes, but this time-consuming process was not ideal. During the long research and discovery process, more efficient methods were found, albeit too late in the research process. Although the research methods may not have generally undergone change during the research process, there is potential for better methods to be applied in this type of research. For example, NVivo for quantitative analysis, is one brand of software that would have been invaluable to code data.

Interpretations also evolved throughout the data analysis stage. Originally, interpretive assumptions were made after the first data sourcing process. Then, in several cases, subsequent information found would adjust or completely change an interpretation. That is why it was important to continue the process of ‘search and find data’, then use the resultant data for a new search, then repeat as necessary.

Biases existed in the data collection results. This was due to the differences between regions and the customs of their newspaper(s). There were also biases in the type of data collected. For instance, in Melbourne, soda water manufacturer matters resolved in the courts were more likely to be reported on than the makers advertising their beverages. In contrast, Bendigo companies appeared to be prolific in using the newspapers to advertise their goods and for staff. However, makers in the Maryborough district advertised their business but rarely for staff, perhaps employing other methods for finding them. Therefore, there is a greater likelihood of existing makers missing from the Maryborough data than Bendigo. Soda water makers were not consistent in their use of newspapers across the districts, so the data will be biased accordingly.

Summary and final comment

Inspired by previous archaeological studies, this study utilised the *Trove* online database to survey material systematically relating to the soda water industry. Search methods clearly needed to be complex and numerous for the collection of data, but the strategies also needed to be adaptable and varied. Afterwards, the existing ambiguity in the data meant its interpretation was not always straightforward and clear, so informed assumptions were necessary.

For this study, it was important to acknowledge that an archaeological investigation of the past is largely from an *etic*, that is, outsider’s view of the past. To elaborate, culture is dynamic, so the context of the past has changed somewhat to become that of today. The historian cannot time-travel to observe as a participant and is therefore fixed as a detached observer. Consequently, the survey data included newspaper entries containing 19th-century language and descriptions of goods that were understood then but are outdated now. There were phrases and references to places and people that were commonly recognised during the study period but not so in modern times. Therefore, much was not immediately

understood by the researcher. It took a constant, repeated exposure to archival material from the studied era to 'learn the language', to gain familiarity with the terms and various implied meanings of what was written. The information contained in the newspaper entries could then be interpreted in modern, current terms. Even so, in line with post-processual thought, some subjectivity in interpretation was inevitable. In conclusion, future researchers of unfamiliar material can take note that an intensive survey is likely to include a smaller percentage of interpretive errors than that of a brief search.

Chapter 5. The workings of the soda water manufactory

This section will investigate different aspects of manufacturing aerated waters following the business process from the beginning to the end. Firstly, how aerated waters and ginger beer were made will be explained, then a brief description of the manufacturing process. A discussion of the suppliers for the necessary ingredients and equipment will follow. The special machinery utilised by manufacturers to make their aerated waters will also be discussed along with production rates. The hazards during production are fleetingly visited. Product distribution estimates will then lead to the varieties of transport used, including for product deliveries. Finally, a survey of staffing advertisements from a Bendigo newspaper shows how their occurrence and peak production reflected a fluctuating, seasonal demand.

Information on the production and the stock-in-trade used in the industry could be found within industry-related and mercantile advertisements, auction notices, news reports and import and export lists. Aspects of the everyday life of an aerated water manufactory, including production rates, could be found in several news reports. The other sources were informative about the type, quantity, sources, and the cost of goods purchased and products sold. This data formed the foundation for more intensive research, the results of which are contained in Chapters Six and Seven.

How aerated water was made

Aerated water, often known as soda water, was made from pure water impregnated with carbonic acid gas under pressure. The gas was generated from the chemical action of sulphuric acid on a carbonate, principally whiting (calcium carbonate), then condensed in water (John Matthews Apparatus Company 1895:65). The generator had a gasometer fixed to it, which indicated the gas pressure of the liquid put into the bottles (*Bendigo Advertiser* 28 Jun. 1879:1).

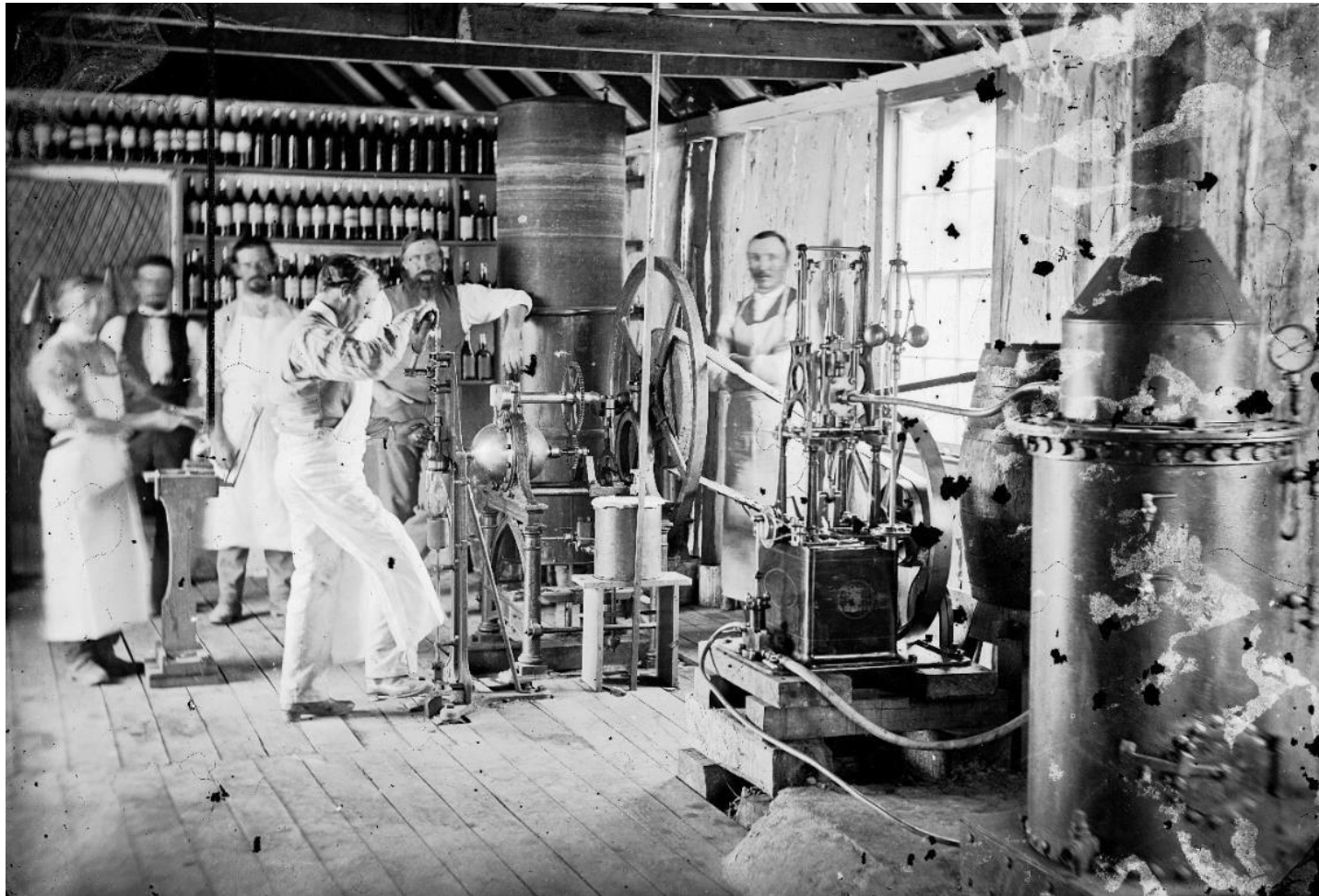


Figure 9: Inside a soda water manufactory. Weir and Embleton's cordial factory, Hill End, NSW, c. 1870. The bottler probably wore leather gauntlets and a wire face mask when in action. (Source: Holtermann Collection, Mitchell Library, State Library of NSW)

A description of the aerated water production process



Figure 10: Bottling aerated water: detail.
(Source: Holtermann Collection, Mitchell Library, State Library of NSW)

The process of manufacturing aerated waters was different to that of ginger beer. An account of a visit to William Bruce's factory at Eaglehawk in 1867 provides an insight into the bottling process, from which the following has been extracted and paraphrased (*Bendigo Advertiser* 26 Feb. 1867:3): In Bruce's factory, water was stored in large tanks and filtered until it was clear. The soda water machine was worked by hand, the worker wearing a mask, leather apron and thick hedger's gloves because some bottles cannot bear the pressure of the confined gas and so will break. A bottle was placed into a receptacle under the tap (Figure 10). Then a crank on the machine was turned, which let in the aerated soda water. Another handle was pulled, a foot pushed on a treadle (Figure 19), and the cork went in. The bottle was then immediately

passed or tossed to the tier to secure the cork with string, and the bottle was stowed into a basket. If the cork were not tied down instantly, the cork would quickly fly out of the bottle. For lemonade or other flavours, syrup was first placed in the bottle before it was filled with soda water.

How ginger beer was made

Ginger beer, on the other hand, was bottled without pressure or aeration. It was made from a mixture of well-bruised ginger, sugar, yeast and water, brewed together in a vat (*Bendigo Advertiser* 26 Feb. 1867:3). The brew was allowed to stand before it was strained then bottled. Corks were driven home with a wooden mallet, then tied off with string (*Bendigo Advertiser* 26 Feb. 1867:3). After a maturing period to complete the fermentation, the confined mixture became 'pop' and ready to drink, the yeast having produced the carbonation in the meantime.

Confectioners' licenses

The fermented state of ginger and spruce beers meant any sellers of these beverages were required to take out a confectioner's license. This was stated in the Licensed Publicans Act 3 Wm IV, no. 8 (13 Jun. 1833), with the intention of regulating the retail of fermented and spirituous liquors in the New South Wales colony. Four years later, the Act 8 Wm IV, no. 8 (9 Sep. 1837) provided for any Port Phillip District applications to be dealt with in that same district. A formal application was required (a later example shown in Figure 11) before it could be approved in court. All licenses were to be renewed from 1 July, with applications addressed at General Annual Licensing meetings every June, in each district (Act 3 Wm IV, no. 8, 1833:360). By the time the Licensed Publicans Act 13 Victoria no. 29 (1849:1921) was implemented, this meeting date had been changed to April. It is worth noting that the Victoria in this context refers to Queen Victoria rather than the Colony of Victoria declared in 1851. After the Wines, Beer and Spirits Sale Act 1864 27 Victoria no. 227 (2 Jun. 1864), ginger and spruce beer sellers were no longer required to take out a license.

C 1.
Form of Notice of Application for a Confectioner's License.

To the Worshipful the Justices of the Peace acting in and for the District of
in the Colony of New South Wales.

I A. B. [state the trade or occupation] now residing at in the city
town or district of do hereby give notice pursuant to the Act of the Governor
and Council passed in the thirteenth year of the reign of Her present Majesty intituled
“An Act to consolidate and amend the Laws relating to the licensing of Public-houses and
to regulate the sale of fermented and spirituous liquors in New South Wales” that it is my
intention to apply at the next Annual Licensing Meeting to be holden for this district for
the license in the said Act called a Confectioner's License for the sale of ginger beer and
spruce beer in the shop [or rooms] which I now occupy [or intend to occupy] situated
[here describe the house proposed to be licensed specifying the situation
of it the number and description of rooms which the license is applied for the person of whom
the house is rented the present occupier and whether now licensed].

I am married having a wife and children [or unmarried as the case may be]
and I have held a license [if before licensed state how many years what kind of license and
for what district].

I further give notice that I propose C. D. of and E. F. of as
my sureties to enter with me into the required recognizance.

Given under my hand this day of one
thousand eight hundred and
A. B.

Figure 11: The required form for a confectioner's license, as per the New South Wales Licensed Publicans Act, 13 Victoria no. 29a (Oct. 1849:1942). (Source: Australasian Legal Information Institute)

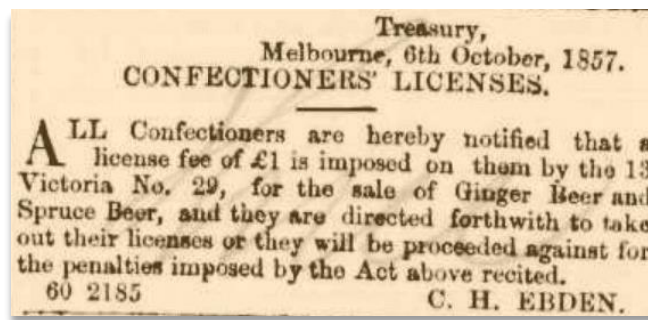


Figure 12: A government notice stating a confectioner's license is required for all ginger and spruce beer sellers, as per Act 13 Victoria no. 29 (1849). (Source: Age 9 Oct. 1857:2)

The General Annual Licensing meetings were reported on in newspapers from the following coastal districts: Melbourne, Geelong, Portland and Hamilton, and Port Albert. The lists of licenses granted for these districts included both ginger beer manufacturers and retailers. Notices of the license requirement, such as the one in Figure 12, occasionally appeared in newspapers. If convicted for selling without a license, another license could only be granted again after the lapse of three years (*Argus* 6 May 1852:5).

The goldfields districts were missing from the confectioner's license data because a different license was required in these 'Special Licensing Districts'. The Act 16 Victoria no. 35 (28 Jan. 1853) required all traders of refreshments such as tea, coffee, lemonade, soda water and ginger beer to take out a Refreshment License. The sheer number of 'refreshment tent licenses' issued in the goldfields meant that names were rarely listed in court reports in the relevant local newspaper (*Bendigo Advertiser* 28 Jun 1859:2). During 1856, for example, a total of 468 refreshment licenses were issued in Bendigo (Sandhurst) (*Bendigo Advertiser*, 5 Sep. 1857:2). Did soda water manufacturers in the goldfields take out a refreshment license? Unfortunately, the answer could not be confirmed without the ability to check existing licensing registers online at the Public Record Office Victoria.

Suppliers

It appeared that Melbourne and regional soda water manufacturers could source all their equipment, supplies and ingredients locally. It was also possible that, if necessary, regional manufacturers travelled to the centres of Melbourne or Geelong for their supplies. Overall, the necessary supplies were broadly advertised and readily available to manufacturers. Nearly all the supplies were imported. In a world of capitalists seeking opportunities and

profit, material culture trade took place in increasing complexity as colonialism extended the globalisation of trade. Any researchers investigating the source of goods—from the study period and beyond—need to move beyond simplistic assumptions that the trade of goods was a direct path from one port to another. Goods were commonly transferred on to one or more destinations.

Melbourne suppliers

In Melbourne, general merchants and importers advertised essential supplies for auction, or supplies were available in stores. One could find bottles or soda water machinery the sole reason for an advertisement or included within a long list of unrelated goods for sale; all and sundry sold bottles. One regular source of bottles and corks was the Swanston Street warehouse of wholesale ironmonger Walter Powell, 1853–1858 (*Argus* 18 Jul. 1853:9, 20 Sep. 1858:7). Manufacturers also had a choice of suppliers for other goods. One choice could be William Easey’s long-term auction mart in Collins Street, which sold bottles and corks irregularly between 1842 and 1860, expanding to sulphuric and tartaric acids from 1857 (*Argus* 2 Apr. 1842:3, 29 Aug. 1857:2). Another merchant company, Francis & Cohen 1850–1853 (later Fraser & Cohen 1854–1862), auctioned a similar range from incoming shipments (*Argus* 20 Jan. 1850:3, *Herald* 11 Sep. 1862:2). The above examples represent the auction of irregular shipments rather than regular and readily available supplies. However, if the goods were sold directly to stores, those stores probably tried to keep those supplies coming in.

Some stores advertised their soda water manufactory supplies regularly. During 1855, manufacturers could find most of what they needed at wine merchant W.F. Brown’s store or visit Fairhorne & Harrison’s to source ‘the best Spanish cut corks’ (*Argus* 25 Jan. 1855:3, 3 Mar. 1855:8). Long-term suppliers such as Richard Harvey and Thomas Occleston kept a reliable stock of essentials in-store when they worked together (1854–1856) and afterwards when they operated separate stores (1856–1862 at least). This led soda water makers to rely on Harvey or Occleston and utilise the stores as intermediaries when advertising for staff or wanting to sell their business (Figure 13) (e.g. *Argus* 5 Feb. 1858:1, 13 Jan. 1859:1).

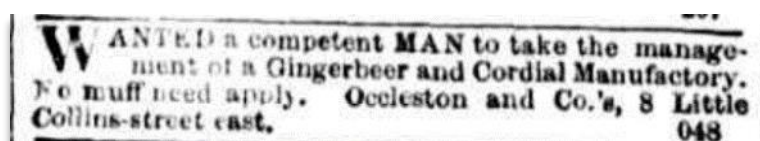


Figure 13: A store used as an intermediary contact. (Source: *Argus* 3 Sep. 1857:1)

Melbourne and Geelong suppliers targeting country manufacturers

Several Melbourne and Geelong businesses also advertised their goods in the newspapers of inland regional towns, targeting the manufacturers in those areas (see Appendix D). Between 1855 and 1858, the Etna Glass and China Store in Melbourne's Bourke Street advertised English ginger beer and glass lemonade and soda water bottles for sale, within the newspapers published in Castlemaine, Beechworth, Portland and Port Albert. Walter

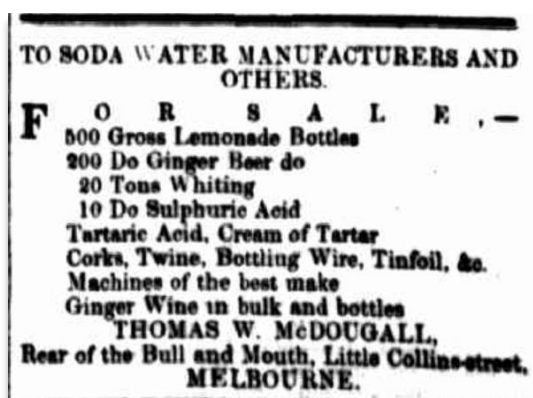


Figure 14: A Melbourne soda water maker advertises supplies for sale in a regional paper. (Source: Maryborough and Dunolly Advertiser 18 Sep. 1857:1)

Powell also advertised bottles for sale in the Castlemaine newspaper (*Mount Alexander Mail* 29 Jul. 1854:8). A range of businesses sold a larger variety of aerated water supplies, including product ingredients. Importers and wholesale druggists, Youngman, McCan & Co., stocked food acids, essences, ginger, juices and corks. Even Melbourne soda water manufacturers Thomas McDougall (Figure 14) and Frederick Letchford advertised for sale a range of aerated water supplies including

machines, sulphuric acid, whiting, corks, bottles, and ingredients (*Geelong Advertiser and Intelligencer* 25 Jun. 1856:4). The link between Geelong and Ballarat was also a factor. Ballarat was easiest to access overland from the port of Geelong, and so it became a busy route. Therefore, it was fitting that two Geelong suppliers, Fink's in Yarra Street and Bayldon & Graham in Corio Street, advertised in Ballarat's newspaper during 1857, the latter having agents in Ballarat (*Star* 29 Oct. 1857:3).

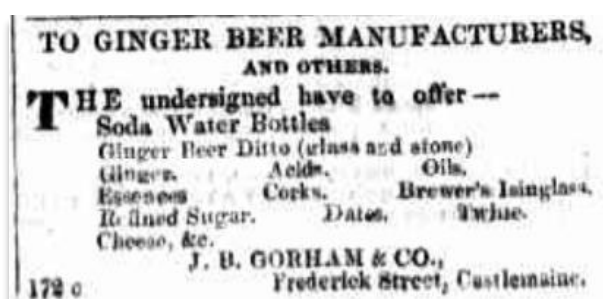


Figure 15: Castlemaine merchant J.B. Gorham & Co. advertises goods necessary to a ginger beer and soda water manufacturer. (Source: *Mount Alexander Mail* 3 Oct. 1856:1)

Regional suppliers

In using Castlemaine between 1854 and 1856 as a regional example, soda water machines were advertised both privately and by auctioneers. Bottles could be found at the stores of T. Butterworth & Co. or J.B. Gorham & Co. (*Mount Alexander Mail* 3 Oct. 1856:1, 22 Oct.

1856:1). Manufacturers also needed other supplies and ingredients, of which Gorham & Co. also could supply several (Figure 15). Essential ingredients included loaf or refined

sugar, ginger, tartaric acid, essences and syrups. Chemist G.W. Glass, who imported drugs and chemicals, included the last three in his list of goods for sale (*Mount Alexander Mail* 16 Feb. 1855:1).

Imported supplies and ports of origin

Evidence could be found for the origins of goods required for local soda water making. These origins were either directly stated in advertisements or could be discovered through further research. For instance, during the 1840s and 1850s, merchants often included the ship's name when advertising their goods in-store or at public auction. Due to regular reports of shipping movements and cargo lists, it was possible to find the relevant reports to trace goods to their port of origin. In this manner, much could be learnt about how soda water and ginger beer bottles and other related supplies came into the colony.

The country of origin, form and packaging for soda water manufacturer supplies could be found in either newspaper articles or advertisements. Sulphuric acid was made in England, often by James Muspratt & Sons, or in Sydney. It came in jars, Winchester quarts, or carboys (e.g. Figure 16), sometimes in small cases lined with lead, ready for travel (*Argus*, 6 Oct. 1858:7, 29 Oct. 1858:2, 22 Dec. 1858:7). Whiting was imported in barrels from English ports, presumably also mined from England (*Argus* 29 Nov. 1855:7). Cork was

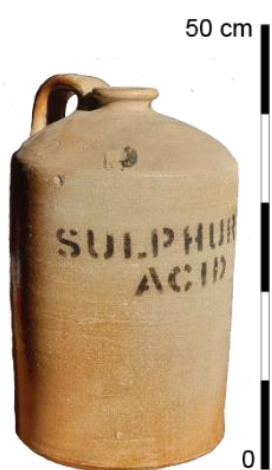


Figure 16: Sulphuric acid carboy/demijohn, made in the early 20th century. (Photo: C. Wolswinkel)

imported from its native origins on the Iberian Peninsula: Spain and Portugal (*Geelong Advertiser* 1 Aug. 1851:2). Bleached or unbleached ginger for making ginger beer arrived in barrels from Central America (Jamaica and Barbados), India (East and Southwest) or an unspecified location in Africa (*Age* 9 Dec. 1856:8; *Argus* 28 Dec. 1849:3, 23 Mar. 1852:8, 5 Mar. 1852:4, 9 Mar. 1854:3). Tartaric acid, an essential ingredient for aerated waters, arrived in pulverised or crystal form and in 14 or 28lb jars (6.3 or 12.7kg) (*Argus* 4 Nov. 1856:6, 27 Nov. 1857:2). The origin

was not apparent. Sugar arrived in crystallised, counter, or crushed form and largely in bags from warm climates such as India (Calcutta and West Bengal), Mauritius, South-East Asia (Thailand, Java and the Philippines), and China (*Age* 3 Jan. 1856:4, 14 Apr. 1856:2; *Argus* 17 Oct. 1853:12, 9 Oct. 1854:4; *Banner* 31 Mar. 1854:15; *Melbourne Argus* 23 Mar.

1847:1). Alternatively, sugar arrived in loaf form in barrels from England, the Netherlands, or more locally from Sydney (*Age* 14 Apr. 1856:2). These last three locations highlight the complex nature of the material culture trade, for this sugar almost certainly originated from warmer climates.

Machinery and other equipment utilised

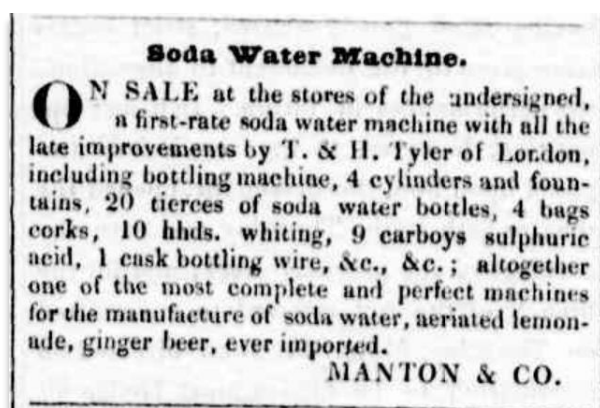


Figure 17: Advertisement for a soda water machine and other equipment needed to make aerated waters. (Source: Port Phillip Patriot and Melbourne Advertiser 27 Jan. 1842:1)

The list of equipment in Figure 17 includes the sulphuric acid and whiting mentioned earlier. For securing the corks in the bottles, manufacturers used either twine or copper bottling wire; the latter sold in casks or tins (*Argus* 12 Jan. 1855:6, 4 Oct. 1856:7). Prahran soda water maker R.C. Watson advertised for ‘soda water wire, in lengths’, suggesting he used this type for his soda water bottles

(*Argus* 8 Aug. 1854:1). The corks needed to fit well and without faults in the material, to prevent leaking air spoiling the product. Manufacturers such as Phillip Maine in Geelong advertised for a cork cutter; whether it was to cut from slabs of cork or to cut faults from corks supplied is unknown (*Geelong Advertiser and Intelligencer* 26 Jan. 1854:6).

Soda water machinery

Soda water machines, of which there were several brands, were mostly imported. Smaller or counter-top versions with white marble slabs and counter fountains were marketed to publicans and retail environments; however, this study is mainly concerned with the industrial versions (*Argus* 12 Dec. 1855, 15 Sep. 1856:6). Figure 17 advertises a Tyler’s machine for sale in 1842 and, considering this advertisement continued for months, the machine was imported into the colony on speculation, as many goods were at the time.

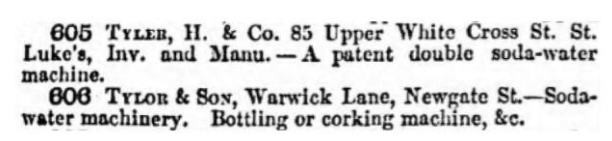


Figure 18: The companies of Hayward Tyler & Co. and Tylor & Son as listed in the 1851 Great Exhibition of London catalogue. (Source: Ellis 1851:46)

Most of the machines used by Victoria’s soda water manufacturers were made by two London companies: Hayward Tyler & Co. and J. Tylor and Son (Figure 18). The former company, founded in 1815,

still operates today. The latter was originally part of Hayward Tyler & Co. until Henry and Joseph Tylor separated from the partnership in 1830 to form their own company (*London Gazette* 28 Dec. 1830:2717). The two companies manufactured soda water machines in the

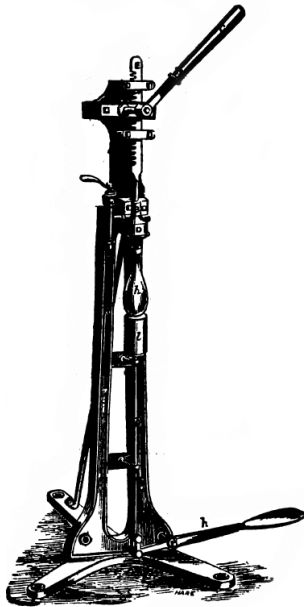


Figure 19: A Hayward Tyler & Co. bottling machine, which came complete with connections for a soda water engine. (Source: Hayward Tyler & Co. catalogue, 1867:144)

decades to follow, examples of which were shown at the 1851 and 1862 London International Exhibitions, and later at the 1889 Paris Exhibition (Ellis and Yapp 1851:299; Cundall, McGauley and Hollingshead 1862:78, 80; *Leader* 16 Feb. 1889:40). Each company offered several models of soda water machine, during and after the study period. A bottling machine (e.g. Figure 19) was usually attached to the main machinery. Machines from both companies are shown in Figure 20 and Figure 21. Given the spelling variations in newspapers, the statistical use of all these machines could not be accurately compared.

Many other brands were referred to in Victorian newspapers during the study period. MacLaren from Edinburgh was advertised widely between 1856 and 1859 (*Gippsland Guardian* 31 Oct. 1856:3; *Ovens and Murray Advertiser* 2 Jan. 1857:4; *Star* 2 Feb. 1859:4). In contrast, the remainder were advertised briefly: McNaughten from Edinburgh (1855), Neville and Holgate from Liverpool (1853 and 1856 respectively) and McLachlan from Glasgow (1856) (*Argus* 10 Jan. 1853:2; 7 Nov. 1855:2, 8 Dec. 1856:7, 15 Dec. 1856:2). Lastly, in Melbourne's McKillop Street, soda water maker John Jennings used a machine made by a T. Bolding (*Argus* 15 Oct. 1858:3).

It is also worth noting that machines were being made in the colony. Having arrived with the introduction of steamships, engineers in New South Wales found themselves employment in not only repairing land engines and mills but also creating parts for engines missing them when imported (*Geelong Advertiser* 1 Aug. 1844:2). This led them to take orders for making engines, including ones for making ginger beer and lemonade. In Melbourne, plumbers Richard Milbourn (1853) and Froggart & Jones (1854) both advertised their service for soda water machines made and repaired (*Argus* 4 Mar. 1853:5, 10 May 1854:2). So it is possible that some colonial-made machines were used by manufacturers that were identified in this study.

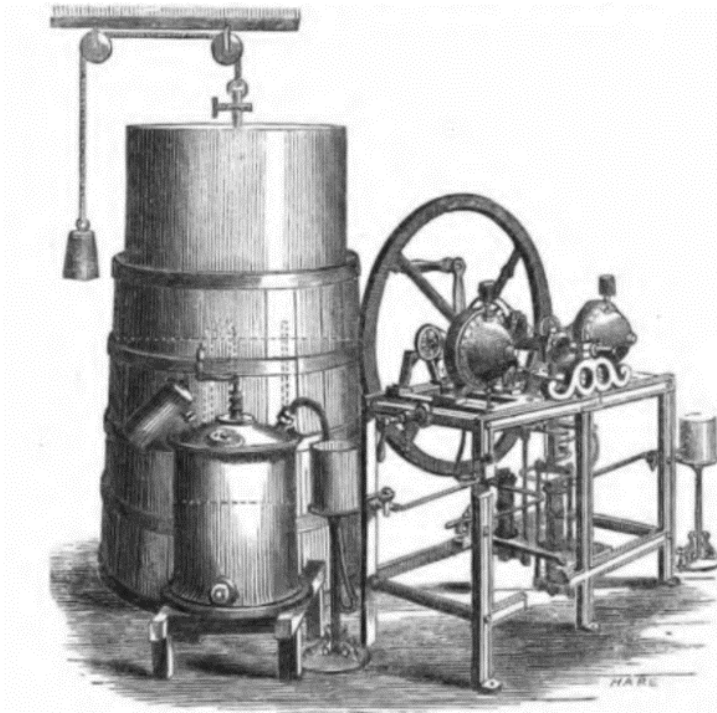


Figure 20: Tylor & Son's soda water machine, as exhibited in the Great London Exhibition, 1851. (Source: Ellis and Yapp 1851:299)

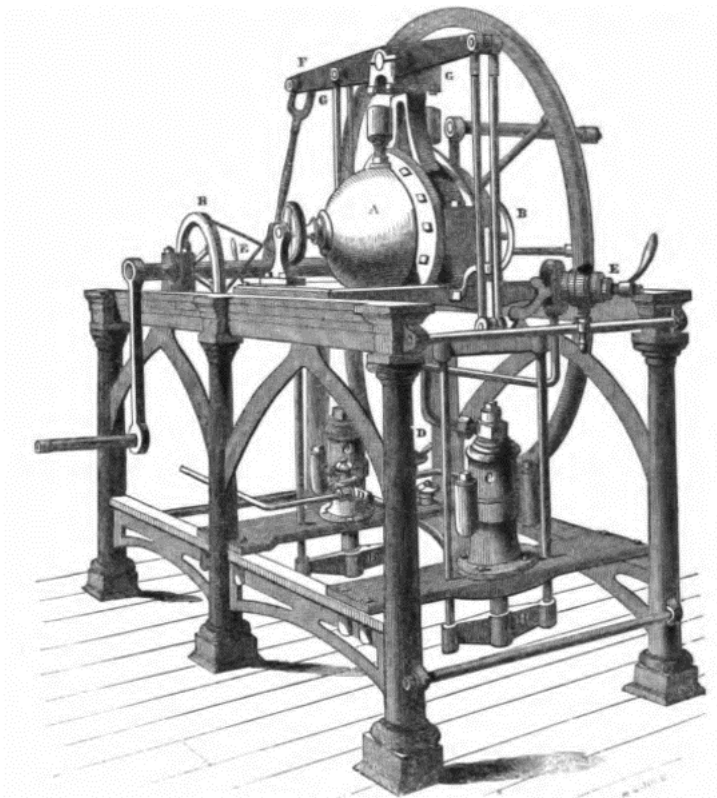


Figure 21: Hayward Tyler & Co. patent beam-action double soda water machine for two bottlers, as exhibited in the Great London Exhibition, 1851. The machine could make 300 dozen per day. Indicated items include the condenser (A), wheels (B) driving the agitator, condensing pumps (C), regulating cocks (D), bottling cocks (E) and beam (F) working the pumps. The gasometer and generator are not pictured. (Source: Ellis and Yapp 1851:298–299)

Advertisements for soda water machines increased dramatically after October 1851 reflecting the dramatic changes brought by the gold rushes. These changes to the number of advertisements can be seen in Figure 22. A new model of machine may have been partially responsible for an increase in advertisements during 1855. For instance, a soda water machine ‘on a new principle, capable of manufacturing on a very large scale’ was advertised (*Argus* 26 Oct. 1855:7). This coincided with many machines offered for sale in October and November 1855, suggesting manufacturers may have upgraded their machines.

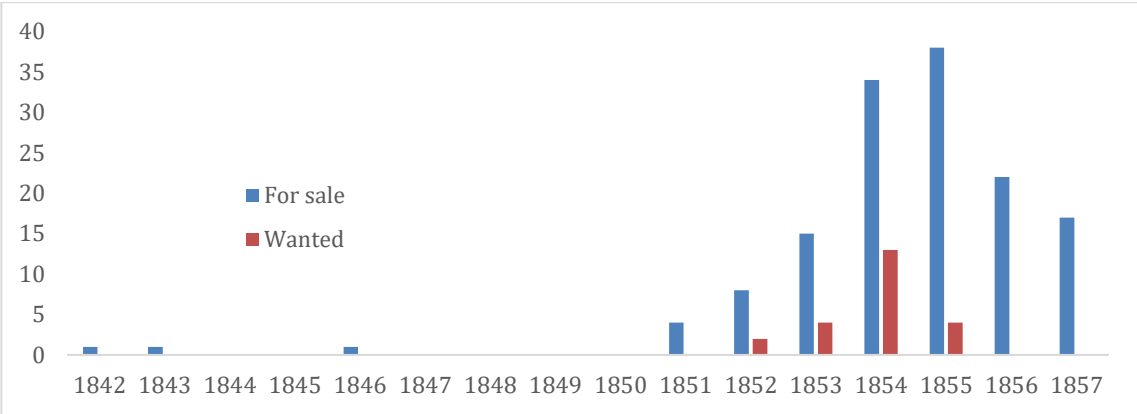


Figure 22: Number of soda water machine advertisements in Victorian newspapers 1842–1857.

HAYWARD TYLER & Co., 85, UPPER WHITECROSS-STREET, ST. LUKE'S, LONDON.				
<i>Bramah's Original Continuous Principle, with Hayward Tyler and Co.'s Improvements.</i>				
No. 1,	Maximum of product	150 doz.	per day.	
2,	"	100	"	"
3,	"	80	"	"
4,	"	60	"	"
<i>Hayward Tyler & Co.'s Patent Improved Continuous Principle, with Beam Action.</i>				
SINGLE.—No. 1,	Maximum of product	150 doz.	per day.	
2,	"	100	"	"
3,	"	80	"	"
4,	"	60	"	"
DOUBLE.—No. 1,	"	300 doz.	per day.	
2,	"	200	"	"
<i>Hayward Tyler & Co.'s Patent Improved Continuous Principle, with Direct Action.</i>				
SINGLE.—No. 1,	Maximum of product	150 doz.	per day.	
2,	"	100	"	"
3,	"	80	"	"
4,	"	60	"	"
DOUBLE.—No. 1,	"	300 doz.	per day.	
2,	"	200	"	"

Figure 23: List of Hayward Tyler & Co. soda water machine models with production rates, as advertised in the 1851 Great London Exhibition catalogue. (Source: Ellis 1851:54)

Production rates

The type of machinery used reflected the production rates.

For a wager in 1861, two bottlers of aerated waters competed for one hour, the winner bottling 70 dozen and two in the allotted time (*Bendigo Advertiser* 16 Mar. 1861:2). However, it is unlikely that rate could be sustained for the whole day. The daily rates in

Figure 23 provide a more realistic guide, albeit for an earlier model of machine. Melbourne's Atkinson &

Elliott advertised a machine for sale capable of taking off 35 dozen per hour (*Argus* 17 Jan. 1857:1). In at least one of his manufactories, E.W. Jones of Forest Creek used Tyler & Co. machines, which put out 200–300 dozen per day (*Mount Alexander Mail* 24 Dec. 1856:1; *Kyneton Observer* 24 Apr. 1862:1). In the same district, Paulson & Stanton started on a small scale in 1856 before purchasing a Tylor & Sons No. 1 machine in 1858 only two years later. Demand for their product encouraged them to erect steam machinery in the following year, which produced 500 dozen soda water daily. This production required them to employ fifteen men and boys and, seven horses and carts in the warmer months (*Mount Alexander Mail* 23 Nov. 1859:2). In Bendigo, Frederick Beard was known to have used a double-action patent Hayward Tyler machine (*Maryborough and Dunolly Advertiser* 14 Feb. 1862:5). This machine probably produced 300 dozen per day, a similar rate to rival Cusworth & Co., who reportedly set up business with an identical model to the one in Figure 21 (*Argus* 3 Jan. 1854:5). Some makers used more basic models if manufacturing soda water was only part of another business, such as Henry Gardner of Gisborne, who used a Tyler's No. 2 engine (*Kyneton Observer* 18 Dec. 1858:3).

Ginger beer may have been bottled at a similar rate, as another race indicated. On Wednesday 27 January 1858, a competition was held between two separate Bendigo establishments' bottle tiers to see how many bottles they could tie within the hour. A tier from Pohl, Olbrich & Burnham won £20 for tying 83 dozen, beating his competitor's total of 76 dozen bottles (*Bendigo Advertiser* 5 Feb. 1858:3).

Hazards during production

Accidents in manufactories were often reported in the local newspaper. As mentioned earlier, some bottles broke from the pressure of the confined gas during the filling process. The exploding bottle caused glass splinters to fly about, endangering the bottler. Oakshott's, with stores in Melbourne and Bendigo, advertised wire face masks for sale targeting lemonade and soda water bottlers (*Argus* 23 Oct. 1858:7; *Bendigo Advertiser* 21 Nov. 1857:4). Care needed to be taken around the machinery itself too, as E.H. Dunn of Beechworth discovered. While working on his soda water machine only weeks after acquiring it, the cog-wheel caught the sleeve of his coat and drew his arm in and inflicted several bruises and tearing flesh away to expose the muscles (*Ovens and Murray Advertiser* 11 Dec. 1862:2).

Product distribution

Few soda water manufacturers advertised the extent of their product distribution. Upon commencing their business, Melbourne's Constantin & Cohu announced they were prepared to forward their products to any part of the colony (*Age* 4 Oct. 1856:8). The reality that followed may have turned out quite differently. Before train travel and rail freight became an option for long distance deliveries, local distribution appeared to be the only option to stock up hotels and, in some cases, to supply the public. James Evans on Punt Road supplied local customers in Melbourne, Prahran and St. Kilda (*Argus* 9 Feb. 1855:8). From within Melbourne's city, Gill & Menzies supplied any part of the town and suburbs, while John Jennings supplied places 'in the vicinity of the city' (*Age* 16 Nov. 1854:5; *Argus* 24 Jan. 1853:8). It is also worth remembering that a confectioner's license limited the sales of ginger beer to the district where the license was granted (*Age* 9 Oct. 1857:2). One exception to local sales only was P.G. Dixon, who referred to his customers in town and country, implying his products were also delivered to the goldfields (*Argus* 18 Dec. 1861:8). In regional areas, Frayne of Dunolly advertised he was able to deliver within 12 miles (19.3 km) of Dunolly and Maryborough (*Maryborough and Dunolly Advertiser* 22 Oct. 1858:1). Similarly, Christian Archer of Campbell's Creek aimed to keep any house within 15 miles (24 km) of Castlemaine supplied (*Mount Alexander Mail* 7 Dec. 1855:3). One can probably assume the other manufactories limited their deliveries to this type of range or less. Clearly, in a world reliant on horse-drawn vehicles, these distances represent how far a horse can travel to a place and back in a day. To investigate the actual distribution evident from the archaeological record was beyond the scope of this study.

Butchers, bakers, and soda water makers: the typical transport used

For sale, at Blue's Bakery, Little Bourke-street east, Spring Cart, suitable for baker, sodawater maker.

(*Argus* 12 Jan. 1856:3)

Once bottles were filled and placed in cane baskets (Figure 24) or wooden boxes they were ready for transporting. Manufactories used several forms of transport. Spring carts or



Figure 24: Two dozen bottles, ready to ship. Interior, Weir & Embleton's cordial factory, Hill End, NSW (detail). (Source: Holtermann Collection, Mitchell Library, State Library of NSW)

covered vans appear to be essential to deliver products, similar to the example in Figure 25. These carts were often especially pre-fitted with boxes for the soda water trade, and in Henry Freeth's case, the boxes numbered twenty-two (*Argus* 22 Oct. 1857:7). Waggon were used for larger loads, generally needing two horses to pull them. More vehicles were utilised for other purposes. When the estate of E.W. Jones (Forest Creek) was offered for sale, drays and water carts were also listed (*Mount Alexander Mail* 7 May 1862:3).

Horses and carts were sometimes involved in accidents, which overturned or damaged the



Figure 25: Spring cart used for deliveries for P.G. Dixon's Rosslyn Street manufactory, Melbourne. Note the wicker baskets used to carry bottles. (Detail from photo: Cox and Luckin 1861. Source: State Library of Victoria)

cart and stock or injured the horse. Tragically, a driver for E.W. Jones was killed when his cart overturned (*Mount Alexander Mail* 18 May 1857:4). Other accidents were far less tragic. For instance, Peel & Bolton of Bendigo discovered that when the wheels or axle gave way on a laden cart causing it to sink down suddenly, not a bottle of soda water was lost (*Bendigo Advertiser* 1 Nov. 1859:3).

Water supplies

Before municipal water supplies were established, water had to be carted from a suitable source. The water carts were an essential item for the manufacturers, for water was the main ingredient for aerated waters and ginger beer. The quality of the available water varied. At first, Melbourne had convenient access to permanent water from its creeks and rivers, then via the race-fed waterworks near the east end of Flinders Street (*Argus* 1 Dec. 1854:5; Mason 185[?]). With these water supplies becoming more polluted with waste from its growing population, Melbourne needed a new, clean water supply (Dingle and Doyle

2003:3). A suitable site was found on the Plenty River, a tributary of the Yarra River. The Yan Yean reservoir was completed in 1857, piping water to the city of Melbourne (Dingle and Doyle 2003:1). Unfortunately, the new water supply had its teething issues; several contaminants present meant purified water was not available immediately (Dingle and Doyle 2003:44–48). Geelong also had water problems in its early years; it experienced times when the water was so impure that its ‘ginger beer makers sent to Melbourne for their water’ (*Geelong Advertiser* 18 Jan. 1848:2).

More water issues existed in the goldfields. Alluvial gold mining required extensive water supplies for washing. Unfortunately, mining also destroyed water supplies, the puddling method in particular choking waterways with sand and fine sludge (Lawrence and Davies 2019; Russell 2013:80). Amid this destruction, specific drinking water supplies were fiercely protected in the summer (Russell 2013:79). The cost of it in summer was high. For instance, drinking water at the Bendigo, Back Creek and the Indigo goldfields was so precious, it cost 4 to 6d per bucket between 1858 and 1859 (*Bendigo Advertiser* 13 Jan. 1858:3; *Mount Alexander Mail* 4 April 1859:2; *Ovens and Murray Advertiser* 12 Oct. 1858:3).

Drinking water supplies were particularly poor during dry seasons at dry diggings when the available water was inadequate for mining. The Bendigo diggings were notoriously dry, with diggers needing to stockpile their wash dirt during summer and, wait for winter rains (Russell 2009:32). During the 1857–1858 summer, the available water at a Bendigo location was described as alive with organisms, leading to dysentery and bowel complaints from short-term water use and worse ‘if used for any length of time’ (*Bendigo Advertiser* 9 Feb. 1858:2). Alternative forms of refreshment may have been very appealing. In addition, given that it was boiled during production, ginger beer presented a safer, healthier alternative. However, the quality of the manufacturer’s product would depend on the quality of the water available.

The forms of drinking water sources varied. Some sunk shafts for a waterhole, Mr. McColl of Bendigo’s Epsom pottery being one. He sold buckets of water to Epsom residents for drinking or loads for washing (*Bendigo Advertiser* 6 Feb. 1858:3). During Ballarat’s early years, the Swamp (now Lake Wendouree) was the town water supply (*Star* 14 Aug. 1856:3). Not far away at Buninyong, the local hotels and manufacturers had access to

excellent spring water (*Geelong Advertiser* 23 Oct. 1855:2). It was this spring water that Ballarat soda water makers Rowlands & Lewis were willing to regularly cart over ten kilometres, back to Ballarat (*Ballarat Courier* 7 Mar. 1870:2). Miners created their own water systems. To divert water to where they needed it, miners built water races, tunnels and flumes, ‘to supply their claims and sell water to others’ (Lawrence and Davies 2019:68–79, 107). At Cabbage Tree Flat near Creswick, Robertson’s water race provided a ‘constant supply of clean water’ to Quinn’s Brewery (Lawrence and Davies 2019:89). Soda water companies may have purchased their water from race owners as well.

Towns in the goldfields endured a long wait for government-funded water supply infrastructure. The Victorian government coffers were already under pressure with the construction of general infrastructure, which included major roads, railways and the Yan Yean project (Russell 2009:57). This meant towns without a reliable and permanent natural water source, Bendigo, for example, needed its people to act. With limited public monies available, the miners and other residents of Bendigo enlisted private investors. The resultant Bendigo Water Works Company built two reservoirs to supply water for domestic and mining usage (Russell 2009:71, 81–85). Similar to the supply from Yan Yean, when Bendigo’s mains flow first reached town in 1861, the water was initially unsuitable for drinking (Russell 2009:84). However, Russell (2009:85) states the Bendigo valley was too dry to sustain the people of Bendigo and its mining in the long term, so sources further away were investigated. Eventually, the government-funded Coliban Water Scheme completed a reservoir at Malmsbury in 1877 and diverted water approximately 100 kilometres by aqueduct to Bendigo and Castlemaine water storages (Russell 2009:100, 208). Therefore water, the crucial element for soda water manufacturers, was not available in any consistent quality in Bendigo—or Melbourne—during the study period.

Customers

Soda water manufacturers largely sold to the trade. For instance, during 1848, Geelong’s ginger beer makers sold to shops to vend again to the public (*Geelong Advertiser* 18 Jan. 1848:2). Years later, when Castlemaine’s Robert Formby commenced his soda water business, he announced it to storekeepers and restaurants as well as innkeepers (*Mount Alexander Mail* 10 Nov. 1858:1). Melbourne’s P.G. Dixon had a similar customer base, plus wine and spirit merchants (*Argus* 18 Dec. 1861:8). Geelong’s Pearson Brothers stated

they only supplied the trade (*Geelong Advertiser and Intelligencer* 26 Jan. 1854:1). Publicans appeared to be the main customers. For example, Geelong soda water manufacturers collectively placed an advertisement notifying the ‘innkeepers and other customers’ they would be charged for all bottles not returned (*Geelong Advertiser and Intelligencer* 11 April 1854:5). Clearly, hotels, shops and eating houses were supplied at the very least. Chapters Seven and Eight will reveal further details of these relationships.

Staffing and seasonal changes

There is, perhaps, no city in the world in which there is a greater consumption of aerated waters than in Melbourne during the summer months

— Marketing for a new J. Schweppe outlet in Melbourne (*Argus* 23 Nov. 1855:5)

The above statement was a sales pitch, but it reflects the greater production of aerated waters and ginger beer in the warmer months of the year to meet the demand. The trade was seasonal and staff numbers fluctuated accordingly. For an indication of staff normally needed for the bottling of ginger beer, in William Bruce’s busy manufactory, one person bottled, one corked, one tied and one stowed (*Bendigo Advertiser* 26 Feb. 1867:3). An analysis of newspaper advertisements for staff and positions wanted can provide insight into how industry activity changed according to the seasons. Figure 26 shows the number of advertisements for these seasonal workers in Bendigo over a five-year period. The graph clearly shows the warmer time of year as the busiest for the industry, particularly in sourcing staff for the months leading up to the height of summer. The busiest season appeared to lead up to the summer of 1858. Then, the extreme heat in the middle of January 1858 prompted a reporter to speculate how many lemonade and ginger beer bottles were emptied in Victoria during that heat (*Maryborough and Dunolly Advertiser* 26 Jan. 1858:2).

Sometimes a cooler season can impact negatively on a business. After the spring of 1859, Castlemaine’s Paulson & Stanton experienced trade no greater than that in winter, so they could not find employment for half the number of hands they would normally engage if the weather was warmer (*Mount Alexander Mail* 12 Dec. 1859:2).

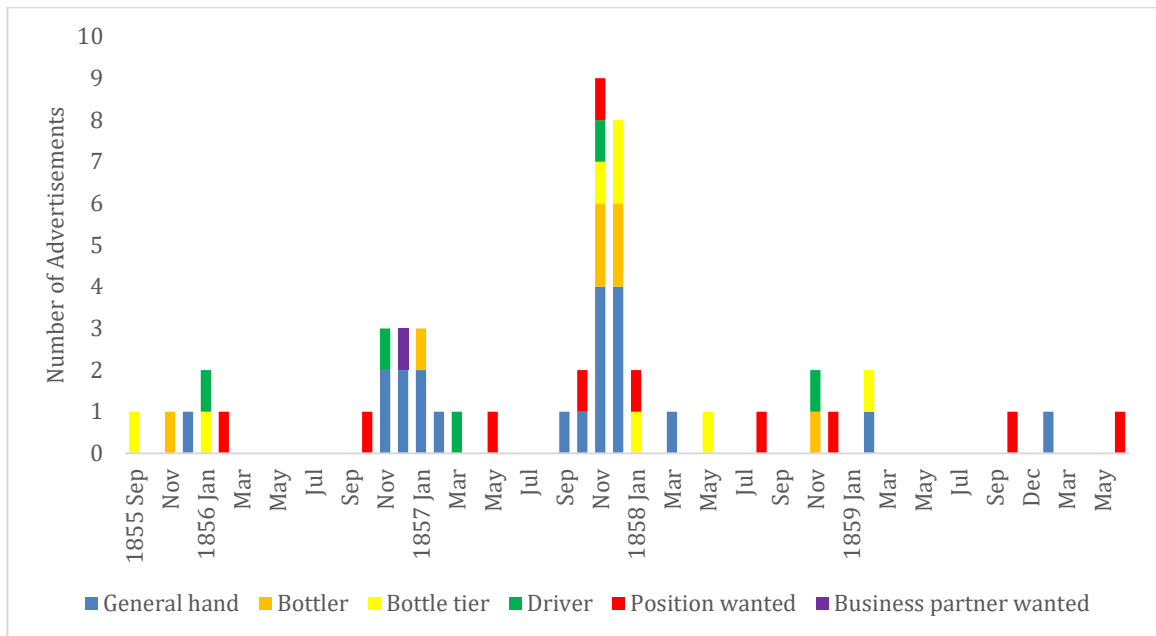


Figure 26: The occurrence of soda water industry staffing advertisements in the Bendigo Advertiser, Sep. 1855 – Jun. 1860.

Summary

Many varied external and internal factors were involved with the operation of a soda water business prior to 1863. Business activity changed between winter and summer. Equipment and supplies were largely imported into the colony and were therefore vulnerable to fluctuations in cost and supply. The product distribution distances indicate that both large and small soda water companies serviced their local communities. The limited transport options meant that small businesses in regional areas were somewhat protected from bigger competition. The outline of production rates and product spatial distribution, combined with the different aspects of bottles in the following chapter, can provide the background to expected patterns in the archaeological record. In addition, understanding how the soda water business was run, from the manufacturing process and the staff needed, to the costs and hazards, provides a greater understanding of how these businesses managed to operate and perhaps the causes for their successes and failures. On the whole, archaeologists using information from this chapter can gain a useful understanding of Victoria's soda water industry prior to 1863. An awareness of the likely circumstances as to why any artefacts are present in the archaeological record—or absent from it—has the capacity to influence the interpretation of a relevant assemblage.

Chapter 6. Bottles as containers, and their origins

The bottles filled by soda water manufacturers are the most common physical evidence of the industry that remains in the archaeological record. Therefore, understanding characteristics of these bottles—identification features, the temporal period of the different types, occurrence, and use, for example—all assist in the analysis and interpretation when a representation of these bottles form part of an assemblage.

This chapter will discuss the bottles used as containers for aerated waters and ginger beer. The different forms used will be examined first, then their origins. A description of the packaging types for transporting bottles will then follow. The last section will discuss the cost of bottles (as they were a major expense for the manufacturers) in both original and ongoing terms.

Bottle forms used by soda water manufacturers

Common forms

The nature of aerated waters requires a robust container, so bottles were specifically made to hold these or ginger beer under pressure. This requirement triggered the development of

Significant dates for selected aerated water bottle patents	
Hogben / Barrett patent	1870/1871
Marble stopper patents	from 1870
Lamont patent no. 1923 (double-conical stopper)	1874
Lamont patent no. 2488 (bullet stopper)	1880
Riley patent - internal thread	1885

Figure 27: Dates of selected aerated water bottle patents, all introduced after the study period. (Sources: Boow 1991:72; Jones 2017:47, 167–168, 217, 469)

a variety of bottle forms and patented closures specifically designed for aerated waters, but few of these were used in Victoria during the study period (Jones 2017). The dates for some of these significant patents are listed in Figure 27.

Figure 28 shows examples of the common container forms used at the time for aerated waters and ginger beer. The glass bottle form, referred to at the time as egg-shaped,

was introduced after William Hamilton patented his method of manufacturing soda water in 1809 and described in 1814 what he considered a suitable container form to use (Jones 2017:6). The bottle was designed to lie down to keep the cork moist, which prevented air leaks and the subsequent spoiling of the product (Jones 2017:6). Jones (2017:5) states the popularity of this form meant that it ‘remained in bottle maker’s catalogues into the 1920s’. An advertisement for both long and short soda water bottles, imported from Glasgow, suggests two sizes may have been imported as early as 1853 (*Argus*, 1 Oct. 1853:8).



Figure 28: Examples of glass and ceramic bottles commonly used in the study period: Glass 2-piece moulded soda water bottle, 236 mm (a), Bristol-glazed stoneware ginger beer bottle, 165 mm (b), and salt-glazed stoneware ginger beer bottle, 170 mm (c). All are the common half-pint size. Slight variations of the finish shape occurred. (Photo: C. Wolswinkel)

Ginger beer bottles on the other hand were commonly stoneware, either salt or Bristol-glazed. The latter, developed by Bristol’s William Powell in 1835, was a zinc-based slip glaze, presenting a smooth, creamy white to buff surface (Brooks 2005:28; Cheek 2016:89). The paste was usually a white clay (Cheek 2016:93). An additional brown slip or wash may be applied to the top (Cheek 2016:93). According to Cheek (2016), salt-glazing required a higher temperature than the slip glaze and therefore was more stressful on the kiln,

requiring kiln rebuilds more often. When combined with less fuel required for firing, the Bristol glaze was more economical for the potters. The use of this glaze by other potters became more widespread in Bristol after 1842, then spread further afield in Britain (Cheek 2016:93). Cheek (2016:105) argues that consumers may have shown a preference for the white Bristol glaze. Customers in Victoria may have thought so too, after Melbourne's Francis & Cohen advertised some Bristol-glazed ginger beer bottles as 'very superior made' (*Melbourne Daily News* 19 Nov. 1850:3, 20 Nov. 1850:2).

Other forms



Figure 29: Typical flat-bottomed bottles of the late 19th century, split and full sizes. (Source: West Country Bottle Museum 2020)



Figure 30: Maugham Carrara Water bottle. (Source: Dunn 2018a:19)

Ginger beer bottles also existed in a glass form. They were included in a list of cargo from London in 1852, then referred to when Melbourne merchant Walter Powell advertised stock for sale (*Argus* 2 Feb. 1852:3, 2 Nov. 1853:7). Four years later, Leveson & Smythers were among the last to list glass ginger beer bottles for sale (*Argus* 28 Oct. 1856:6). These may or may not have been similar to flat-bottomed soda water bottles, some of which were advertised for sale during 1856 (*Argus* 24 Jan. 1856:3). More were imported in December of the same year on ships arriving from Bristol (*Age* 4 Mar. 1857:7). The flat-bottomed bottles may have been similar in form to the examples in Figure 29. One merchant advertised both the flat-bottomed and egg-shaped soda water bottles in a single instance, so there is no question a flat-bottomed

variation existed at the time. Between January 1856 and December 1859, over 126,150 flat-bottomed soda water/lemonade/ginger beer bottles were advertised for sale (see Appendix E). No reference to this form was found outside this time period in Victorian newspapers, and little outside Victoria. Whether this form was distributed to regional Victorian or Melbourne soda water manufacturers could not be determined by this study.

Another form of soda water bottle was described by separate sellers as long shaped. It appears this form was only referred to between January 1856 and December 1858 (see Appendix E). In one instance, 18,000 were sold at auction for 22 shillings per gross (*Argus* 1 Nov. 1860:3, 27 Nov. 1860:3). These may have been examples of the 'cylinder with semi-

spherical ends' (Figure 30) that was designed to stand the high pressure for bottling Carrara water, a similar product to soda water (*Argus* 17 Apr. 1852:3). Maugham's patented Carrara water and lemonade were first advertised in Victorian newspapers during April 1852, but the Carrara bottles alone (probably displaying the Carrara water embossing) were also available between 1854 and 1864 (*Argus* 17 Apr. 1852:3, 5 Apr. 1854:10, 25 Nov. 1864:2). One shipment of Carrara bottles came from Leith, but others may have been made elsewhere (*Argus* 10 Dec. 1856:4). According to Arnold (1985, 2002) this cucumber-shaped bottle (often known as a Maugham) was introduced to South Australia and Broken Hill and used a little in Western Australia but rarely by Victorian companies. However, the 'long-shaped bottle' referred to in advertisements suggests this form was used not only for Carrara water, but also other types of aerated waters.

Dating the finishes (tops) of soda water bottles



Figure 31: Variations of finish style, from four extant egg-shaped bottle examples. Those in the first box were probably made before 1860. They are described here as square-profiled finishes. The last, probably made in the 1870s, is known as a blob-top finish. (Sources: Dunn 2011b:6, 2017a:14, 2018b:15, 2021:17)

Variations of the glass bottle's finish can reflect when the bottle was made. A finishing tool was used to mould the bottle's top while the glass was hot and therefore soft (Boow 1991:63). These tools evolved for egg-shaped bottles, initially forming what shall be described here as a square-profiled finish, then

another Boow (1991:65) describes as a spherical, blob-top finish. Boow (1991:117) estimates the latter was introduced between 1860 and 1870. Figure 31 shows three variations of the former, then one of the latter. The variations in the first three were likely to reflect different tools employed at English and Scottish glassworks. The last, more spherical example, probably evolved from a greater demand for a thicker, stronger finish that was deemed necessary to resist breakage when under pressure from an aerated beverage. A collective observation of branded examples used by early Victoria's soda water manufacturers (see Appendix C) shows that this transition appears to have taken place during the 1860s, and possibly in the case of P.G. Dixon's bottles, as early as 1860. These dates for the introduction of the spherical finish reconcile with those provided by Boow.

An extended study of post-1862 soda water bottles may further define the known dates for the different finish types.

Embossed bottles for product differentiation

Some egg-shaped bottles were embossed with product types, presumably so one product could be distinguished from another. For instance, the cargo from the ship *Agnes Leeds* included glass bottles branded 'Lemonade', which came from London (*Argus* 4 Dec. 1857:7; *Star* 30 Nov. 1857:2). Lemonade and soda water bottles were mentioned separately as early as 1845 (*Port Phillip Patriot and Morning Advertiser* 19 Dec. 1845:2). Cleve Bros., Melbourne merchants who regularly stocked bottles for aerated waters, also advertised the two separately, as did Geelong auctioneers Ogilvie & Robinson (*Argus* 22 Oct. 1857:7; *Geelong Advertiser* 11 Feb. 1859:3). This suggests both types were embossed. Therefore, a date range for these product-branded bottles can be assumed to be from 1857 and 1859 at the very least.

The use of Schweppe-branded bottles

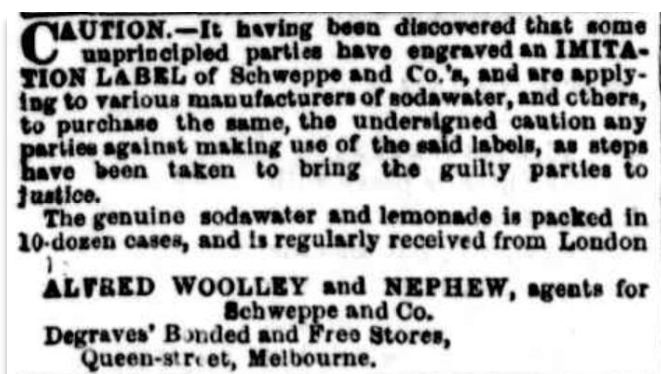


Figure 32: Notice cautioning parties against forging the Schweppe & Co. label for non-Schweppe products.
(Source: *Argus* 3 Dec. 1858:3)

The London company J. Schweppe exported two of its aerated water products to the Australian colonies, soda water and lemonade. The Schweppe products provided competition for Victorian soda water manufacturers, particularly after the company established a branch in Melbourne during 1855 (*Argus* 23 Nov. 1855:6). Schweppe-

branded bottles were also available at the time, advertised for sale in several instances from 1856, branded J. Schweppe and Co. (*Argus* 19 Dec. 1856:3). Consequently, local manufacturers sometimes falsely packaged and represented their own product as the Schweppe brand, as Figure 32 indicates. These bottles were still being sold in 1861, according to the advertisement in Figure 33. That more counterfeit labelling or branding followed is indicated by further warning notices placed in regional newspapers later that year (*Star* 28 Nov. 1861:3; *Bendigo Advertiser* 28 Nov. 1861). Therefore, for a Schweppe-

branded bottle found in a Victorian archaeological context from this period, the original or last contents were not necessarily made by Schwebpe, but a local soda water manufacturer.

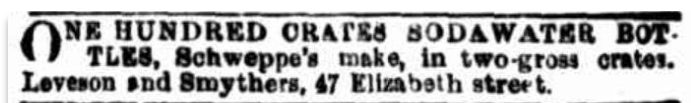


Figure 33: Schwebpe-branded bottles advertised for sale. (Source: *Argus* 27 Aug. 1861:3)

Bottle origins

The production of manufacturing containers is a separate industry to that of the product within. However, given the most recognisable evidence remaining from soda water and ginger beer companies is the bottles they used, evidence of bottle origins will be broadly discussed here. The first successful glassworks were not established in Victoria until 1872, so glass soda water bottles were probably all imported before then (Arnold 1990:vii; Harrop 2017:7). Not all were imported empty, as Figure 34 indicates. Cider was shipped in ginger beer and soda water bottles among other forms (*Age* 7 Feb. 1855:8; *Argus* 8 Mar. 1855:3). Melbourne merchants advertised beer, Old Tom (gin), porter, and Dublin stout imported in soda water bottles, so this practice was not uncommon (*Argus* 4 Sep. 1854:2, 8 Sep. 1854:8).

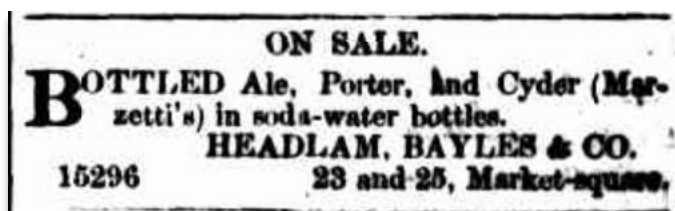


Figure 34: Alcohol for sale in soda water bottles. (Source: *Argus* 3 Feb. 1853:1)

Ports of origin for bottles

The earliest reference found of soda water bottles in the colony of Port Phillip was from 1840. In his list of goods for sale, Melbourne's G.W. Cole advertised soda water bottles and corks (*Port Phillip Patriot and Melbourne Advertiser* 17 Aug. 1840:5). The earliest clear reference to the importation of soda water bottles, was found in the inventory of the ship *Ben Nevis*, which arrived from Leith in 1842 (*Port Phillip Gazette* 16 Apr. 1842:2). Therefore, imported goods were not necessarily itemised in the newspaper on arrival. Ports of origin could be found for many soda water and ginger beer bottle imports, as illustrated

in Table 4. This evidence was sourced from advertisements where the merchant chose to include a ship's name, and shipping intelligence reports. A far greater number of bottles advertised for sale could not be connected to a ship's name or port of origin. This is because an unknown quantity of imported goods was not itemised within newspaper imports listings. Containers such as casks or crates were often listed, but not necessarily their contents.

Table 4: Ports of origin for soda water and ginger beer bottles imported into Victoria between 1841 and 1862, extracted from goods advertisements, shipping intelligence reports and imports listings in contemporary newspapers. Full reference details can be found in Appendix F.

Bottle category	Year: 18 -																					
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
Soda water	London																					
	Leith																					
	Glasgow																					
	Liverpool																					
	Bristol																					
	Middlesbrough-on-Tees																					
	Dublin																					
	Greenock																					
Ginger beer	London																					
	Leith																					
	Greenock																					
	Guernsey																					
	Bristol																					
	Plymouth																					
	Liverpool																					

International shipping arrivals with soda water or ginger beer bottles on board, appeared to originate almost exclusively from British ports. Schooners also regularly traded between Victorian ports and Sydney, Hobart Town, Launceston and Adelaide. This meant that some bottles were also listed as exports from Victoria on their way to these domestic ports (e.g. *Port Phillip Gazette* 13 Dec. 1843:2).

Comparison of soda water to ginger beer bottle imports

A comparison of soda water and lemonade bottles to ginger beer bottles imported into the colony is shown in Figure 35. Both domestic and international imports have been included. These figures have been taken from where the available data includes bottle numbers or a container size, and the ship's name. Any other bottle numbers that were viewed in 'for sale' advertisements or not listed directly as imports, have been omitted to avoid duplication.

Therefore, the total numbers in Figure 35 are a minimum as distinguished from an approximate. Assumptions were made as to the estimated number of bottles in a container. These estimates were sourced directly from merchants' advertisements, from what appeared to be the most common bottle numbers listed for each container. To convert containers or weights into numbers, it was assumed that one case held one gross bottles, a hogshead 150 bottles, a crate, mat, or cask two gross, a puncheon 200 bottles, and a ginger beer bottle weighed 500 grams. The weight of a ginger beer bottle was measured in practice. The resultant totals for the period are 584,748 soda water and 217,128 ginger beer bottles. These totals may represent a fraction, perhaps half of the total bottles imported, if the total number of bottles in advertisements are any indication. For it was more common to find advertised bottles that lacked an import reference (not counted), than those that included one (counted). Nevertheless, if the above totals are to be used as a comparison, then ginger beer bottles represent 27 per cent, to 73 per cent soda water bottle imports, from the total bottle import data identified.

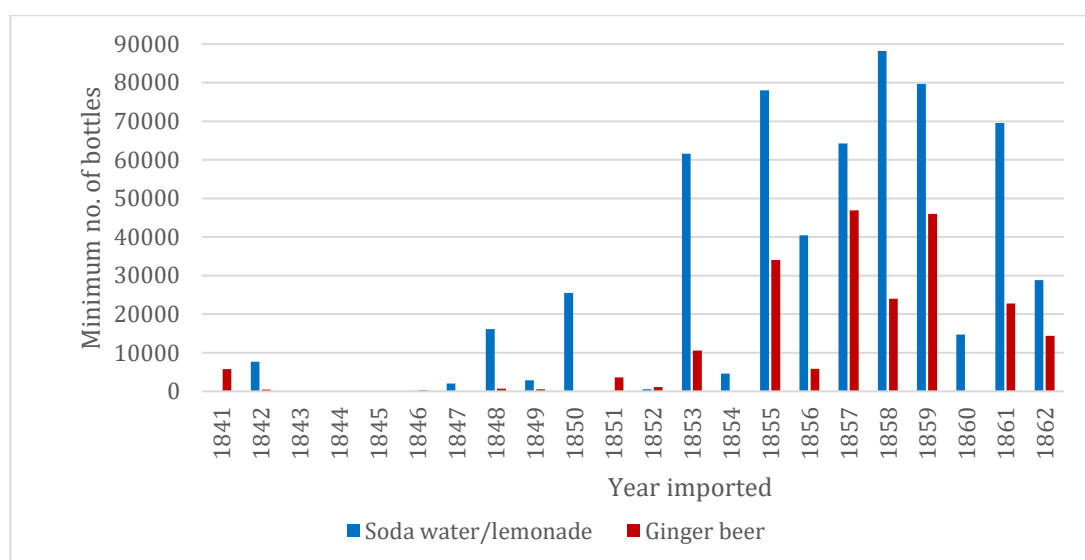


Figure 35: Minimum number of soda water and ginger beer bottles imported into Victoria, 1841–1862. The data was collated from the more detailed references in Appendix F.

Possible glassworks responsible for making the bottles

A pre-1870 soda water bottle artefact does not provide easy clues to the identification of the glassworks where it was made. Most of the bottles used were neither embossed nor exhibited a glassworks identification mark. Therefore, it is difficult to link an actual bottle to its source. However, if considering these bottles as a collective, sometimes theories can be made. For instance, Table 4 shows multiple ships arrived from Leith with soda water bottles included in their inventory. The Edinburgh and Leith Glass Works (Figure 36) was

active during c. 1747 – 1874 and bottles were one of its main products, according to the archaeologists excavating the site during 2020 (AOC Archaeology Group 2020). Therefore, acknowledging that other glassworks may have existed within the district, it is quite possible that bottles leaving the port of Leith were made at these glassworks, which was close by. One factory, Kilner Brothers, was named as the maker of bottles offered for sale in 1860 (*Bendigo Advertiser* 5 Nov. 1860:1). The company operated at Thornhill Lees, Yorkshire between 1857 and 1873 (Lockhart *et al.* 2017). In another instance, Melbourne auctioneer William Perry listed crates of lemonade bottles for sale from the Yorkshire Bottle Company (*Argus* 14 Sep. 1861:2). According to Lockhart (2013:307), a warehouse for this company existed at a London wharf.

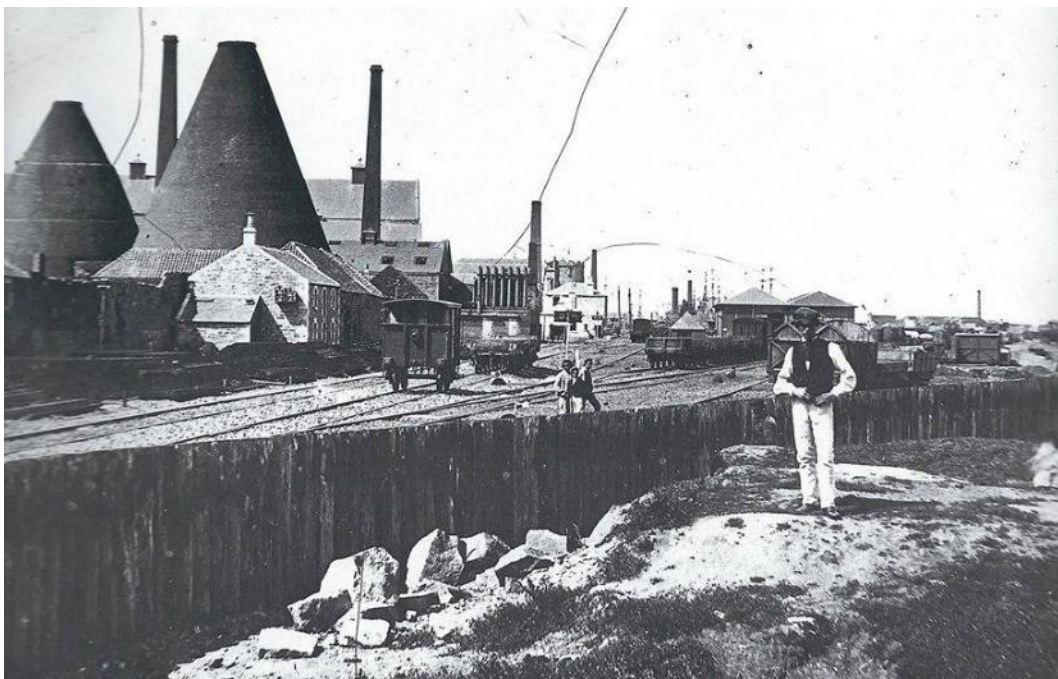


Figure 36: The Edinburgh and Leith Glass Works at the Port of Leith, c. 1860, showing two of the glass works' furnace cones. (Photo: T. Begbie. Source: Edinburgh City Art Centre)

Another hypothesis can be made regarding the origin of the flat-bottomed soda water bottle form. As mentioned previously, at least two shipments came from Bristol in 1856. The date range for the flat-bottomed bottle data (1856–1859) appears similar to that of the bottles imported from Bristol shown in Table 4 (1855–1858). Flat-bottomed soda water bottles may have originated solely from Bristol, packaged in containers accompanying other containers filled with egg-shaped bottles. Many glassworks existed in Bristol during the 19th century. Of these, Gregory, Dungworth, Wild and Hughes (2018:257–258) regard the Powell and Ricketts glassworks as one of the more important. This bottle works, located at the Glass Wharf, was the only glass bottle factory operating in Bristol between 1855 and

1859 (Gregory *et al.* 2018:261). Therefore, unless a different English city was responsible, it follows that the glass bottles exported from the port of Bristol during this period were probably manufactured at Powell & Ricketts. If so, the Rickett's bottle mould was almost certainly used to form the flat-bottomed bottle.

Researching ginger beer bottle imports

Ceramic ginger beer bottles can sometimes be easier to trace directly, as although unmarked versions were more common, pottery marks exist on many. These bottles appeared to arrive in the colony earlier than the soda water variety. Melbourne ginger beer manufacturer John Mills was using bottles in 1839 'with his private mark on them' (*Port Phillip Gazette* 28 Aug. 1839:2). Bottle stock arrived from or via Sydney during the same year. The earliest clearly stated international origin found was from 1841, when the *Ann Sophia* arrived from London carrying cargo that included ginger beer bottles (*Port Phillip Patriot and Melbourne Advertiser* 2 Sep. 1839:13, 10 May 1841:2–3). Within the colony, Sydney potters were making ginger beer bottles in the late 1830s and shipping moved between the ports, but it is more likely that Victorian ginger beer manufacturers were using imported bottles (Bagshaw 2018:95). Colonial potters are discussed further below.

British potteries

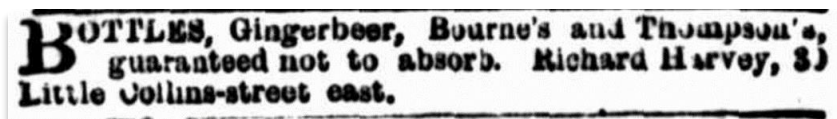


Figure 37: English pottery brands named in a Melbourne advertisement for ginger beer bottles. (Source: *Argus* 13 Dec. 1860:3)

Ginger beer bottles were manufactured at several British potteries, some mentioned by name in Victorian advertisements. For example, Melbourne's Harvey & Occleston advertised bottles from Thompson's and other English makers, packed in crates of 288, expressly for carting into the country (*Argus* 28 Dec. 1855:3). This was probably Thompson of Hartshorn Pottery, Derbyshire (Godden 1991:615). The advertisement in Figure 37 shows the Thompson's brand was still available five years later, as well as Bourne's, another Derbyshire pottery (Godden 1991:89–90). In other instances, Melbourne ginger beer maker, Mr. George Bruce, advertised bottles for sale made by Stephen Green of Lambeth, and merchants Wm. Tennant & Co. sold bottles from an unnamed Staffordshire pottery (*Age* 15 Oct. 1855:1; *Argus* 1 Jan. 1855:2). In regional Victoria, Bendigo merchant F.C. Klemm listed Doulton & Co. made ginger beer bottles for sale (*Bendigo Advertiser* 5

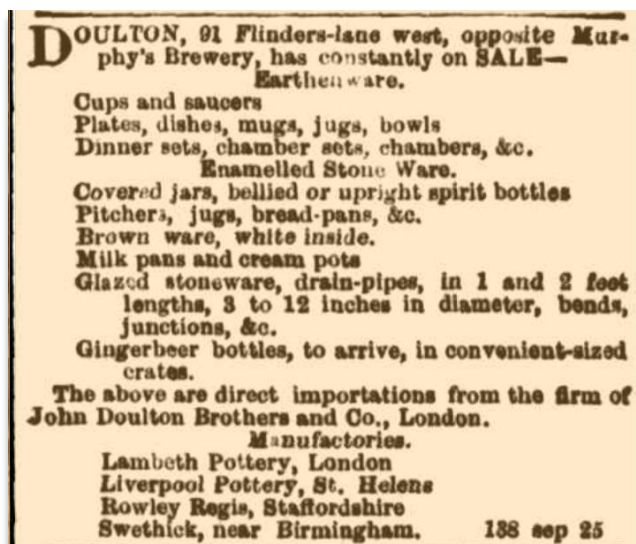


Figure 38: List of earthenware stocked and imported by Josiah Doulton, Flinders Lane west, Melbourne, October 1857. Note the ginger beer bottles were yet to arrive. (Source: Age 27 Oct. 1857:3)

Nov. 1860:1). Klemm could have ordered these directly from Josiah Doulton, who imported earthenware from his family's firm into Melbourne between 1855 and 1864, via the Liverpool and London ports (Age 20 Dec. 1855:4; Argus 2 Aug. 1864:8). Doulton's ginger beer bottles were made at one or more of the potteries listed in Figure 38. However, only one direct connection between a pottery brand and ginger beer manufacturer could be found from the survey. In a newspaper law report, the Ovens

district's John Hattersley stated his bottles were made by Price from Bristol (*Ovens and Murray Advertiser* 1 Jan. 1857:2).

In another example, it was possible to trace one shipment of bottles to not only a port of origin, but to a pottery also. The detective work began with a ship's name in an advertisement from November 1855 (Figure 39). The *Rajah of Sarawak*, having arrived at Hobson's Bay (Williamstown) on 19 November 1855, was recorded as having sailed from Bristol on 6 July (Age 17 Oct. 1855:4). In a list of Bristol Pottery Exports between 1850 and 1867 that was compiled by researcher Reg Jackson (2019) and taken from port presentment books, the following reference was found: On 12 June, the W. Powell & Sons pottery was recorded as having exported 6,150 pieces (compared to 6,000 advertised) of

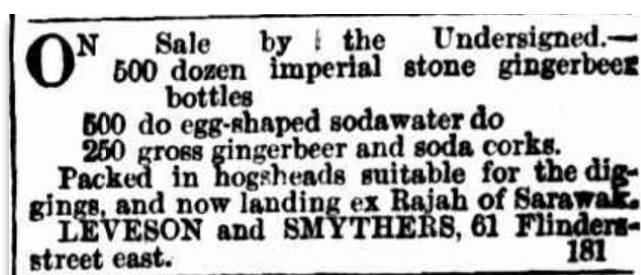


Figure 39: Advertisement for soda water and ginger beer bottles, having arrived on the *Rajah of Sarawak*. (Source: Argus 28 Nov. 1855:7)

stoneware to Melbourne on the vessel *Rajah of Sarawak* (Jackson 2019). When offered for sale, the bottles were conveniently left in their packaging from the voyage, ready for carting.

Colonial potteries, in general

A small number of ginger beer bottles used in Victoria during the study period were manufactured in the colonies. As mentioned earlier, trade existed between Port Phillip, Sydney and Van Diemen's Land. Anthony Bagshaw (2018:95) argues that contemporary potters in Van Diemen's Land were unable to produce stoneware in any quantity during this period. Therefore, Van Diemen's Land ginger beer brewers used bottles from the British Isles rather than those from Sydney potters (Bagshaw 2018:341). It appears Victorian brewers generally did the same.

Sydney potters

According to Bagshaw (2018:95), ginger beer bottles made up a significant part of the

Selected Sydney potters	
Jonathan Leak	1823–1838
John Moreton	1822–1847
Gilbert MacArthur	1838–1842
Enoch Fowler	1837–1879
James King,	
Illawang Pottery	1843–1855
Thomas Field	1842–1887

Figure 40: Date ranges for Sydney potters known to have produced ginger beer bottles. (Source: extracted from Bagshaw 2018:209 and Davies 2006:348)

production for early Sydney potters between the 1830s and 1850. Figure 40 shows the date ranges for Sydney potters who made ginger beer bottles, some of which ended up in Victoria. In fact, one of Thomas Field's stamped ginger beer bottles was excavated from the Casselden Place archaeological site in Melbourne (Davies 2006:348). This suggests that bottles were traded to Victoria. Alternatively, individual agency may have been responsible for any extant Sydney examples found in Victoria.

Victorian potters

There were Victorian potteries established during the study period. These include Skinner's at Prahran, the North Melbourne Pottery, Castlemaine Pottery at Barker's Creek, then Robert Smith's Ballarat Pottery, but no evidence was found for these potteries making ginger beer bottles (*Age* 20 Dec. 1856:10; *Argus* 27 Sep. 1856:2; *Mount Alexander Mail* 18 May 1857:4, 16 Mar. 1859:1; *Star* 26 Jan. 1860:3). Only three potteries could be connected to ginger beer bottle manufacture. Watson & Purton advertised their bottle stock when announcing their purchase of Dredge's pottery at Richmond in 1847, but no evidence could be found of the pottery's continuance (*Melbourne Argus* 3 Aug. 1847:3). In an exhibition for the Port Phillip Farmers Society, Messrs Stevenson & Sons of the North Melbourne pottery demonstrated how they made ginger beer bottles from 'a fine kind of pipe clay' (*Argus* 1 Nov. 1855:4). It is unknown whether they made bottles commercially because no

other evidence was found of it in this survey. In a Bendigo exhibition, Guthrie & McColl (Bendigo Pottery) included stoneware ginger beer bottles in their specimen display at the First Conversazione of the Bendigo Miners' Association, held on 18 November 1858 (*Star* 23 Nov. 1858:3). The Bendigo Pottery's manufacture of ginger beer bottles in large quantities lasted for only a short period but restarted when demand improved after 1864 (*Australasian* 22 Apr. 1865:10). Therefore, in Victoria, during the study period, imported ginger beer bottles far outnumbered those made locally.

The lower cost of imported stoneware compared to that produced in Victoria was directly proportionate to the cost of labour, particularly during the 1850s. The cost was due to the severe labour shortages brought on by the rush to the goldfields (Bate 1988:8). In an essay published in the *Maryborough and Dunolly Advertiser* (29 May 1863:6), a Mr. Charles Mayes stated the wage rate for potters in Victoria was double that of Britain, and for labourers in the potteries, about four times that paid in England. This meant that the labour and material costs to make ginger beer bottles in Victoria, being small items, cost nearly three times as much as those from England (*Maryborough and Dunolly Advertiser* 29 May 1863:6). Therefore, it is no surprise that potteries in Victoria were unsuccessful until the 1860s.

Packaging and transporting

Several types of container were used for transporting soda water and ginger beer bottles to Victoria. Hogsheads, a size of barrel or cask, were commonly used because they were convenient to roll (Lawrence and Davies 2011:77). In Mark Staniforth's (1987) study of extant cask remains from the *William Salthouse* shipwreck (1841), he indicates that casks for transporting bottles were probably of a disposable quality, rather than a finely made watertight version. Bottles were also shipped in cases, crates and mats. It appears that 150 (one gross plus six), 864 (six gross) or 1,080 (seven-and-a-half gross) soda water bottles could fill a hogshead, so clearly, the term had been applied to several sizes (*Melbourne Daily News* 22 Mar. 1849:3; *Argus* 20 Jan. 1859:2, 11 Apr. 1859:2). Melbourne merchant Walter Powell sold cases of soda water and ginger beer bottles, each holding one gross (*Argus* 19 Feb. 1855:8). Crates were larger but varied, most commonly holding two gross, but at times five or seven gross ginger beer bottles, or two-and-a half or five gross soda water bottles (*Age* 6 Feb. 1857:8, 18 Oct. 1860:2; *Argus* 1 Oct. 1851:3, 12 Mar. 1855:2;

Herald 6 Sep. 1862:2). Mats arriving from Leith once held two gross soda water bottles, so it is assumed they were some sort of container (*Argus* 27 Oct. 1848:2). Last of all, two gross ginger beer bottles could be packed into casks (*Star* 9 Feb. 1859:3). The number of bottles in a standard barrel size did not always appear to be consistent or logical. For example, one tierce, which is normally a smaller size than a hogshead, was once advertised as containing approximately eight gross of soda water bottles (*Argus* 20 Nov. 1861:2). As for the packaging material used around the bottles, this was revealed in an incident report. Lightning had struck a ship's mast, then found its way into the hold and set fire to the straw in a crate of ginger beer bottles (*Port Phillip Patriot and Morning Advertiser* 7 Aug. 1847:3).

Bottles were imported full also. Melbourne merchants Balfour, Down & Co. listed 100 gross soda water in bottles for sale, which had arrived on the ship *George Marshall* from London (*Age* 11 Apr. 1855:1). There were many references to soda water being imported by the cask, but whether in bottles or not was not made clear. However, the gaseous nature of soda water and ginger beer meant the beverages were probably always contained in bottles before being packed into their casks, as wooden casks alone are not suitable as a pressurised container for holding carbonated water.

The cost of bottles

Table 5: An example of comparable prices for soda water and its bottles. (Sources: *Argus* 7 Dec. 1855:3; *Geelong Advertiser and Intelligencer* 2 Jul. 1855:3; *Mount Alexander Mail* 21 Sep. 1855:3)

1855 prices	Per dozen	Advertisement/Notice placed by
New soda water bottles	3s 4d	Merchant, Melbourne (40s per gross), 1855
Soda water	3s 6d	Pulbrook, Geelong, 1855
Charge for bottles not returned	7s	Castlemaine manufacturers, 1855

Bottles were a considerable expense for soda water manufacturers. The prices in Table 5 show that the cost of new soda water bottles in 1855 was only marginally less than the soda water product itself. Unlike spirits, where the cost of the product may have far outweighed the cost of the bottle, the soda water industry depended on the bottles being returned for reuse to make a profit. Unfortunately, this often did not happen, and heavy losses were a common problem. For example, Melbourne manufacturer John Jennings lost more than

£3,000 worth of bottles between 1855 and 1856. Continuous bottle losses were largely responsible for Jennings' insolvency in 1858 (*Argus* 6 Aug. 1858:6). Geelong manufacturers Phillip Maine and James Alder were not alone in finding it necessary to charge for non-returned bottles, after they had suffered a continuous deficiency in the number of those returned (*Geelong Advertiser and Intelligencer* 7 Sep. 1852:2). A compounding difficulty was the market shortage of replacement bottles at the time and their corresponding high price. The prices Maine and Alder charged, 6s per dozen for soda water and 3s per dozen for ginger beer bottles, shows the replacement cost of the two were quite different.

The high value the manufacturers put on their bottle stock meant that others learnt to recognise that value. The theft of bottles was a serious offence. Unfortunately, most bottles were unbranded during this era, which meant the manufacturers they came from could not always be identified, if allowed to be mixed. In a Woolshed case, manufacturer John Hattersley accused another manufacturer, James Stirling, of purposely stealing Hattersley's empty bottles from the local hotel (*Ovens and Murray Advertiser* 1 Jan. 1857:2). In another instance, apparently destitute children in Bendigo were in the habit of stealing bottles to sell to tradesmen, in exchange for food (*Bendigo Advertiser* 30 Mar. 1859:3). Many soda water and ginger beer manufacturers suffered from bottle losses, particularly if they had not charged for non-returned bottles.

Clearly soda water companies depended on their customers to return their bottles for reuse. The term reuse describes a bottle returned for refilling, as distinguished from recycling, which places the bottle back into the glass manufacturing system. As manufacturers largely supplied to the trade rather than the public, they often depended on the bottles being placed aside for the manufacturers to collect. However, the issues mentioned above largely stemmed from inefficiencies in this system.

Bottle dealers and collectors

In their studies, Busch (1987), Woff (2014, 2019) and Ellis and Woff (2018) collectively discuss bottle reuse and the practices and archaeological signature of second-hand bottle merchants, with Adrienne Ellis and Bronwyn Woff using examples from Melbourne between 1875 and 1914. Further detail on bottle merchants was discovered during this

survey of the soda water industry. Second-hand bottle dealers were found to exist in Melbourne by 1855. For instance, a 'Rag Depot' advertised 7 gross ginger beer and soda water bottles for sale in the November, then 18 months later these scrap dealers wanted a variety of cast-off products, including bottles (*Argus* 1 Nov. 1855:6, 14 Mar. 1857:1). General dealers, the Dath Brothers, also sold lemonade and ginger beer bottles while advertising for scrap (*Argus* 16 Sep. 1857:1). During the survey process, it was not easy to define whether bottles advertised were old or new. However, Ellis and Woff (2018) state that both bottle dealers and marine stores dealt with second-hand bottles. Both categories included listings in the Melbourne commercial business directories by 1857 (Sands and Kenny 1857:140, 158). One of the marine store dealers, Agorio & Co, advertised lemonade and ginger beer bottles at 1s 6d per dozen, half the cost shown in Table 5 for new bottles (*Argus* 31 Oct. 1857:7). Clearly, the cost and convenience of these businesses would have ensured the custom of soda water and ginger beer manufacturers wanting to replace their bottle stock. The trade in second-hand bottles encouraged bottle gatherers. Opportunities for the gatherers existed because bottles were often cast aside. In one instance in Bendigo's White Hills, enough empty bottles had accumulated for a person to gather them by the cartload (*Bendigo Advertiser* 22 Dec. 1858:2). This type of bottle collector may have existed in many communities.

Other uses for soda water or ginger beer bottles

Although soda water and ginger beer bottles were more likely to be refilled with the same purpose than other forms of beverage bottles, other uses for them did occur. A soda water bottle could be utilised simply as a container, for a variety of solid or liquid items. Numerous accounts of the bottles being refilled with alcohol occurred, particularly in sly-grog shops, where alcohol was sold without a license. In this context, a bottle could also be employed as a well-understood colonial symbol. For instance, one observer recounted, 'Over the posts outside several huts was to be seen a ginger beer bottle, with a pipe stuck in it', which implied it was a sly-grog shop (*Port Phillip Gazette and Settler's Journal* 9 Sep. 1848:2). It appears that the worry and cost to soda water manufacturers from bottle losses, was not only due to bottle breakage, but also bottles being appropriated for other means.

Implications (Summary)

The survey data shows that there were minor bottle variations in addition to the standard bottle forms used over the period. Glass aerated water bottles used during the study period all appear to have been imported from Britain. Most bottles were unmarked; therefore there is difficulty in identifying soda water manufacturers from these bottles. The pottery was more likely to be marked than the glass. However, the marks on ginger beer bottles are more likely to be that of the potter, rather than the ginger beer maker.

Chapter 7. Melbourne's manufactories

Introduction

This chapter presents the soda water manufacturers identified during the research who existed within the urban district of Melbourne. Melbourne's settlement history will be briefly outlined first to provide the background context. Next, a timeline in three parts will provide a visual summary of when the manufacturers existed, how long they lasted and any relationships to one another. Additionally, a table of manufacturer date ranges is included for archaeologists to use as a quick and easy reference. A third reference consists of a series of maps containing the locations of the manufactories, where it was possible to identify them from the data collected.

Following these details will be discussions of the manufacturers in relation to Melbourne's settlement and development, discussions which are divided between the pre-gold rush era and after its commencement. In both these periods, settlement activities directly affected the location of soda water makers, whilst events affected their numbers. One section will address the spatial relationship between makers and hotels, who were natural trading partners. Another section will examine those who combined the manufacturing of beverages with another business. These were the makers who pioneered the soda water industry in Melbourne.

In the practice of using history to inform archaeology, this data drawn from historical research can be used to inform archaeology in two ways. Firstly, the known locations of former soda water makers can affect the initial assessment of the site if it is under investigation. Secondly, date ranges provided for businesses—and therefore, any of their marked bottles—will prove to be useful for analysis.



Melbourne's beginnings

Several circumstantial and geographical factors influenced the location of Melbourne's settlement. First, the town became settled

in 1835 to service an extension of the pastoral industry from Van Diemen's Land (Lewis 1995:20). A suitable site for settlement was chosen along the Yarra River, close to where a rocky waterfall reef marked the change between fresh and salt water, below which was a wide pool large enough for ships to turn around (Lewis 1995:25). The readily available fresh water was a requirement. The north side of the riverbank was naturally preferable to the swampy southern bank. In 1837, Robert Hoddle chose to survey the town plan as situated between Batman and Eastern Hills, parallel to the Yarra River (Lewis 1995:26).



Figure 41: Key Melbourne locations compiled from several historical maps (Fawkner 1841; Green 1900; Mason 185[?]), showing the major ports and settlements, as at the late 1850s. The scale and proportions are approximate. (Sources: National Library of Australia, State Library of Victoria)

In what would become a familiar pattern for other settlements in Victoria, the Europeans had chosen a settlement site that was already a meeting place or camp for the traditional owners of the land. Melbourne was established on the land of the Woi wurrung and Boon wurrung clans, both being language groups of the Kulin nation (Presland 2010:11–12). During social and spiritual gatherings of the East Kulin people, each language group (Boon wurrung, Taung wurrung, Woi Warrung and Watha wurrung) would camp in their different

traditional locations, where fresh water from the Birrarung (Yarra River) and nearby wetlands was available (Presland 2010:40). Although the groups still gathered in their traditional places during the settlement's early years, the settlers' destruction of local vegetation caused a relocation of the camps from the late 1840s (Presland 2010:40–41).

For the Europeans, their minor settlement sites Williamstown and Sandridge were important for strategic reasons. According to Lewis (1995:19), the former was practical in terms of shipping communication, customs, and military protection of the Melbourne area. A small settlement developed in Sandridge (now known as Port Melbourne), which was often the preferred dock for larger ships to disembark passengers, rather than the ships having to navigate a difficult and busy Yarra River (Lewis 1995:35–36). By 1839, people were able to access Melbourne from Sandridge by a combination of road, then punt or ferry at the Yarra River (Annear 1995:21). A wooden toll bridge over the Yarra was opened in 1845, then the first stone-built bridge in 1851, facilitating easier access from the north to the south side and the settlement of the latter (Lewis 1995: 35).

The gold rushes from 1851 onwards triggered massive changes in Victoria, including a sharp increase of settlement in Melbourne. A great flow of people arrived at Sandridge on their way to the goldfields, the dramatic increase in activity causing a transformation of Melbourne. To the city's north, the suburbs of Collingwood and North Melbourne had been established before this activity but became more densely populated afterwards. The influx of gold immigrants was far greater than the accommodation available for them in Melbourne, so tents became a common sight in town (Lewis 1995:39). Emerald Hill, set on a grassy rise on the other side of a swamp from the city, was originally set aside for this use (Lewis 1995:39). The gold traffic was directly responsible for the urban development of another suburb, Essendon. It was suitably positioned along the way to the Mount Alexander goldfields.

Hoddle's rectilinear city grid with its uniform layout was designed with wide main streets and narrow rear access laneways. However, the many subdivisions after the first land sales in 1837 meant that the laneways required further lanes and rights-of-way off them to service all the properties (Annear 1995:25). Bate (1994:12) likens the eventual network to arteries with capillaries. The original surveyed lanes had become utilised as streets, with buildings fronting them. Therefore, Collins Lane, Bourke Lane, and Lonsdale Lane were renamed

Little Collins Street, Little Bourke Street and Little Lonsdale Street, reflecting their original narrowness and use as streets (Annear 1995:26). As this Melbourne became more compacted, soda water makers often carried out their businesses ‘behind’ hotels and other landmarks, their addresses sometimes given as ‘off’ a street, meaning down a lane or right-of-way.

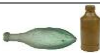

The soda water makers of Melbourne

A timeline for the Melbourne soda water manufacturers identified in this study is shown in three stages, between Figure 44, Figure 45 and Figure 46. One hundred and five separate businesses were identified for the study period across 93 sites: 62 businesses in the Melbourne city area, 12 in Collingwood, five in Williamstown, two in Sandridge, six in Prahran, three in Richmond, two in Flagstaff Hill, six in North Melbourne, two in Essendon, with one each in East Collingwood, Hotham, Emerald Hill, Punt Hill and Windsor (Table 6). These numbers include the multiple premises for the makers that had them. The locations of five businesses remain unknown. Of the 105 businesses, only 24 per cent (n=25) advertised their products or business in one or more newspapers. These mainly were to introduce the business or announce a new address or reopening. Another 6.7 per cent (n=7) advertised only in newspaper business directories. Seventy per cent (n=31) of the soda water makers operating between 1857 and 1863 were listed in the annual commercial directories for Melbourne. Of the remaining 30 per cent not listed, some were near the end of their soda water business activities in 1857. References to manufacturers were the most common in newspaper classified advertisements, where data was found for 55 per cent of the manufacturers identified (n=58). Ten per cent (n=11) were only referred to in general notices, news or law reports, and a remaining 5.7 per cent (n=6) identified only from dissolution of partnership notices. Of the 105 businesses in total, 15.2 per cent (n=16) were made up from partnerships that dissolved while another 10.5 per cent (n=11) were declared insolvent at some stage (John Jennings, twice) or sold to pay creditors. These notices and law reports were normally included in the newspapers. The low numbers (24 per cent) of manufacturers advertising their products once the business was established shows that they largely found it unnecessary.

Table 6: List of manufacturers established in the Melbourne district by 1863. Some dates for manufacturers continuing to operate later have been added and marked with *. Those with locations that are drawn on maps later in this chapter are marked with [△]

Manufacturer	Address, Melbourne unless otherwise stated	Branded Bottles?	Date from	Date to
Andrade, E.	Cambridge St, Collingwood [△]		1854	
Atkinson & Stewart	144 Flinders Lane east [△]		1855	1855
Atkinson & Elliott	144 Flinders Lane east [△]		1855	1856
	50 Lt Bourke St east [△]		1856	1864
Barton	Ballaarat St, East Collingwood			1860
Brandreth, Henry	44 La Trobe St west [△]		c. 1853	1855
Brown, William	Crystal Palace, Lt Bourke St west [△]		1858	
Bruce, George	152 Lt Collins St east [△]		1855	1864
Burke, T.	226 Swanston St [△]		1855	1856
Butiment, Thomas	Lt Nelson St, Williamstown		1858	1862
	Stoke St, Sandridge [△]		1858	1864
Candy, William	129 King St [△]		1855	1856
Chapman, James	Essendon		1857	1858
Clay, Wilkinson & Co.	64 La Trobe St east [△]		1852	
Connell, Hugh	George St, Collingwood [△]		1857	1858
Constantin & Cohu	42 William St [△]		1856	1857
Cohu & Carmody	42 William St [△]		1857	1857
Cohu, Andrew	42 William St [△]		1857	c. 1863
*	24 ½ Lt Collins St		c. 1863	1885
Cook, Robert	City Buffet, 112 Bourke St east [△]		1858	1862
Coverlid, John	216 Church St, Richmond [△]		1855	c. 1867
Crellin, William	Victoria Temperance Brewery, 100 & 102 Bourke St east [△]		1862	1862
Dawbarn, William	Right-of-way (Wright's Lane), 34 Lonsdale St west [△]		1857	c. 1877
*Dawbarn & Co.	Rouse St, Sandridge		1865	
Dixon & Cassidy	Rosslyn St, Flagstaff Hill [△]		c. 1853	c. 1854
Dixon, P.G.	Rosslyn St, Flagstaff Hill [△]		c. 1855	1914
Edwards	Oxford St, Collingwood [△]		1854	1855
Ellis, J.E.H.	Rouse St, Sandridge [△]		1854	
Evans, James	Punt Hill, Punt Rd, South Melbourne/ Yarra		1855	1856
Featley, John	Russell St		c. 1852	
Field & Kent	Cnr Queen and Lt. Bourke Sts [△]		1846	1846
Field, F.T.			1846	
Flanagan, James F.	Francis St, back of Catholic Chapel / Lt Lonsdale St [△]		1852	
	26 La Trobe St [△]		1853	1867
Flanagan, William	39/41 Lt Lonsdale St [△]		1858	1866

Fouracre & Whitehead	Glasshouse, Collingwood [△]	1852	
Freeth, Henry	Lygon St, North Melbourne	1857	1861
Frith, Charles	227 Swanston St [△]	1859	1859
Gibson, W. & Co.	Albert St, Windsor [△]	1854	1855
Gill & Menzies	Exhibition Soda Water Manufactory, 169 Lonsdale St west [△]	1853	
Graves & Purdy	Napier St, Williamstown	1854	
Greig & Co.	185 Swanston St ([△] see Roche)	1861	1862
Habberlin, William	Williamstown		1855
Habberlin & Murcutt	King St [△]	1852	1854
Harrington, H.G.	Collins St	1841	1842
Harrison Brothers	163 King St [△]	1852	
Havilah Store	Errol St, North Melbourne [△]	1854	1855
Hodgkiss, William	4 Lt Bourke St west	c. 1850	1857
Hood, John	Collins St west	1844	
Hopkinson & Co.	Brewer St / Upper Dandenong Rd/ High Holborn Rd/High St Prahran [△]	1854	1860
Horneman & Co.	Essendon		1857
Jennings, John	McKillop St / 52 Bourke St west [△]	1841	1858
Jennings & Morris	High St, Prahran [△]	1862	1862
* Jennings & Sidey		c. 1863	1865
Joel, S. & M.	85 Flinders St east [△]	1853	1854
Polak & Joel	85 Flinders St [△]	1854	1855
Knight, Edward	Next to Star & Garter Hotel, (Bridge Rd) Richmond [△]	1854	c. 1858
Letchford, Frederick	Napier St, Collingwood [△]	1854	1858
	La Trobe St, opp. Menzies Hotel [△]	1856	1857
Letchford & Raper	Napier St, Collingwood [△]	1857	1858
Lovelock & Sanders		1852	
Sanders, James	Cnr Lt Collins St [△]	1852	
Lowe, George G.	32 Bourke St east [△]	c. 1857	1864
McAdam, James	Stephen St north (Exhibition St) [△]	1852	1854
McAdam, Mrs	79/89 Cardigan St, Nth Melbourne [△]	1854	1864
McDougall, T.W.	Back of Steam Packet Hotel, Williamstown [△]	1854	c. 1856
	Behind Bull & Mouth [△]	1856	1858
McDowell, Alex	5 Rathdowne St, Nth Melbourne [△]	1861	1861
McGrath	134 Lt Bourke St west [△]	1852	1853
McKeever, Bernard	Flinders Lane	1841	
	Bourke St	1846	1847
McLaughlin, J., J. & W.	Patrick St, off Lonsdale St [△]		1854
McLaughlin, J. & J.	Patrick St, off Lonsdale St [△]	 1854	1866

McLean, James		1853	c. 1854
McLean & Baldwin			1854
McLean & Hamilton	Stephen St (now Exhibition) [△]	1854	1855
McLean, James	Union Place, 208 Stephen St [△]	1855	1859
McLean, Thomas	5 Rathdowne St, Nth Melbourne [△]	1860	1860
McNichol, Stuart	Lt. Nelson St, Williamstown	1859	1861
McWey, John	Off Bourke Lane	1847	c. 1849
Makinson, John B.	Alfred Place, Lt Collins St	1860	1860
Marshall's	Back of Capt. Hutton's residence, Collingwood	1854	1856
Mills, John	Lt Flinders St [△]	1839	1841
Morris & Co.	High St, Prahran [△]	1861	1861
Murcutt, Robert	87/91 Lt Bourke St west [△]	1854	1861
Murcutt & Phillips	87/91 Lt Bourke St west [△]	1856	1857
O'Shea, Michael	Lt Bourke St	1846	c. 1849
	Cnr La Trobe & Stephen Sts [△]	c. 1849	1849
Palmer, J.F.	Flinders Lane [△]	1841	c. 1842
Plummer, W. & Co.	Cnr Collins & Queen Sts [△]	1842	1842
Prevôt, E.J. & Co.	11 Madeline St [△]	 1854	1878
	50 Napier St, Collingwood [△]	1858	1859
	Phoenix Cordial factory, 120 Queen St [△]	1860	1864
Puettelkow, August	100 Bourke St east [△]	1859	1861
Purnell, Thomas	Bourke St west [△]	1855	1858
Pyke, Vincent		1852	
Reeves, Gordon & Co.	Victoria St, Nth Melbourne	1854	1854
Rimington & Co.	144 Flinders Lane east [△]	1852	1855
Roche, Michael	185 Swanston St [△]	 1849	1861
Shaw, John & James	York St, Emerald Hill	1855	1863
Shepherdson & McDougall	97 Lt Bourke St west [△]	1853	1854
Shepherdson, J.B.	97 Lt Bourke St west [△]	1854	1855
	La Trobe St east [△]	1855	1856
Simpson, George	91 Lt Bourke St west [△]	1861	1867
Simpson, William	175 Swanston St [△]		c. 1853
Simpson & Harper	Near the Swan, Richmond	1853	
Smith, G. & Co.	Near Will's, Butcher, Prahran	1853	
Spencer, A.W.	Elizabeth St	1852	
Strike, John & William	Blackwood St, Hotham [△]	1862	
Sutherland, James	Near Worrall's Store, Prahran		1853
Tayler & Doherty	Glasshouse, Collingwood [△]	1853	1853
Thompson, James	Collingwood	1855	
Watson, R.C.	Adjoining the Balmoral Arms, Prahran [△]	1854	1855

Watts, J. & Co.	Madeline St, Nth Swanston St	1854	1854
Whelan & Summons			1854
Summons, Everitt		1854	
Wilson & Co.	114 Fitzroy St, Collingwood [△]	1857	1857
Wilson, Charles	114 Fitzroy St, Collingwood [△]	1857	1861
Wilson, Robert & Co.	Cnr Queen & Collins Sts [△]	1840	1841
Total Companies	105		

It was uncommon for a soda water business to advertise its wares, which caused difficulties in identifying some businesses or their addresses. The information contained in the annual commercial directories was vital to supplement that found in newspapers. It was often necessary to combine evidence from news or law reports with evidence unrelated to the

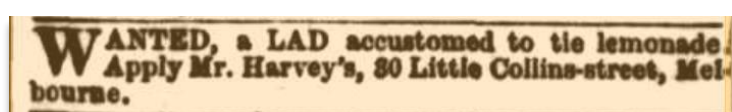


Figure 43: Richard Harvey was a supplier of soda water and ginger beer bottles and corks. Here, his business is used as a secondary contact for a soda water business (Source: Argus 27 Jan. 1860:1)

industry to piece together enough information from the data, before identification of a maker was possible. A compilation of multiple small clues was sometimes necessary.

In other instances, the use of secondary contacts to advertise—‘staff wanted’—for example, prevented the identification of an unknown number of soda water makers (e.g. Figure 43). Makers used different business landmarks such as hotels, chemists, and stores as secondary



Figure 42: 1900 Green map of early Melbourne showing original crown allotments, with the location of Dixon's manufactory in West Melbourne (marked in red). (Source: State Library of Victoria)

contacts. Two main possibilities spring to mind regarding this purpose: the density of manufacturers suggests competitiveness and therefore secrecy in dealings; and a physical business would be easier to find via the main street address. It could also be a result of the relationships that developed between a soda water maker and supplier. For example, at least one maker used chemist and druggist Robert Glover as a contact when advertising for staff. Upon Glover's death, such was

his connection to soda water maker Phillip Dixon, that Dixon was named as an executor for the chemist's will (*Argus* 28 Nov. 1855:1; 13 Jun. 1859:8). It is worth noting that Glover was the original purchaser of Dixon's block in 1852, being Allotment 14 in Section 49, according to the Melbourne -2A parish plan (PROV, VPRS 16171/P0001/6, M11 5514). Therefore, the relationship between the two probably began when Dixon started his manufactory in that location (Figure 42, Figure 47).

The first decade of soda water and ginger beer makers

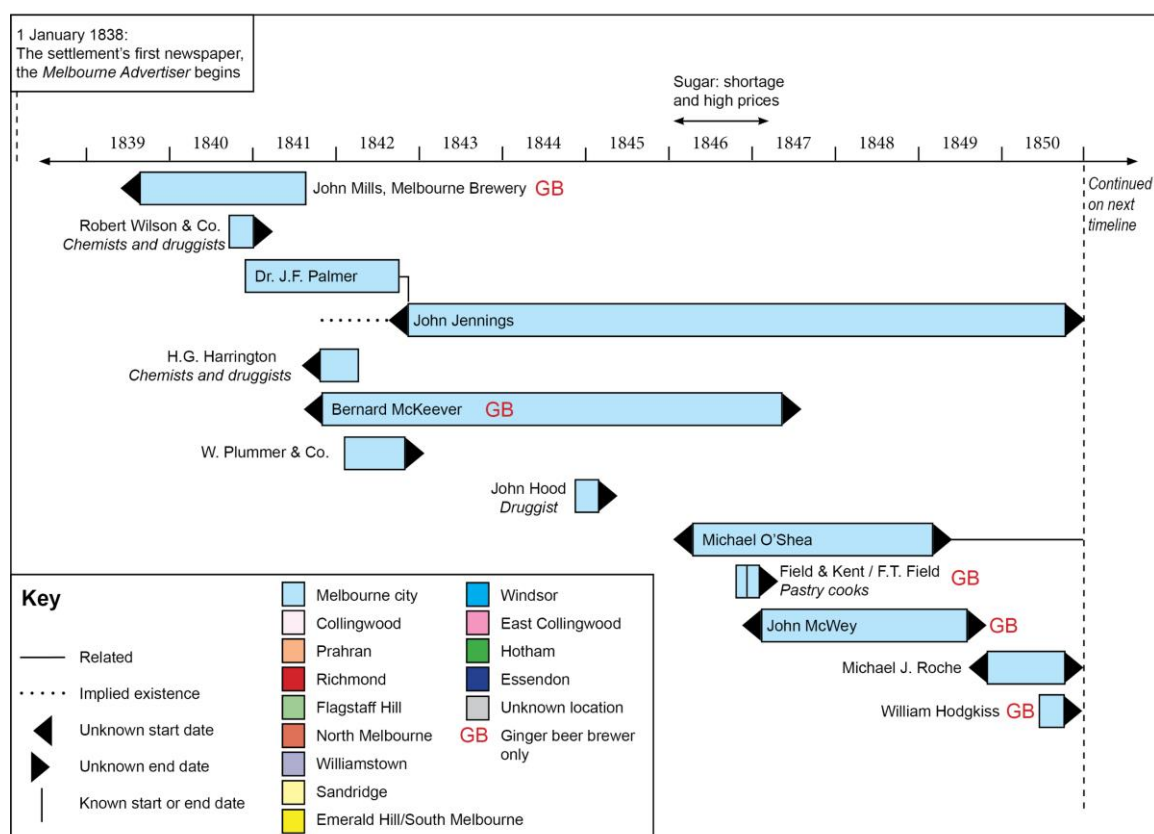


Figure 44: Timeline of soda water manufacturers established in the Melbourne district prior to 1851.

During the 1840s in Melbourne, the making of soda water was commonly only part of a more diverse business. This is partly illustrated in Figure 44. Three of the makers were primarily druggists, a logical occupation to introduce the soda water business to the colony, considering the chemical process of creating carbonic gas to make soda water. Of these, Wilson & Co. sold soda water, both wholesale and direct to the public from a fountain (Kerr 1841:286). A fourth maker, James Palmer, opened his soda water manufactory while practicing as a surgeon (*Leader* 16 Aug. 1862:13). Within months, he expanded his

business as a merchant and storekeeper. Two companies made ginger beer as part of a larger business. Field & Kent advertised as pastry cooks and fancy biscuit makers, while John Mills made ginger beer a part of a larger product range at his Melbourne Brewery (*Melbourne Argus* 2 Oct. 1846:3; *Port Phillip Gazette* 24 Aug. 1839:2).

As mentioned previously, ginger beer makers have been included in this study because often they were also soda water manufacturers, but sometimes only referred to as ginger beer makers as an umbrella term. Bernard McKeever and John McWey made ginger beer in the 1840s as their only product, then William Hodgkiss made both ginger and spruce beers in 1850 (Figure 44). Several makers brewed only ginger beer, which did not require the machinery to make soda water. One 1857 newspaper article discussing Melbourne's foundation stated that John Pascoe Fawkner was the first to brew ginger beer in the colony, presumably at his hotel (*Argus* 1 May 1857:6). However, no contemporary evidence was found to confirm this, so Fawkner has not been included in this survey. Apart from Palmer, four makers remain whose primary or sole business was the manufacture of both aerated waters and ginger beer. This includes John Jennings, who worked with Palmer before taking over his business (*Leader* 16 Aug. 1862:13).

The soda water makers of the gold rush era (until 1862)

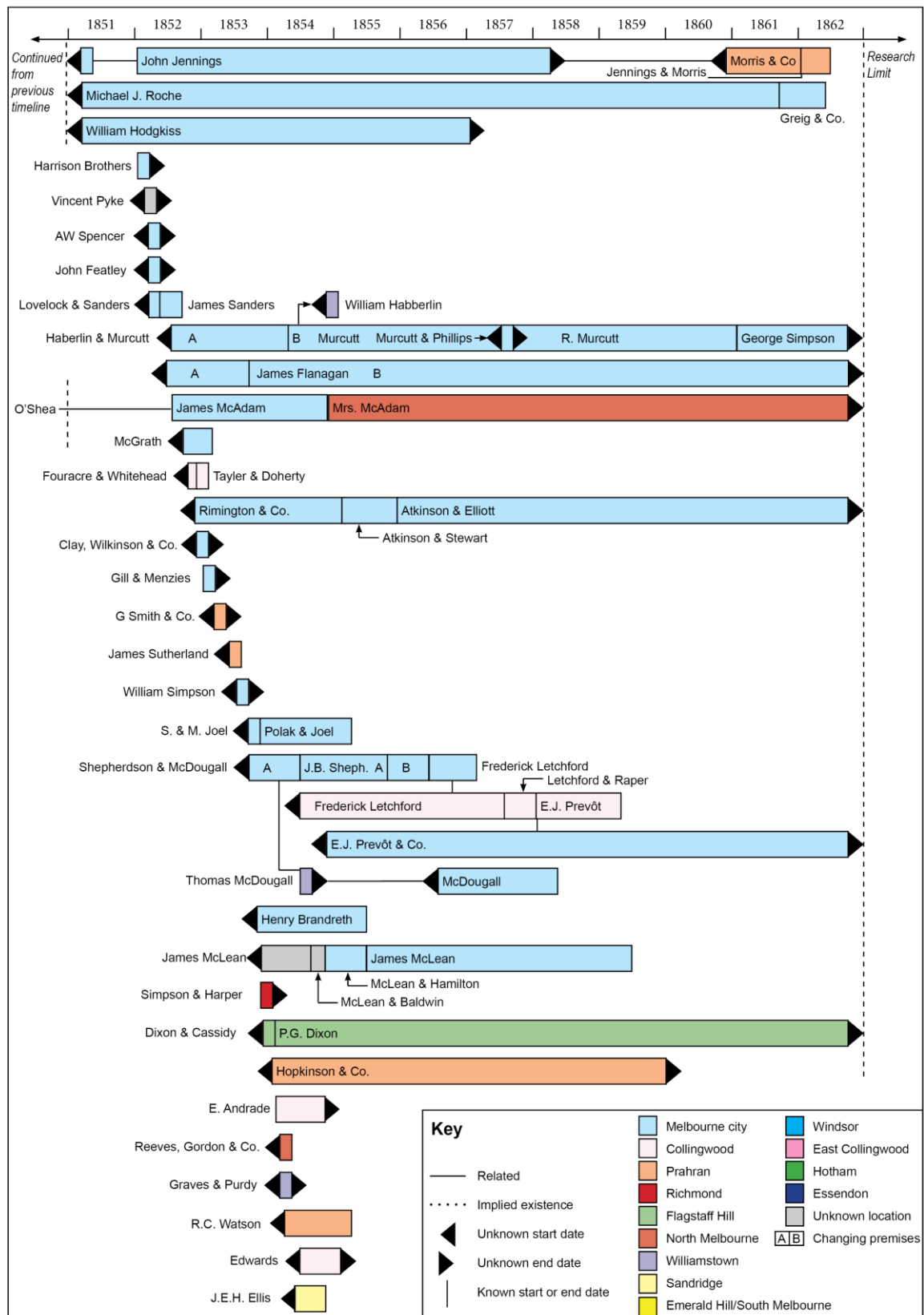


Figure 45: Timeline of soda water manufacturers established in the Melbourne district during the study period, after 1851: Part 1.

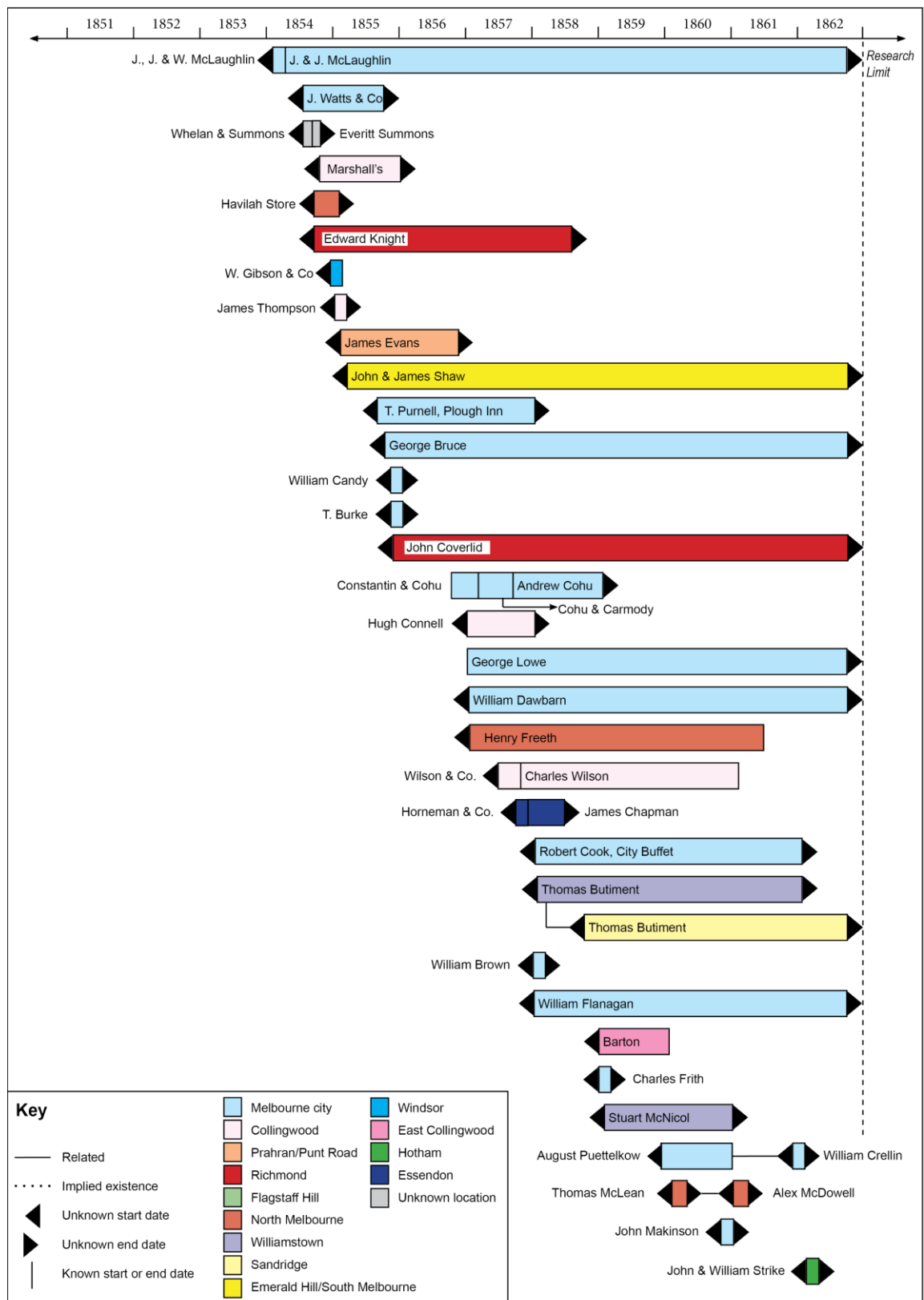


Figure 46: Timeline of soda water manufacturers established in the Melbourne district during the study period, after 1851: Part 2.



Figure 47: Dixon's Rosslyn Street factory, North Melbourne. Note the lowering system for packing the spring carts. (Photo: Cox and Luckin 1861. Source: State Library of Victoria)

From 1851 onwards, once the gold rushes began, Melbourne changed from a pastoral town centre into a city. Victoria's and Melbourne's population boom correlated with a rapid

Year	Population	Manufacturers
1841	4479	2
1846	10954	3
1851	23143	3
1854	73801	18
1857	99672	11
1861	126536	13

Figure 48: Number of soda water and ginger beer manufacturers, and the population of Melbourne (inclusive of Williamstown), according to Victorian census statistics, as at March or April each year. (Sources: Age 6 Jan. 1855:4, 6 Dec. 1862:6; Argus 8 Aug. 1851:2, 24 Jun. 1857. 8 Aug. 1851:2; Port Phillip Gazette and Settler's Journal 23 May 1846:2; Port Phillip Patriot and Melbourne Advertiser 20 May 1841:3)

increase in soda water and ginger beer manufacturers. Figure 48 shows that only three manufactories were active in the pre-rush population measured in March 1851. By the same time in 1854, 18 manufacturers were in operation across Melbourne. In between, many soda water makers existed for a short period only (Figure 45). This was a time of opportunity, not only in the chance to strike it rich finding gold but also to capitalise on the number of people that gold success lured into Victoria. Business speculation was high in a dynamic, rapidly changing period. The short-term soda water makers reflect the character of this time. They may have left to try their luck in the goldfields,

found the business was not as profitable as expected, left prospecting in favour of other opportunities, or simply entered the manufacturing business ill-prepared. By April 1857, although the population had continued to increase in Melbourne, the number of manufacturers had dropped since 1854. Compared to 1.3 makers to 10,000 persons in 1851, then 2.4 per 10,000 in 1854, the proportions were 1.1 in 1857, then one maker per 10,000 persons in 1861. The larger manufactory proportions of 1854 may have created too much competition.

Manufacturers with other trades

Some manufacturers from the 1851–1862 period also supplemented their beverage making with other incomes. As mentioned earlier in Chapter Five, Frederick Letchford and Thomas McDougall advertised a range of supplies essential to the soda water business, from machinery to tartaric acid (*Argus* 2 Jun. 1856:7; *Maryborough and Dunolly Advertiser* 18 Sep. 1857:1). Edwards in Collingwood advertised dubious remedies for sale (*Argus* 1 Jun. 1854:3). For others, manufacturing soda water or ginger beer was part of a larger business. E. Andrade was a storekeeper, Robert Cook ran the City Buffet and George Lowe was primarily a tobacconist. Only one soda water maker from this period, Watts & Co., was also a chemist.

Manufactories and hotels: a co-dependency

It was common for Melbourne's soda water manufactories to be located close to hotels. Considering that these were probably the main trade customers for the makers, the locations reflect a probable co-dependency and, therefore, convenience. Nineteen (18.1 per cent) of the makers identified from the study period operated next to hotels, behind them, or even in-house. Another six (5.7 per cent) referred to their address in relation to a specific hotel. For example, when J.B. Shepherdson moved to Latrobe Street east during 1855, he referred to his new position as opposite the Menzies Hotel (*Argus* 13 Oct. 1855:7). Simpson & Harper were near the Swan at Richmond, and W. Gibson & Co., near the Junction Hotel, St. Kilda (*Argus* 8 Nov. 1853:1; 18 Dec. 1854:7). However, in the urban environment of Melbourne, it is doubtful a hotel was far from any of the soda water manufactories at any time. In addition, a busy hotel would have been good for the soda water business. Thomas McDougall operated behind the Bull and Mouth Hotel, nearly four years after the hotel was regarded as 'the great popular central tap of the day' in central Bourke Street (*Argus* 7 Aug. 1856:1; Kelly 1977:83).

Branded bottles

Extant bottles exist for only four per cent (n=4) of the identified Melbourne soda water manufacturers from the study period: P.G. Dixon, James McLaughlin, E.J. Prevôt and M.J. Roche (see Appendix C). The glass egg-shaped soda water bottles exhibit simple lettering with square-collared finishes. Clearly, this style is typical of the study period. A shipping report from the beginning of 1861 revealed that Dixon received a shipment of 35 casks of bottles from Liverpool (*Argus* 26 Jan. 1861:4). Whether glass or stoneware, a direct shipment means these were probably branded. Only Prevôt can be confirmed to have used a ginger beer bottle impressed with his own name.

Other extant branded egg-shaped bottles exhibit the names of Melbourne merchants. One example exists for Anderson & Black, who in 1851 were wine and spirit merchants with a store at Flinders Lane (*Argus* 26 Jul. 1851:3; *Melbourne Daily News* 20 Feb. 1851:2). Another was branded for Huxtable & Co., who operated a store at 49 Collins Street east, selling fancy goods (*Banner* 16 Dec. 1853:14). This company advertised ‘a few crates’ of newly imported soda water bottles for sale late in 1853 (*Argus* 3 Oct. 1853:1). These branded bottles may have been used as advertising for the business.

Mapped manufactory locations

From the evidence collected from the survey, it was possible to place several of Melbourne’s soda water manufactories on a map. These numbers were restricted, however, by several issues. There was a general lack of pre-1857 business directories available, a lack of mapped landmarks to refer to in some suburbs, or simply insufficient spatial information contained in the data. Despite these limitations, 63 manufactory locations could be identified across Melbourne. The following maps cover the separate areas.

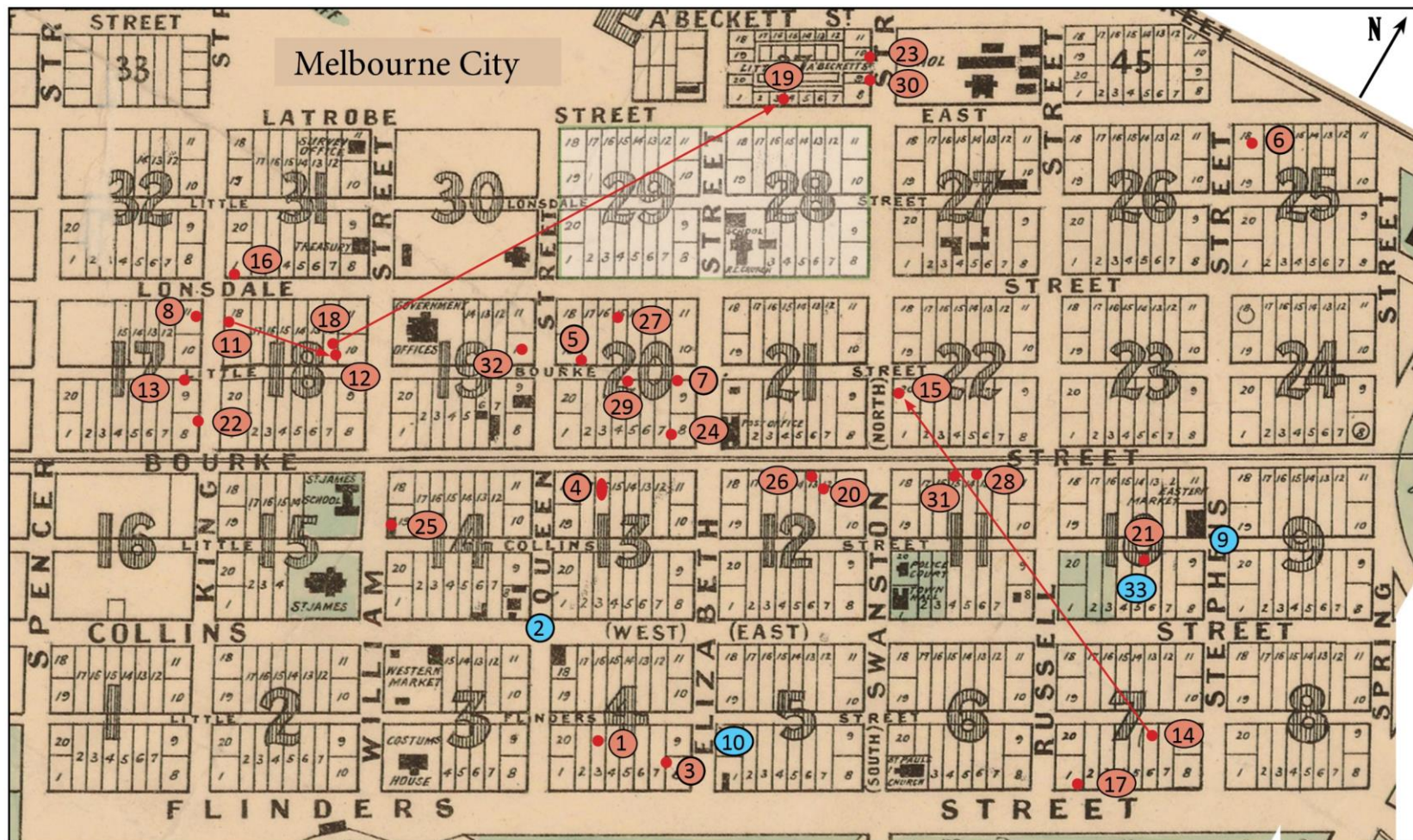


Figure 49: After Green's (1900) Plan of Early Melbourne showing original Crown allotments: Manufactory locations identified (red) or approximated (blue) in Melbourne city, obtained from a combination of commercial directories, newspaper data, maps ([?Bibbs] c. 1856; Green 1900) and parish plans. The key is on the following page. The manufactory locations in Sections 28 and 29 are shown in Figure 56. (Source: State Library of Victoria)

- ① John Mills, Brewery, Flinders Lane, 1839–1841
- ② Robert Wilson & Co., Cnr Collins & Queen Sts, 1840–1841
W. Plummer & Co., 1842
- ③ J.F. Palmer, Flinders Lane, 1841–1842
- ④ John Jennings, 52 Bourke St west; McKillop St, 1841–1858
- ⑤ Field & Kent, Cnr Queen & Lt Bourke Sts, 1846
- ⑥ (2nd site) Michael O'Shea, Olive Branch Hotel, c. 1849
James McAdam, Stephen St, 1852–1854
McLean & Hamilton 1854–1855
James McLean, Union Place, 208 Stephen St, 1855–1859
- ⑦ William Hodgkiss, 4 Lt. Bourke St west, 1850–1857
- ⑧ Harrison Brothers, 163 King St, 1852
- ⑨ James Sanders, Cnr Lt Collins & Stephen Sts, 1852
- ⑩ A.W. Spencer, Elizabeth St, 1852
- ⑪ Habberlin & Murcutt, King St, 1852–1854
- ⑫ Robert Murcutt, 87/91 Lt Bourke St west, 1854–1861
Murcutt & Phillips, 1856–1857
George Simpson, 1861–1867
- ⑬ Mr. McGrath, 134 Lt Bourke St west, 1852–1853
- ⑭ Rimington & Co., 144 Flinders Lane East, 1852–1855
Atkinson & Stewart, 1855
Atkinson & Elliott, 1855–1856
- ⑮ Atkinson & Elliott, 50 Lt Bourke St east, 1856–1864
- ⑯ Gill & Menzies, 169 Lonsdale St west, 1853
- ⑰ S. & M. Joel, 85 Flinders St east, 1853–1854
Polak & Joel, 1854–1855
- ⑱ Shepherdson & McDougall, 97 Lt Bourke St W, 1853–1854
J.B. Shepherdson, 1854–1855
- ⑲ J.B. Shepherdson, La Trobe St east, 1855–1856
Frederick Letchford, 1856–1857
- ⑳ Thomas Purnell, back of Plough Inn, Bourke St, 1855–1858
- ㉑ George Bruce, 152 Lt. Collins St east, 1855–1864

- ㉒ William Candy, 129 King St west, 1855–1856
- ㉓ T. Burke, 226 Swanston St, 1855–1856
- ㉔ Thomas McDougall, back of Bull & Mouth Hotel, 1856–1858
- ㉕ Constantin & Cohu, 42 William St, 1856–1857
Cohu & Carmody, 1857
Andrew Cohu, 1857–1862
- ㉖ George Lowe, 32 Bourke St east, 1857–1859
- ㉗ William Dawbarn, Wrights Lane (now Hardware), 34 Lonsdale St, 1857 – c. 1877
- ㉘ Robert Cook, 112 Bourke St east, 1858–1862
- ㉙ William Brown, Crystal Palace, Lt Bourke St west, 1858
- ㉚ Charles Frith, 227 Swanston St, 1859
- ㉛ August Puettelkow, 100 Bourke St east, 1859–1861
William Crellin, 1862
- ㉜ E.J. Prevôt, Phoenix cordial factory, 120 Queen St, 1860–1864
- ㉝ John B. Makinson, Alfred Place, Lt Collins St, 1860
- Manufactory locations
- ↗ Change of manufactory location

Key



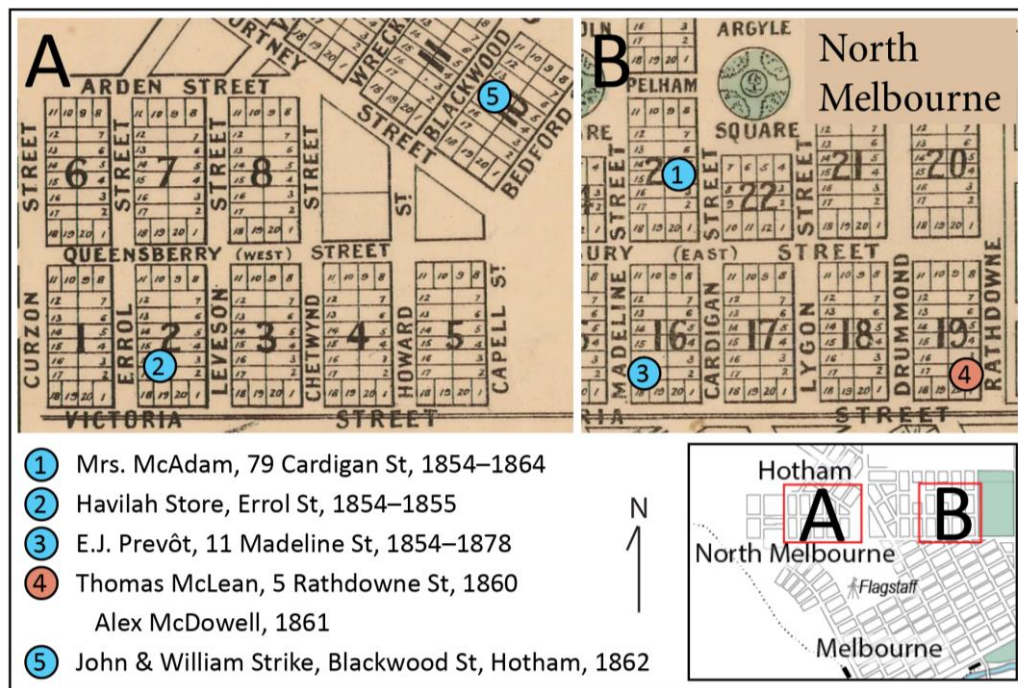


Figure 50: After Green's (1900) Plan of Early Melbourne showing original Crown allotments: Manufactory locations identified (red) or approximated (blue) for North Melbourne, obtained from a combination of commercial directories and newspaper data. (Source: State Library of Victoria)

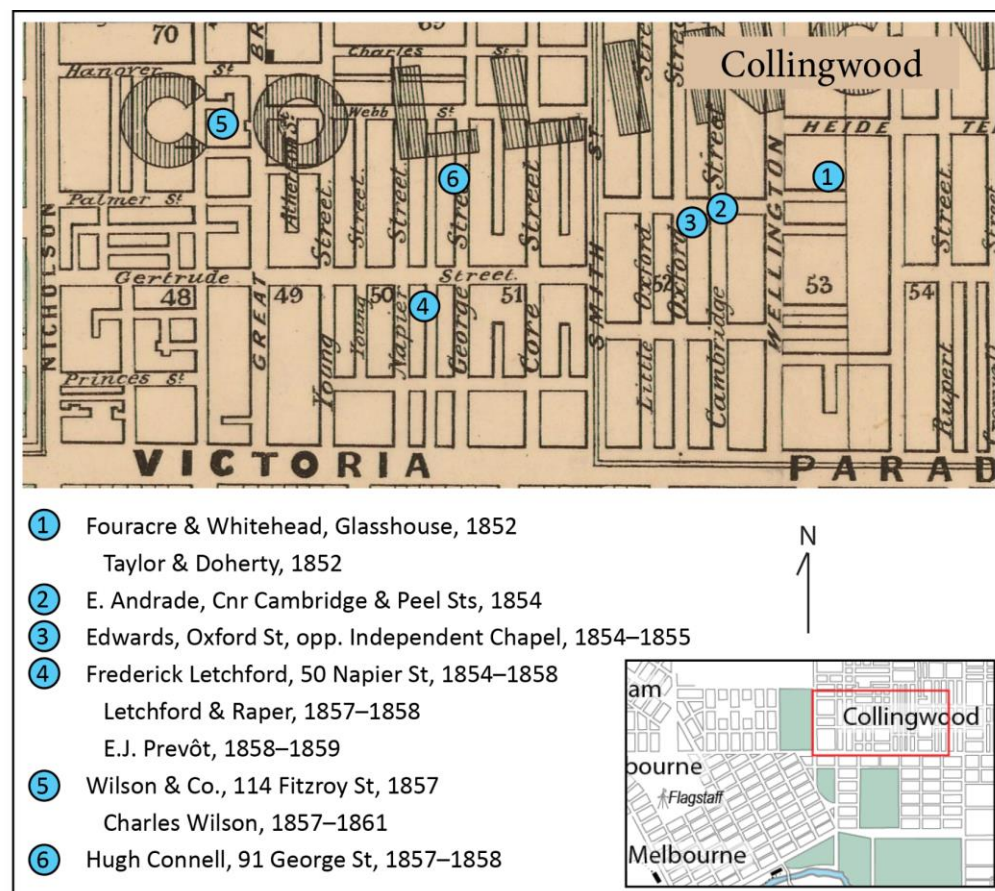


Figure 51: After Green (1900): Approximate manufactory locations for Collingwood, obtained from a combination of commercial directories and newspaper data. (Source: State Library of Victoria)

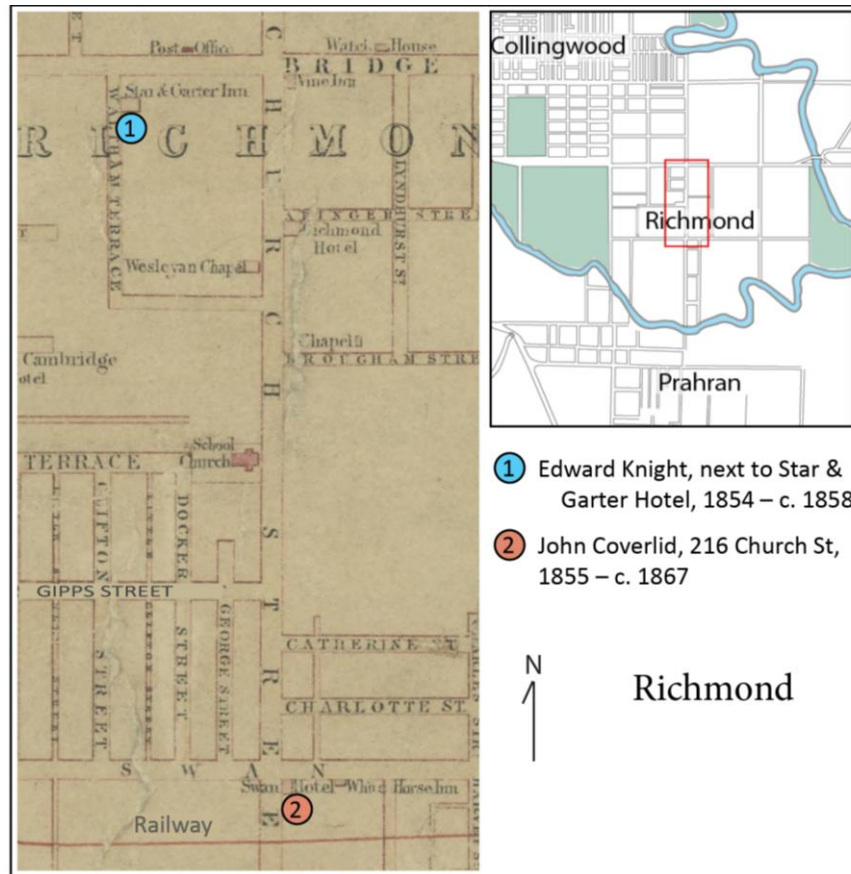


Figure 52: Manufactory locations identified (red) or approximated (blue) in Richmond, obtained from a combination of commercial directories and newspaper data. Detail, after VPRS 8168/P0002, MELBRL11, Melbourne, Doutta Galla, Jika Jika, Melbourne North, Melbourne South, Prahran [n.d.]. (Source: PROV, Historic Plan Collection)

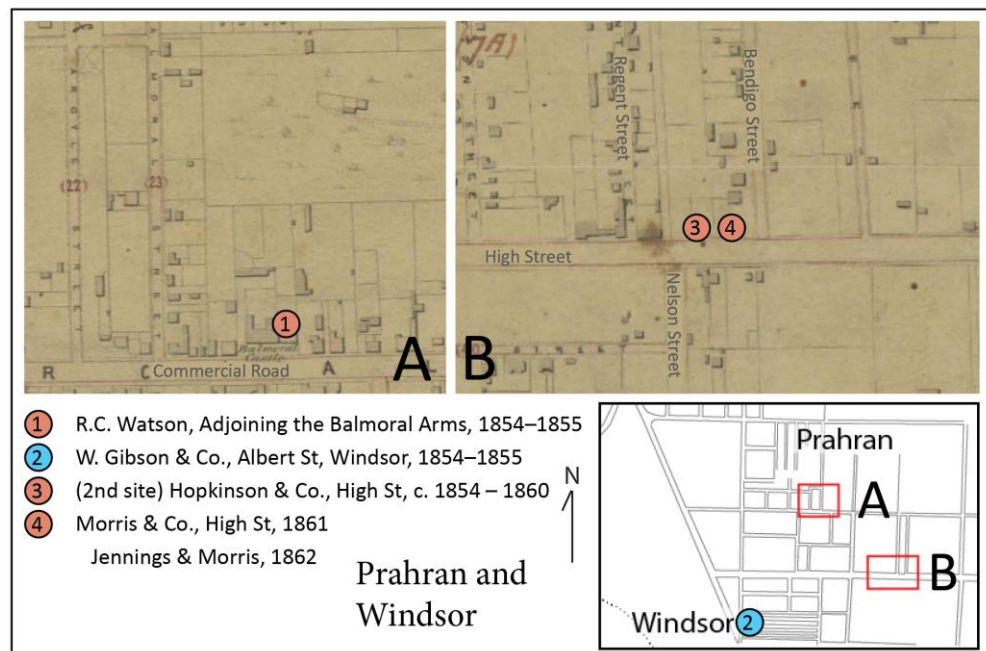


Figure 53: After Samson and Forbes (1856) map of the Prahran Municipality: Manufactory locations identified (red) or approximated (blue) in Prahran and Windsor, obtained from a combination of commercial directories and newspaper data. (Source: PROV, VPRS 8168/P0002 MELBRL19, Prahran, Historic Plan Collection)

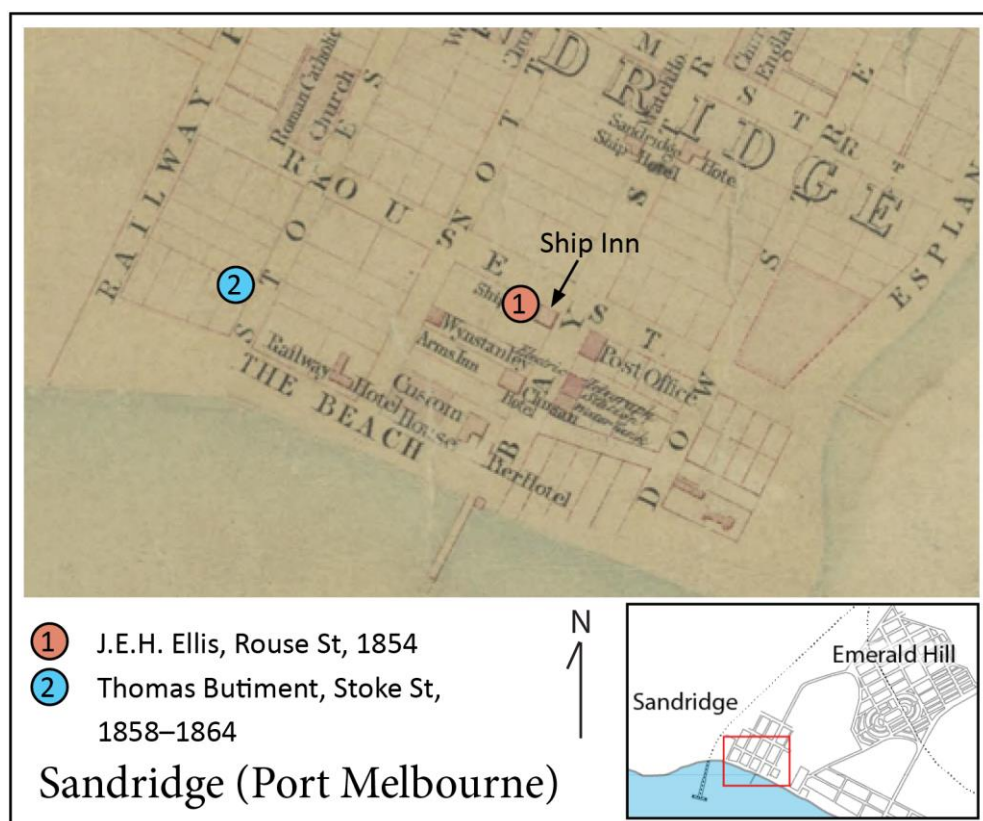


Figure 54: Manufactory locations identified (red) or approximated (blue) in Sandridge, obtained from a combination of commercial directories and newspaper data. After VPRS 8168/P0002, MELBRL11, Melbourne, Doutta Galla, Jika Jika, Melbourne North, Melbourne South, Prahran [n.d.]. (Source: PROV, Historic Plan Collection)

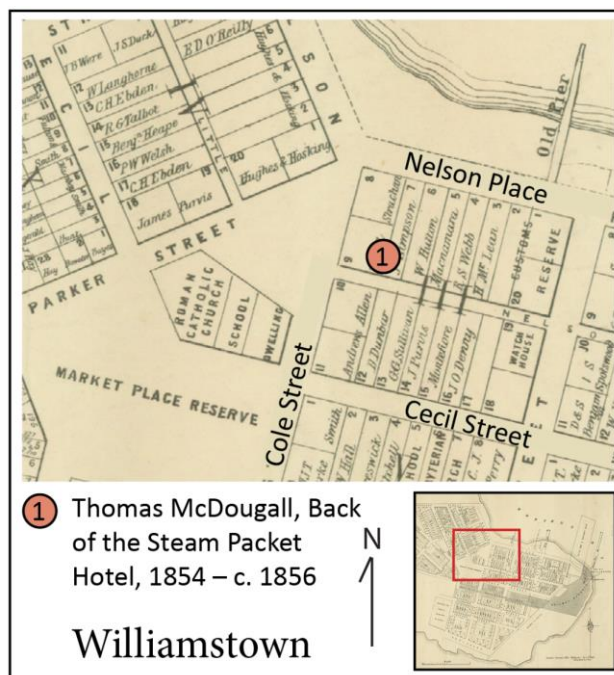


Figure 55: After 1855 Jones plan of Williamstown, County of Bourke: Manufactory location in Williamstown shown for soda water maker, Thomas McDougall, derived from newspaper data. (Source: State Library of Victoria)

Manufactories as part of the subdivisions and urban spread

The locations of the soda water manufacturers reflect the growth of a new city. In the first instance, the increasing number of suburbs over time that are represented in Figure 45 and Figure 46 meant that the soda water makers had established themselves in areas where populations had become established. Secondly, as previously mentioned, Melbourne's allotments became more densely occupied due to subdivision, which caused a multitude of

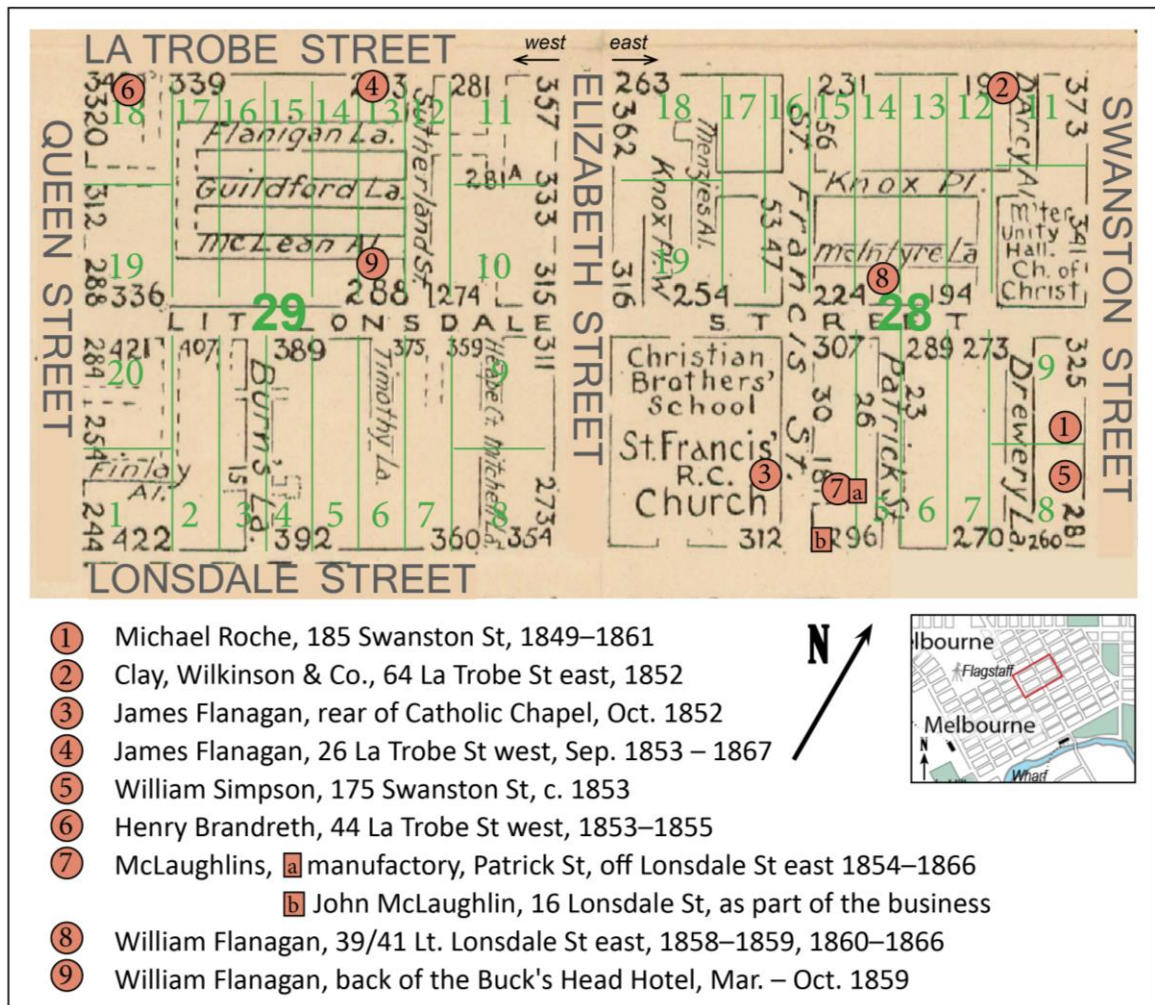


Figure 56: The approximate positions of soda water and ginger beer manufactories established within Melbourne Sections 28 and 29, between 1839 and 1862, using evidence collected from newspaper and business directories as a guide. The original numbered allotments of the Hoddle grid are shown in green, overlaying a numbered streetscape and series of laneways as per 1915. After Mason (185[?]) and Powis (1915). (Sources: National Library of Australia, State Library of Victoria)

laneways and rights-of-way to be brought into existence. Figure 56 shows two sections of original Hoddle grid allotments for Melbourne, the allotment marked in green. Typically, these were later cut in half to become quarter-acre blocks for Hoddle's 1848 model (Lewis 1995:28). The named laneways and alleyways from the Powis 1915 map used for Figure

56 are lasting evidence for the multitude of subdivisions that followed quickly afterwards. The inevitable greater density of businesses and housing meant that contemporary soda water manufactories were often in the same neighbourhood as others, occasionally in the same block. In Figure 56, the approximate positions of manufactories from the study period show that boarding-house keeper William Simpson (5) was located close to Michael Roche's manufactory (1) on Swanston Street, which had been long established. Perhaps the competition caused Simpson's ginger beer efforts to be brief.

It was not always clear from the data whether some manufactories occupied street frontage or were only accessible from lanes. A stated main street address could have referred to a

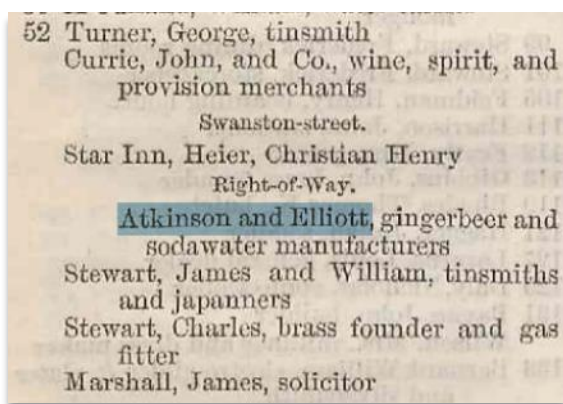


Figure 57: The listing of Atkinson & Elliott in the 1857 Melbourne business directory at Lt. Bourke Street. A lack of a street number and indentation for a business listing often referred to those down lanes or rights-of-way. (Source: Sands and Kenny 1857:22)

laneway accessed property. In one example, James Flanagan's second address (4) was 26 La Trobe Street, but it is possible that Flanagan's Lane (Figure 56) was named after the soda water maker because he operated at that location. Alternatively, having a numbered address at La Trobe Street in the commercial directories probably meant frontage to that street, particularly when compared to the next example. As per Figure 57, Atkinson & Elliott were situated at the back of the Star Hotel, which was on the corner of Swanston and Little Bourke

Streets (*Argus*, 24 May 1856:1). When Atkinson & Elliott advertised in the newspaper, they stated no. 50 Little Bourke Street as their address, but according to Figure 57, they were located at the right-of-way without a street number (*Argus* 29 Dec. 1856:1; Sands and Kenny 1857:56).

Factory street addresses reflect a changing Melbourne in other ways. According to Robyn Annear (1995:26–27), street numbers were mainly used from the late 1840s. In many cases, numbers were probably implemented much later. With manufacturer Robert Murcutt, his address began as Little Bourke Street west, then no. 87 was added by November 1855, before changing to no. 91 by July 1856. These changes reveal several details. First, the change from '87' to '91' implied that further subdivisions were inserted. Second, it was

necessary at the time to include east or west after the street name to distinguish which direction from Elizabeth Street the address was. The early numbering for all east-west running streets within the Hoddle grid began from Elizabeth Street. A new numbering system, visible on the map used in Figure 56, was implemented in 1888. These numbers increased westwards from Spring Street, abolishing the need for east or west references in addresses. Therefore, the number of the street is only a general guide to the former location of a manufactory premises. A more accurate guide is the address and street position in relation to others that can be deduced from the commercial directories.

Summary

This chapter has shown that the occurrence, frequency, and spatial distribution of the soda water manufacturers in the Melbourne district could be attributed to several causes. Like many businesses seeking success at the time, the city's soda water and ginger beer makers followed where the population settled. Initially, they followed Melbourne's settlement patterns in its early decades. In the second stage, the large numbers of manufacturers taking up the business in the early 1850s, then dispensing with it again soon after, reflected a time of speculation, opportunity, and uncertainty that the gold rushes and fluctuating economies brought. In other words, this is one industry's point of view of the era, made possible from the data. That point of view, in turn, has constructed a window into the development and industrial beginnings of urban Melbourne.

Chapter 8. The regional districts and their manufactories

This chapter presents the regional soda water manufacturers identified during the research. These are organised by district: pre-goldfield ports and inland settlements, settlements that were stopping places on the way to the goldfields, then the goldfield districts. In a similar manner to the Melbourne chapter, the settlement history will be briefly outlined for each district to provide the background context. Then, unlike Melbourne's timelines, the regional timelines will include how manufacturers' existence related to significant local settlement and other events. A discussion of some individual manufacturers is included to provide an insight into their circumstances and customer type. Finally, the manufacturers and their relationships to the environment, settlement activities and events will be discussed for each unique district. These discussions identify those responsible for bringing the aerated waters and ginger beer industry to new regional communities; the background information will help to understand why.

Pre-goldfields settlements: ports and inland communities

During the 1830s and 1840s, settlements in Victoria had an economic focus on imports and exports; therefore they physically and symbolically faced out to sea. The Port Phillip district was mostly based on a pastoral economy. Sheep runs spread outwards from Melbourne and Geelong, so the ports of Melbourne, Geelong, Portland and Port Fairy serviced the wool export trade (Dingle 1984:35). On the other hand, Port Albert primarily serviced a livestock trade, shipping to and from Van Diemen's Land. The ports required shipping, agents, banks, merchants' warehouses and retailers to facilitate this trade, (Dingle 1984:35). As a result, concentrated settlements were established at ports. Two early inland communities have also been included in this section: one established in the middle of the Western District sheep runs (Hamilton), and another in Gippsland, also relevant to livestock (Sale).

Geelong



Figure 58: Key Geelong locations.

Geelong was a service town from its beginning. Along with Melbourne, Geelong was a place for squatters to sell their wool, find labour, and buy supplies (Dingle 1984:36). The Port Phillip Steam Navigation Company implemented its regular steam service

during 1841, facilitating quick travel between the Geelong and Melbourne ports (*Geelong Advertiser* 24 Jul. 1841:1). The gold rush era then changed everything.

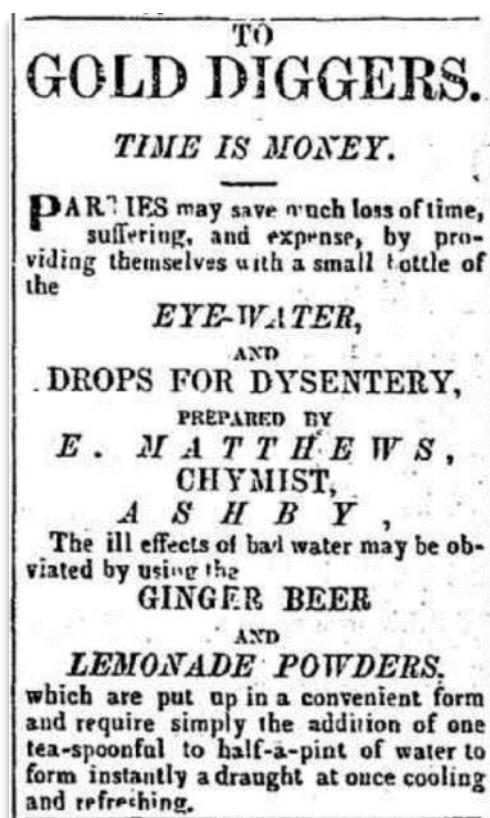


Figure 59: Advertisement for lemonade powders, targeted at gold diggers. (Source: *Geelong Advertiser and Intelligencer* 22 Jan. 1852:3)

After 1851, most of Geelong's commercial activity switched from servicing a pastoral to a gold economy. That year, gold discoveries in the Ballarat region triggered a population growth in Geelong, Ballarat's most accessible port. Traffic had increased dramatically with the constant arrival of diggers and consequent gold exports. The town's population increased from 8,291 in March 1851 to 20,115 in April 1854 (Heath and Cordell 1854:23; *Victorian Government Gazette* 1851:2). The gold era transformed the outwards-to-sea economic view, to one looking inwards, to where formal infrastructure and sizeable towns were being established.

Diggers were invited to stock up in Geelong before heading to the goldfields. Many chemists made up lemonade and ginger beer powders and often marketed these towards the gold digger headed to places with inadequate, poor quality

water and unsanitary conditions. The powders were in a list of items from the Ashby chemist in Figure 59, marketed as indispensable to the miners and their mining-related ailments.

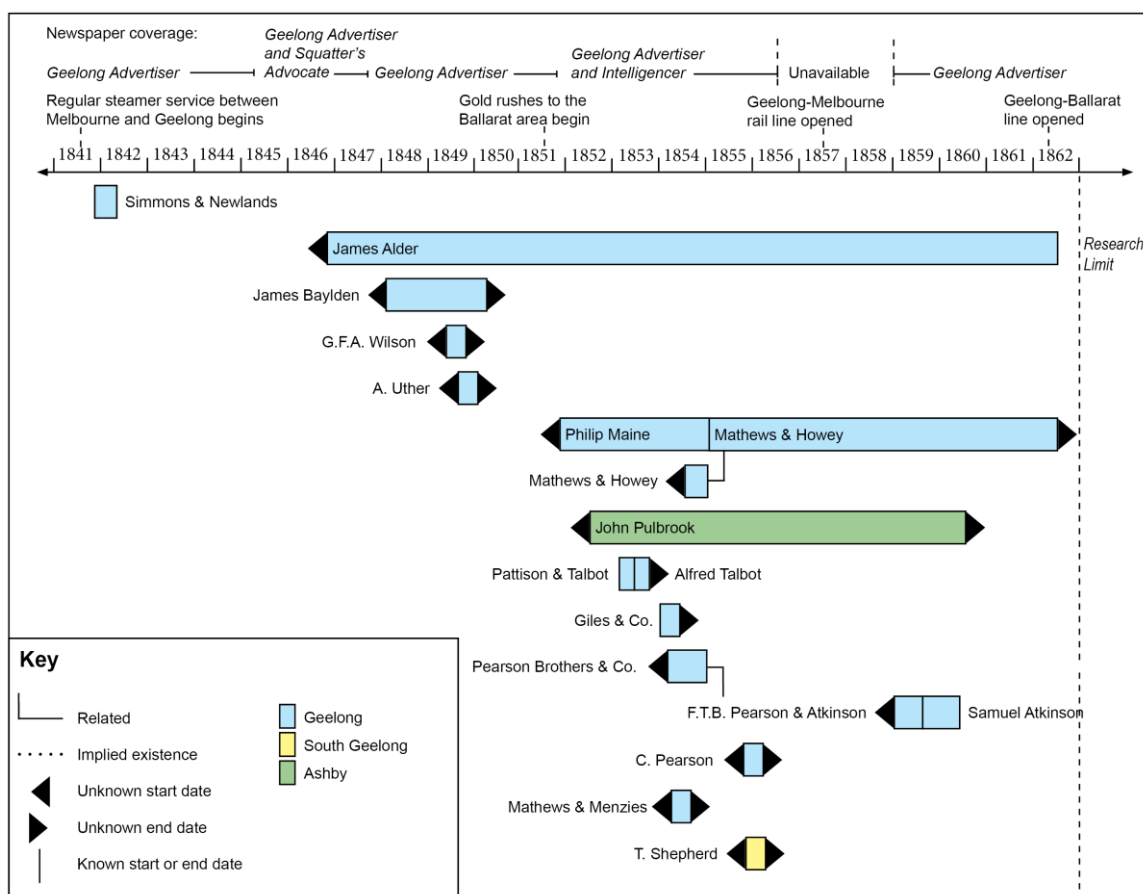


Figure 60: Timeline of soda water manufacturers established at Geelong during the study period.

A timeline for the Geelong soda water manufacturers identified in this study is shown in Figure 60, along with events and the digital newspaper coverage available. Seventeen separate businesses with 15 manufactory locations were identified for the study period: 15 businesses in Geelong with one each in South Geelong and Ashby (Table 7). Of these, 76 per cent ($n=13$) advertised their products or business, and another six per cent ($n=1$) were identified from a ‘business for sale’ advertisement. References to the remaining 18 per cent ($n=3$) could only be identified from notices, news, or law reports. Of the total businesses, 18 per cent ($n=3$) were partnerships that later dissolved, another 18 per cent ($n=3$) declared insolvent, and one other business was sold to pay its creditors. As mentioned previously, the manufacturers supplied the trade. For example, one of John Pulbrook’s customers was the Sir William Wallace Hotel, which was only a few doors away from the manufactory (*Geelong Advertiser and Intelligencer* 12 Apr. 1856:3). Although Pulbrook could not be

counted amongst them in this instance, it was possible to identify eight locations for Geelong's manufacturers on a contemporary map, as shown in Figure 61. This was largely due to the availability of two digitised commercial directories, from which spatial information could be derived (1854; Heath and Cordell 1856).

Table 7: List of manufacturers established in Geelong by 1863.


Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Alder, James	Malop St		1846	1862
Atkinson, Samuel	Corio St		1859	1860
Baylden, James			1848	1850
Giles & Co.	Behind Willis's Buildings, Market Square		1853	1854
Maine, Philip	Corio St		1851	1855
Mathews & Menzies			1854	
Mathews & Howey	Corio St		1854	1871
Pattison & Talbot	Great Ryrie St		1853	1853
Pearson Bros & Co.	Market Square		1854	1855
Pearson, C.	Bank Place, off Market Square		1856	
Pearson & Atkinson	Corio St			1859
Pulbrook, John	Autumn St, Ashby		1852	1860
Shepherd, T.	Little Foster St, South Geelong		1856	
Simmons & Newlands	Cnr Corio and Yarra Sts		1841	1842
Talbot, Alfred	Great Ryrie St		1853	
Uther, A.	Corio St, east		1849	
Wilson, G.F.A.	Corio St		1849	
Total Companies	17			

Figure 60 shows that some soda water manufacturers existed in Geelong before the gold rush, but many more tried their luck during the busier 1850s. Except for Uther and Baylden in 1849 and 1850, respectively, none of the companies appeared to have made aerated waters prior to 1851, only ginger beer or cordials. However, it was not for the lack of machines because Figure 17 shows they were available in the colony by 1842.

Some makers carried on other trades in conjunction with their manufactories. Simmons & Newlands were also pastry cooks and confectioners, then Pearson Brothers were wine and spirit merchants (*Geelong Advertiser and Intelligencer* 3 Feb. 1855:4; *Port Phillip Gazette* 27 Nov. 1841:2). Philip Maine supplemented his business by selling ingredients and supplies to the soda water industry (*Argus* 15 Jan. 1853:7).

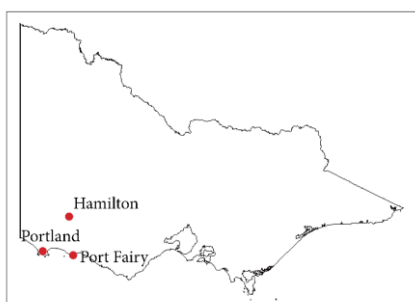
Examples of Geelong extant bottles from the study period exist for two businesses. Of these, Matthews & Howey were the only Geelong soda water manufacturers that used their own branded bottles (see Appendix C). The other business that had egg-shaped bottles with their brand embossed upon them were merchants Bayldon & Graham (1852–1874), not to be confused with soda water manufacturer James Baylden.

Bayldon & Graham were soap and candle manufacturers, merchants, and wool export agents operating in Geelong, Ballarat and Melbourne. This company imported ginger beer and soda water bottles from London during the 1850s and sold equipment and ingredients to soda water manufacturers (*Geelong Advertiser and Intelligencer* 22 Jun. 1853:2; 14 Feb. 1855:6, 6 Feb. 1856:2; *Star* 31 Oct. 1857:4). References to Bayldon & Graham were included in the law notices involving soda water manufacturers in this study: as creditors of Charles Innes of Ballarat, or when Samuel Atkinson of Geelong became insolvent, or as agents for John Webster of Steiglitz (*Geelong Advertiser* 22 Jan. 1859:1, 12 May 1860:3; *Star* 16 Jul. 1857:3). These strongly suggest Bayldon & Graham sold supplies on credit as suppliers to Ballarat and Geelong soda water makers. It follows that if these makers could not pay their bills, Bayldon & Graham legally acquired the business assets to balance the debt.

Information contained within the data collected for Geelong's soda water companies reflects some changes to Geelong. The increase in companies during the early 1850s coincides with the increase of people arriving or passing through town on the way to the goldfields. Although the gold rushes brought many potential customers, the large number of people leaving town to search for gold caused other issues. The increased price of labour and the difficulty in obtaining it, forced soda water manufacturer Philip Maine to put up the prices of his products (*Geelong Advertiser* 10 Dec. 1851:1). Perhaps Maine himself later followed the populace to Ballarat, that is, if the Ballarat Philip Maine discussed later is the same. General economic changes also affected business. Prices fell again during the late 1850s, the causes mainly being an over-supply of imported goods and falling gold production, yet migrants continued to arrive (Bate 1988:15). Indeed, during 1859, the *Star* (4 Apr. 1859:4) reported trade in general at Geelong (and Melbourne) being at a standstill. The *Geelong Advertiser* (24 Sep. 1862:2) also observed a noticeable slump in business activity after 1860. The pattern reflects the flurry of soda water manufacturers in Geelong in the first half of the decade with few operating in the second half, and into the 1860s

(Figure 60). Lastly, manufacturers in Geelong's permanent settlement did not need to re-locate as much as those operating in the goldfields, where settlements were often temporary. This will become apparent when compared to the discussion of the Maryborough district later in the chapter. However, being a service town meant that Geelong was still susceptible to changes in the economy of which it was part.

Portland, Port Fairy and Hamilton



Portland was one of three European settlements established at harbours along the western Victorian coast during the 1830s and 1840s, the others being Warrnambool and Belfast (at Port Fairy). The last two initially began as whaling bases, and, after suitable land was found in the neighbourhood of Portland, for grazing cattle and sheep in the district (*Australasian*

Chronicle 16 Aug. 1839:4; Broome 1984:18–19). Portland handled imports and serviced exports, particularly wool from the Western District's pastoral runs, according to regular shipping reports in the *Port Phillip Patriot and Morning Advertiser* between 1845 and 1848. Tracks led from Portland to the Grange, an inland settlement that began as a market centre for the grazing properties, and a coaching stop on the overland mail route between Melbourne and Adelaide (*Portland Guardian and Normanby General Advertiser* 29 Oct. 1842:3). A town site at the Grange was fixed upon in May 1851, and the settlement was renamed Hamilton, a name it shall be referred to hereafter (*Melbourne Daily News* 10 Jun. 1851:4). During the 1850s, Hamilton became a way-station for those travelling between Portland and the goldfields of Western Victoria.

Table 8: List of manufacturers established at Portland and Hamilton by 1863.

Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Clarke, Thomas	Henty St, Portland		1855	
Haferkorn, Charles	Gray St, Hamilton		c. 1858	1872
Richards, David	Percy St, Portland		1858	c. 1864
Total Companies	3			

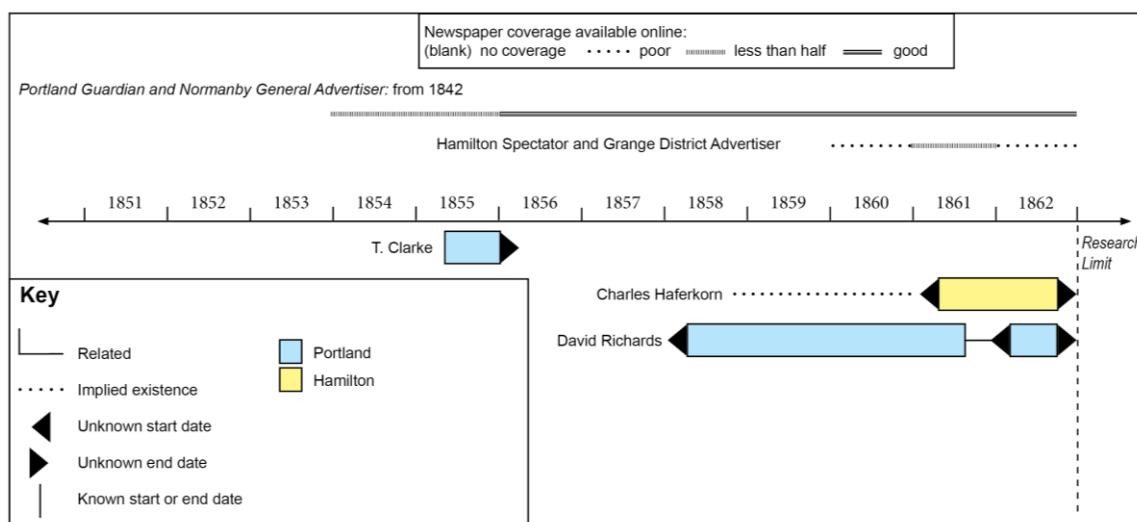


Figure 62: Timeline of soda water manufacturers at Portland and Hamilton during the study period.

Newspaper data for Victoria's Western District was available for Portland and Hamilton in limited periods, as outlined in Figure 62. No data was available from the *Banner of Belfast* newspaper, so Port Fairy manufacturers could not be identified. Three separate businesses and locations were identified for the study period: two in Portland and one in Hamilton (Table 8). Of these, 67 per cent (n=2) advertised their products or business, while the remaining one was discovered within a list of insolvencies. No extant bottles appear to exist for these companies. Apart from the limited timeline, the small number of manufacturers reflects the size of the two settlements. For example, Portland's population in 1861 was 2,804 (Watson 2003:367).

Given that port settlements during this period were readily accessible, any potential Portland manufacturers were probably vulnerable to competition from imported products from Melbourne. Indeed, Melbourne cordial manufacturers James Dickson and Thomas Dick advertised their products in the Portland newspaper during 1858 (*Portland Guardian and Normanby General Advertiser* 3 Mar. 1858:1). In addition, several stores in Portland advertised imported soda water or lemonade for sale (*Portland Guardian and Normanby General Advertiser* 19 May 1858:3, 20 Oct. 1858:3, 7 Dec. 1860:4). This implies that either Portland hotel and storekeepers ordered Melbourne or English products due to preference or a lack of local product.

Port Albert and Sale

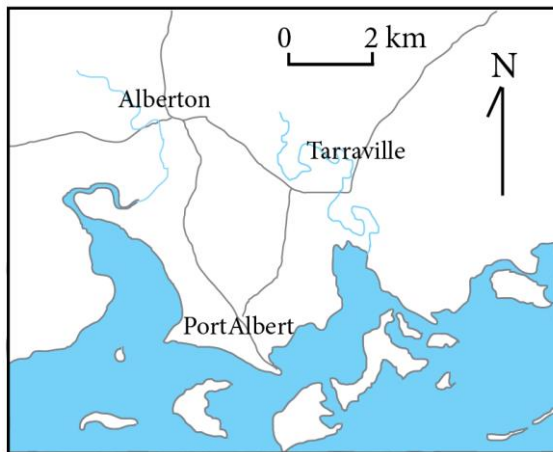


Figure 63: Map of early settlements in the Port Albert area

Port Albert was originally established in 1841 to service the freighting of sheep and cattle from Gippsland's pastoral runs to feed the convict settlements of Van Diemen's Land (Caldow 2003:26; Lennon 1973).

Both Alberton and Tarraville were privately surveyed soon after, then in 1851, a newer government survey was added to Tarraville (Caldow 2003:25). Tarraville, conveniently situated in the direction of the interior, was Gippsland's largest settlement in 1853, despite a population of only 270 (Caldow 2003:26). Approximately 80 kilometres away in the centre of a fertile pastoral district, the town of Flooding Creek (later Sale) was declared in 1848 (*Port Phillip Patriot and Morning Advertiser* 6 Mar. 1848:2). This settlement began as a stopping point close to a difficult-to-cross stretch of morass around the Thomson and Latrobe Rivers (Fletcher *et al.* 1994:6).

Gold mining activity caused general trade to increase at Tarraville and Sale during the mid-1850s, but Caldow (2003:28) states the livestock trade had greatly decreased by 1860 due to the decline in convict transportation. A steamer service ran regularly between Melbourne and Port Albert during this era, and many advertisements in the *Gippsland Guardian* were targeted at diggers heading for the Omeo district's goldfields.

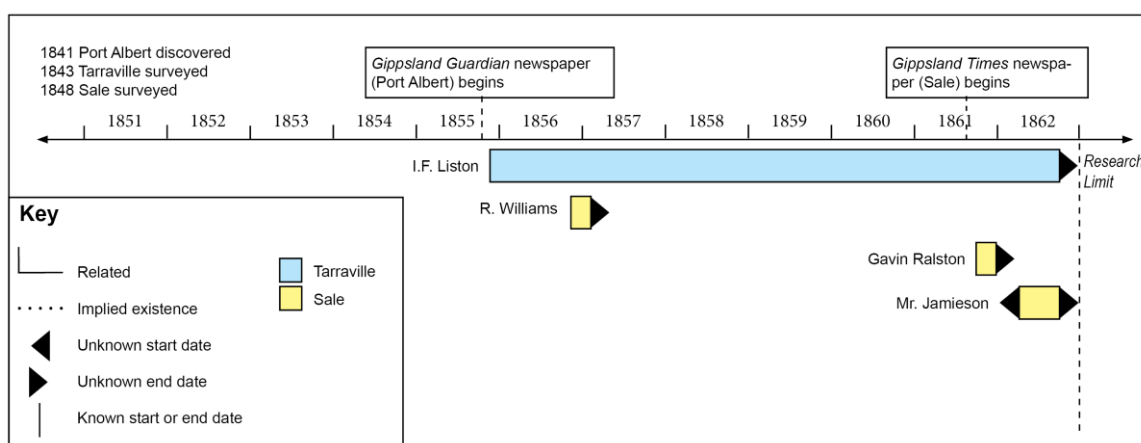


Figure 64: Timeline of soda water manufacturers in the Port Albert district during the study period.

The available data for Gippsland's soda water manufacturers appears directly after Port Albert's and Sale's newspapers were introduced, as shown in Figure 64. Four separate



Figure 65: Detail from a Sale parish plan, with the allotment on which Jamieson's ginger beer manufactory was located, highlighted in red. (Source: Public Record Office Victoria, VPRS 16171/P0001 Sale -1 Township Plan)

businesses or manufactories were identified for the study period: one at Tarraville and three at Sale (Table 9). Of these, 75 per cent (n=3) advertised their products or business. The remaining manufacturer's identity was found only from auction notices and a situation wanted advertisement. None of the four manufacturers appear to have used their own branded bottles. The property on which Jamieson's manufactory was located, shown in Figure 65, could be identified from a property auction advertisement. This stated Jamieson's iron store

was located on one of two lots fronting York Street, as part of Allotment 11, Section 15 (*Gippsland Times*, 4 Apr. 1862:3).

Table 9: List of manufacturers established at Tarraville and Sale by 1863.

Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Jamieson	Sale		1862	
Liston, I.L.	Tarraville		1855	1865
Ralston, Gavin	Sale Brewery		1861	
Williams, R.	? Sale		1856	
Total Companies	4			

Data for the Port Albert district was sparse. Gavin Ralston advertised when he was about to manufacture aerated waters and ginger beer, but no other reference to his doing so was found. He was included in this survey because Islay Liston placed a similar advertisement with similar intent (Figure 66), but then advertised aerated water products afterwards. Liston's longevity in making these products may have been due to business diversity. He was also a chemist and postmaster and ran a conveyance between Port Albert and Tarraville (*Gippsland Guardian* 31 Oct. 1856:3).

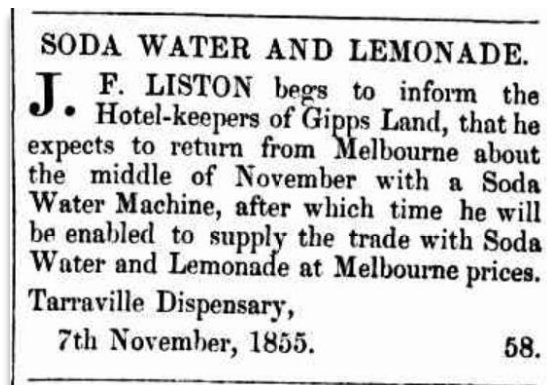


Figure 66: Tarraville chemist J.F. Liston advertises his intent to make aerated waters. (Source: *Gippsland Guardian* 9 Nov. 1855:1)

Liston and Williams may have begun to manufacture aerated waters due to the increased traffic passing through Tarraville and Sale from 1854 onwards, caused by the rush to Livingstone Creek and Omeo. The Gippsland rushes and traffic continued into the 1860s, which may have encouraged Ralston and Jamieson in their respective businesses.

Stopping points

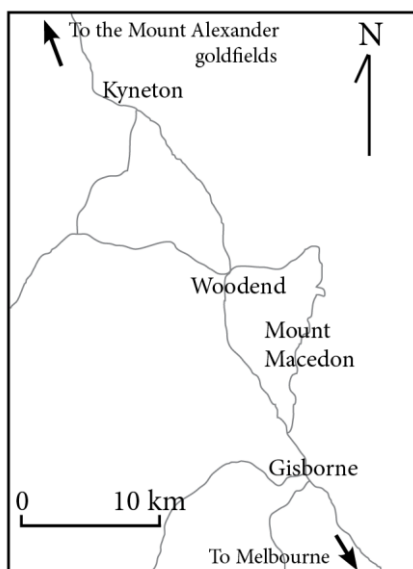


Figure 67: Key locations in the Kyneton district.



Kyneton district

Gisborne and Kyneton came into existence before the gold rushes, being supply points for inland pastoral traffic. Then, in the 1850s, Gisborne, Woodend and Kyneton all became stopping places for those travelling from Melbourne to the Mount Alexander goldfields (Figure 67). After the goldfields traffic began, Woodend became a popular watering hole and a place to stay on the way from Melbourne (Barned 1985:9).

For the Kyneton district, four businesses were identified for the study period: one business in Kyneton, another in Gisborne, then one manufactory at Woodend, which was taken over later by another business (Table 10). Of these, 50 per cent (n=2) advertised their product or business and the remaining 50 per cent (n=2) were identified only from notices or news reports. Henry Gardner's property was offered for sale twice, once in 1855 and again early in 1859, in this instance as a bakery (*Argus* 8 Mar. 1855:1; *Kyneton Observer* 18 Dec. 1858:3). A Tyler's no. 2 soda water machine was included in both listings. Therefore, it is assumed to be the same property because Gardner may have operated a bakery and soda water manufactory concurrently. He moved his manufactory to the Telegraph Hotel in 1859. None of the four manufacturers appeared to have used their own branded bottles during this period.

Table 10: List of manufacturers in the Kyneton district established by 1863.

Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Caudy, W.	Woodend			1862
Gardner, Henry	Aitken St, Gisborne		1855	1859
	Telegraph Hotel, Gisborne		1859	1860
Hobbs, A.	Beauchamp St, Kyneton		c. 1856	1899
Touer, Patrick	Woodend		1862	
Total Companies	4			

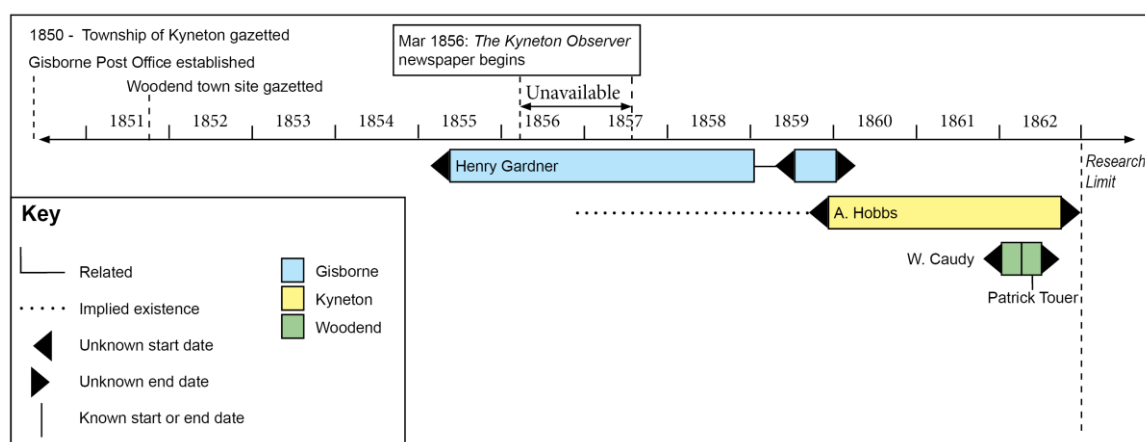
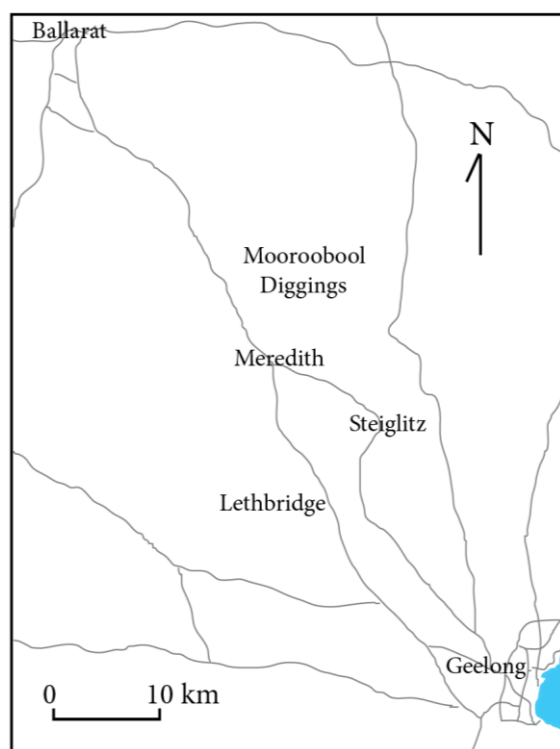


Figure 68: Timeline of soda water manufacturers operating in the Kyneton district by 1863.

The relative longevity of manufactories for these settlements may have been due to the steady traffic during this time (Figure 68). Although the end destinations kept changing when new gold rushes developed, the initial part of the route remained largely the same, so these towns kept developing. The railway, too, was to go through all these three towns in

1862. This prompted Henry Gardner to advertise his property as an attractive purchase in 1859, due to ‘its proximity to the heavy works on the line of railway’, therefore presenting the opportunity of steady trade (*Kyneton Observer* 18 Dec. 1858:3). Situated along the permanent route from Melbourne to Castlemaine and Bendigo, Gisborne, Woodend, and Kyneton’s soda water companies may have felt more assured than their counterparts on the goldfields.

Meredith district



Both Meredith and Lethbridge were small settlements established in a pastoral district along the route between Geelong and Ballarat. A year after the township was surveyed in 1851–1852, a road was built through Meredith for travellers to access the Ballarat and Buninyong goldfields from Geelong (Tout-Smith 2004). Gold was found in the district in 1854 on the Steiglitz pastoral run, approximately 11 kilometres south-east of the town, then found at the slightly closer Moorabool diggings in 1857 to the north-east (Lawrence 2000:34).

Table 11: List of manufacturers established in the Meredith district by 1863.

Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Bremner, William	Lethbridge		1856	
Hartrick & Webster	? Ballarat			c. 1856
Webster, John	Meredith			1860
Total Companies	3			

Three companies were identified for the study period, one each in Meredith and Lethbridge and what appears to be Ballarat (Table 11). The last is included here rather than the Ballarat

district because the location of the manufactory cannot be confirmed. Additionally, one part of that former partnership of Hartrick & Webster ended up at Meredith. Apart from Hartrick & Webster being mentioned in a court report, the only references to these soda water manufacturers were found relating to insolvencies; John Webster declared insolvency twice before he was found fraudulent in his insolvency claim (*Star* 4 Oct. 1856:3, 19 Oct. 1860:2). Neither Webster nor William Bremner appeared to have used bottles branded with their names on them.

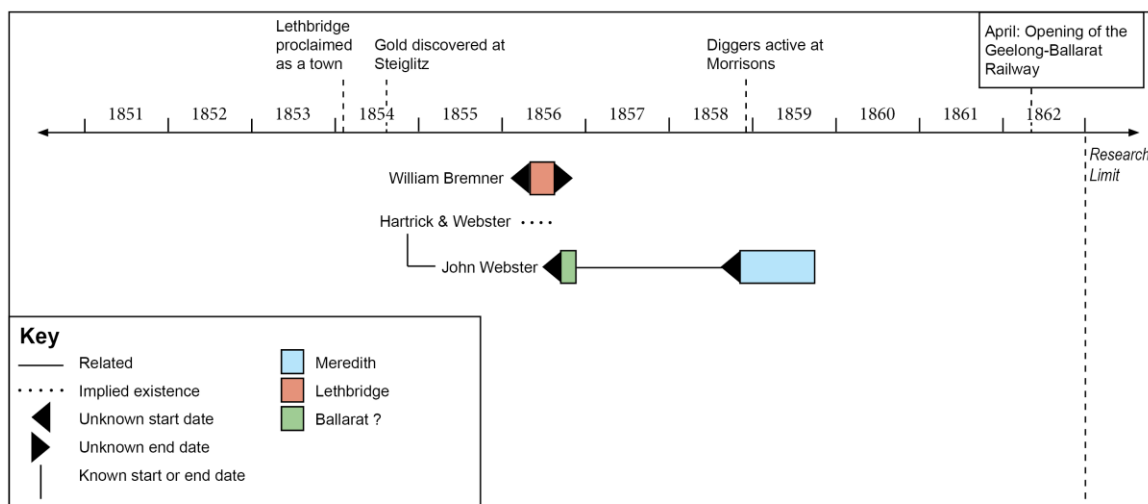


Figure 70: Timeline of soda water manufacturers established in the Meredith area during the study period.

Goldfields

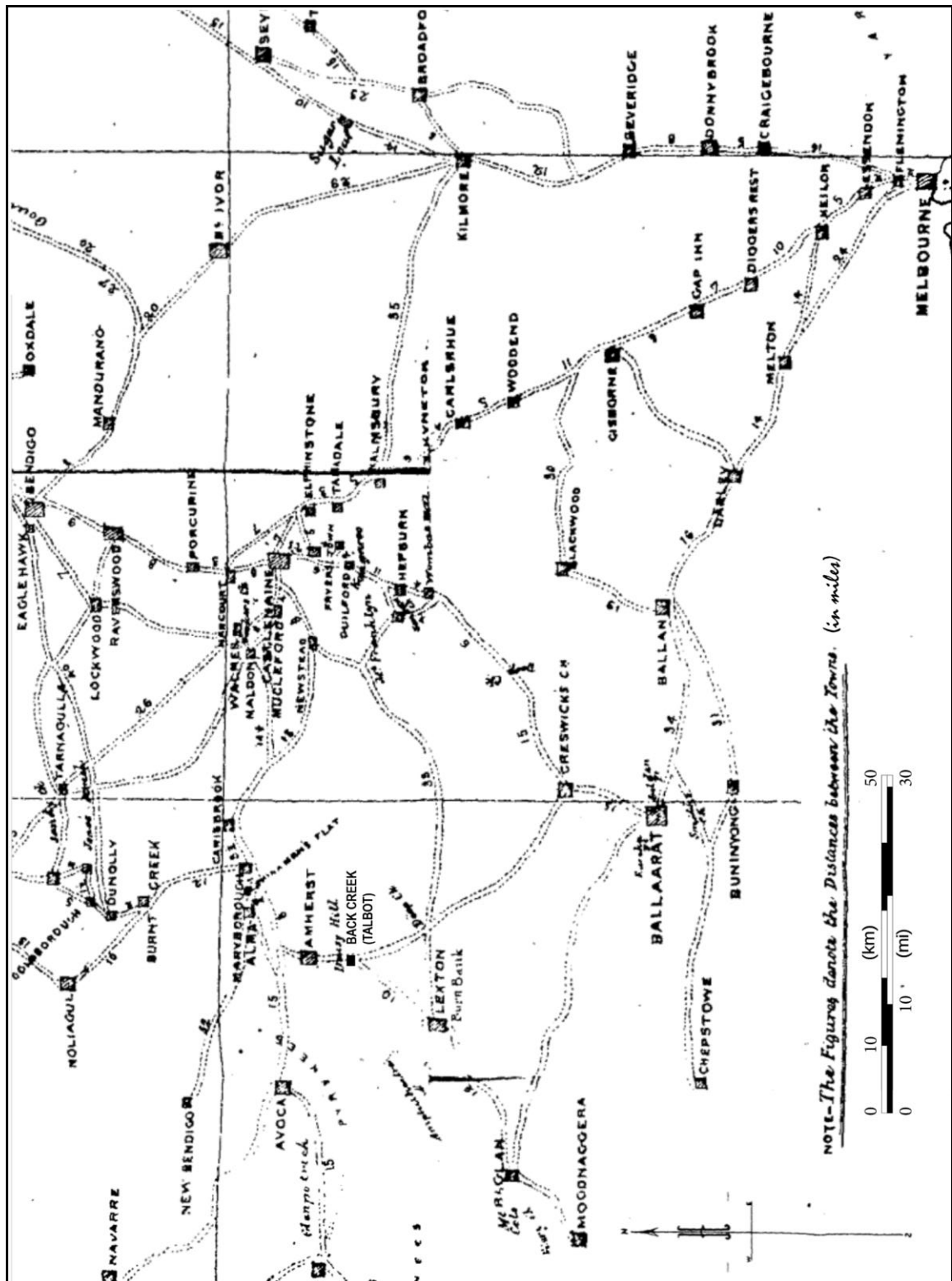


Figure 71: Adapted from Glass (1857): A road map to the Central Victorian Goldfields. Note that the suggested approach to Ballarat was from Melbourne, rather than the Port of Geelong. This probably reflects the fact that the map was published in Castlemaine and presented a Castlemaine point of view. (Source: National Library of Australia)



Figure 72: Possibly after S.T. Gill (185[?]) A New Rush. (Source: Dixon Library, State Library of New South Wales)

A new diggings or Colonially speaking a new rush constituted by the finding of Gold, rumours soon get abroad and most of those living near to the new discovered spot leave their home and make the best of their way to the diggings. It is very amusing and also characteristic to see so many thousands of men, women and children flock to the place where gold is known to be discovered, with but a blanket & canvas tent to cover them. Every man proceeding to the diggings, provides himself with a Swag, Billy, Tomyhawk, Tent &c, and in a very short time the uninhabited wilderness becomes a populated Township.

The scene in Figure 72, with its accompanying text above, illustrates how fast a population could establish itself in a new goldfield. However, for most of the 1850s, soda water manufacturers may not have been able to set up their business quite as swiftly. Any potential retailers of lemonade in 1853 were compelled to take out a digger's license at 40s per quarter, another 5s or 10s to fill out an application form, then endure 21 days before being allowed to set up a refreshment place (*Argus* 25 Oct. 1853:5). Given that in three weeks, another rush could start elsewhere, this timeframe was viewed as unjust. On 5 October 1857, a change came when Act 16 Victoria No. 35 was introduced, but the nominal £1 fee for a refreshment license on the goldfields remained (*Ovens and Murray Advertiser* 13 Oct. 1857:3).

Many locations witnessed alternative rushes; desertions then saw new rushes when fresh fields were discovered. For example, the old Clunes diggings, first rushed in 1851 then largely abandoned during the rush to Forest Creek, saw miners return in the mid to late 1850s to work the quartz reefs (*Age* 21 Aug. 1858:5). Then, in 1859, the *Star* (5 Mar. 1859:2) reported that tents and their inmates disappeared from Clunes in the direction of the Back Creek Rush. Other places that experienced desertions and returns included Creswick and the Wardy Yallock diggings; both first rushed in 1853 (*Star* 5 April 1859:3). The discovery of the latter led to the discovery of many fields beyond, one after another, resulting in a steady growth of the Smythe's Creek (Smythesdale from 1859) and Brown's townships (*Star* 5 Apr. 1859:3).

Ballarat, Creswick and Clunes district

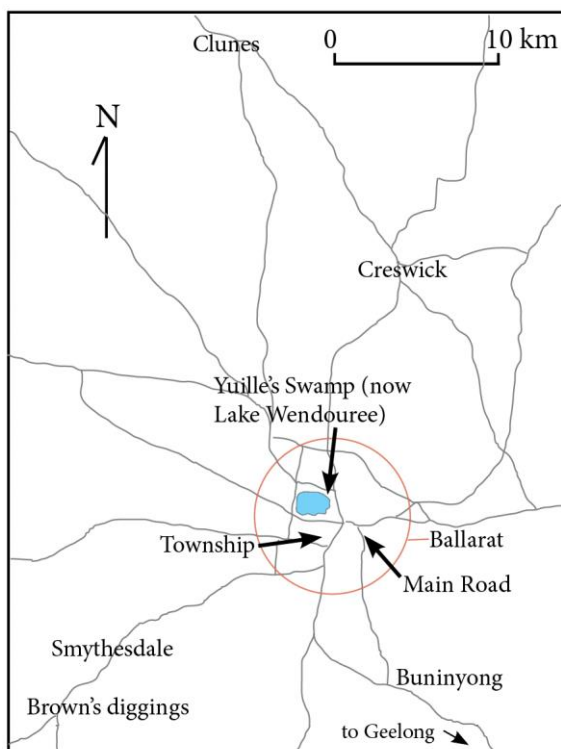


Figure 73: Key locations in the Ballarat district.

Victoria's first publicised discovery of payable gold was at Buninyong. The resultant rush in August 1851 led to further discoveries in a valley that became Ballarat and its environs. Although the alluvial deposits were rich, they were not consistent in yield. Therefore, since diggers were nomadic as a body, the population fluctuated when other rushes beckoned. The development of deep lead mining in Ballarat during the mid-1850s led to the city's longevity, stability, and

wealth. Initially spelt Ballaarat, the modern spelling of Ballarat shall be referred to henceforth, except in figure captions where the map title reference uses the original spelling.

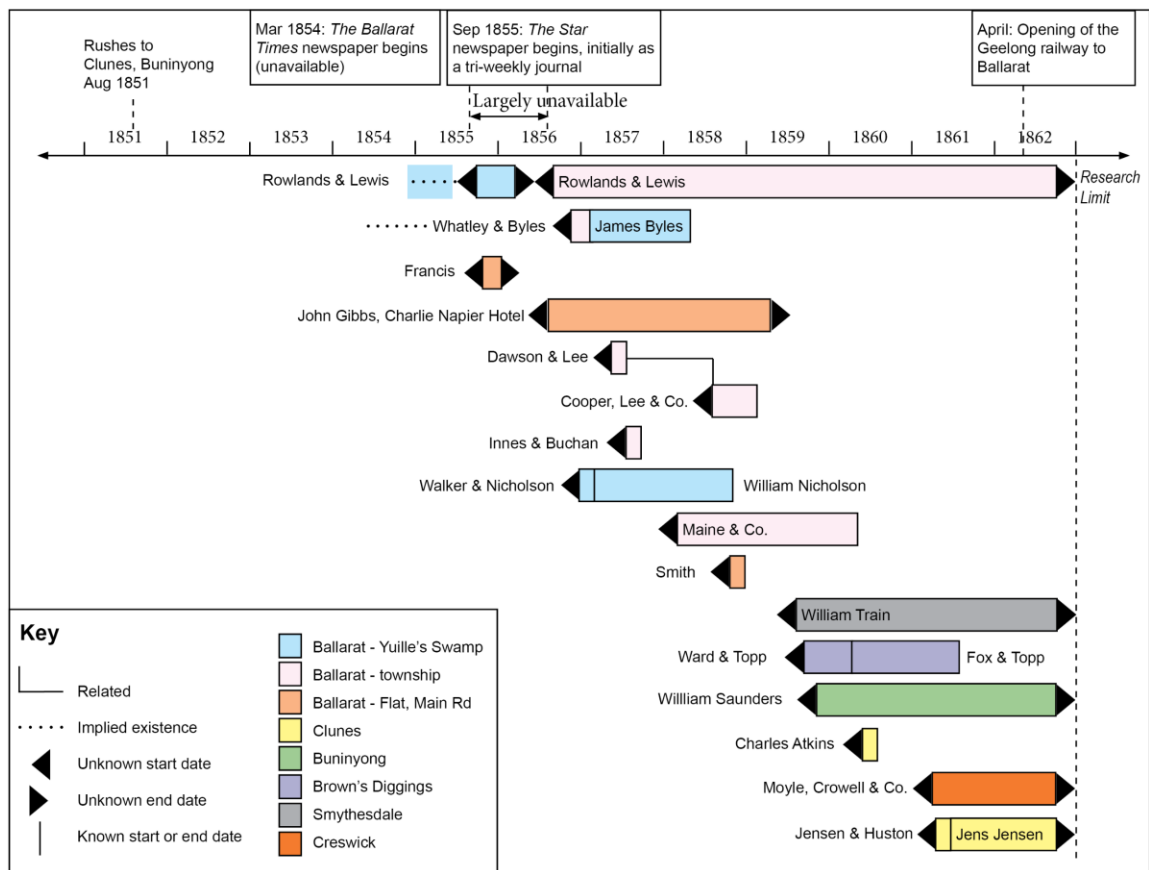


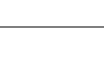


Figure 74: Timeline of soda water manufacturers established in the Ballarat district during the study period.

The timeline of soda water manufacturers in Figure 74 shows a range of occupied locations in the Ballarat district. Twenty separate businesses were identified for the study period at 18 locations: two businesses in Clunes, one each in Creswick, Buninyong, Smythesdale and Browns, with the remainder at Ballarat. Of these, 40 per cent (n=8) advertised for staff or offered equipment for sale and 55 per cent (n=11) were identified only from notices, news or law reports. Only John Gibbs, the proprietor of the Charlie Napier Hotel, advertised his products. Of the 11 business partnerships, 54 per cent (n=6) were eventually dissolved. The partnership of Jensen & Huston was to reform twice more before they were declared insolvent in 1870, having operated their business at Happy Valley (west of Smythesdale) then Ballarat. Of the 20 businesses, 30 per cent (n=6) were declared insolvent in the time period. Business diversification also existed at Ballarat. Two companies, Dawson & Lee and Buninyong's William Saunders, operated tallow chandleries at the same time as their soda water businesses (*Star* 14 Mar. 1857:3; 23 Nov. 1861:3).

Table 12: List of manufacturers established in the Ballarat, Creswick and Clunes district by 1863. Some dates for manufacturers continuing to operate later have been added and marked with *. All are Ballarat addresses unless otherwise stated.

Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Atkins, Charles	Main Rd, Clunes			1860
Byles, James	The Swamp		1857	1858
Cooper, Lee & Co.	Dawson St		1858	1859
Dawson & Lee	Dana St			1857
Fox & Topp	Brown's Diggings		1860	1861
Francis	Main Rd		1856	
Gibbs, John, Charlie Napier Hotel	Main Rd		1856	1859
Innes & Buchan	Drummond St (North)			1857
Jensen & Huston	Clunes			1861
Jensen, Jens	Grant St, Clunes		1861	
* Jensen & Hust.	Happy Valley		1866	1867
*	Mair St, Ballarat		1868	1870
Maine & Co.	Errard St		1858	1860
Moyle & Crowell	Cambridge St, Creswick		1861	1865
Nicholson, William, Swamp Hotel	The Swamp		1857	1858
Rowlands & Lewis	The Swamp		c. 1854	c. 1856
	Sturt St		c. 1856	1870
*	Corner Dana and Doveton Sts		1870	1876
*	116 Collins St, Melbourne		1873	1876
* Rowlands, E.	Corner Dana and Doveton Sts		1876	
* Rowlands, E.	116 Collins St, Melbourne		1876	
Saunders, William	Learmonth St, Buninyong		1859	1873
Smith	Main Rd			1858
Train, William	Smythesdale		1859	1865
Walker & Nicholson	The Swamp			1857
Ward & Topp	Brown's Diggings		1859	1860
Whatley & Byles, Market Square Hotel	Market Square		1854	1857
Total Companies	20			

Locations could be mapped for eight manufactories in the Ballarat district, including seven in Ballarat (Figure 75) and one in Creswick (Figure 76). This was made possible from newspaper data that included an identifiable allotment number or a spatial reference to a building landmark. Both were found on Ballarat historical survey or parish plans (Brache 1861; Hotham 1854; Wars 1856). Rate book entries also contained allotment numbers.

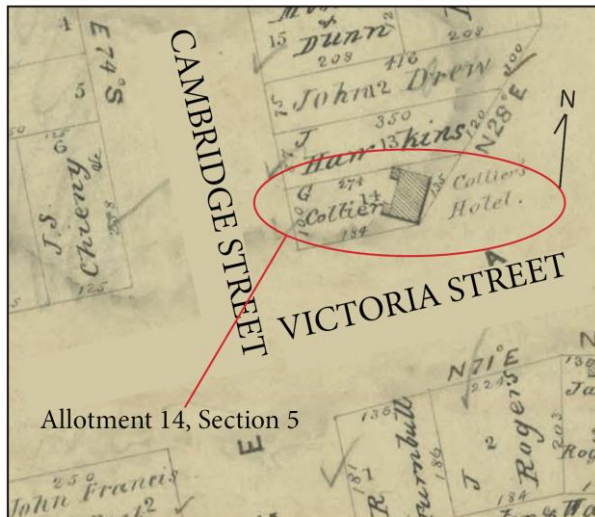


Figure 76: After Hotham (1854): The site of Collier's Hotel and Theatre in Creswick is highlighted in red. Between 1861 and 1865, this site was occupied by Moyle and Crowell's manufactory. (Source: Public Record Office Victoria, Historic Plan Collection)

The Ballarat data showed the hotel trade was closely connected to the soda water industry. The Charlie Napier was one of three hotels that manufactured aerated waters, the others being the Swamp and Market Square Hotels. All three locations are shown in Figure 75. There may have been others that could not be identified. The Maine & Co. manufactory adjoined the White Hart Hotel (*Star* 20 May 1860:1). Rowlands & Lewis sold only to the trade (in 1861 at least), not to private persons, so the primary customer base for Ballarat soda water manufacturers appeared to be publicans (*Star* 12 Dec. 1861:1).

The only extant branded bottles that could have been used in the study period are that of Rowlands & Lewis. The list in Figure 77 suggests not only an upgrade in factory equipment, but a possible replacement of unbranded bottles with the introduction of branded ones. Rowlands & Lewis, who began their operations on the south-eastern side of Yuille's Swamp in 1854, grew to be the largest company of its kind in Australia, with

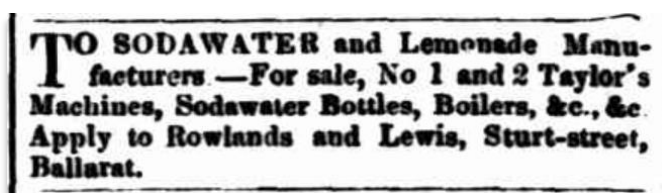


Figure 77: Rowlands & Lewis advertise soda water equipment and bottles for sale. (Source: *Star* 14 Aug. 1857:4)

premises in Ballarat, Melbourne, Sydney and Katoomba (*Ballarat Star* 7 Jun. 1894:4, 2 Apr. 1921:7). Outside the study period, Jensen & Huston appeared to have used branded bottles during their Ballarat period only (1868–1870).

The Swamp was a popular place for soda water manufactories. During the Governor's inspection of the municipalities in 1858, the *Star* (21 Jan. 1858:2) reported 'the employees of the lemonade manufactories and the flour mills turned out' to provide a welcome. These

would have been the factories of Nicholson and Byles, both existing on land adjoining that of a mill (Figure 75). In the following year, the two factories burnt to the ground a little over one month apart (*Mount Alexander Mail* 2 Feb. 1859:3; *Geelong Advertiser* 18 Mar. 1859:2).

Not all the soda water manufactories known to be in the Ballarat district could be identified in this study. After suburban allotments were sold on the southern side of Yuille's Swamp, the *Geelong Advertiser and Intelligencer* (13 Feb. 1854:4) reported two ginger beer and lemonade establishments already busy at work, for others and themselves to mutual benefit. To the south, a lemonade manufactory was used as a reference point on the progress of the

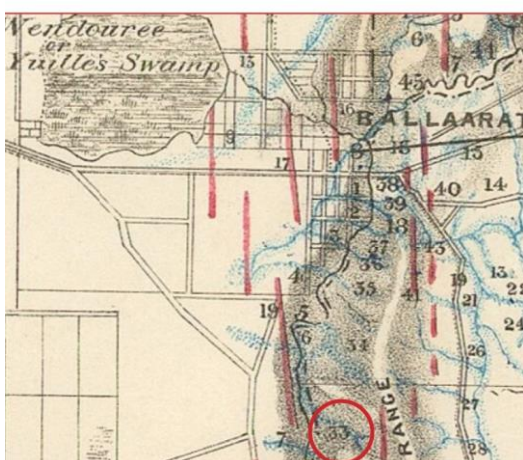


Figure 78: Smyth (1859) Mining district of Ballarat map: Detail showing the general location of the Miner's Right Lead (circled). (Source: State Library of Victoria)

Miner's Right Lead (Figure 78, Figure 79) between October 1856 and March 1857. Digging followed the lead till a shallow rush set in 'on the flat east of the creek where it bends around underneath the lemonade manufactory' (*Star* 25 Dec. 1856:2).

At Buninyong, several lemonade and ginger beer manufactories are known to have existed in 1855, yet only William Saunders could be identified, having operated from 1861 (*Geelong Advertiser and Intelligencer* 23 Oct. 1855:2). Buninyong was *en route* to Ballarat from Geelong, and the earlier manufactories could offer Geelong prices.

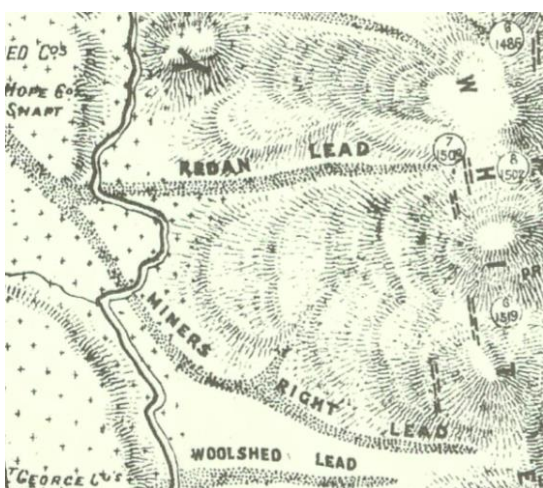


Figure 79: Gilks (1868) map of the Ballarat Gold fields: Detail showing the Miner's Right Lead. (Source: State Library of Victoria)

Two different types of activity facilitated the continued success for the two longest-term companies from the study period. A pressing need for a railway from Geelong to Ballarat meant the railway works began in 1858 and were completed by April 1862. The *Star* (10 Sep. 1861:2) relayed the news that Rowlands & Lewis planned to send large quantities of their

aerated waters and ginger beer to Melbourne as soon as the railway opened due to the superior quality and success of their product. After Rowlands & Lewis, the company evidently active for the longest period in the Ballarat district was William Train. His manufactory at Smythesdale (Figure 80) may have been able to survive due to the continuous discoveries of new gold-fields in the Smythesdale area.



Figure 80: Train's soda water manufactory at Smythesdale, 1861. (Photo: Solomon and Bardwell, 1861. Source: State Library of Victoria)

Castlemaine district, including Fryers Creek, Maldon, Taradale and Malmsbury

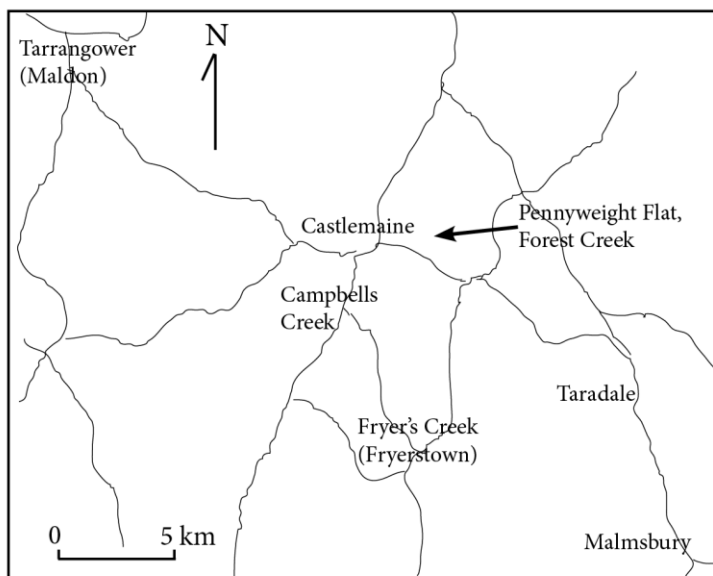


Figure 81: Key locations in the Castlemaine district.

In the ten years to September 1861, the amount of gold escorted from Castlemaine was 3,321,339 ounces (Glass 1861:61). This is a sizeable quantity that represents a highly active era on the Mount Alexander goldfields. The population of Castlemaine

fluctuated during this era, which was indicative of the temporary nature of gold rushes (Table 13).



Table 13: Castlemaine population totals 1853–1861. (Source: Glass 1861:61)

1853	1854	1855	1856	1858	1861
21,180	18,222	37,257	26,100	39,949	26,763

In the settlement's early stages, a report from the *Argus* described 'a continuous line of canvas habitations' along Forest Creek (to Castlemaine's east), with similar canvas lines where gullies and creeks diverged off (*Argus* 14 Jan. 1852:2). Small villages had developed at the junctions and generally included shops and ginger beer establishments. The largest of these villages at the time was located at a place named Red Hill (now Chewton area), where one of the rows of tents near the post office included a sodawater manufactory (*Argus* 25 Feb. 1852:2). Within five miles (8 km) of Forest Creek, a track led off to the Fryer's Creek diggings. By January 1852, this track was well-worn (*Argus* 14 Jan. 1852:2).

Sixteen separate businesses were identified in the Castlemaine region for the study period, at 13 different manufactories (Table 14). While most businesses could be identified from their advertisements, the data did not include advertisements for four of the manufacturers. Only George Keiller, who was also a confectioner and fancy biscuit maker, could be identified as having outside business interests (*Mount Alexander Mail* 10 Nov. 1858:1).

Table 14: List of manufacturers in the Castlemaine district established by 1863.

Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Archer, Christian	Shakespeare Hotel, Campbell's Creek		1855	
Evans & Jones	Pennyweight Flat, Forest Creek		c. 1853	1855
Formby, Robert	Templeton St, Castlemaine		1858	1883
Heynes, John, & Co.	Market Square, Forest St, Castlemaine		1855	1857
Jones, E.W.	Pennyweight Flat, Forest Creek		1855	1862
	Maldon/Tarrangower		1856	1862
	Malmsbury		1859	1862
Keiller, George, & Son	Aberdeen Hill, Forest Creek Rd, Castlemaine		1856	
Lock, Edward	Grave St, Castlemaine		1861	
Paulson & Stanton	Campbell's Creek		c. 1856	1864

Pestell & Heynes	Forest St, Market Square, Castlemaine	1855	
Pye, Thomas, & Co.	Templeton St, Castlemaine	c. 1853	1858
Rockliff Brothers	Maldon/Tarrangower		1857
Stewart, David	Taradale		1861
Stewart, Peter, & Co.	Taradale	1861	1862
Stewart & Graydon	Taradale	1862	1863
Tanswell, Jas.	Castlemaine	1854	
Williams & Co.	Church's Flat, Fryer's Creek	1855	
Total Companies	16		

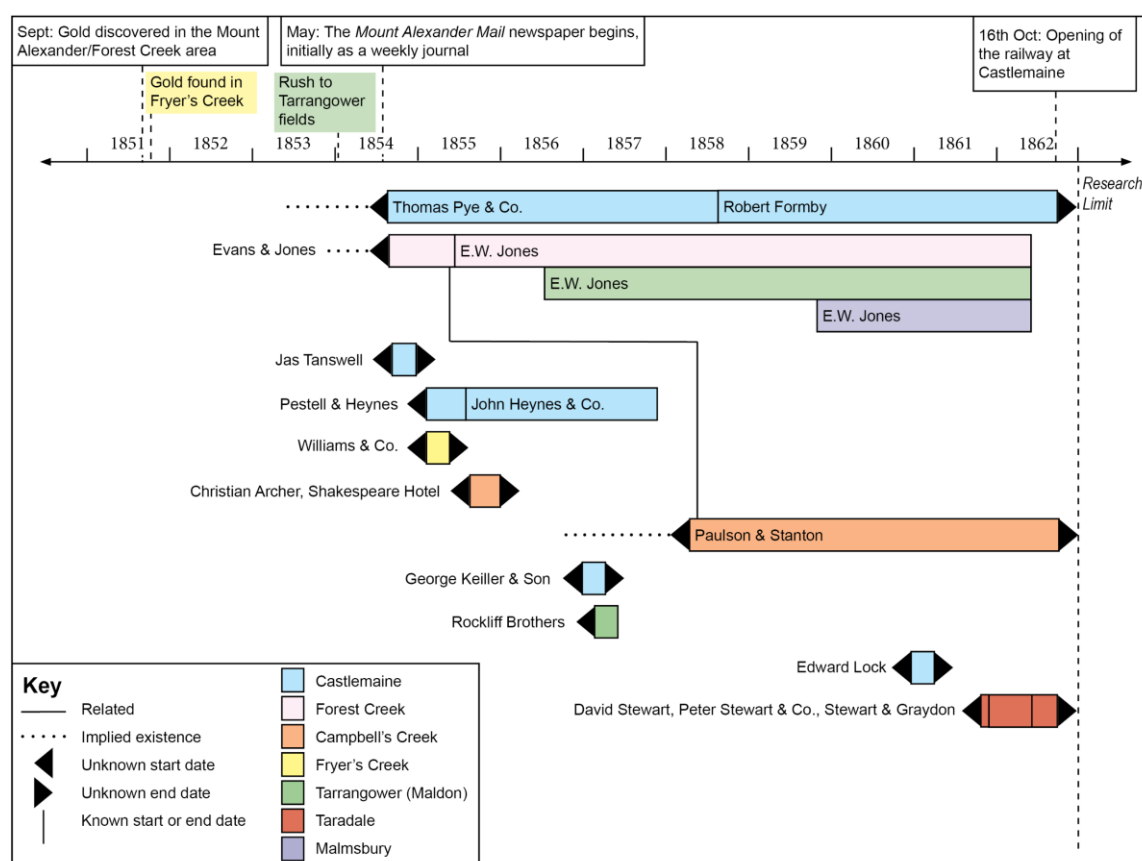


Figure 82: Timeline of soda water manufacturers established in the Castlemaine area during the study period.

The Castlemaine district timeline (Figure 82) would infer the earliest manufactory identified was that of Thomas Pye & Co. The 'T. Pye' referred to in Figure 83 at a Melbourne wharf may be the same person, presenting not only the possibility that Castlemaine's Pye once ordered marked stone bottles, but he may also have operated at Castlemaine as early as 1852. The only manufacturers at Castlemaine that are confirmed to have had marked bottles are E.W. Jones and Paulson & Stanton. A map of manufactory locations was not drawn, because no locations could be deduced with any reasonable

accuracy. Although some streets and general locations were referred to, further spatial references necessary for mapping were lacking in the data.

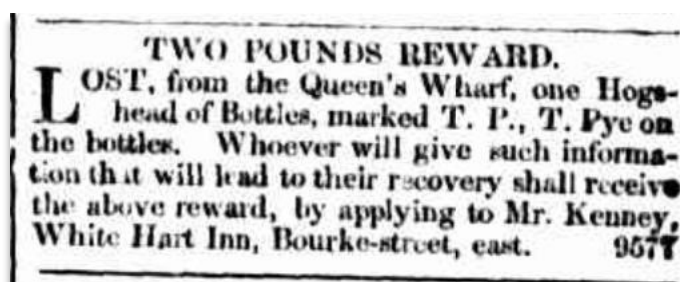


Figure 83: A reward offered for bottles missing from the Queen's Wharf. (Source: Argus 7 Jan. 1853:5)

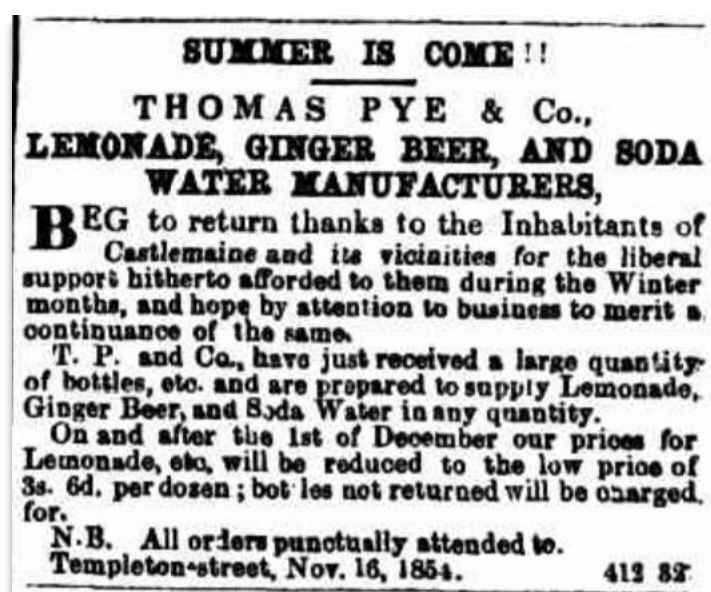


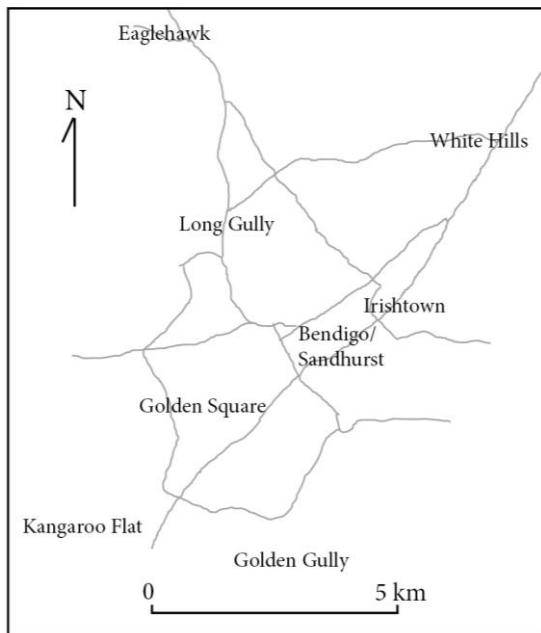
Figure 84: T. Pye & Co. announce their preparation for the summer season. (Source: Mount Alexander Mail 17 Nov. 1854:5)

Businesses were rarely stable and unchanged over this period. Firstly, as Figure 84 implies, the summer season brought an increase in sales, so sales were not consistent throughout the year. Secondly, some makers started their own business after working for another. G.W. Paulson was working for Evans & Jones at the time of Evans' death (*Mount Alexander Mail* 18 May 1855:3). Robert Formby was once a partner in T. Pye & Co. until the partnership was dissolved in January 1858 (*Mount Alexander Mail* 18 Jan. 1858:3). Although Thomas Pye continued his business, Formby operated at the old address from November of the same year (*Mount Alexander Mail* 10 Nov. 1858:1). One maker expanded the number of his manufactories. Whilst operating at Castlemaine, E.W. Jones opened premises at another two locations, at Tarrangower then Malmsbury. Lastly, of the total businesses in the

Castlemaine district, six partnerships were dissolved before the business continued, and two businesses continued after the death of one partner. For two businesses, the only references to them in the data were their dissolution of partnership notices. These changes to Castlemaine businesses reflected the dynamic economic activity at the Mount Alexander goldfields.

The Murray River and Melbourne Railway line works, the largest capital works project in the colony at the time, appear to have attracted businesses to the rail line while the works were going on (Heritage Council Victoria 1999). For instance, the Malmsbury viaduct was a significantly large engineering structure built during 1859 to carry the railway line over the Coliban River (Heritage Council Victoria 2000). That E.W. Jones opened a branch at Malmsbury during this time may have directly resulted from the heightened activity. Another viaduct and railway building project at Taradale, which was opened in stages, according to the Heritage Council Victoria (1999), coincides with Peter Stewart & Co.'s existence at Taradale. The prospect of an open railway line meant the future prospect of easier access to supplies and customers.

Bendigo (Sandhurst)



Regarded initially as part of the Mount Alexander goldfield, the Bendigo diggings became rich and distant enough from Castlemaine to be considered separate. Once the alluvial gold ran out at Bendigo, the rich quartz lines of reef were exploited for a steady return. There were two townships first surveyed. One was in front of the police camp, on both sides of Bendigo Creek (Figure 86) and the other, at White

Figure 85: Key locations in Greater Bendigo.

Hills (*Argus* 25 Oct. 1853:5). The town was alternatively named Bendigo, Sandhurst, then Bendigo again, so the last will be referred to hereafter within the text.



Figure 86: High Street, Sandhurst, 1857. (Photo: A. Fox, 1857. Source: National Library of Australia)

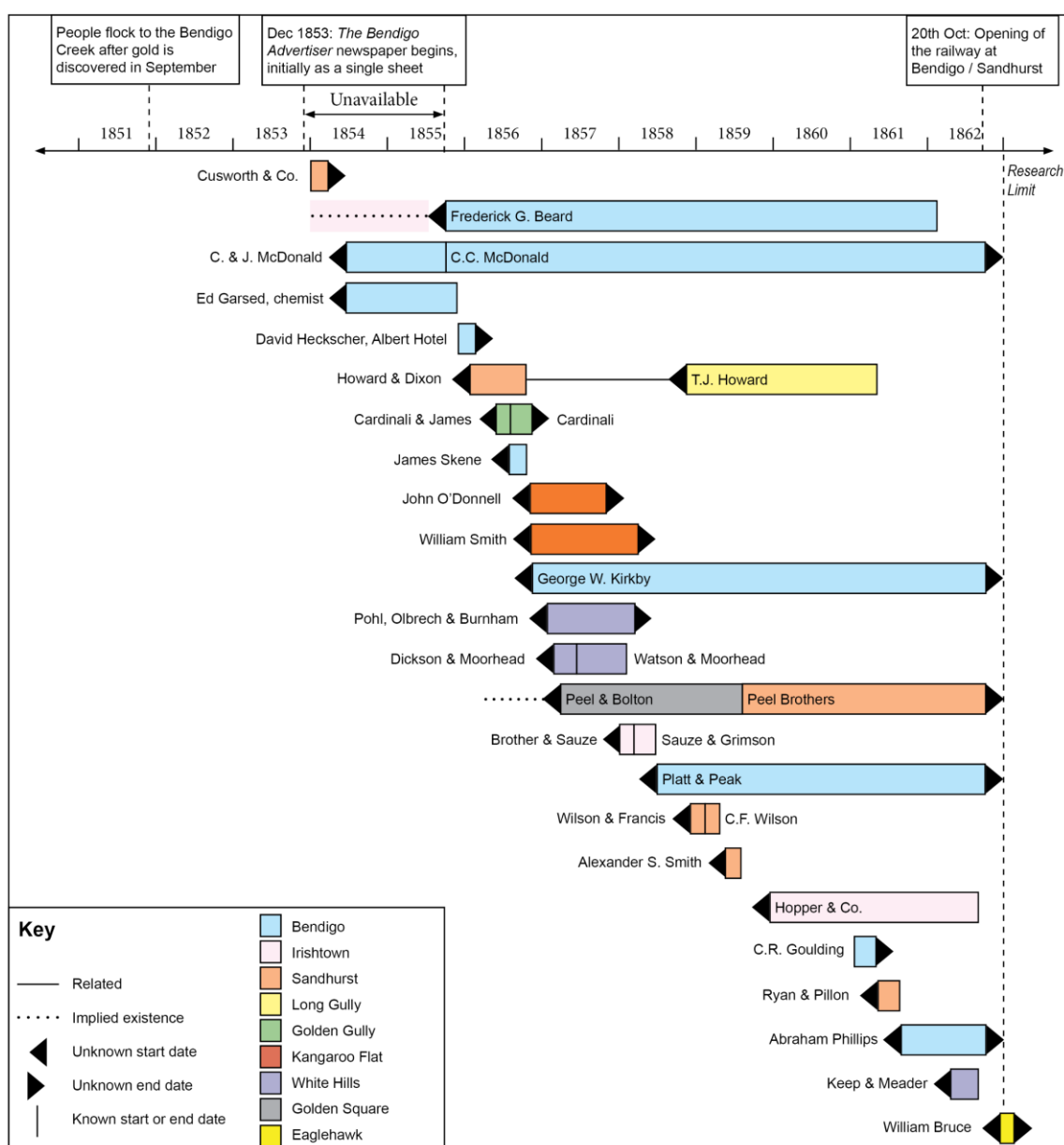



Figure 87: Timeline of soda water manufacturers established in Bendigo during the study period.

A significant number of soda water manufacturers established themselves at Bendigo in the study period: 31 companies were identified (Figure 87, Table 15). The data suggests that Frederick Beard and Cusworth & Co. were the first makers, the latter apparently a well-received new business in the summer of early 1854 (*Argus* 3 Jan. 1854:5). Cusworth & Co. may not have survived long, but Beard ran one of the few manufactories that lasted for more than five years during the study period. In fact, 58 per cent (n=18) of the manufactories appeared to have been in existence for less than one year. It is important to note, however, that the timelines from the newspapers can only offer a window into the reality, where the extent of the scene is unknown. For instance, 23 per cent (n=7) of Bendigo's makers advertised their business, 45 per cent (n=14) advertised only for

equipment for sale or for staff, and 32 per cent (n=10) were only discovered through other references such as notices, news, or law reports.

Table 15: List of manufacturers in Bendigo established by 1863.

Manufacturer	Address (if known)	Branded bottles?	Date from	Date to
Beard, F.G.	Irishtown		c. 1855	1856
	Back of the Australian Hotel / Arnold Street, Bendigo		1856	1862
Brother & Sauze	Irishtown		1857	1858
Bruce, William, & Co.	Eaglehawk		1862	1883
Cardinali & James	Golden Gully			1856
Cardinali, E.	Golden Gully		1856	
Cusworth & Co.	Sandhurst		1854	
Dickson & Moorhead	Seventh White Hill		1857	1857
Garsed, Ed	McCrae St, Bendigo		1854	1855
Goulding, C.R.	McCrae St, Bendigo		1861	
Heckscher, David	Albert Hotel, McCrae St, Bendigo		1855	
Hopper & Co.	Irishtown		1859	1862
Howard & Dixon	Hargreaves St, Sandhurst		1856	1856
Howard, T.J.	Long Gully		1858	1861
Keep & Meader	Napier St, White Hills			1862
Kirkby, George W.	Bridge/Bernal St, Bendigo		1856	1865
McDonald, C. & J.	McCrae St, Bendigo		1854	
McDonald, C.C.	McCrae St, Bendigo		1855	c. 1863
O'Donnell, John	Kangaroo Flat		1856	c. 1857
Peel & Bolton	Golden Square		c. 1856	1859
Peel Brothers	Wills St, Sandhurst		1859	1878
Phillips, Abraham	Lucan St, Bendigo		1861	1866
Platt & Peak	Lucan St, Bendigo		1858	1863
	Bridge St, Bendigo			1863
Pohl, Olbrech & Burnham	Raglan St, White Hills		1857	1858
Ryan & Pillon	Bridge St, Sandhurst			1861
Sauze & Co. (Grimson)	Irishtown		1858	1858
Skene, James	Mundy St, Bendigo		1856	1856
Smith, Alexander	Sandhurst			1859
Smith, William	Kangaroo Flat		1856	1858
Watson & Moorhead	Seventh White Hill		1857	1858
Wilson & Francis	High St, Sandhurst		1858	1858
Wilson, C.F.	High St, Sandhurst		1858	1859
Total Companies	31			

The success of businesses during the 1850s appeared to be as far from guaranteed as finding a fortune digging for gold. Nine partnerships were dissolved in the period studied, three having finished up business and six continuing. Five businesses were declared insolvent, amounting to 16.7 per cent of Bendigo's soda water manufacturers. In T.J. Howard's case, for example, the causes for his insolvency were a general depression in trade, the sudden decrease in the price obtained for lemonade and ginger beer, and the county court ordering his property to be sold to pay his creditors (*Geelong Advertiser* 8 Jun. 1861:2).

Three Bendigo makers are known to have extant examples of branded bottles (see Appendix C), but only F.G. Beard's, in both stone ginger beer and glass egg-shaped forms, can be confirmed to have existed within the study period. Another egg-shaped bottle example bears an embossed monogram used by Abraham Phillips. However, in David Jones' (2009) study of Sydney's soft drink manufacturers and their bottles, all pre-1862 embossed examples exhibit simple lettering only. Therefore, the Phillips example was probably made after 1862. A third egg-shaped example was used by Bruce and bore the embossing 'Wm. Bruce Sandhurst'. Given that Bruce was previously at Eaglehawk, the bottle may date from 1866 at the earliest, when Bruce purchased Phillips' Lucan St manufactory in Bendigo (*Bendigo Advertiser* 29 Mar. 1866:3). Any existing previously embossed bottles would probably have been marked as at Eaglehawk.

Bendigo's settlement and road patterns were shaped in direct relation to the mining activity, and many parts were settled prior to roads being surveyed. F.G. Beard was one of many businesses removed from Irishtown so the land could be sold (*Bendigo Advertiser* 19 Aug. 1856:3; 6 Nov. 1856:3). After he moved to the other side of Bendigo Creek, his address was referred to as White Hills Road then Arnold Street, after the latter street began to be formed (*Bendigo Advertiser* 1 Sep. 1856:1; 7 Dec. 1857:3). Beard operated at the back of Abbott's Australian Hotel at the corner location where Arnold Street branched off (*Bendigo Advertiser* 22 Nov. 1856:1).

Beard was one of nine manufacturers that could be placed in Bendigo's Bridge or McCrae Street precincts on a map (Figure 88). Four others (Brother & Sauze, Goulding, Hopper & Co., and Kirkby's) also operated in the same area, or slightly north at Irishtown, but their approximate positions could not be located. Several breweries were also active in these precincts, interspersed with hotels.

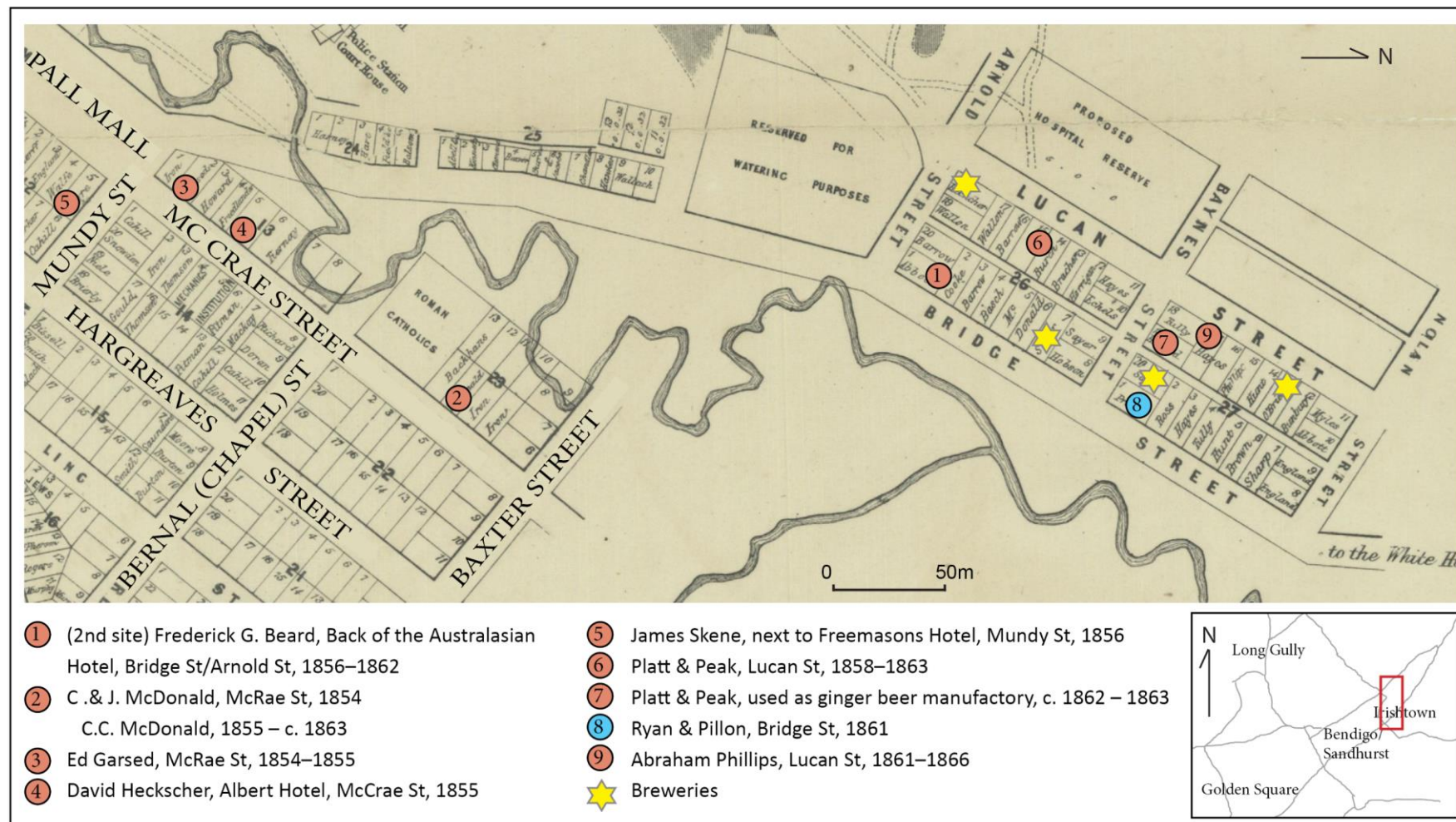


Figure 88: After Collis (1859): Manufactory locations identified (red) or approximated (blue) in Bendigo's Bridge and McCrae Street precincts (1856–1862), derived from newspaper data and rate books. (Source: Public Record Office Victoria, Historic Plan Collection)

Hotels and soda water manufacturers were often closely linked in Bendigo. Apart from Beard, the business of James Skene, who was also a wine and spirit merchant, adjoined the Freemasons Hotel (*Bendigo Advertiser* 16 Jul. 1856:4). Other hotels produced soda water directly; an advertisement for Hecksher's Albert Hotel stated the intention to do so, having the exclusive use of a suitable machine, one used previously by the chemist Ed Garsed (*Bendigo Advertiser* 29 Dec. 1855:4).

Business activity in Bendigo was sometimes seriously affected by flood hazards. An autumn flood in 1858 caused considerable loss and damage to the businesses of Irishtown's Mr. Hopper, who was referred to as a cider manufacturer at the time, and a nearby soda water manufacturer (*Bendigo Advertiser* 1 May 1858:2). The soda water manufacturer may have been C.C. McDonald, given the proximity of his manufactory to the Creek (Figure 89, Figure 90). The following year, a lemonade cart was cast away in a flood at a spot where the rushing waters covered a bridge (*Bendigo Advertiser* 27 Jan. 1859:3).

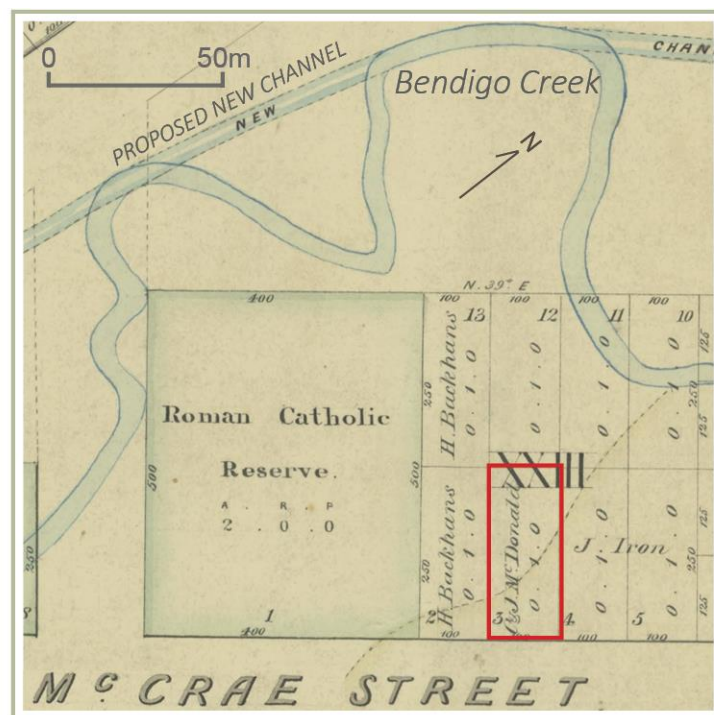


Figure 89: After Larritt (1854): Detail showing the proximity of C. & J. McDonald's quarter-acre block to the original course of the Bendigo Creek. Chains were the unit of measurement used for property dimensions, 100 link frontage = 20.1m. (Source: Public Record Office Victoria)

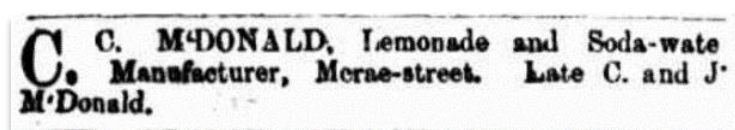


Figure 90: Advertisement for C.C. McDonald. (Source: *Bendigo Advertiser* 12 Jan. 1856:1)

The rough new roads could be a problem. At one stage, a John Brown wrote to complain of ‘more than fifty horney gray stumps’ on the main road within the 250 yards (228m) between Queen’s and Bassett’s Bridges (*Bendigo Advertiser* 16 Nov. 1857:3). According to Brown, these stumps, which required much care to navigate, had caused two ginger beer carts to be upset and smashed on the previous Saturday. Perhaps Peel & Bolton had the hazards of Bendigo’s roads in mind when they advertised for a cart-driver preferably with local experience (Figure 91). Certainly, soda water carts were seen dashing about doing a busy trade, even on Sundays, much to the disgust of some, according to two complaints to the local newspaper editor (*Bendigo Advertiser* 14 Feb. 1857:3; 1 Dec. 1857:3).

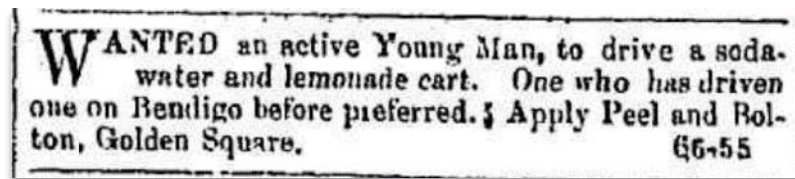


Figure 91: Experienced driver wanted for Bendigo. (Source: *Bendigo Advertiser* 5 Mar. 1857:3)

Maryborough, Dunolly, and Talbot district

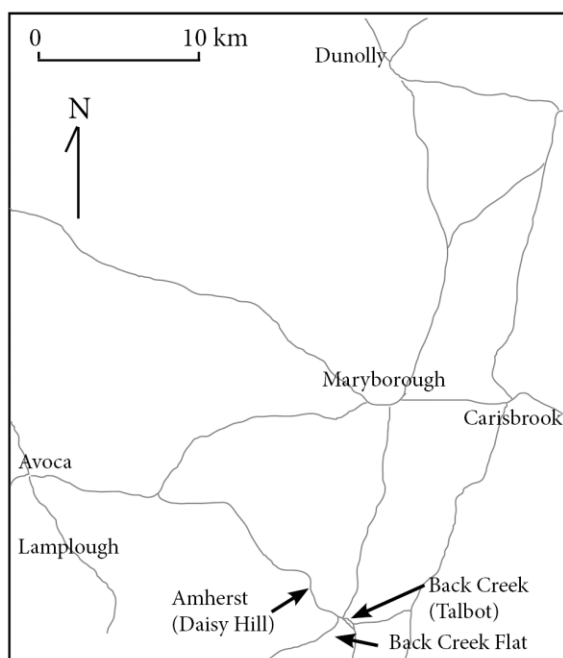


Figure 92: Map of the Dunolly, Maryborough and Talbot area.



In the Maryborough region, people established themselves rapidly at the sites of significant new gold discoveries. Soon after Maryborough’s main rush in 1854, the visiting Governor was astonished to see a street two miles in length, densely lined with tents and stores, after the diggings had only been in operation for seven weeks (*Mount Alexander Mail* 9 Sep. 1854:4). Settlement occupation fluctuated rapidly, with few surviving. For

instance, Daisy Hill Creek saw a rush in 1852, but the location was practically forgotten by late 1853 (*Geelong Advertiser* 26 Oct. 1853:2). Later, Dunolly became almost deserted

when there was a rush to Back Creek Flat in January 1855 (*Argus* 10 Jan.1855:4). By August, the population was rapidly increasing at Daisy Hill (officially named Amherst in 1853), between the old Daisy location and Back Creek (*Age* 28 Aug. 1855:6). Dunolly's population flourished again when a major rush occurred during July 1856 (*Age* 2 Jul. 1856:3). During January 1859, a new rush began at Back Creek, after the rich Scandinavian Lead was discovered by prospectors (Heritage Council Victoria 2020a). Three months later, Back Creek's population was reported to have increased from an estimated 2,000 to over 20,000 in only five weeks (*Star* 4 Apr. 1859:4). Later that year, people from Avoca, Back Creek and Dunolly headed to Lamplough for the Clare Castle Rush (*Star* 5 Dec. 1859:3). Settlement changes, which include Back Creek being renamed Talbot in 1861, and the town's relocation following its main rush, in a way reflect the nature of the goldfields' character and changeability.

These changes and variations in place nomenclature were undoubtedly evident in the *Maryborough and Dunolly Advertiser*, and the advertisements of soda water manufacturers in the area included some of these. For example, William Carkeet advertised his second location as Scandinavian Lead, Daisy Hill within a month of the new rush, but three weeks later named his (presumably same) location Back Creek (*Maryborough and Dunolly Advertiser* 25 Feb. 1859:1; 15 Mar. 1859:1).

Twelve manufacturing companies could be identified in the area prior to 1863 (Table 16). Of these, 41.5 per cent (n=5) advertised their business, 16.5 per cent (n=2) advertised their business for sale or let and 41.5 per cent (n=5) were discovered only through notices, news and insolvency reports.

Table 16: List of manufacturers established in the Maryborough, Dunolly and Talbot district by 1863. One date for a manufacturer continuing to operate later has been added and marked with *.

Manufacturer	Address (if known)	Branded bottles?	Date from	Date to
Baker & Co.	Manufactory next to the Daisy Hill Hotel, Branch Depot near the Theatre Royal Hotel, Scandinavian Cres., Back Creek		1859	
Barclay, William	Dunolly			1857
Carkeet, William	Green St, Carisbrook		1858	1860
	Scandinavian Lead, Daisy Hill		1859	1860

Dickens & Harris	Avoca	1857	
Finch, F.	Broadway, Dunolly	1859	
Frayne, P. & Co.	High St, Maryborough	1858	
	Commercial Hotel, Dunolly	1857	1859
Maryborough ginger beer and cordial manufactory	High St, Maryborough	1857	
Maxton, Peter	Cnr Herchel and Babbage Sts, Amherst	c. 1858	
	Ballarat St, Back Creek	1859	1863
Noblett, George & Forrest, John	Maryborough	c. 1859	1861
Noblett, George	Back Creek Flat, Back Creek	1859	1860
	Lamplough	1860	
	* Ballarat St, Talbot (Back Creek)	1863	c. 1880
Sears, A.G.	Cnr Inkerman and Burke Sts, Maryborough	1859	1862
Stanley & Co.	Amherst		1860
Total Companies	12		

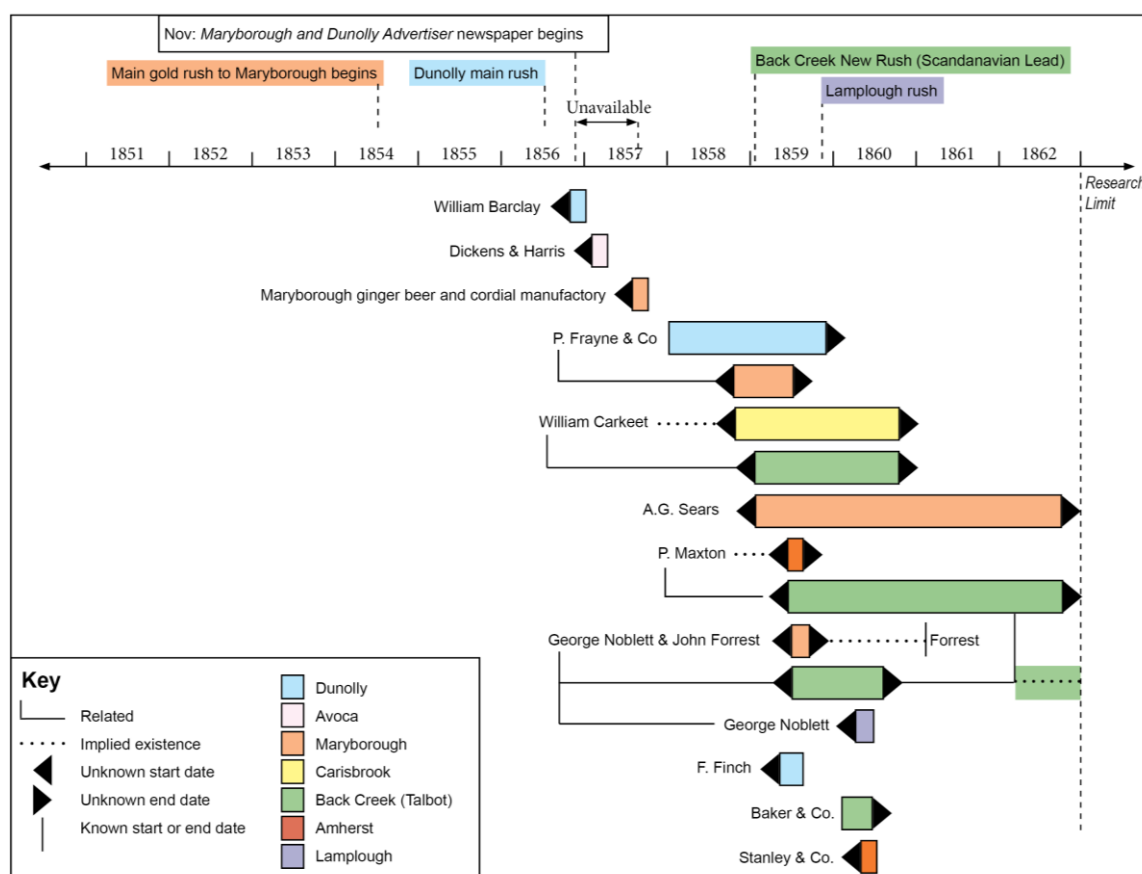


Figure 93: Timeline of soda water manufacturers established during the study period, in the Maryborough, Dunolly and Talbot district.

Manufactories did not necessarily remain in one place, and this movement can be seen in Figure 93. Four companies, Carkeet, Frayne & Co., Noblett & Forrest, and Peter Maxton, ran their businesses at more than one location. Whether a complete manufactory was operating at each location or not could not be established. Regarding Forrest and Noblett, perhaps one ran operations in Maryborough at the time and another in Back Creek. In June 1861, Forrest was reportedly found dead in the bush after he went missing from the Navarre goldfield (40 km west of Avoca) months earlier (*Age* 13 Jun. 1861:4). Given that he was referred to as a soda water manufacturer when he died, Forrest may have been operating his business at Navarre. Operations for Frayne & Co. first began at Dunolly after a soda water machine was acquired in December 1857, then a Maryborough location was added within a year (Figure 94) (*Maryborough and Dunolly Advertiser* 18 Dec. 1857:3; 22 Oct. 1858:1). The 12 miles (19.3 km) delivery distance showed how far the product was distributed during this period.

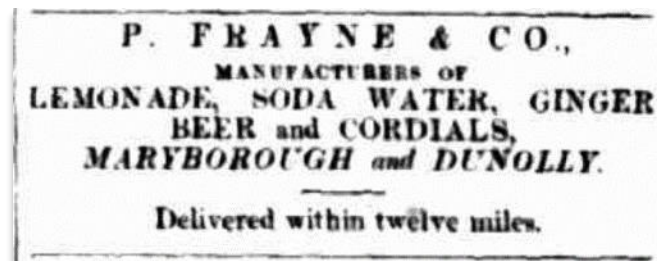


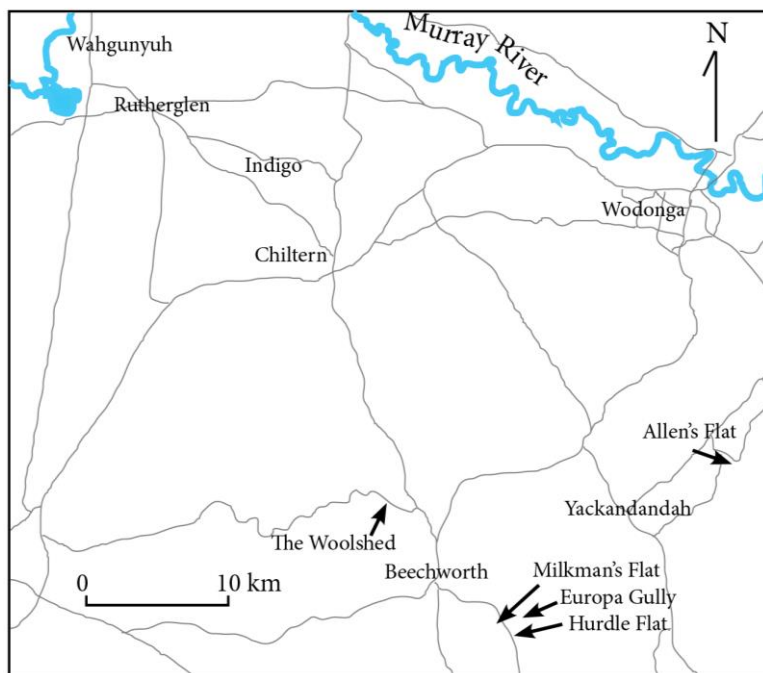
Figure 94: Advertisement for P. Frayne & Co. (Source: *Maryborough and Dunolly Advertiser* 5 Nov. 1858:1)

In contrast to the use of Ballarat and Bendigo newspapers, it appears that none of the makers advertised for staff in the *Maryborough and Dunolly Advertiser*, so perhaps there were other ways of finding staff for the summer season. The only branded bottle for the district appears to have been connected to Noblett's Ballarat Street address after the study period. One of Noblett's causes for insolvency was the great rush to Inglewood that year (*Maryborough and Dunolly Advertiser* 9 Jun. 1860:7). Noblett and William Barclay were the only insolvencies identified, but Noblett managed to join Maxton's business afterwards, as shown in Figure 93.

A flurry of rushes in varied locations, resulting in constantly moving populations, was recorded in the *Maryborough and Dunolly Advertiser*. Therefore, unlike other districts, the newspaper contained evidence for the beginning of some settlements. For instance, at the Back Creek New Rush, it appears that William Carkeet advertised his Scandinavian Lead

address only weeks after the rush began (*Maryborough and Dunolly Advertiser* 25 Feb. 1859:1). In the months to follow, other manufacturers became established at Back Creek. Clearly, soda water manufacturers moved from rush to rush with the populations. This movement of manufacturers also suggests that some distances were achievable for relocating or adding another store to district operations.

Ovens and Murray



Unlike Bendigo and other areas of dry diggings, water in the Ovens goldfields was in continuous supply, having come from the mountains (Bate 1988:11). The significant rush to this area began in 1852 at Spring Creek, later named

Figure 95: Key locations in the Ovens Murray district.

Beechworth. Months afterwards and downstream, the Woolshed opened up, a high-yielding alluvial site, which saw an established community notably increasing in size in 1855 before activity peaked in 1857 (*Argus* 18 May 1855:5; Woods 1985:53). A rush to Nine Mile Creek at Stanley began in 1853, triggering further rushes between Stanley and Beechworth (Flett 1970:65). These Nine Mile goldfield communities along Snake Valley included Hurdle Flat, Europa Gully (both opened up in 1853) and Milkman's Flat, which was rushed in September 1857 (Harvey 1991:7; *Ovens and Murray Advertiser* 12 Oct. 1857:3). Prolific activity along Yackandandah Creek prompted the town of Yackandandah to be surveyed in 1856 (Flett 1970:67). Many diggers left later for Chiltern and Rutherglen, towns brought into existence after Chiltern's 1858 rush and the Wahgunyah Lead rush of 1860, respectively (*Argus* 3 Oct. 1860:6; *Star* 15 Oct. 1860:1). The Murray River port of Wahgunyah, approximately nine kilometres away from Rutherglen, was a significant supply base to these goldfields, and from August 1857, supply activity was reported

regularly in the *Argus* (e.g. 3 Aug. 1857:4). Many other rushes and consequent communities will not be mentioned here, not being the locations of soda water manufacturers that could be identified in this study.

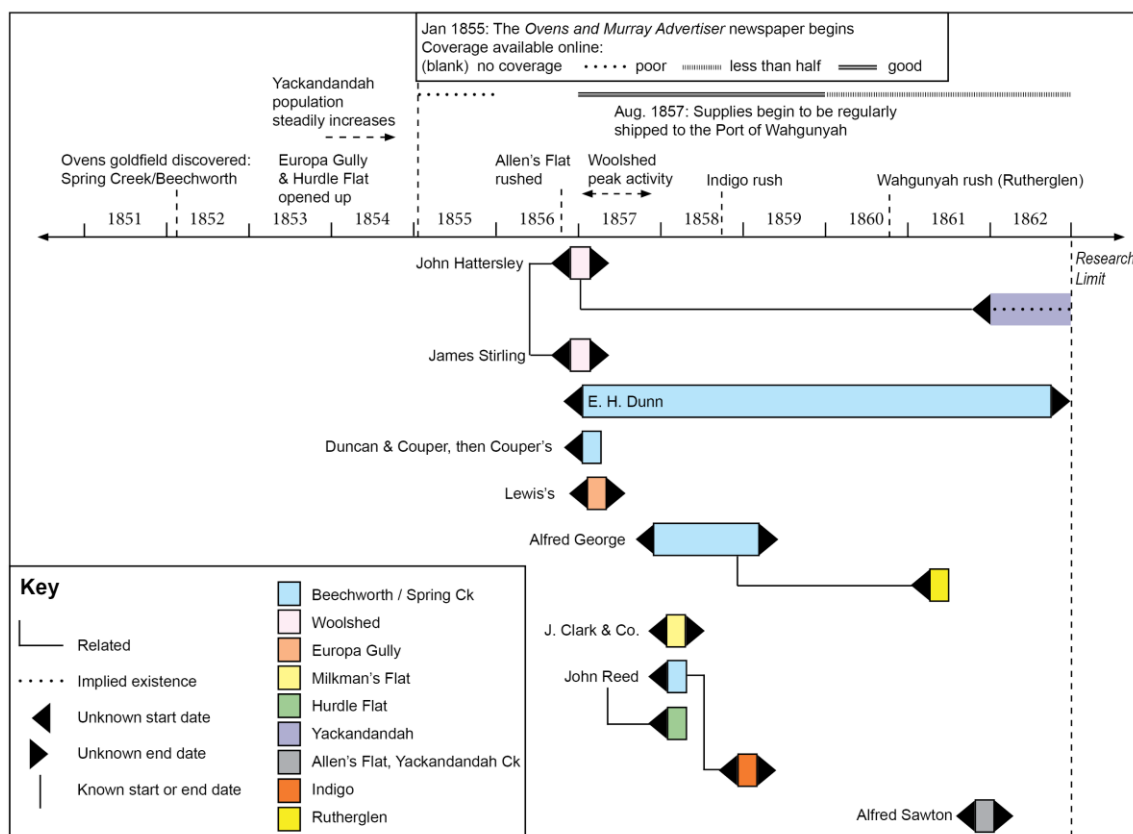


Figure 96: Timeline of soda water manufacturers established in the Ovens and Murray area during the study period.

Figure 96 shows the soda water manufacturers that could be identified in the Ovens district. Eleven separate businesses were identified for the study period, across 12 locations: four businesses in Beechworth, two at Woolshed, three in Nine Mile Creek communities and one each at Indigo, Rutherglen and Allen's Flat. Their details are summarised in Table 17.

Table 17: List of manufacturers established in the Ovens district by 1863

Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Clark, J. & Co.	Milkman's Flat		1858	
Couper's	Foot Bridge, Spring Creek			1857
Duncan & Couper	Beechworth		c. 1857	
Dunn, E.H.	Loch St, Beechworth		1857	c. 1865
George, Alfred	Loch St, Beechworth		1857	1859
	Rutherglen			1861

Hattersley & Stirling	? The Woolshed			c. 1856
Hattersley, John	The Woolshed	Price, Bristol	1856	1857
Lewis's	Europa Gully		1857	
Reed, John	New Town, Beechworth			1858
	Hurdle Flat			1858
	Main Rd, Indigo		1859	
Sawton, Alfred	Allan's Flat, Yackandandah		1861	
Stirling, James	The Woolshed		1856	
Total Companies	11			

Of these businesses, 18 per cent (n=2) advertised for staff, 9 per cent (n=1) the business for sale and 55 per cent (n=7) could be identified only in notices, news and law reports. One such police court report revealed James Stirling being charged by John Hattersley with stealing ginger beer bottles (*Ovens and Murray Advertiser* 1 Jan. 1857:2). Both had been previously in a one business partnership. Eighteen per cent (n=2) of the companies, John Reed and Alfred George, were declared insolvent within the time period. None of the Ovens District companies appeared to have used bottles marked with their own names. However, John Hattersley knew his ginger beer bottles by their colour, shape and brand, being Price, Bristol (*Ovens and Murray Advertiser* 1 Jan. 1857:2). This suggests that at least one maker tried to have a consistent type of bottle for it to be recognisable and to limit his losses.

Only E.H. Dunn appeared to have advertised his products in the newspaper, Figure 97 listing many of them. According to an auction notice two years later, Dunn grew an extensive collection of stone fruits, apples, berries, figs, and vines (*Ovens and Murray Advertiser* 14 Aug. 1862:3). These had probably contributed to his products.

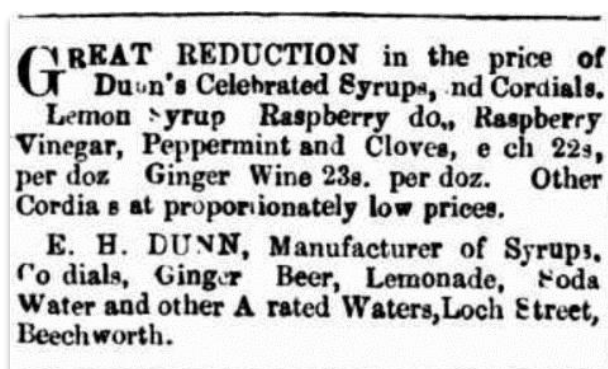


Figure 97: One of the various advertisements for E.H. Dunn's products. (Source: *Ovens and Murray Advertiser* 13 Oct. 1860:2)

The hazards of operating in a new goldfield settlement were indicated in one incident. Timber was always needed on the diggings and the sound of an axe could be regularly heard (Dingle 1984:50). By accident or mismanagement, a felled tree trunk landed across the roof of the frail dwelling that was Lewis's manufactory on Europa Gully (*Ovens and Murray Advertiser* 13 May 1857:2). The parties inside had time to escape, but the tree crushed the house to the ground and destroyed the breakables inside, including the ginger beer and soda water bottles. The dwelling type was probably temporary or hastily constructed, reflecting the frantic, unpredictable, and nomadic state of many settlements on the goldfields.

The limited newspaper coverage shown in Figure 96 had a more significant impact on the Ovens district data than that of other districts in this study. Only 19 references for these companies could be collected. Despite this sparse result, Figure 96 clearly shows that both John Reed and Alfred George moved with the population to newly rushed places. Hattersley moved his business from Woolshed to Yackandandah sometime between 1857 and 1866 (*Ovens and Murray Advertiser* 17 Mar. 1857:2, 30 Aug. 1866:3). However, no references to him could be found in the newspapers for this period, so an 1857 establishment date referred to in the Victorian Heritage Database report for his factory site could not be verified (Heritage Council Victoria 2020b).

Other goldfields districts

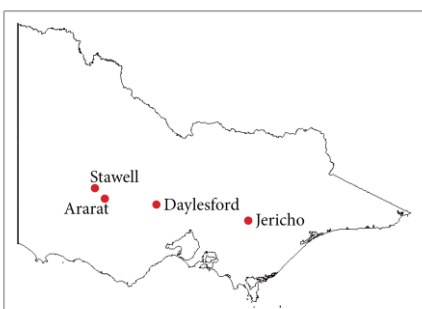


Figure 98: Relative locations of Daylesford, Ararat and Stawell and Jericho.

Soda water makers found their way to other Victorian goldfields. A report in the *Argus* newspaper described two ginger beer manufactories in the main street of Jericho, which was the main township at the Jordon diggings in the Jamieson goldfields (*Argus* 12 Sep. 1862:6). Local newspapers did not exist then for this location. For significant goldfield settlements such as Daylesford, Ararat and Stawell, the lack of local historic newspapers available online meant little soda water data could be found for these places. However,

evidence for three manufacturers in Ararat and Daylesford was found in non-local newspapers, as shown in Table 18. All five references related to the end of each business or manufactory. The property of Horsey & Skinner's Mount Ararat manufactory was

offered for sale, that of Farnsworth & Bell was indentured and sold to pay their creditors, and two references to George Field related to his insolvency (*Age* 16 Mar. 1858:2; *Maryborough and Dunolly Advertiser* 26 Jan. 1858:4; *Mount Alexander Mail* 7 May 1862:3). No branded bottles appear to exist for these companies.

Table 18: List of manufacturers at Daylesford and Ararat established by 1863 and sourced from non-local newspapers.

Manufacturer	Address (if known)	Branded Bottles?	Date from	Date to
Farnsworth & Bell	Vincent St, Daylesford			1862
George Field	Ararat			1859
Horsey & Skinner	near Arnold's bakery, Mount Ararat			1858
Total Companies	3			

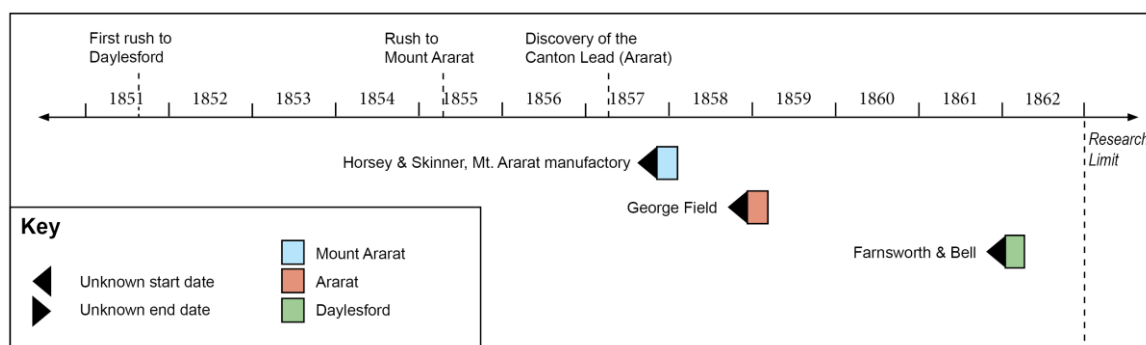


Figure 99: Timeline of soda water manufacturers at Daylesford and Ararat, established by 1863.

As shown in Figure 99, the presence of these manufactories was due to brisk activity in new goldfields, but their end may be related to shifts in that activity. For instance, there was a rush to Mount Ararat (also known as the Mount William diggings) in 1855, with reports of 2,000 people at work (*Argus* 25 April 1855:6). A new lead discovered in the following year revived the digging activity, but Mount Ararat was rapidly on the wane by mid-1857 (*Argus* 16 Mar. 1856:4; *Bendigo Advertiser* 25 Aug. 1857:2). Horsey and Skinner advertised their business for sale soon after (*Maryborough and Dunolly Advertiser* 26 Jan. 1858:4). Many diggers would have been part of the significant rush to the rich Canton Lead, discovered in April 1857, approximately 10 kilometres north-east of Mount Ararat. The town of Ararat was established at the Canton Lead site. At Daylesford, the end of Farnsworth & Bell's business possibly coincided with the shift from the easier alluvial to quartz mining in the 1860s. The end was certainly well after Daylesford's largest rush in March 1856 (Flett 1970:403).

Summary

This chapter has shown that soda water manufacturers in regional Victoria also primarily sold to the trade, hotels in particular. Like those in Melbourne, some manufactories adjoined hotels, such as Bendigo's Beard or Ballarat's Maine & Co. Other hotels, such as Ballarat's Swamp, Charlie Napier and Market Square, manufactured soda water in-house. A range of businesses made soda water as part of a more diverse business. For instance, Tarraville's Liston was also a chemist, Geelong's Pearson Brothers and Bendigo's James Skene were wine and spirit merchants, and Geelong's Simmons & Newlands and Castlemaine's Keiller & Son were confectioners.

It is important to note that due to the limited newspaper coverage available online, the detection and, therefore, the identification of regional manufacturers in this study was biased heavily towards the time periods with good digital coverage. In addition, the lag period between settlement and the establishment of a local newspaper obscured how long it took for the first soda water manufacturers to begin business at new settlements. One exception was the district containing Maryborough, Dunolly and Back Creek. Although the initial years of Maryborough and Dunolly were obscured in the data, a clear correlation between later settlements and the quick establishment of soda water manufactories could be seen.

Chapter 9. Discussion

This section reflects on the total findings of the previous three chapters and some implications that arise from the data.

The occurrence of soda water manufacturers in new settlements

Number of manufacturers and occurrences

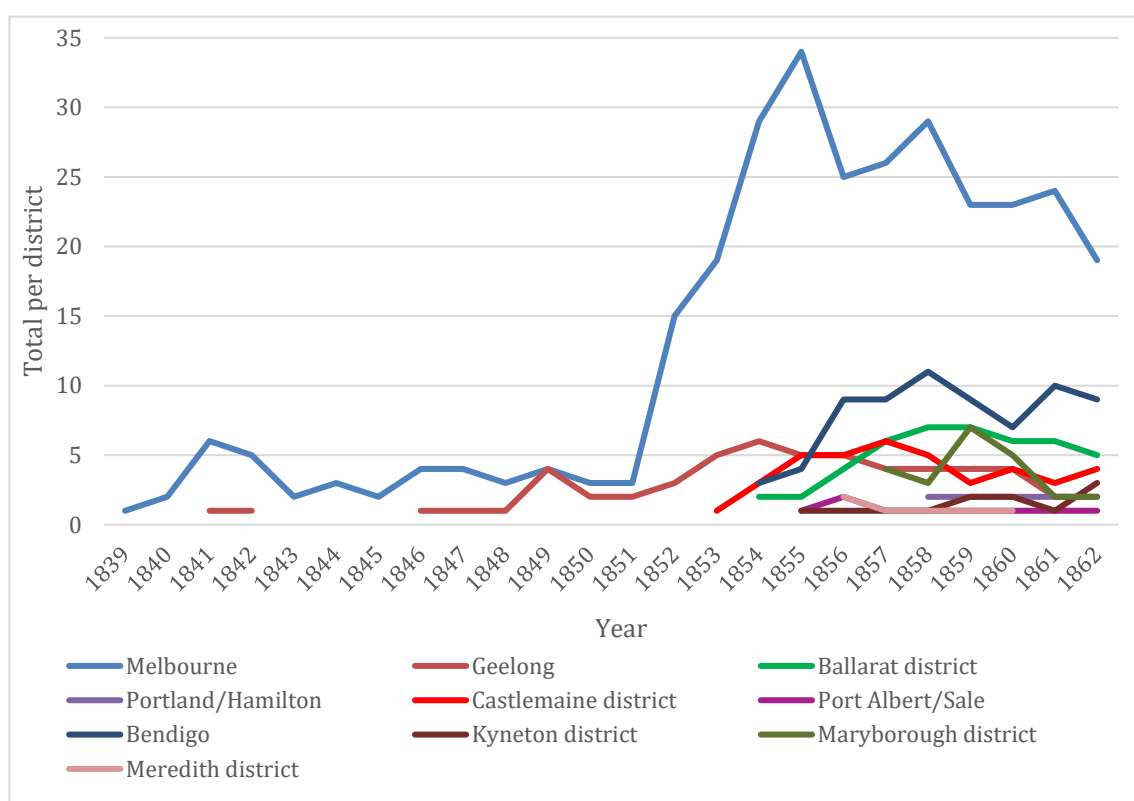


Figure 100: A comparison of the total soda water manufacturers identified for each district per year, between 1839 and 1862. The limited data from Daylesford and Ararat has not been included.

Victoria's soda water manufacturers followed the population, whether the population was transient or more permanent. Whilst Melbourne's population and manufactory sites spread from the centre outwards, the places where most of the 124 regional Victorian soda water manufacturers appeared to occur were the goldfields (Figure 100). Bendigo was the busiest of the regional districts or towns, particularly during 1858, when 11 manufacturers could be identified in operation. The town's high numbers probably reflected the unhealthy state

of its water supplies, aerated waters being viewed as a ‘safe’ option at the time. A comparison of Geelong manufacturer numbers compared to those in Melbourne show both ports were of similar popularity in 1849. Numbers then peaked in both towns during 1854 and 1855, respectively. These peaks reflect the significant increase of activity caused by the gold rushes, with many gold migrants travelling into and through the towns. The downturn of soda water manufacturer numbers towards 1862 represents two factors. Firstly, the economy and markets in general had slowed. This brought about the second factor, a reduction of short-term manufacturers. With the smaller competition partly eliminated, a higher percentage of long-term manufactories were left to continue. Overall, the total numbers for each district shown in Table 19 roughly represent the differences in population activity during the study period.

Table 19: Total number of soda water manufacturers in existence between 1839 and 1862 that could be identified from the survey.

Melbourne district, including Williamstown	105
Bendigo	31
Ballarat district	20
Geelong	17
Castlemaine district	16
Maryborough district	12
Ovens and Murray district	11
Port Albert and Sale	4
Kyneton, Gisborne and Woodend	4
Portland and Hamilton	3
Meredith district	3
Other goldfields	3
Total	229

How soon did manufacturers establish themselves?

How swiftly a manufactory was established in new settlements could not often be identified for goldfield settlements and never for coastal areas of regional Victoria. As Figure 101 shows, a time lag exists between the dates of newly settled towns or districts and the availability of regional digitised newspapers on *Trove*. This availability reflects and often extends the real lag that existed between a settlement and its first newspaper publication. Consequently, the soda water manufactory data used in this study largely remains absent for this time gap. The Maryborough district was one exception. Although its initial years

were not represented, a flurry of later rushes, resulting in moving populations, was recorded in the *Maryborough and Dunolly Advertiser*. Therefore, the newspaper captured evidence from the beginning of some settlements. For instance, at the Back Creek New Rush, manufacturers were established within months of the main rush activity, and in William Carkeet's case, within two months or even less. These movements reflected the need for businesses to be where potential customers were, in order to survive. They also reflected the dynamic population movement and its nomadic nature. The implications of the Maryborough district findings mean they can be applied to the settlements or districts where newspaper coverage is missing. In other words, soda water manufacturers probably established themselves in other new goldfields settlements just as quickly, even though records of this could not be found.

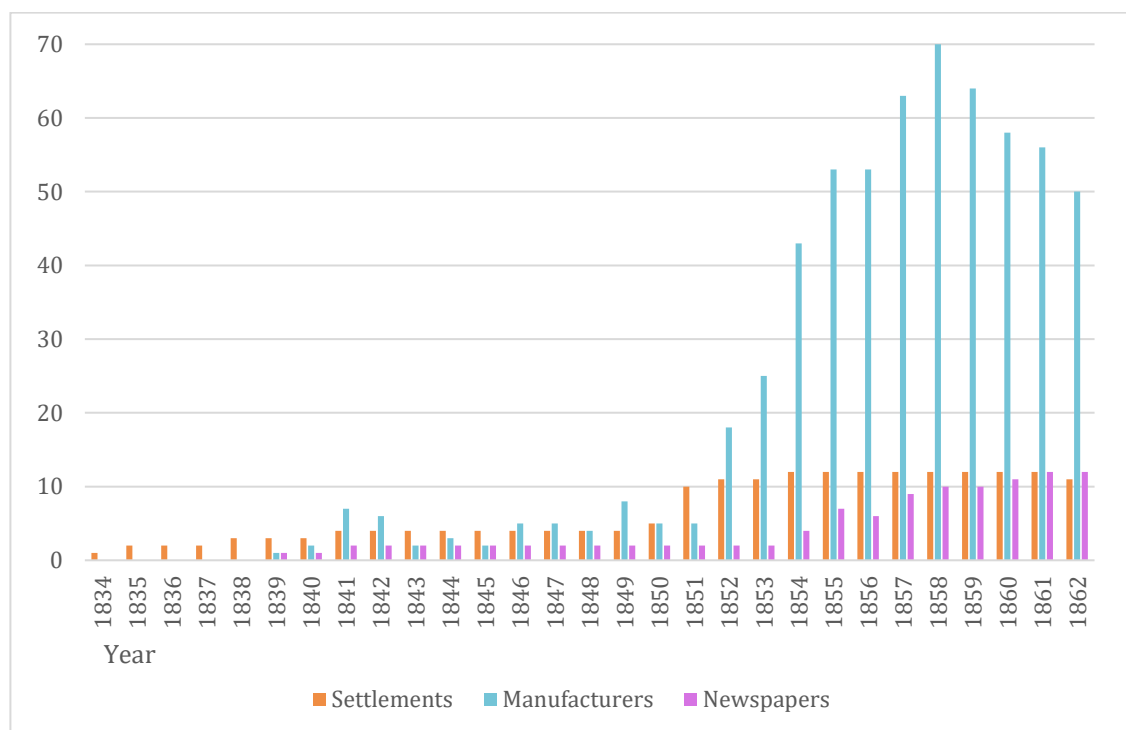


Figure 101: A comparison of the yearly totals for soda water manufacturers, their newspaper sources and newspaper town of origin 1834–1862. The dates refer to the initial settlement of Melbourne or a goldfield town, or the proclamation of other coastal or inland towns. To compare the number of newspapers to settlements, the towns of Portland, Hamilton, Sale and Port Albert have been considered individually, while each goldfield district has been considered as one. Consecutive or contemporary Melbourne or Geelong newspapers have been considered as one each. Ararat and Daylesford manufacturers have been omitted due to their newspapers being unavailable.

Possible reasons for success and failure

According to the results in the previous two chapters, many manufactories did not survive longer than a year. One of these was Melbourne's J.E.H. Ellis, who began his business ill-prepared, expecting to make a profit in a summer despite a paralytically high cost of rent. After failing in his aim, his problems were compounded when this rental cost repelled potential purchasers of the business (*Argus* 23 Nov. 1854:6). Other short-lived manufactory efforts may have been due to shifting populations in the goldfields mentioned previously. Several factors contributed to failure and others to success. An important issue may have been the high cost of labour, which caused Geelong's Philip Maine to raise the price of his products soon after the rush to the goldfields began (*Geelong Advertiser* 10 Dec. 1851:1). Indeed, the failure to return bottles was a widespread problem, causing significant, 'ruinous losses' (*Argus* 22 Oct. 1858:5; *Geelong Advertiser* 7 Sept. 1852:2; *Mount Alexander Mail* 21 Sep. 1855:3). As a third cause, several insolvencies between 1859 and 1861 in regional areas (Bendigo's Wilson and A.S. Smith, Ararat's Field, Back Creek's Noblett, Clunes' Atkins, then Rutherglen's George) cited a depression in trade contributing to business failure (*Argus* 9 Jun. 1860:7, 26 Jul. 1860:5; *Bendigo Advertiser* 12 Feb. 1859:3, 6 Aug. 1859:2; *Herald* 18 Jun. 1861:5; *Star* 17 Mar. 1859:2). This problem caused Carisbrook's William Carkeet to drop his prices (*Maryborough and Dunolly Advertiser* 23 Nov. 1860:3). As mentioned previously, Figure 101 shows a distinctive downturn in the number of manufacturers during this period. This pattern reflects a time of rapid economic deflation, which will be discussed a little more below (Bate 1988:15). Finally, in a time well before the existence of credit cards, soda water manufacturers could buy goods on credit from stores. This may have been when a manufacturer lacked the capital to begin with or to continue business. However, if the debt could not be paid creditors would legally acquire manufactory assets to recoup losses. It was shown in the previous chapter that it became necessary for Geelong suppliers Bayldon & Graham to do this multiple times.

Other causes brought about business longevity and success. Firstly, the water quality affected the quality of the product, so a better product required better water. For instance, to make their products Ballarat's Rowlands & Lewis sourced their water from the springs near Buninyong. The excellent quality of this water was a key element to the ensuing demand for the company's products and, therefore, its success (*Ballarat Courier* 7 Mar. 1870). This distinction implies that many regional manufacturers either did not have access

to good quality water, or its quality was typically unreliable in the goldfields. Unfortunately, very little evidence for the specific water sources utilised by regional soda water manufacturers could be found in this study, so they could not be compared. Lastly, working well together was probably another factor for success. As well as Rowlands & Lewis, Paulson & Stanton of Campbell's Creek were an example of a stable partnership in a sea of dissolved ones during the period studied (*Mount Alexander Mail* 23 Nov. 1859:2). Some makers showed that bottle losses did not always spell disaster because successful Melbourne manufacturers, Atkinson & Elliott, weathered the financial impact of their losses (*Argus*, 6 Oct. 1859:6).

Origins, agents, and orders: the time span for shipping goods and its implications

Manufacturers were both encouraged and discouraged by shipping supply patterns. Although the *Marco Polo* clipper ship made her run from England to Melbourne in a remarkable 68 days in 1853, more commonly, this passage took approximately three to four months (*Argus* 20 Apr. 1853:3; *Geelong Advertiser and Intelligencer* 28 Jan. 1856:2). Before the telegraph connected Australia to Europe in the 1870s, communication between the two places was by sea. Therefore, for an order to reach its destination through an agent, another three to four months would pass by. Although lists of imported goods in the newspapers often included orders, many goods were sent by merchants and manufacturers on consignment. According to Bate (1988:15), this was because, at first, the market appeared to be insatiable. The time delay and consignment situation meant many goods were offered at auction, which often included those required by soda water manufacturers. Faced with the opportunity of readily available machinery, ingredients, and supplies, combined with the demand for aerated waters and ginger beer, the promise of excellent profits lured potential manufacturers.

However, the consignment situation also meant manufacturers could be vulnerable to market or supply changes when they occurred, particularly before the increase of activity in 1851. If a shortage existed for an essential element, a long delay before the next shipment could mean severe consequences for a business. For instance, a scarcity of refined sugar in 1846 and its consequent high price severely impacted Melbourne's ginger beer and

lemonade manufacturers, so most of them were forced to close shop at the time (*Melbourne Courier* 9 Mar. 1846:2). Unfortunately for manufacturers, this sugar shortage was to endure. A report from the following October mentioned loaf sugar arriving per the ship *Palmerston*. However, the amount of 15 hogsheads from that ship was reported as a relatively small quantity, compared to the 50 tons expected (*Melbourne Argus* 9 Oct. 1846:2). By January 1847, the high price of sugar had reportedly still not dropped. Despite the situation, Melbourne ginger beer makers Jennings and McKeever continued to apply for and receive their confectioner's licenses during this period. Geelong's James Alder also appeared to survive the sugar shortage to continue operating into the 1850s.

Bottle shortages

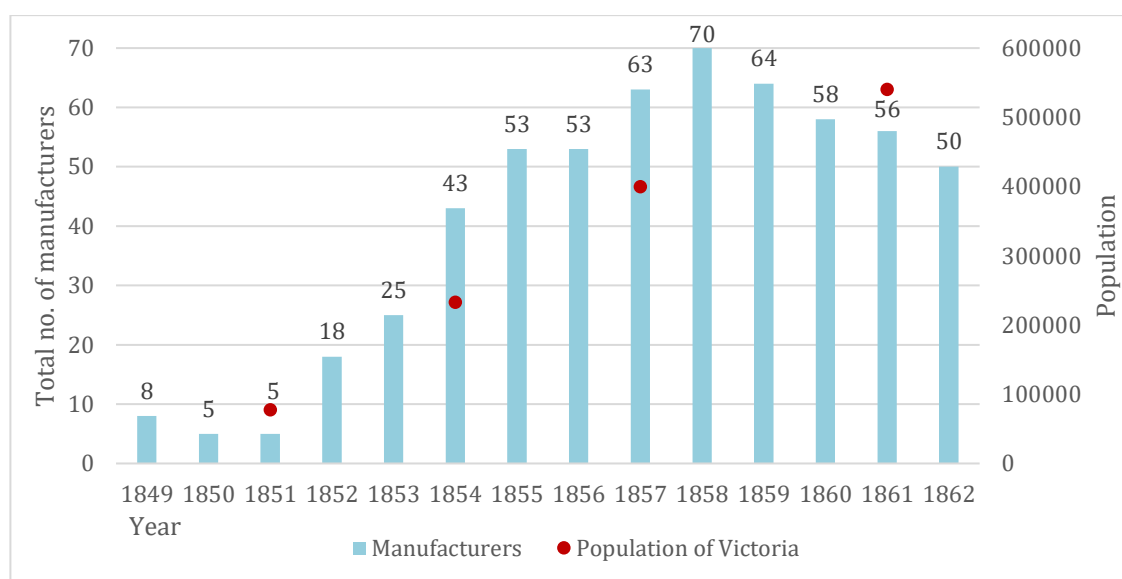


Figure 102: The changing totals of soda water manufacturers operating in Victoria, between 1849 and 1862, compared to Victoria's changing population.

The rapid population increase triggered by the discovery of gold in 1851 meant a corresponding rapid increase of new soda water manufacturers, all needing bottles. This increase is shown in Figure 102. During this period of increasing numbers, the expected time lag between bottle orders and their arrival was a problem. Imported bottle numbers were not proportionate to the needs of the increased soda water manufacturer numbers. There was a deficit. As previously mentioned in Chapter Six, in the second half of 1852, two Geelong makers reported the high cost and difficulty of finding replacement bottles (*Geelong Advertiser and Intelligencer* 7 Sep. 1852:2). In the two years that followed, the continuous increase in manufacturer numbers caused another desperate need for bottles by the spring of 1854. Both instances are apparent in Figure 103, where spikes in the graph

mark notable increases in soda water industry ‘Bottles Wanted’ advertisements placed in the *Argus* (e.g. 13 Oct. 1854:1). The seasonal demand compounded the situation. In contrast, post-1855 ‘Bottles Wanted’ advertisements mainly include regular requests placed by manufacturers and bottle merchants, and cannot be regarded as true bottle shortages.

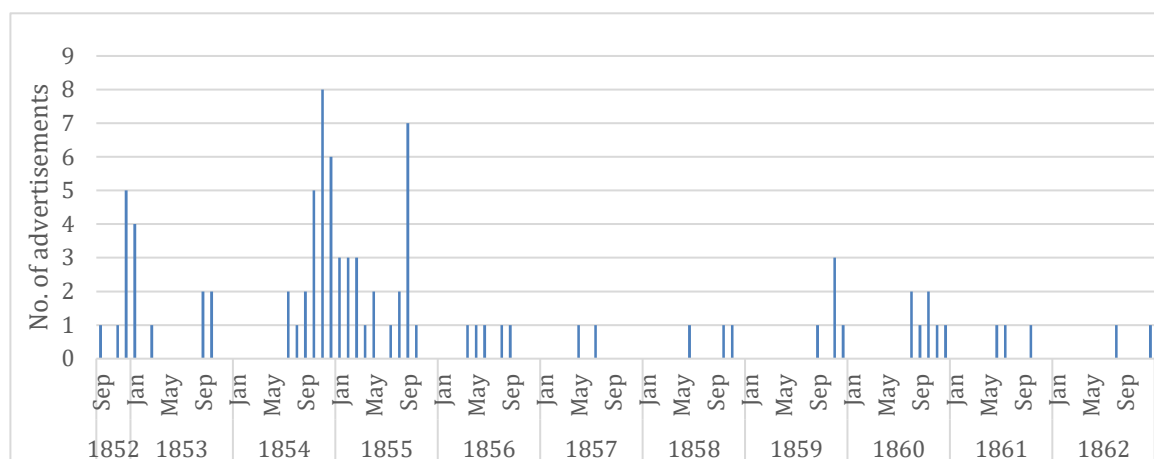


Figure 103: Number of advertisements for soda water and/or ginger beer bottles wanted in the *Argus* newspaper, by month, 1852–1862.

The effect of oversupply in a changing economy

To the other extreme, an oversupply of goods in the general market created serious issues in 1857, causing prices of goods to fall (Bate 1988:15). Therefore, not only did many soda water manufacturers have unstable populations to deal with in the goldfields, as previously indicated, but an unstable economy as well. The decline in manufacturer numbers after 1858, as shown in Figure 102, reflected the decline in general trade within Victoria. A corresponding trend is also reflected in an associated industry. Table 20 shows that a temporary drop in Melbourne bottle merchant and marine store numbers occurred. Marine stores dealt with a variety of new and second-hand merchandise, including bottles.

Table 20: Number of bottle merchants and marine stores in the Melbourne district, according to the annual Melbourne commercial directories.

	1857	1858	1859	1860	1861	1862
Bottle Merchants	2	2	1	1	3	2
Marine Stores	2	2	1	6	8	13

It was an unprofitable time for some. For example, Melbourne manufacturer Thomas McDougall failed in his unfortunate speculation in purchasing bottles as part of his broader business activities (*Argus* 27 Jul. 1858:6). By the time his stock had landed, the bottle

market was flooded. Advertisements such as the one in Figure 104 had become more common, and McDougall was soon declared insolvent. The changing fortunes of soda water manufacturers during the 1850s can be viewed as a window into general business and industry in Victoria during that decade. A visitor to Victoria assessed the situation well when he likened the land to one of ‘nuggets and bankrupts’ (*Age* 3 Jan. 1860:5).

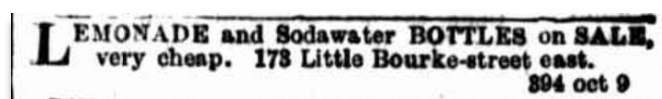


Figure 104: Bottles being advertised cheap. (Source: *Argus* 7 Oct. 1857:3)

Why so few branded bottles?

The time it took to ship goods to the colonies was probably the main reason few branded soda water and ginger beer bottles existed during the period. Only nine or possibly 11 (< 5 per cent) of the 229 manufacturers appear to have used bottles branded with their name (see Appendix C). To order branded bottles through a merchant or shipping agent would mean facing a six month wait at the very least for an order to be sent then the bottles to arrive. In contrast, the consignment situation meant unmarked bottles were readily available for most of the time. The bottles needed to be available when the soda water manufacturers needed them. Although bottles were repeatedly reused, the previous chapters indicated bottle breakages and losses occurred, so replacement stock was necessary. It is perhaps no surprise that all the manufacturers who invested in ordering their own branded bottles during the study period lasted at least seven years in business (Table 21).

Table 21: Makers that used branded bottles during the study period, divided into those bottles clearly used within the study period and those that were probably used during the study period.

Certain	Location	Active period
Beard, F.G.	Bendigo	1852–1862
Jones, E.W.	Forest Creek	1855–1862
Mathews & Howey	Geelong	1854–1871
Roche, M.J.	Melbourne	1849–1861
Probable		
Dixon, P.G.	Melbourne	1853–1914
McLaughlin, James	Melbourne	1854–1866
Paulson & Stanton	Campbell’s Creek	1856–1864
Prevôt, E.J. & Co.	Melbourne	1854–1878
Rowlands & Lewis	Ballarat	1856–1876

Archaeological traces to expect, or not expect

There are certain patterns that Victoria's soda water manufacturers are expected to have left in the archaeological record. Apart from the expectation of the few branded bottles that was mentioned previously, the repeated reuse of containers would imply that far fewer would exist in the archaeological record than the total number filled. This theory applies to domestic and other types of sites, where archaeologists should expect fewer bottles than the number emptied. In the context of bottle reuse, the end consumer of the product within was often separate from the end user of the container. Most bottles probably made their way back to the soda water manufacturer, but accounts of bottle losses suggest many did not. These bottles may have mainly found their end at hotels, the primary customer type for the manufacturers. However, in addition to the sales of aerated waters, it is important to note that some hotels (e.g. Ballarat's Charlie Napier and Swamp Hotels), chemists (e.g. Melbourne's Harrington) and confectioners (e.g. George Keiller & Son, Castlemaine) also manufactured and bottled aerated waters in-house. This implies that archaeological evidence for a soda water manufactory can be found at the former sites of these types of businesses. These results show that the historical record can often explain an archaeological signature. Therefore, the importance of historical research to investigate a site's history cannot be stressed enough.

It is also worth noting that bottle reuse can also apply to bottles having been reused by multiple manufacturers. When a soda water business finished up, bottles were often included in lists of assets to be sold, such as Forest Creek's E.W. Jones and Bendigo's F.G. Beard (*Mount Alexander Mail* 7 May 1862:3; *Star* 14 Feb. 1862:3). Clearly, some bottle stocks changed hands. Some bottles may have even changed ownership more than once. This study identified several businesses that did not survive for more than one year. Considering Beard's assets were advertised for sale in the Maryborough, Castlemaine and Ballarat's newspapers, if the buyer was not local, one can expect some bottles to have travelled (*Maryborough and Dunolly Advertiser* 14 Feb. 1862:5; *Mount Alexander Mail* 14 Feb. 1862:1; *Star* 14 Feb. 1862:3). It follows that even branded bottles were subject to being bought and used by another if the original business was finished. Therefore, branded extant bottles found do not necessarily imply the same company filled them.

The archaeological signature of a manufactory site

So far, the collective evidence from this study suggests a type of refuse pattern to expect at a manufactory site, many of which have been mapped in the previous two chapters. Given that aerated water and ginger beer bottles were almost exclusively used for their original purpose, the egg-shaped and stoneware ginger beer forms are almost the only ones to be expected from the study period. It is also possible that the less common flat-bottomed or cucumber-shaped bottle forms exist in pre-1863 deposits.

The bottling rate for a Tyler No. 1 machine appears to have been 2,400–3,600 (200 to 300 dozen) per day. According to an 1842 account of a London manufactory visit, 12 dozen bottles per day could be expected to be broken (*Australian* 16 Dec. 1842:4). A modern rate of machine-made bottles is closer to one per cent (Carney 1998:86). Even if one per cent of the bottles had burst under pressure during the bottling process, and some were returned, cracked or broken, at least one dozen bottles per day would have to be discarded. Ginger beer bottles can be added to this number. In his reassessment of the Babes in the Wood site at Parramatta, Martin Carney, faced with ‘large quantities of aerated water and ginger beer bottles in a series of dumps’, estimated 3–6 bottles per day were discarded (Carney 1998:81, 86). Carney (1998:84) also found no bottles in a refillable state. Therefore, for a pre-1863 manufactory, one would expect to see a series of similar deposits containing broken or cracked egg-shaped or stoneware ginger beer bottles and potentially very little else accompanying them. Indeed, Carney (1998:84) argues that a large concentration of aerated water and ginger beer bottles is a sign of a manufactory site. This is important when considering that hotels were likely to return the bottles for re-filling rather than dispose of them on site. Alternatively, if cordials were made and indeed, at least 25 per cent of the manufacturers in this study did so (see Appendix B), the pattern would be slightly different. Carney (1998:87) argues that generic alcohol bottles that were used for them would also be present. After Carney’s theory (1998), the bottles found on a manufactory site would represent the use and reuse of the containers rather than the consumption of the contents.

Summary

Clearly, this discussion has shown that population movement, the availability and timing of supplies, and a fluctuating economy, all affected Victorian soda water manufacturers. In

addition, the availability of suitable water, a resource crucial to gold mining and the soda water industry, is likely to have had an effect on manufacturers in those areas. Finally, this discussion has shown that the findings have implications for the interpretation of the archaeological record. Therefore, this information is clearly important for archaeological analyses and consequently, site interpretation.

Chapter 10. Conclusions

This thesis has illustrated a detailed record of the soda water industry in Victoria during the infancy of white settlement. A *Trove*-based survey discovered then analysed various individual components concerned with the industry. The results identified 229 manufacturers, who operated in Victorian settlements between 1839 and 1862. The findings have several implications for the archaeological study of soda water bottles and the initial development of urban Victoria.

Industry establishment and growth

Newspaper advertisements that offered specialised soda water machines for sale enticed potential soda water manufacturers. The machinery and supplies were almost all imported and commonly on consignment, their ready availability allowing a manufacturer to take the opportunity to become established quickly.

This survey showed that the distribution of soda water manufacturers was limited to coastal towns or ports before 1851. After the discovery of gold, the increasing population triggered a growth in the number of soda water manufacturers, who spread out to the new goldfield settlements and settlements that developed at way points on the way to pastoral areas and the goldfields. The dynamic, unstable goldfields populations involved many short-lived settlements and, therefore, many short-lived manufactories. An extended time lag between new regional settlements and their digitised newspapers available on *Trove* meant the early years of manufacturers could not be defined easily. However, a significant new rush to Back Creek was documented in the district's local paper. This showed that soda water manufacturers had established themselves within months after the rush began. The Back Creek example infers that manufacturers were established in other districts just as quickly. It became apparent that the soda water industry was one of the first to appear in new regional Victorian settlements, particularly in the goldfields.

To quench a thirst

Various factors were shown to have contributed to the demand for aerated waters and ginger beer. Firstly, the summer heat combined with the often poor drinking water in the goldfields

created the desire. Business fluctuated with the seasons, which was clear from the greater number of industry staffing advertisements in the lead up to the height of summer. In addition, the temperance movement was active, which encouraged soft drinks to be consumed rather than alcohol, even in hotels. People in new settlements quickly introduced “products and processes that were familiar in the old country” (Farrer 1980:240). Indeed, the soda water industry concept was imported from Britain and wider Europe. Furthermore, so was Britain’s most recognised brand of soda water. Imported Schweppe products symbolised quality, a reputation transferred directly to and retained within the colony. This meant that some local soda water makers fraudulently passed off their own product as the Schweppe brand. The strong British connection meant that for new settlers, not only was soda water desirable, but its best-known brand too.

Aerated water and ginger beer bottles

The pressure of the confined gas in soda water and fermented ginger beer required specially made bottle forms. During the period studied, soda water and lemonade were almost exclusively bottled in a glass egg-shaped form (often referred to in modern times as a Hamilton or torpedo). Merchants’ advertisements revealed a small number of minor forms were also utilised, one described as long shaped and the other flat bottomed. Schweppe-branded bottles were also sold to be used by non-Schweppe soda water makers. Ginger beer, on the other hand, was bottled in salt or Bristol-glazed stoneware.

Merchant advertisements were used with shipping reports to identify the ports of origin for soda water and ginger beer bottles. Trade between Victoria and New South Wales was noted, so it is possible that some ginger beer bottles were sent to Victoria from Sydney. Otherwise, almost all bottle shipments that could be traced came from British ports. One shipment of ginger beer bottles could even be traced back to the pottery of W. Powell & Sons. Although glassworks existed at some ports of origin and may have been responsible for soda water bottle exports, no direct connections could be proved in this study.

Bottles were costly, so they were reused multiple times. Consequently, a site lacking soda water or ginger bottle remains does not necessarily mean that these soft drinks were not consumed on the premises. Any emptied bottles may have been returned. Accounts of bottle breakages indicated that a small percentage of soda water bottles could not stand the gas

pressure during the bottling process. In addition, some bottles were expected to break before they were returned for refilling. Unfortunately, many manufacturers suffered from a deficiency of bottles returned.

Archaeological applications

Bottles are the most recognisable evidence of the soda water industry remaining in the archaeological record. Shipping an order to Britain and waiting for branded bottles to be shipped back would have taken at least six months. It was clearly more practical for the manufacturers to buy their containers as soon as they were needed. Indeed, less than 5 per cent of the manufacturers identified used branded bottles, and those that did were in business for over five years. Unfortunately, few manufacturers from the study period can be identified from their branded bottles. However, one detail can illuminate matters to an extent. The product distribution limit was found to be approximately 20 kilometres, which represented a day trip for a horse and delivery cart. This suggests the supply of local communities only. It follows that any remains of soda water or ginger beer bottles in concentrations and from 1839 to 1862 deposits were likely to have been filled locally.

Manufacturers' advertisements showed that soda water makers supplied the trade, not only hotels but also shops and restaurants. One would expect some bottle remains to exist on those sites. However, the reuse of the bottles would suggest more broken bottles would be expected in manufactory site deposits.

Summary

As the primary tool to study an industry, the National Library of Australia's *Trove* resource was utilised to systematically search for and supply a wealth of data about the soda water industry. In the research work for this project, the evidence was best used when combined with that from maps and commercial directories. Using this study as an example, *Trove* clearly has significant potential for its use in the future studies of the historical context for urban archaeology in Australia.

This thesis has compiled a wide range of information about Victoria's soda water industry for archaeologists to facilitate a greater understanding of it. Identifying the manufacturers in Victorian settlements means they can be referred to, either for dating purposes or

comparison, to highlight the variations within the industry. The industry factors discussed here, from the supplies and containers used to manufactory practices, all provide the background for recognising soda water industry patterns in the archaeological record. The result sheds light on several aspects of the industry previously unknown. Therefore, this study presents a vital reference. The information contained here can affect the dating of archaeological remains, views of how the assemblage or site was used, and how archaeologists interpret the evidence they excavate.

On the broader scale of matters, this work can help understand more than the soda water industry, for the subject is one of the earliest industries to become established at new settlements. The result is a precedent for the study and development of other industries in the early decades of European settlement. This research shows how and why soda water makers were established in Victoria, not necessarily in a 'settled' fashion or in one place. In addition, the discussion includes manufacturers' initial dependence on imports and how economic changes affected them. The soda water industry was partly responsible for the birth and development of associated industries, such as bottle merchants. This is a study of an industry and the many circumstances involved in the beginnings of Victoria's urban environments. It is an example of actively exploring beyond the artefacts, in this case bottles, and beyond the places they are excavated from.

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Appendix A. Manufactory data

The soda water manufacturers are placed in order of their districts, from Melbourne to regional Victoria. Within each district, the manufacturers are arranged alphabetically, according to the initial company name for the manufactory. For each manufacturer, the name, address, the main aerated water products available, date range and a comparison to Ken Arnold's information in *A Victorian Thirst* is provided, the last in parentheses. A list of references and details is included for each manufacturer, when relevant to the name, address, property details, products, extent of operation, and any significant changes to the business. Generally, newspaper references that could not contribute to this information are omitted. The spelling for names and places remains as per reference.

Melbourne district

E. Andrade, Cambridge Store, Cambridge St, Collingwood; Lemonade **1854** (Arnold: –)

<i>Argus</i>	25 Feb. 1854:1	An active lad wanted for E. Andrade's lemonade factory, Cambridge Store, Collingwood
	7 Nov. 1854:1	Boy wanted. Apply to E. Andrade, lemonade manufacturer, Cambridge St, Collingwood

Atkinson & Stewart, 144 Flinders Lane east, Melbourne; Soda water, ginger beer **1855**

(Arnold: 1845–1855)

Atkinson & Elliott, 144 Flinders Lane east, Melbourne, then behind the Star Hotel, cnr Swanston and Lt Bourke Sts, 50 Lt Bourke St; Soda water, ginger beer **1855–1864** (Arnold: 1855–1864)

<i>Argus</i>	14 Mar. 1855:1	Mr. Atkinson operating at the rear of 144 Flinders Lane, advertising for ginger beer bottles
	9 Apr. 1855:1	Soda water manufacturers Atkinson & Stewart advertise for a staff member
	14 Jan. 1856:7	Partnership between John Atkinson and Charles Stewart dissolved as soda water and cordial manufacturers, on 19 Dec. 1855. The business will be carried on by Atkinson and Elliot
	24 May 1856:1	Reference to the soda water factory behind the Star Hotel, Swanston Street
	29 Dec. 1856:1	Atkinson and Elliott advertise their address as 50 Little Bourke Street east

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1857:22	Atkinson and Elliott's manufactory listed in the directory as situated in the right-of-way off Little Bourke Street, the Star Hotel being at the corner of Swanston and Little Bourke Streets.
<i>Argus</i>	1 Mar. 1864:7	Dissolution of partnership between Atkinson and Elliott, 29 Feb. 1864. The business will be carried on by George Henry Elliott.
<i>Argus</i>	15 Jun 1866:8	G.H. Elliott at Queen Street
	25 Oct. 1871:7	Elliott removed to his new premises at 25 Rathdown Street, Carlton
<i>Age</i>	11 Aug. 1949:8	G.H. Elliott Pty Ltd still at (43) Rathdown Street

Barton, Ballarat St, East Collingwood; Lemonade – 1860 (Arnold: –)

<i>Argus</i>	4 Jan. 1859:8	A lemonade and cordial business advertised for sale. Apply Barton, Ballarat Street, East Collingwood
<i>Age</i>	18 Feb. 1860:7	The stock and plant of a sodawater and cordial manufacturer to be auctioned on the premises at Ballarat St, due to Mr. Barton returning to England.

Henry Brandreth, 44 La Trobe St west, Melbourne; Lemonade, ginger beer c. 1853 – 1855 (Arnold: –)

<i>Argus</i>	7 Jun. 1853:8	In an advertisement, H. Brandreth provides his address as 44 La Trobe Street west
	8 Oct. 1853:1	A steady man wanted to look after a horse, and make himself otherwise useful, in a ginger beer manufactory, at 44 La Trobe Street west
	13 Jun. 1855:5	Henry Brandreth, a lemonade and ginger beer manufacturer, died suddenly on 10 June 1855.

William Brown, Crystal Palace, Lt Bourke St West, Melbourne; Sodawater 1858 (Arnold: –)

<i>Argus</i>	17 Feb. 1858:1	William Brown, at the Crystal Palace, Little Bourke Street West, advertises for a sodawater bottler
	13 Mar. 1858:7	Brown, sodawater manufacturer, advertises a beer engine for sale
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:22	The Crystal Palace Hotel is located between Elizabeth and Queen Streets

George Bruce, 152 Lt Collins St East, Melbourne; Ginger beer 1855–1864 (Arnold: 1852–1864)

<i>Age</i>	13 Oct. 1855:1	Mr. Bruce, ginger beer manufacturer at 152 Little Collins Street east, advertises Stephen Green branded ginger beer bottles for sale
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<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1864:43	George Bruce listed in the directory as a ginger beer manufacturer, located between Russell and Stephen Streets, four doors from Stephen Street
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T. Burke, 226 Swanston St, Melbourne **1855–1856** (Arnold: 1855–1856)

Age	1 Nov. 1855:3	T. Burke listed at 226 Swanston Street in the newspaper's business directory, under soda water, &c, manufacturers
	4 Jan. 1856:6	T. Burke last listed in the newspaper's directory

Thomas Butiment, Lt Nelson St, Williamstown, Stoke St, Sandridge; Soda water, Ginger beer **1858 – c. 1864** (Arnold: 1860–1862)

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:196	Thomas Butement, soda water and cordial manufacturer, listed in the directory at Little Nelson Street, Williamstown
<i>Star</i> (Ballarat)	27 Oct. 1858:3	Report of a fire at Sandridge that spread over the store of Mr. Batement, ginger beer manufacturer
<i>Argus</i>	30 Sep. 1859:7	Butement, at Sandridge, advertises a soda water machine for sale
	18 Dec. 1860:1	Advertisement: Two smart tiers required for Batement Brothers' lemonade factory Stoke St, Sandridge
<i>Herald</i>	14 Nov. 1862:5	As a result of a great conflagration event at Sandridge, Batement's sodawater manufactory was destroyed
<i>Sands and McDougall's Commercial and General Melbourne Directory</i>	1862:354	Butement listed at both Stoke Street, Sandridge, and Little Nelson Street Williamstown
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1864:180	Butiment listed solely at Stoke St

William Candy, 129 King St, Melbourne **1855–1856** (Arnold: 1855)

Age	1 Nov. 1855:3 – 19 Feb. 1856:5	In the newspaper business directory, William Candy is listed under soda water, &c, manufacturers at 129 King Street
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Clay, Wilkinson & Co, 64 La Trobe St East, Melbourne; Soda water, lemonade **1852** (Arnold: –)

<i>Argus</i>	18 Dec. 1852:5	Clay, Wilkinson and Co, 64 La Trobe Street east (three doors down from Swanston Street), advertise as purchasers of soda water bottles
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	18 Dec. 1852:8	B. Clay, lemonade and soda water manufactory, 64 La Trobe Street east
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Hugh (O')Connell, George St, Collingwood; Soda water, ginger beer **1857–1858** (Arnold: –)

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1857:146	Hugh Connell listed as a ginger beer manufacturer at George Street, Collingwood
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:174	Listed in the directory as Hugh O'Connell

Constantin & Cohu, 42 William St, Melbourne; Soda water, Lemonade, Ginger beer **1856–1857** (Arnold: 1857)

Cohu & Carmody, 42 William St, Melbourne; Soda water, Lemonade, Ginger beer **1857** (Arnold: 1858–1859)

Andrew Cohu, 42 William St, Melbourne then 24/26 Lt Collins St east, 34 Market St, Emerald Hill
Soda water, Lemonade, Ginger beer **1857–1885** (Arnold: 1862–1886)

<i>Argus</i>	4 Oct. 1856:3	Constantin and Cohu announce that they have established the Victorian Aerated Water Manufactory at 42 William Street. They are now prepared to supply the trade and public generally with lemonade, ginger beer, sodawater, sarsaparilla, and more. Products can be forwards to any part of the colony.
<i>Argus</i>	24 Mar. 1857:8	Louis Constantin, compelled to return to England, wishes to dispose of his share in the business
<i>Argus</i>	24 Sep. 1857:6	Daniel Carmody, partner of the firm Cohu and Carmody, sodawater manufacturers, is declared insolvent
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1859:64, 143	Cohu listed at 42 William Street, alternatively spelt Cohn or Cohu
	1860–1862	Listings non-existent in directories. No other references found
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1863:169	Cohn listed as a ginger beer manufacturer at both Little Collins Street and 34 Market St, Emerald Hill
<i>Argus</i>	23 Jul. 1864:1	Cohu at 26 Little Collins Street east
<i>Telegraph, St Kilda, Prahran and South Yarra Guardian</i>	24 Dec. 1864:4	Cohu advertises sodawater, lemonade, ginger beer, cider and cordials at 24½ Little Collins Street east
<i>Age</i>	19 Jun. 1885:1	Death Notice: Andrew Cohn, 17 Jun. 1885

Robert Cook, 112 Bourke St east; Soda water **1858–1862** (Arnold: 1858–1862)

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:17,151 1859:33,264 1860:320 1861:330	Robert Cook listed in the directories as a soda water manufacturer at 112 Bourke Street east. The advertisement for his City Buffet offers Canadian summer beverages as manufactured by Robert Cook, for many years in America.
<i>Sands and McDougall's Commercial and General Melbourne Directory</i>	1862:354	Robert Cook's final inclusion in the Melbourne directory as a soda water and/or ginger beer manufacturer

John Coverlid, 216 Church St Richmond; Ginger beer, lemonade **1855 – c. 1867** (Arnold: 1866–1868)

<i>Argus</i>	12 Dec. 1855:5	Confectioner's license granted to John Coverlid, Richmond
<i>Argus</i>	12 Dec. 1857:1	Lemonade bottler wanted for 216 Church Street, Richmond, near the Swan
	16 Nov. 1859:1	Lemonade bottles wanted, 2s per dozen, Coverlid, Church Street, Richmond, near the Railway
	8 Dec. 1863:7	Advertisement for Coverlid's Victorian cider and draught ginger beer. Established six years.
	24 Dec. 1867:1	Lad wanted for Coverlid's ginger beer manufactory

William Crellin, Victoria Temperance Brewery; 100 and 102 Bourke St east **1862** (Arnold: 1862)

<i>Sands and McDougall's Commercial and General Melbourne Directory</i>	1862:25, 214, 354	William Crellin, Victoria Temperance Brewery, 100 and 102 Bourke Street east, listed under ginger beer and aerated waters manufacturers
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William Dawbarn, Right-of-way 34 Lonsdale St west; Soda water, lemonade **1857 – c. 1877** (Arnold: 1857–1880)

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1857:124	William Dawbarn listed in the business directory under ginger beer and aerated water manufacturers, located at the right-of-way, 34 Lonsdale Street west
<i>Argus</i>	25 Aug. 1860:1	William Dawbarn lemonade manufacturer, opposite Robert Burns Hotel, advertises for a general servant
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1865:183, 250	Dawbarn listed in the directory as a soda water maker at Wright's Lane, off Lonsdale Street west, and Bay Street, Sandridge
<i>Age</i>	27 Dec. 1877:1	W.H. Dawbarn's soda water factory at Wright's Lane

Dixon & Cassidy, Rosslyn St, Flagstaff Hill; Soda water, lemonade c. 1853 – c. 1854 (Arnold: –)
P.G. Dixon & Co, Rosslyn St, Flagstaff Hill; Soda water, lemonade c. 1855 – 1914 (Arnold: 1852–1914)

<i>Argus</i>	20 Dec. 1853:1	Two young men wanted for Dixon and Cassidy, lemonade, &c., manufacturers, Rosslyn Street, Flagstaff Hill
	11 Jan. 1854:1	Dixon and Cassidy, lemonade and soda water manufacturers
	7 Nov. 1855:1	Dixon's sodawater factory require a young man that understands driving a horse
	13 Jun. 1859:8	Reference to Philip Garnet Dixon, sodawater maker
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1863:387	Dixon's listed address given as 32 Rosslyn Street, West Melbourne
<i>Argus</i> <i>Bendigo Advertiser</i>	17 Feb. 1872:2 26 Dec. 1872:3	Dixon announces the arrival of his new Glass Stoppered Patent bottles, in which he will supply all aerated waters and champagne ginger beer. Dixon and Bendigo's Peel Brothers have exclusive use of this (Barrett and Elers) patent in their respective districts (at the time)
<i>Herald</i>	5 Feb. 1914:5	P.G. Dixon and Co.'s cordial manufactory at Rosslyn Street to be auctioned

Edwards, Oxford St, Collingwood; Lemonade, ginger beer 1854–1855 (Arnold: –)

<i>Argus</i>	19 May 1854:3	Reference to Edwards' lemonade manufactory, Oxford Street, Collingwood
	20 Feb. 1855:1	Second-hand lemonade and ginger-beer bottles wanted for Edward's lemonade Manufactory

J.E.H. Ellis, Rouse St, Sandridge; Soda water, Lemonade, ginger beer 1854 (Arnold: –)

<i>Argus</i>	26 May 1854:3	In newspaper business directory as: J.E.H. Ellis, Soda water, lemonade, and ginger beer manufacturer, Sandridge
	12 Oct. 1854:8	The insolvent estate of John Edward Henry Ellis, Sandridge, placed under sequestration on 11 Nov. 1854.
	28 Dec. 1854:2	Auction of the manufactory premises at Rouse Street, next door to the Ship Inn, Bay Street, Sandridge

James Evans, Punt Hill, Punt Rd, South Melbourne/Yarra; Soda water, lemonade, ginger beer 1855–1856 (Arnold: –)

<i>Argus</i>	9 Feb. 1855:8	James Evans, soda water maker, through late improvements in his machinery, is enabled to supply
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		two or three more good houses, either in Melbourne, Prahran, or St. Kilda. His quality of soda water, lemonade, ginger beer and sarsaparilla is notoriously good. Daily delivery. Punt Road, South Melbourne
	13 Jun. 1855:1	Address referred to as Punt Hill, Punt Road
	18 Nov. 1856:7	Tenders invited for the purchase of the Punt Hill ginger beer and lemonade business, with plant and stock
	28 Mar. 1857:1	James Evans, Punt Hill, South Yarra (late sodawater maker) is open to an engagement.

John Featley, Russell St, Melbourne; Ginger beer **1852** (Arnold: –)

<i>Argus</i>	28 Apr. 1852:7	Three pounds reward offered for the return of a stolen horse or conviction of the parties. John Featley, ginger beer manufacturer, Russell Street, Melbourne.
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Field & Kent, Cnr Queen and Lt Bourke Sts, Melbourne; Ginger beer **1846** (Arnold: –)

F.T. Field, Cnr Queen and Lt Bourke Sts, Melbourne; Ginger beer **1846**

<i>Melbourne Argus</i>	2 Oct. 1846:3	Messrs. Field and Kent inform the inhabitants of Melbourne and its vicinity that they have commenced business as pastry-cooks, confectioners, wholesale ginger-beer manufacturers and fancy bread and biscuit bakers, at the corner of Queen and Little Bourke streets, adjoining the Pastoral Hotel (later Manchester Inn)
	20 Oct. 1846:3	Dissolution of partnership between Mr. F.T. Field and John R. Kent on 20 October. Field will carry on the business.

James J. Flanagan, Francis St, back of the Catholic Chapel, Lt Lonsdale St, then 26 La Trobe St west, Melbourne; Soda water, lemonade, ginger beer **1852–1867** (Arnold: 1854–1865)

<i>Argus</i>	6 May 1852:5	Confectioner's license granted to James Flanagan, Francis Street
<i>Argus</i>	14 Oct. 1852:5	Two steady men wanted to work in a lemonade and ginger beer establishment. Apply to James Flanagan, back of the Catholic Chapel, Little Lonsdale Street
	20 Sep. 1853:2	Two smart boys wanted to work in a lemonade establishment. Mr. Jas Flanagan, 26 La Trobe Street west.
	1 Jan. 1856:1	An experienced sodawater bottler wanted for 26 La Trobe Street west.
	8 Jan. 1861:1	To Carpenters: Lemonade boxes wanted made. Flanagan's.

<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1864:57, 202	Jas Flanagan, ginger beer maker, listed in the directory at 26 La Trobe Street, next to the Menzies Hotel
<i>Argus</i>	10 Sep. 1867:1	Flanagan remains at 26 La Trobe Street west

William Flanagan, 39/41 Lt Lonsdale St east, Melbourne; Soda water, lemonade, ginger beer
1858–1866 (Arnold: 1858–1866)

<i>Age</i>	22 Feb. 1858:1	Wanted: a boy to work at the ginger beer business. Apply 39 Little Lonsdale Street west
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:151	William Flanagan listed in the directory at 39 Little Lonsdale Street east, in the ginger beer and aerated water manufacturer category
<i>Argus</i>	11 Oct. 1859:1	Wanted: sodawater bottler. Mr. Flanagan's lemonade factory, rear of Buck's Head, Little Lonsdale Street west
	1 Jan. 1861:1	A boy wanted to work at the ginger beer business. Apply at 41 Little Lonsdale Street east
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1866:449	W.A. Flanagan, 41 Little Lonsdale Street east, final listing in the directory under ginger beer, cordial and aerated water manufacturers

Fouracre & Whitehead, Glasshouse, Collingwood; Lemonade, cordial – **1852** (Arnold: –)

Taylor & Doherty, Glasshouse, Collingwood; Lemonade, cordial **1853** (Arnold: –)

<i>Argus</i>	29 Oct. 1852:3	Three or four youths wanted, in a cordial and lemonade factory. Apply to Fouracre and Whitehead, Glasshouse, Collingwood
	1 Jan. 1853:8	Dissolution of partnership between John Hembrow Fouracre and John Whitehead, trading under the firm Fouracre and Whitehead, 31 December 1852. The business in future will be carried on under the firm of Taylor and Doherty.
	23 Feb. 1853:7	Dissolution of partnership between Alfred Tayler and Michael Doherty, cordial manufacturers, & c., 19 February 1853.

Henry Freeth, Lygon St, North Melbourne; Soda water, lemonade **1857–1861** (Arnold: –)

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1857:164	Henry Freeth listed in the directory as a soda water manufacturer at Lygon Street, North Melbourne
<i>Herald</i>	19 Jun. 1861:5	Henry Freeth, formerly a lemonade manufacturer of North Melbourne, insolvent.

Charles Frith, 227 Swanston St, Melbourne; Ginger beer, lemonade **1859** (Arnold: –)

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1859:264	Charles Frith listed in the directory under ginger beer and aerated water manufacturers, at 227 Swanston Street, next to or behind the Eagle Hotel.
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W. Gibson & Co, Albert St, Windsor; Soda water, lemonade **1854–1855** (Arnold: –)

<i>Argus</i>	18 Dec. 1854:7	W. Gibson and Co., aerated and mineral water manufacturer from Hamburg, manufactory at Albert Street, near Junction Hotel, St. Kilda. Advertisement for Gibson's seltzer water.
	23 Feb. 1855:8	William Gibson, late of the firm Gibson & Co., soda water and lemonade manufacturers, in Albert Street, Windsor, left the business and premises on the 19 February 1855, with all his goods and chattels, without Henry Morisey's consent.

Gill & Menzies, Exhibition Soda Water Manufactory, 169 Lonsdale St west; Soda water, lemonade, ginger beer **1853** (Arnold: –)

<i>Argus</i>	24 Jan. 1853	Messrs. Gills & Menzies, late of the Steamship Cleopatra, have just imported one of Holgate's machines for the manufacture of carbonized waters. Has commenced business at 169 Lonsdale Street west adjoining Kilkenny Arms, to supply and deliver soda water, lemonade and ginger beer.
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Graves & Purdy, Napier St, Williamstown; Soda water, lemonade, ginger beer **1854** (Arnold: –)

<i>Argus</i>	2 Feb. 1854:8	Graves & Purdy, soda water, lemonade, ginger beer, Napier Street, back of Commercial Hotel, Williamstown
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Greig & Co, 185 Swanston St, Melbourne; Aerated waters **1861–1862** (Arnold: –)

<i>Argus</i>	16 Mar. 1861:8	Tyler's sodawater machine for sale. Greig and Co, aerated water manufacturers, 185 Swanston Street
	31 May 1862:2	Under the assignment of Mr Philip Maine, the sodawater, ginger beer and lemonade establishment to be auctioned on the premises, no. 185 Swanston Street

Haberlin & Murcutt, King St, Melbourne; Soda water, lemonade **1852–1854** (Arnold: 1854)
Robert Murcutt, 87 then 91 Little Bourke St west, Melbourne; Soda water, lemonade, ginger beer **1854–1861** (Arnold: 1855–1861)
Murcutt & Phillips, 87 or 91 Little Bourke St west, Melbourne **1856–1857** (Arnold: 1856)
George Simpson, 91 Little Bourke St west, and Stephen St, Melbourne; Soda water, cordial **1861–1867** (Arnold: 1862–1865)

<i>Argus</i>	8 Jun. 1852:4	Haberlin & Co, opposite the Harp of Erin, King St, advertise for a first-rate soda water bottler and bottle washer.
	29 Apr. 1854:3	Dissolution of partnership between A. Habberlin and R. Murcutt, soda water and lemonade manufacturers, on 26 April 1854. Robert Murcutt will continue to carry on the business on his own accord.
	31 Aug. 1854:1	R. Murcutt, lemonade manufacturer, Little Bourke St west: used as an advertisement contact
<i>Age</i>	1 Nov. 1855:3	Murcutt's address listed in the newspaper business directory as 87 Little Bourke Street west
<i>Argus</i>	20 Dec. 1856:3	The factory's address is now 91 Little Bourke Street. Murcutt announces the value of his artificial Seltzer Water
<i>Age</i>	12 Sep. 1857:3	The insolvent estate of Philip Abraham Phillips, soda water and cordial manufacturer, was placed under sequestration on 10 September 1857.
	24 Aug. 1858:6	A court trial reveals that Murcutt supplied a quantity of ginger beer and soda water to the military canteen. George Simpson was the manager to Murcutt when he called for account payment for goods delivered between 1 April 1856 – 18 April 1857. The firm was Murcutt and Phillips at the time.
<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1861:32, 330	Robert Murcutt's final listing in the directory under ginger beer and aerated water manufacturers
<i>Age</i>	15 May 1861:2	George Simpson of Stephen Street, sodawater manufacturer, was elected to serve as an assessor for Bourke Ward
<i>Argus</i>	27 Aug. 1861:6	Simpson applied for space at the 1861 Victorian Exhibition for: cordials, sodawater, ginger beer, lemonade, and sarsaparilla.
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1867:487	Simpson listed at 91 Little Bourke Street west as a soda water and cordial manufacturer

William Habberlin, Williamstown; Soda water, ginger beer – **1855** (Arnold: –)

<i>Argus</i>	31 Jan. 1855:4	Death announcement: William Habberlin, at Williamstown, soda water manufacturer
	3 Feb. 1855:3	Auction at the premises of the late Mr. Habberlin, Williamstown: A weatherboard shed, horse and harness, lemonade machine.
	18 Mar. 1856:7	Legal notice regarding the widow of, and the estate of William Habberlin, ginger beer brewer, late of Little Bourke Street west

H.G. Harrington, Collins St, Melbourne; Soda water, lemonade, ginger beer **1841–1842** (Arnold: 1847)

<i>Port Phillip Patriot and Melbourne Advertiser</i>	1 Oct. 1841:2	A ginger beer license was granted to Mr. HG Harrington, Chemist, Collins Street
<i>Kerr's Almanac and Port Phillip directory for 1841</i>	1841:288	HG Harrington advertises as a chemist and druggist in Collins St (next to the Club House), but also a patent aerated soda water, imperial, ginger beer and lemonade manufactory
<i>Port Phillip Gazette</i>	2 Apr. 1842:2	The stock-in-trade of the insolvent estate of Henry George Harrington, chemist and druggist, for sale

Harrison Brothers, 163 King St, Melbourne; Soda water, lemonade, ginger beer **1852** (Arnold: –)

<i>Argus</i>	30 Jan. 1852:3	Harrison Brothers inform the innkeepers of Melbourne and its vicinity, having arrived from England and bringing with them an aerated soda water, lemonade, and ginger beer machine, and being thoroughly acquainted in manufacturing the above hope to merit their patronage and support
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Havilah Store, Errol St, North Melbourne; Soda water, lemonade **1854–1855** (Arnold: –)

<i>Argus</i>	26 Oct. 1854:1	A boy wanted to tie soda water bottles. Apply Havilah Store, Errol Street, North Melbourne
	26 Dec. 1854:1	A lad accustomed to horses wanted. Apply Havilah Lemonade Factory
<i>Age</i>	23 Feb. 1855:1	English-made sodawater wanted, for Havilah lemonade factory

William Hodgkiss, 4 Lt Bourke St west, Melbourne; Ginger beer, spruce beer **1850–1857** (Arnold: 1851–1857)

<i>Melbourne Daily News</i>	20 Apr. 1850:2	Confectioner's license granted to William Hodgkiss
<i>Argus</i>	6 May 1852:5	Confectioner's license granted. Hodgkiss, Little Bourke Street

	11 Sep. 1856:8	The Old Teetotallers' House revived again at Little Bourke Street. Wm. Hodgkiss has opened his house for the sale of spruce and ginger beer
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1857:23	Hodgkiss listed as a ginger beer manufacturer at 4 Little Bourke St west

John Hood, Collins St west, Melbourne; Soda water, lemonade **1844** (Arnold: –)

<i>Port Phillip Gazette</i>	2 Nov. 1844:3	Having commenced the manufacture of sodawater, lemonade, &c., John Hood will execute any orders. Next to the Gazette and Patriot newspaper offices
	6 Nov. 1844:3	John Hood, druggist, between the Gazette and Patriot newspaper offices, Collins Street

Hopkinson & Co., Brewer St/Upper Dandenong Rd/High Holborn Rd, High St, Prahran; Soda water, ginger beer **1854–1860** (Arnold: 1859–1860)

<i>Argus</i>	4 Jan. 1854:1	An experienced bottler and lad to tie to the same, wanted for Hopkinson and Co.'s, Brewer St, Prahran.
	14 Aug. 1854:1	The address of Hopkinson and Co.'s soda water manufactory updated to Upper Dandenong Road
	5 Oct. 1855:3	Corks wanted, lemonade and ginger beer. Address for Hopkinson and Co. updated to High Holborn Road
	19 Nov. 1857:8	Hopkinson and Co.'s address reflects that High Holborn Road now known as High Street
	17 Dec. 1859:8	Soda water and cordial manufactory to dispose of. Hopkinson and Co. carried out the above for the last six years.
<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1860:136, 217	Henry Hopkinson listed under ginger beer and aerated water manufacturers at High St, St. Kilda

Horneman & Co, Essendon; Lemonade – **1857** (Arnold: –)

James Chapman, Essendon; Ginger beer **1857–1858** (Arnold: –)

<i>Argus</i>	24 Dec. 1857:3	Dissolution of partnership between S.E. Horneman and James Chapman, of the firm Horneman and Co, as lemonade, &c., manufacturers, at Essendon, on 10th December 1857
	19 Jun. 1858:8	Reference to Mr. Chapman, ginger beer manufacturer, Essendon

John Jennings, McKillop St / 52 Bourke St west, Melbourne; Soda water, ginger beer, lemonade **1841–1858** (Arnold: 1841–1847)

<i>Melbourne Times</i>	1 Oct. 1842:3	In thanking his numerous customers for ginger beer, John Jennings states that unless the empty bottles are regularly returned, a corresponding charge must be necessarily made
<i>Melbourne Daily News</i>	17 Feb. 1851:2	In consequence of the prolific practice of persons retaining bottles after purchasing from licensed houses, customers such as licensed houses are requested to charge the full value of 3s per dozen for the bottles if so lent. Jennings, Bourke Street
<i>Argus</i>	17 Apr. 1851:2	Jennings' application for a confectioner's license was refused
<i>Argus</i>	6 Jan. 1852:3	John Jennings has re-opened his soda water manufactory at 52 Bourke Street west, opposite Kirk's Bazaar
	13 Feb. 1858:2	Jennings' manufactory and stock-in-trade for sale on the premises at McKillop Street, between Bourke and Little Collins Streets. The parcel of land has a frontage to McKillop Street of 108 feet, depth 54 feet, on which are erected: factory, six-room brick house, three-stalled stable, 4-room brick cottage, all built by Jennings
<i>Age</i>	6 Mar. 1858:5	The insolvent estate of John Jennings placed under sequestration on 5 March 1858
	6 Aug. 1858:6	John Jennings in the insolvent court: Stated he has been in business as a sodawater manufacturer since 1841. Property was allotment 16, section 13, in McKillop Street. Bought various portions of the allotment from 1847 to 1854. The frontage of 20 feet to Bourke Street was sold in 1853. Jennings first became insolvent in January 1842, but his business was not suspended then. By 1856, Jennings had lost £6,000 in bottles not returned by the customers. Lost £3,000 worth in 1855 to 1856.

S. & M. Joel, 85 Flinders St, Melbourne; Soda water, lemonade **1853–1854** (Arnold: 1852–1854)

Polak & Joel, 85 Flinders St, Melbourne; Soda water, lemonade **1854–1855** (Arnold: 1852–1854)

<i>Argus</i>	2 Sep. 1853:1	An experienced lemonade and soda water bottler wanted. Apply S. & M. Joel's, 85 Flinders Street east, second door from Russell Street
	13 Oct. 1854:1	A rack, soda water bottles, and tin wanted, Joel's lemonade factory
	16 Oct. 1854:1	Soda water bottlers wanted, at Polak and Joel's lemonade factory, 85 Flinders Street east, and 4 A'Beckett Street west

	20 Feb. 1855:7	Dissolution of partnership between Nelson Polak and Maurice Joel, 17 February 1855.
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Edward Knight, next to Star and Garter Hotel (Bridge Rd), Richmond; Soda water, lemonade
1854 – c. 1858 (Arnold: –)

<i>Argus</i>	27 Oct. 1854:1	A lemonade bottler wanted. E. Knight, next Star and Garter Hotel, Richmond
	11 Dec. 1854:1	Soda water manufactory, next Star and Garter Hotel
<i>Bendigo Advertiser</i>	9 May 1856:3	Edward Godfrey Knight, brewer residing at Richmond, near Melbourne. Knight's brother, a miner, was killed by accident at Epsom
	4 Aug. 1858:1	A lemonade bottler wanted, next Star and Garter Hotel.
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:192	In the directory, the address of the Star and Garter Hotel is Bridge Road, Richmond

Frederick Letchford, Napier St, Collingwood; La Trobe St, opposite Menzies Hotel, Melbourne;
Soda water, ginger beer, lemonade, cordial **1854–1857** (Arnold: 1857)

Letchford and Raper, Napier St, Collingwood; Soda water, ginger beer, lemonade, cordial **1857–1858** (Arnold: –)

<i>Argus</i>	22 Jun. 1854:1	Frederick Letchford, soda water manufactory, Napier Street, Collingwood
	3 May 1856:7	Frederick Letchford, sodawater manufacturer, has purchased the business of J.B. Shepherdson in La Trobe Street, opposite Menzies Hotel, and will continue the same, as well as Napier St.
<i>Argus</i> <i>Geelong Advertiser</i> <i>and Intelligencer</i>	2 Jun. 1856:7 25 Jun. 1856:3	Letchford advertises that he has always on sale (a list of supplies necessary for sodawater makers), at both his La Trobe and Napier Street addresses
<i>Argus</i>	6 Aug. 1857:8	Letchford and Raper advertise a no. 2 Tyler's sodawater machine for sale at Napier St
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:177	Letchford and Raper listed in the directory at 50 Napier Street, but no longer at La Trobe Street
<i>Argus</i>	14 Jun. 1858:4	Death on board the <i>Admella</i> steamship: Mr. Frederick Letchford, soda water manufacturer, of Napier Street, Collingwood, aged 28 years

Lovelock & Sanders, Melbourne; Carrara water, lemonade **1852** (Arnold: –)

James Sanders, Cnr Lt Collins & Stephen Sts, Melbourne; Carrara water, lemonade **1852**
(Arnold: –)

<i>Argus</i>	29 Apr. 1852:5	Lovelock and Sanders inform the public they are manufacturing Maugham's patented Carrara water and lemonade
	15 May 1852:5	Dissolution of partnership between Daniel Lovelock and James Sanders on 12 May 1852. Sanders will carry on the business at the new premises at Stephen Street
	30 Sep. 1852:1	Auction of Sanders' stock-in-trade and plant, on the premises at corner of Little Collins and Stephen Streets

George G. Lowe, 32 Bourke St east, Melbourne; Soda water c. **1857 – 1864** (Arnold: 1858–1864)

<i>Age</i>	12 Jan. 1857:1	Wanted to purchase a sodawater machine, with rack complete, also a cart suitable for the business. Apply 32 Bourke Street
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:17, 151	George Gregory Lowe listed in the directory as a tobacconist and soda water manufactory
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1864:231	Lowe in the directory at 32 Bourke Street east

James then **Mrs. McAdam**, Stephen St nth, Melbourne then 79/89 Cardigan St, Nth Melbourne; Soda water **1852–1864** (Arnold: 1858–1864)

<i>Argus</i>	19 Jul. 1852:6	Mr. James McAdam, soda water manufacturer, has removed to the premises lately occupied by Mr. Michael O'Shea, in Stephen Street
	4 Oct. 1852:3	Boys wanted, to work in a soda water manufactory. Apply to J. McAdam, near the Olive Branch Hotel
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:42	The Olive Branch Hotel at La Trobe Street east, south side, east corner of Stephen Street
<i>Age</i>	25 Nov. 1854:4	Death notice of James McAdam, soda water manufacturer) at his residence, Cardigan Street, Melbourne, 24 Nov. 1854, aged 33 years
<i>Argus</i>	7 Feb. 1855:1	McAdams ginger beer manufactory, North Melbourne
<i>Argus</i>	11 Jan. 1858:1	McAdam's soda water works, Cardigan Street

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1859:71, 183	Mrs. McAdam in the directory as a lemonade and soda water maker at 79 Cardigan Street, North Melbourne
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1864:82, 314, 417	Mrs. McAdam in the directory at 89 Cardigan Street, Carlton, and residence at 79 Cardigan Street

Thomas W. McDougall, Back of Steam Packet Hotel, Williamstown; then behind the Bull and Mouth, Bourke St, Melbourne; Soda water, ginger beer, lemonade **1854–1858** (Arnold: 1856–1857)

<i>Argus</i>	1 Jun. 1854:3	Thomas W. McDougall, having dissolved partnership with Mr. Shepherdson, has taken the Williamstown branch of the business unto himself. He is able to supply soda water, lemonade etc.
	7 Aug. 1856:1	T.W. McDougall, behind the Bull and Mouth, advertises for a man to drive a lemonade cart
<i>Age</i>	11 May 1858:6	Thomas Wright McDougall, ginger beer brewer, declared insolvent

Alex McDowell, 5 Rathdowne St, Nth Melbourne; Aerated waters **1861** (Arnold: 1861)

<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1861:330	Alex. McDowell in the directory as an aerated waters manufacturer at 5 Rathdowne Street, North Melbourne
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McGrath, – , 134 Lt Bourke St west, Melbourne; Ginger beer **1852–1853** (Arnold: 1853)

<i>Argus</i>	29 Sep. 1852:5	A man wanted who can make ginger beer and cordials. Apply to Mr. McGrath, 134 Little Bourke Street west, near the Fitzroy Arms
	24 Mar. 1853:7	To be sold by auction, on the premises of McGrath: ginger beer bottles, copper boiler, and other utensils belonging to the trade

Bernard McKeever, Flinders Lane; Bourke St, Melbourne; Ginger beer **1841–1847** (Arnold: –)

<i>Port Phillip Patriot and Melbourne Advertiser</i>	5 Jul. 1841:2	Confectioner's license granted to Bernard McKeever, Flinders Lane
<i>Port Phillip Gazette and Settler's Journal</i>	11 Apr. 1846:2	Confectioner's license granted to McKeever, Bourke Street
<i>Melbourne Argus</i>	10 Nov. 1846:2	Mr. McKeever referred to in a letter to the editor as a ginger beer maker
	23 Apr. 1847:2	Confectioner's license granted to Bernard McKeever

John, James & William McLaughlin, Patrick St, off Lonsdale St, Melbourne; Soda water, lemonade – **1854** (Arnold: –)

John & James McLaughlin, Patrick St, off Lonsdale St, Melbourne; Soda water, lemonade, ginger beer **1854–1866** (Arnold: 1861–1865)

<i>Argus</i>	27 Apr. 1854:8	Dissolution of partnership between John, William, and James McLaughlin, sodawater and lemonade manufacturers, on 13 Apr. 1854. John and James will continue in the business on their own account
	21 Aug. 1855:1	Sodawater bottles wanted. Apply John McLaughlin, Patrick Street, off Lonsdale Street east
	29 Jun. 1858:1	John McLaughlin, 16 Lonsdale Street. Lemonade bottles wanted
	27 Feb. 1861:1	McLaughlin's cordial factory, opposite Queen's Arcade, Lonsdale Street east
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1866:449	J. McLaughlin last listed in the directory at Patrick Street

James McLean, –, Melbourne; Soda water, ginger beer **1853 – c. 1854** (Arnold: 1854–1855)

McLean & Baldwin, –, Melbourne; Soda water, ginger beer – **1854** (Arnold: –)

McLean & Hamilton, Stephen St, Melbourne; Soda water, ginger beer **1854–1855** (Arnold: 1854–1855)

James McLean, Union Place, 208 Stephen St, Melbourne; Ginger beer, lemonade **1855–1859** (Arnold: 1856)

<i>Argus</i>	21 Oct. 1854:8	Dissolution of partnership between James McLean and Thomas Baldwin, on 18 Oct. 1854. Their soda water manufacturing business will be carried on by McLean and Hamilton
	7 Jun. 1855:7	Dissolution of partnership between James McLean and Joseph Hamilton 7 June 1855. James McLean will carry on the business.
<i>Age</i>	4 Jan. 1856:6	McLean and Hamilton in the newspaper directory as soda water, &c., manufacturers, at 210 Stephen Street.
<i>Argus</i>	2 Apr. 1856:3	The insolvent estate of James McLean, ginger beer and sodawater manufacturer, was sequestered, subject to a meeting of the creditors
<i>Age</i>	8 May 1856:2	During McLean's second insolvency meeting, it was stated McLean commenced business in Nov. 1853
<i>Argus</i>	19 Jun. 1856:5	During a third meeting on a compulsory sequestration, it was stated that Mr. Purnell, McLean's brother-in-law, purchased the business on the 14th of Feb. McLean was retained in the business as a manager, at a salary of £4 per week

<i>Argus</i>	16 Feb. 1857:1	A strong lad wanted, soda water manufactory, 210 Stephen Street, behind the Olive Branch
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1859:60, 183, 264	McClean in the directory as a ginger beer and lemonade manufacturer at Union Place, 208 Stephen Street, next to the Olive Branch Inn. He is also listed as James McLean, at 7 Drummond Street, North Melbourne (residence)

Thomas McLean, 5 Rathdowne St, Nth Melbourne; Aerated waters **1860** (Arnold: 1860)

<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1860:285, 320	Thomas McLean in the directory as an aerated waters maker at 5 Rathdowne Street, North Melbourne
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Stuart McNichol, Lt. Nelson St, Williamstown; Soda water **1859–1861** (Arnold: 1860–1861)

<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1859:121, 185	S. McNicholl in the directory as a soda water maker at Little Nelson Street Williamstown
<i>Williamstown Chronicle</i>	17 Dec. 1859:1	S. McNicholl, soda water maker, Williamstown
<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1861:143, 330	Stuart McNicol in the directory as a soda water maker at Little Nelson Street, Williamstown

John McWey, off Lt. Bourke St, Melbourne; Ginger beer **1847 – c. 1849** (Arnold: –)

<i>Port Phillip Almanac and Directory</i>	1847:116	John McWay in the directory as a ginger beer brewer, off Bourke Lane (now Little Bourke Street)
<i>Argus</i>	12 Dec. 1848:4	Confectioner's license granted to McWey, off Bourke Street
<i>Melbourne Daily News</i>	3 Jul. 1849:2	During a court case, Mr. McWey is referred to as a ginger beer manufacturer

John B. Makinson, Alfred Place, Lt. Collins St, Melbourne; Ginger beer **1860** (Arnold: –)

<i>Argus</i>	26 Nov. 1860:4	Marriage: Mr. John B. Makinson, ginger beer manufacturer, Alfred Place, Little Collins Street east, to Mrs. Ann Pardy, widow
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Marshall's, Back of Captain Hutton's, Collingwood; Soda water; lemonade **1854–1856**
(Arnold: –)

<i>Argus</i>	22 Nov. 1854:7	Captain Hutton's residence at Victoria Parade, Collingwood, probably corner of Cambridge Street
<i>Age</i>	19 Dec. 1854:5	

<i>Argus</i>	24 Oct. 1854:1	A boy wanted to tie at Marshall's soda water manufactory, back of Captain Hutton's, Collingwood
	11 Jan. 1856:1	Marshall's lemonade manufactory, back Captain Hutton's, Collingwood

John Mills, Lt Flinders St, Melbourne; Ginger beer **1839–1841** (Arnold: 1839)

<i>Port Phillip Gazette</i>	24 Aug. 1839:2	John Mills, of Melbourne Brewery, requests that his numerous customers for ginger beer will immediately return the empty bottles belonging to him. Mills has his private mark upon them
	2 Sep. 1840:4	Melbourne Brewery , Little Flinders Street
<i>Port Phillip Patriot and Melbourne Advertiser</i>	30 Nov. 1840:2	A brisk trade of ginger beer bottles is carried on by children and others plundering these bottles, selling them at a low rate. Mr. Mills, brewer, lost £100 worth monthly
<i>Port Phillip Gazette</i>	25 Aug. 1841:2	Death of Mills, late brewer in Melbourne, on 24 Aug.
<i>Melbourne Times</i>	27 May 1843:3	The Melbourne Brewery in Flinders Lane is erected on Allotment no. 3 of Section no. 4. The malt house extends back to Flinders Street

Morris & Co, High St, Prahran; Soda water **1861** (Arnold: 1861)

John Jennings & Thomas Morris, High St, Prahran; Soda water – **1862** (Arnold: 1862)

Jennings & Sidey, High St, Prahran; Soda water – **1865** (Arnold: 1863–1864)

<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1861:141, 330	Morris & Co listed in the directory as sodawater manufacturers at High Street, Prahran, located between Regent and Bendigo Streets
<i>Sands and McDougall's Commercial and Melbourne Directory</i>	1862:153, 354	Jennings and Morris listed at High Street, Prahran
<i>Argus</i>	16 Sep. 1862:8	Dissolution of partnership between John Jennings and Thomas Morris, sodawater manufacturers, on 1 June 1862
<i>Argus</i>	5 Jun. 1865:4	Death of John Jennings of Jennings and Sidey, sodawater manufacturers at Prahran, on 3 June 1865, aged 47 years.

Michael O'Shea, Lt. Bourke St, then cnr La Trobe and Stephen Sts, Melbourne; Soda water **1846** – c. **1849** (Arnold: –)

<i>Port Phillip Gazette and Settler's Journal</i>	11 Apr. 1846:2	Confectioner' license application: Michael O'Shea, Little Bourke Street
<i>Port Phillip Gazette and Settler's Journal</i>	30 Jan. 1847:3	Due to the great scarcity of soda water bottles and previous losses, M. O'Shea is compelled to charge for all bottles not returned

<i>Melbourne Daily News</i>	22 Mar. 1849:3	For sale: the soda water machine to manufacture soda water and ginger beer that is in full operation on the premises of Mr O'Shea, Stephen Street north
<i>Argus</i>	19 Jul. 1852:6	Mr. James McAdam, soda water manufacturer, has removed to the premises lately occupied by Mr. Michael O'Shea, in Stephen Street

J.F. Palmer (& Mr. Lyons), Flinders Lane, Melbourne; Soda water, lemonade, ginger beer **1841 – c. 1842** (Arnold: –)

<i>Port Phillip Patriot and Melbourne Advertiser</i>	18 Jan. 1841:3	Mr. Palmer informs the public that his soda water manufactory in Flinders Lane has commenced operations and is now ready to deliver soda water, ginger beer, lemonade, &c.
	1 Feb. 1841:2	Factory between Flinders and Lt. Flinders Streets, adjoining the counting house of Messrs. Were, Brothers, & Co.
<i>Port Phillip Gazette</i>	1 May 1841:2	Palmer's Stores, Lt. Flinders Street, offers a wide range of supplies
<i>Port Phillip Patriot and Melbourne Advertiser</i>	7 Oct. 1841:3	Palmer has recommenced manufacturing his aerated waters, which are now ready for delivery at his new premises at Lt. Flinders Street
	22 Dec. 1842:2	A valuable horse belonging to Mr. Palmer, the soda water manufacturer, ended up in the Yarra while drawing a dray laden with stones. The horse was cut loose, then with difficulty, the dray was extracted out of the mud
<i>Port Phillip Gazette</i>	4 Dec. 1844:2	Mr. Lyons, soda water maker, conducted the largest establishment kind for the chemist, Mr. J.F. Palmer

The following source refers to Palmer's past

<i>Leader</i>	16 Aug. 1862:13	Old colonist Sir James Frederick Palmer first practised as a surgeon in the colony after he arrived in October 1840. His sodawater and ginger beer factory was his first of many business pursuits. He disposed of the ginger beer business to a Mr. Jennings.
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W. Plummer & Co., Cnr Collins and Queen Sts, Melbourne; Soda water, lemonade **1842**
(Arnold: –)

<i>Port Phillip Gazette</i>	12 Feb. 1842:2	W. Plummer & Co, Collins Street, corner of Queen Street, inform the public, that from 14 February will be open for the sale of soda water and lemonade, manufactured by a patent machine. Trade supplies on liberal terms.
Public Record Office Victoria	25 Feb. 1842	Approval of the issue of confectioner's license to W. Plummer and J.J. Keating

PROV VPRS 19 – P0001, bundle 1842/0414		
	19 Oct. 1842:2	An extensive fire in Melbourne that originated in Collins Street, indirectly caused damage to Plummer's soda water factory

E.J. Prevôt & Co (Prevôt & George Hughes), 11 Madeline Street, Melbourne, and 50 Napier Street, Collingwood; Soda water, lemonade, ginger beer **1854–1878** (Arnold: 1854–1860)

<i>Argus</i>	9 Nov. 1854:1	Lemonade and ginger beer bottles wanted at Prevôt's soda water manufactory, 11 Madeline Street, continuation Swanston Street
	9 Feb. 1857:1	Men and boys wanted for E.J. Prevôt's sodawater manufactory.
<i>Age</i>	12 Mar. 1858:6	Prevôt's brother-in-law Mr. Hughes was previously in partnership for nine months, in the running of the Queensberry Hotel
	22 Jun. 1858:7	Another Prevôt sodawater factory in existence at 50 Napier Street, Collingwood
	1 Apr. 1859:8	To let: those extensive premises at 50 Napier Street, which have been occupied for the last six years as a sodawater factory
	13 Mar. 1862:7	A man was charged with stealing a saddle belonging to Edward Joseph Prevôt, sodawater manufacturer
<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1860:320	Prevôt listed in the directory under ginger beer and aerated water manufacturers, at 120 Queen Street (formerly the Phoenix cordial manufactory of Thomas Dick)
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1864:40	E.J. Prevôt and Co. advertise their Phoenix cordial manufactory at 120 Queen Street, and soda and aerated waters manufacturers, at 11 Madeline Street.
<i>Herald</i>	25 Jul. 1868:1	Dissolution of partnership between Edward Joseph Prevôt and George Hughes, under the firm of E.J. Prevôt and Company, 16 July 1868
<i>Leader</i>	27 Jul. 1878:27	In the estate of E.J. Prevôt of Madeline Street, Carlton, tenders are invited for the stock-in-trade and plant of the sodawater business. The business has been carried on by the trustees for the past twelve months

August Puettelkow, 100 Bourke St east, Melbourne; Soda water **1859–1861** (Arnold: 1860–1861)

<i>Argus</i>	7 Dec. 1859:3	Confectioner's license granted for August Puettelkow, 100 Bourke Street east
<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1860:250, 320 1861:264, 330	August Paettalko in the directory as an aerated waters or soda water maker at 100 Bourke Street east
<i>Argus</i>	24 Jan. 1861:8	For sale: Temperance Brewery, 100 Bourke Street east

Thomas Purnell, Bourke St west, Melbourne; Soda water **1855–1858** (Arnold: –)

<i>Argus</i>	26 Apr. 1855:5	Annual license granted: Thomas Purnell, landlord of the Plough Inn, Bourke Street
	9 Sep. 1855:1	Wanted: A man that understands lemonade and ginger beer making. Apply Plough Inn, Bourke Street
	11 Jan. 1858:2	For sale at auction: Purnell's entire plant and stock-in-trade of his sodawater manufacturing business at the back of the Plough Inn

Vincent Pyke, Melbourne; Lemonade **1852** (Arnold: –)

<i>Argus</i>	20 Mar. 1852:5	Lemonade manufacturer of Melbourne, Mr. Vincent Pyke, accused his cartman of embezzling four dozen of lemonade after the cartman went out to deliver ten dozen and became drunk and lost four dozen
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Reeves, Gordon & Co., Victoria St, Nth Melbourne; Lemonade, ginger beer **1854** (Arnold: –)

<i>Argus</i>	8 Feb. 1854:1	Reeves, Gordon and Co.'s lemonade, ginger beer and syrup factory, Victoria Street near the Gymnasium, North Melbourne
	11 Apr. 1854:1	Wanted to dispose of: the stock and trade of a ginger beer and lemonade manufactory. Reeves, Gordon & Co., Victoria Street, near Gymnasium

Rim(m)ington & Co., 144 Flinders Lane East, Melbourne; Soda water, lemonade, ginger beer, cordials **1852–1855** (Arnold: 1854)

<i>Argus</i>	30 Nov. 1852:3	Rimington & Co. advertise as manufacturers of aerated waters: soda water, lemonade, ginger beer, cordials etc., in Flinders Lane east
	10 Mar. 1854:3	Both Mr. Atkinson and Mr Rimington advertise together as soda water manufacturers in Flinders Lane east

	16 Oct. 1854:8	The estate of Michael Rimington indentured to pay creditors. Trustees: David Moore, merchant, and Edmund Keogh, druggist
	7 Mar. 1855:1	Last reference to Rimmington's Lemonade factory in 144 Flinders Lane East
	14 Mar. 1855:1	Mr. Atkinson now operating at the rear of 144 Flinders Lane, advertising for ginger beer bottles

Michael J. Roche, 185 Swanston St, Melbourne; Soda water lemonade, ginger beer **1849–1861**
(Arnold: 1847–1862)

<i>Melbourne Daily News</i>	31 Oct. 1849:2	Lost: a metallic memorandum book containing the accounts of a lemonade and ginger beer maker. W.J. Roche's, Swanston Street
	9 Jul. 1857:7	Mr. Roche's sodawater establishment, 185 Swanston Street
<i>Sands, Kenny and Co's Commercial and General Melbourne Directory</i>	1861:72, 268	Michael J. Roche and his sodawater manufactory in the directory at 185 Swanston Street
<i>Argus</i>	11 Sep. 1861:4	Death: Mr. Michael James Roach, aged 42 years, at the Britannia Hotel, Lonsdale and Swanston Streets

John & James Shaw, York St, Emerald Hill; Lemonade, ginger beer **1855–1863**
(Arnold: 1863–1865)

<i>Argus</i>	24 Mar. 1855:8	A house for sale. Apply Mr. Shaw's lemonade manufactory, York Street, Emerald Hill
	31 Dec. 1862:1	Ginger beer 1s. 6d per dozen, lemonade, 2s per dozen. J. Shaw, 20 York Street, lemonade manufactory
<i>Sands and McDougall's Melbourne and Suburban Directory</i>	1863:321, 387	James and John Shaw in the directory as ginger beer manufacturers, &c., 20 York Street east, Emerald Hill

Shepherdson & McDougall, 97 Lt Bourke St west, Melbourne; Soda water, ginger beer, cordials **1853–1854** (Arnold: –)

J.B. Shepherdson, 97 Lt Bourke St west, Melbourne, then La Trobe St east, opposite Menzies Hotel; Soda water, ginger beer, cordials **1854–1856** (Arnold: 1856)

<i>Argus</i>	2 Sep. 1853:1	Wanted: Two or three young men to work in a soda water and ginger beer factory. Shepherdson and McDougall, 97 Little Bourke Street west
	9 Feb. 1854:7	The factory referred to as the Melbourne Aerated Water Manufactory
	28 Feb. 1854:3	Shepherdson and McDougall are able to supply aerated waters, ginger beer and cordials from their

		manufactory at the back of the Steam Packet Hotel, Williamstown
	2 Mar. 1854:6	Final reference to both Shepherdson and McDougall at Little Bourke Street west
	24 Aug. 1854:8	J.B. Stephenson advertises a soda water machine for sale at 97 Little Bourke Street
	13 Oct. 1855:7	Shepherdson informs his customers that he has removed to La Trobe Street east, opposite Menzies Hotel
	3 May 1856:7	Frederick Letchford, sodawater manufacturer, has purchased the business of Shepherdson and will continue the same.

William Simpson, 175 Swanston St, Melbourne; Ginger beer **c. 1853** (Arnold: –)

<i>Argus</i>	24 May 1852:5	William Simpson, lodging house keeper
	18 Nov. 1852:7	Mr. Simpson's boarding house, 175 Swanston Street
	29 Jul. 1853:2	Mr. Simpson, late ginger beer manufacturer and boarding house keeper, Swanston Street

Simpson & Harper, near the Swan, Richmond; Lemonade **1853** (Arnold: –)

<i>Argus</i>	8 Nov. 1853:1	Simpson and Harper, lemonade manufacturers near the Swan, Richmond
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G. Smith & Co., near Will's, Butcher, Prahran; Soda water, lemonade, ginger beer **1853**
(Arnold: –)

<i>Argus</i>	19 Mar. 1853:12	Aerated soda water, lemonade and ginger beer, made and sold by G. Smith & Co. near Will's, Butcher at Prahran
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A.W. Spencer, Elizabeth St, Melbourne; Soda water **1852** (Arnold: –)

<i>Argus</i>	12 Apr. 1852:5	Reward for a horse strayed from the yard of A.W. Spencer, soda water manufactory opposite the Water Tanks, Elizabeth Street (tanks in Flinders Street)
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John & William Strike, Blackwood St, Hotham; Soda water **1862** (Arnold: 1862)

<i>Sands and McDougall's Commercial and General Melbourne Directory</i>	1862:93, 354	John and William Strike in the directory as soda water makers, their works at Blackwood Street, Hotham
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James Sutherland, Prahran, near Worrall's Store; Lemonade, ginger beer – 1853 (Arnold: –)

<i>Argus</i>	11 May 1853:8	James Sutherland, manufacturer of cordials, syrups, ginger beer, &c., Prahran near Worrall's Store
	14 Jun. 1853:12	A ginger beer, lemonade and cordial manufactory to be disposed of. James Sutherland, near Worrall's Store, Prahran

James Thompson, Collingwood; Lemonade, ginger beer 1855 (Arnold: –)

<i>Argus</i>	4 Jan. 1855:5	James Thompson, lemonade and ginger manufacturer, residing on the common near the William Tell public house in Brunswick Street
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R.C. Watson & Co., adjoining the Balmoral Arms, Prahran; Soda water, lemonade, ginger beer 1854–1855 (Arnold: –)

<i>Argus</i>	31 Mar. 1854:1	R.C. Watson and Co., soda water manufacturers, adjoining the Balmoral Arms, Prahran (probably Commercial Road)
	9 May 1854:5	Watson the plaintiff in court over a deficiency of bottles returned from lemonade and soda water supplied to the Royal Hotel, Brighton
	14 Feb. 1855:8	The insolvent estate of Robert Chisholm Watson is placed under sequestration
	28 Mar. 1855:8	For auction: The stock-in-trade and the premises of R.C. Watson & Co. at the rear of the Balmoral Arms, the allotment being on the Lower Dandenong Road, 132 feet frontage by a depth of 200 feet, with a right-of-way 18 feet wide. On this allotment: the ginger beer and lemonade factory, two brick two-roomed cottages with cedar fittings.

J. Watts & Co., Madeline St, Nth Swanston St, Melbourne; Soda water lemonade 1854 (Arnold: –)

<i>Banner</i>	1 Aug. 1854:1 – 22 Sep. 1854:3	J. Watts and Co., manufacturing chemists, Madeline Street, North Swanston Street, Melbourne. Manufacturers of soda water, lemonade.
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Whelan & Summons, Melbourne; Lemonade, ginger beer – 1854 (Arnold: –)

Everitt Summons, Melbourne; Lemonade, ginger beer 1854 (Arnold: –)

<i>Argus</i>	16 Aug. 1854:8	Dissolution of partnership between Everitt Summons and Philip Whelan, ginger beer, lemonade, and cordial manufacturers, on 1 August 1854. Summons will carry on the business.
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Wilson & Co., 114 Fitzroy St, Collingwood; Ginger beer, cordial **1857** (Arnold: –)

Charles Wilson, 114 Fitzroy St, Collingwood; Ginger beer, cordial **1857–1861** (Arnold: –)

<i>Argus</i>	22 Aug. 1857:1	Wilson & Co., cordial makers at 114 Fitzroy Street, Collingwood
	9 Oct. 1857:2	Auction on the premises at 114 Fitzroy Street to close a partnership concern, the stock-in-trade of a ginger beer manufacturer
<i>Sands and Kenny's Commercial and General Melbourne Directory</i>	1858:174	Chas Wilson in the directory as a ginger beer manufacturer at Fitzroy Street, Collingwood
<i>Argus</i>	20 Feb. 1861:5	Charles Wilson, of Melbourne, ginger beer manufacturer, insolvent.

Robert Wilson & Co., Cnr Queen & Collins Sts; Soda water, lemonade **1840–1841** (Arnold: –)

<i>Port Phillip Patriot and Melbourne Advertiser</i>	19 Nov. 1840:3	Robert Wilson & Co., at the corner of Queen and Collins Streets, can now supply the public with soda water and lemonade
<i>Kerr's Melbourne almanac and Port Phillip directory for 1841: a compendium of useful and accurate information connected to Port Phillip</i>	1841:265	R. Wilson and Co., chemists and druggists, having purchased the business lately carried on by A.O. Mullane & Co., ...have at a very great expense fitted up a soda water machine and fountain, from which the public can be supplied soda water, effervescing lemonade, and raspberryade, either in draught or bottle. Wholesale and retail.

Pre-goldfields settlements

Geelong

James Alder, Malop St, West, Geelong; Soda water, lemonade, ginger beer **1846–1862** (Arnold: 1848–1861)

<i>Geelong Advertiser</i>	15 Apr. 1848:2	James Alder has applied for a confectioner's license
<i>Geelong Advertiser and Intelligencer</i>	7 Sep. 1852:2	Due to the deficiency of returned bottles and the high price and limited supply of replacements, James Alder must charge for non-returned bottles: 3s per dozen on ginger beer, and 6s per dozen on lemonade and soda water
<i>Geelong Commercial Directory and Almanac for 1854</i>	1854:39	Alder listed in the directory at Malop Street, North Side, between the Bellarine Street intersection and Market Square, next to Freemason's Hotel
	1854:198	Alder advertises as a ginger beer, lemonade, soda water and cordial manufacturer
<i>Geelong Advertiser</i>	23 May 1861:4	James Alder is retiring from the business due to ill-health. His is the oldest established of his type of business in Geelong, established in 1846. Alder's stock-in-trade is offered for sale, which includes: A Double No. 1 soda water machine, made by Tyler, capable of drawing 1,000 dozen per day; a bottling machine made by Tyler. Both are nearly new.
	12 Jul. 1862:3	Alder's plant, stock-in-trade, draught horses, spring waggons and more are advertised for public auction

James Baylden, Geelong; Soda water, lemonade, ginger beer c. **1848 – c. 1850** (Arnold: –)

<i>Geelong Advertiser</i>	6 Dec. 1849:2	Thomas Girling, while in the employment of Mr. Baylden, ginger beer manufacturer, drowned while trying to rescue his horse and dray from a clayey dam. Girling had stopped to allow the horse a drink while traveling from the direction of Ashby.
	5 Mar. 1850:2	As a witness in court, Mr. James Baylden stated he was a manufacturer of ginger beer, soda water and lemonade. In February 1848, Baylden supplied goods to the plaintiff in a case unrelated to Baylden's business

Giles & Co., behind Willis' Buildings, Market Square; Soda water, lemonade **1853–1854** (Arnold: –)

<i>Geelong Advertiser and Intelligencer</i>	28 Dec. 1853:1 – 6 Jan. 1854:1	Giles & Co. announce that they have a machine for manufacturing and bottling soda water lemonade and are prepared to supply those beverages. Manufactory located behind Willis' Buildings, Market Square
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Philip Maine, Corio St, Geelong; Soda water, lemonade, ginger beer, cordial **1851–1855** (Arnold: –)

<i>Geelong Advertiser</i>	10 Dec. 1851:1	Philip Maine, ginger beer, soda water, lemonade and cordial manufacturer, thanks the inhabitants of Geelong and the surrounding neighbourhood for the support he has received since he commenced business. Due to the high price of labour and the difficulty obtaining it, he is compelled to raise the price of ginger beer to 2s per dozen, soda water and lemonade to 2s 6d.
<i>Geelong Advertiser and Intelligencer</i>	7 Sep. 1852:2	Due to losses from the deficiency of returned bottles, Maine will charge 3s per dozen for ginger beer, and 6s per dozen on lemonade and soda water
<i>Argus</i>	15 Jan. 1853:7	Philip Maine of Corio Street offers bottles, corks, ingredients and acids for sale in his stores
<i>Geelong Commercial Directory and Almanac for 1854</i>	1854:32	Maine is listed in the directory at the south side of Corio Street, between Yarra and Kardinia Streets
<i>Geelong Advertiser and Intelligencer</i>	12 Jan. 1854:2	Maine's premises in Corio Street offered at auction, to be removed once sold
	11 Jan. 1855:4	Maine announces his retirement from the business as a soda water manufacturer, transferring his business to Mathews & Howey from February 1

Mathews & Menzies, Geelong; Soda water **1854** (Arnold: –)

<i>Argus</i>	29 May 1854:10	Mathews & Menzies referred to as soda water manufacturers in Geelong
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Mathews & Howey, Corio St, Geelong; Soda water, lemonade, ginger beer, cordial **1854–1871** (Arnold: 1854–1871)

<i>Geelong Advertiser and Intelligencer</i>	28 Oct. 1854:3	Mathews and Howey listed together in a petition to encourage a Jas. Buck to nominate himself for council election
	11 Jan. 1855:4	Mathews & Howey succeed Philip Maine in his soda water manufacturing business
Heath and Cordell	1856:5	Mathews & Howey listed in the directory at Corio St East, south side and next to McDuff's general store

<i>Argus</i>	28 Oct. 1858:4	Sold: the half-acre Allotment 13 of Block X, '...with a frontage of 66 feet to Malop Street east, and running quite through to Corio Street, ...and the north frontage is occupied by the ginger beer and cordial manufactory of Messrs Mathews and Howey.'
<i>Geelong Advertiser</i>	1 May 1871:3	Notice of dissolution of partnership between Peter Mathews and William Howey, after seventeen years. Mathews will carry on the business on his own account

Pattison & Talbot, then **Alfred J. Talbot**; Great Ryrie St, Geelong; Lemonade, cordial **1853** – (Arnold: –)

<i>Geelong Advertiser and Intelligencer</i>	7 Feb. 1853:2	Pattison and Talbot have succeeded Henry Last in his Geelong cordial and lemonade factory and will continue to supply the same products, including sparkling lemonade
	2 Apr. 1853: 3	Dissolution of partnership between Alfred J. Talbot and B. Pattison. Talbot will continue the business of cordial manufacturing
	16 Apr. 1853:1	Alfred Talbot states that all orders will be attended to with punctuality and despatch

Pearson Brothers & Co., Market Square, Geelong; Soda water, lemonade, ginger beer, cordials c. **1854** – **1855** (Arnold: –)

<i>Geelong Advertiser and Intelligencer</i>	10 Jan. 1854:5	Messrs Pearson & Co.'s ginger beer manufactory is used as a spatial reference to a business close by
	26 Jan. 1854:1	C. and F. Pearson, manufacturers of lemonade, soda water, ginger beer and cordials, thank the public for the manner in which they have been received. They have combined the Wine and Spirit business on the premises lately occupied by T.C. Riddle, Market Square, Geelong. They are also making extensive improvements in their soda water machinery. Only the trade is supplied
	12 Oct. 1854:4	The firm of Pearson Brothers consists of Charles and Frederick Thomas Berks Pearson and William Harding
	30 Jan. 1855:3	The estate of Pearson Bros at Market Square to be sold, which includes stock, plant, fixtures, lease and goodwill, a steam engine and soda water machine for making and bottling 1,000 dozen per day

C. Pearson, Bank Place, off Market Square, Geelong; Ginger beer **1856** (Arnold: –)

Heath and Cordell	1856:68	Ginger beer maker C. Pearson is listed in the directory at Bank Place, off Market Square
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Pearson & Atkinson then **Samuel Atkinson**, Corio St, Geelong; Soda water, lemonade, ginger beer – **1859** (Arnold: 1858)

<i>Geelong Advertiser</i>	1 Jan. 1859:1	Due to one partner in the firm of Pearson & Atkinson leaving, the firm is open to a new partner entering the lemonade, ginger beer and cordial business currently carried on
	14 May 1859:4	Dissolution of partnership between Frederick Thomas Birks Pearson and Samuel Atkinson on 13 May
	12 Aug. 1859:1	Reference to the soda water factory of Samuel Atkinson in Corio Street
	12 May 1860:3	Atkinson's machinery, plant and stock-in-trade for auction to pay his creditors
	31 Jul. 1860:2	Atkinson in the insolvent court

John Pulbrook, Autumn St, Ashby; Soda water, lemonade, ginger beer, cordials c. **1852 – 1860** (Arnold: 1848–1860)

<i>Argus</i>	2 Nov. 1852:5	John Pulbrook, of Autumn Street Ashby, announces a price change for his ginger beer and cordials
<i>Geelong Advertiser and Intelligencer</i>	2 Jul. 1855:3	Pulbrook informs publicans and others of a price change to his ginger beer, lemonade and soda water, per dozen
	12 Apr. 1856:3	The William Wallace Hotel in Autumn Street includes Pulbrook's pop and lemonade in a list of hotel refreshments on offer
<i>Geelong Advertiser</i>	14 Apr. 1860:3	Pulbrook's stock-in-trade of his ginger beer manufactory for sale
	16 Jun. 1860:2	John Pulbrook in the insolvent court

T. Shepherd, Little Foster St, South Geelong; Ginger beer **1856** (Arnold: 1856)

Heath and Cordell	1856:40	T. Shepherd listed in the directory as a ginger beer manufacturer, at Little Foster Street, South Geelong
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Simmonds & Newlands, Cnr Corio and Yarra Streets, Geelong; Ginger beer **1841–1842** (Arnold: –)

<i>Port Phillip Gazette</i>	27 Nov. 1841:2	Simmons and Newlands, pastry cooks and confectioners, inform the public they are about to open at the corner of Corio and Yarra Streets. Planned products for sale will include ginger beer and lemonade, both wholesale and retail
	9 Apr. 1842:2	Partnership dissolved on 5 April. between William Newlands and Phillip Simmonds, confectioners and ginger beer manufacturers

A. Uther, Corio St, east; Soda water, lemonade, cordials 1849 (Arnold: –)

<i>Geelong Advertiser</i>	6 Oct. 1849:2	A. Uther, having disposed of his chemist and druggist business, will manufacture new products at his Corio Cordial manufactory, at Corio Street east, next to the Teetotal Hall. Soda water and lemonade are included in his list of products. Merchants and Country storekeepers can be supplied with any quantity.
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G.F.A. Wilson & Co, Corio St, Geelong; Ginger beer 1849 (Arnold: –)

<i>Geelong Advertiser</i>	17 Jul. 1849:2	G.F.A. Wilson & Co, opposite Messrs. Cullen and Edols, Corio St, is prepared to supply ginger beer to the public, having received a machine for the purpose of the manufacture of it
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Portland and Hamilton

Thomas Clarke, Henty St, Portland; Soda water, lemonade, cordial **1855** (Arnold: –)

<i>Portland Guardian and Normanby General Advertiser</i>	26 Apr. 1855:2	Confectioner's license granted to Thomas Clarke, for his house in Henty St, Portland
	20 Sep. 1855:3	T. Clarke, brewer of Portland, thanks customers for their patronage during the last three years, and informs them he has added a lemonade and soda water machine to his business, enabling him to supply his customers with the products

Charles Haferkorn, Gray St, Hamilton; Soda water, ginger beer **c. 1858 – 1872** (Arnold: 1858–1872)

<i>Hamilton Spectator and Grange District Advertiser</i>	13 Apr. 1861:2	Confectioner's license granted to Charles Haferkorn, at Gray St, Hamilton
	15 Jun. 1861:4	Haferkorn listed in the business directory as a ginger beer brewer
	14 Dec. 1861:3	Haferkorn thanks his patrons for their support over the last three years. In addition to his ginger beer, soda water and cordial products, he has commenced brewing ale and porter in his Grange Brewery
<i>Hamilton Spectator</i>	4 Sep. 1872:3	Robert Hunter succeeds Haferkorn in his ale, porter and aerated waters business

David Richards, Percy St, Portland; Ginger beer **1861 –** (Arnold: –)

<i>Portland Guardian and Normanby General Advertiser</i>	21 Apr. 1858:2	Confectioner's license granted to David Richards
	25 Apr. 1860:3	David Richards of Percy St, Portland is granted a confectioner's license for the year
<i>Age</i>	12 Sep. 1861:2	Richards' estate sequestered on 9 Sep. 1861.
Wilson, J. Noble	1862	Richards, a ginger beer manufacturer, is declared insolvent on 9 Sep. 1861
<i>Portland Guardian and Normanby General Advertiser</i>	20 Jun. 1864:2	Richards summons a ginger beer customer to the police court to recover costs for non-returned bottles

Port Albert and Sale

Mr. Jamieson, Sale; Ginger beer 1862 – (Arnold: –)

<i>Gippsland Times</i>	4 Apr. 1862:3	For auction: Allotment no. 11 in Section 15 in the town of Sale, to be sold in two lots, each having a frontage of one chain to York St. On one lot is an iron store in the occupation of an Mr. Jamieson, ginger beer manufacturer.
	22 Apr. 1864:2	Reference to Mr. Jamieson, ginger beer factory

I.F. Liston, Tarraville; Soda water, lemonade 1855 – (Arnold: 1859–1865)

<i>Gippsland Guardian</i>	9 Nov. 1855:1	J.F. Liston of Tarraville Dispensary announces to Gippsland hotel-keepers that he expects to return from Melbourne with a soda water machine. He will be able to supply the trade with soda water and lemonade
	7 Dec. 1855:1	Liston prepared to supply the public with soda water, lemonade and other effervescing drinks from six dozen upwards, at Melbourne prices. Bottles must be paid for when taken away, the same price refunded when the bottles are returned
	20 Apr. 1860:2	Ginger beer license granted to I.F. Liston, soda water manufacturer
	3 May 1865:2	Mention of Liston about to leave the district

Gavin Ralston, Sale Brewery; Soda Water, lemonade, ginger beer 1861 – (Arnold: –)

<i>Gippsland Times</i>	16 Oct. 1861:3	G. Ralston announces his Sale Brewery will, in a few days, operate a manufactory for supplying soda water, lemonade, ginger beer, ginger wine, raspberry vinegar and all kinds of cordials
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R. Williams, – ; Soda water, lemonade 1856 (Arnold: –)

<i>Gippsland Guardian</i>	31 Oct. 1856:3	R. Williams informs residents of Sale, Stratford and the surrounding neighbourhood that he has procured a MacLaren's improved machine. He will be able to supply lemonade and soda water.
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Stopping points

Kyneton District

W. Caudy, Woodend; Lemonade – **1862** (Arnold: –)

<i>Kyneton Observer</i>	22 Apr. 1862:3	W. Caudy, lemonade and cordial manufacturer at Woodend, has disposed of his business to Mr. Patrick Touer as from 7 April
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Henry Gardner, Aitken St, then the Telegraph Hotel, Gisborne; Lemonade, ginger beer c. **1855** – (Arnold: –)

<i>Argus</i>	8 Mar. 1855:1	For sale: A store and bakery with a lemonade and ginger beer trade attached. Apply H. Gardner, Gisborne
<i>Kyneton Observer</i>	18 Dec. 1858:3	For sale: Mr. Henry Gardner's house and plant at Aitken Street, Gisborne, which includes a weatherboard house, bakehouse and engine room, detached stable, Tyler no. 2 soda water machine, copper and bottles
	12 Jul. 1859:4 – 5 Jan. 1860:4	Gardner has taken the Telegraph Hotel, Gisborne. The ginger beer manufactory carried on as usual

A. Hobbs, Beauchamp St, Kyneton; Soda water, c. **1856** – **1899** (Arnold: 1866–1899)

<i>Bendigo Advertiser</i>	10 Dec. 1859:3	Reference to Mrs. Hobbs, wife of soda-water manufacturer
<i>Kyneton Observer</i>	31 Dec. 1863:1	A. Hobbs listed in the local directory as an aerated water manufacturer in Beauchamp Street, Kyneton
	26 Oct. 1875:3	Hobbs advertises his ginger ale. The advertisement states his business has been established in Kyneton for 19 years (implying 1856)
	5 Jan. 1884:3	A. Hobbs referred to as a cordial and aerated water manufacturer in Market St.
	26 Jan. 1899:2	Sudden death of Mr. Abraham Hobbs, cordial maker

Patrick Touer, Woodend; Lemonade **1862** – (Arnold: –)

<i>Kyneton Observer</i>	22 Apr. 1862:3	W. Caudy, lemonade and cordial manufacturer at Woodend, has disposed of his business to Mr. Patrick Touer from 7 April
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Meredith district

Hartrick & John Webster, then John Webster, Meredith; Soda water, lemonade **c. 1856 – c. 1859**
(Arnold: –)

<i>Star</i>	4 Oct. 1856:3	Hartrick and Webster in court, apparently having once been in partnership as lemonade manufacturers
<i>Age</i>	17 Oct. 1856:6	John Webster, Ballarat soda water manufacturer, declared insolvent
<i>Geelong Advertiser</i>	22 Jan. 1859:1	John Webster, ginger beer manufacturer of Steiglitz, to sell or let his property there
<i>Star</i>	19 Oct. 1860:2	The fraudulent insolvent, Webster, had carried on his business at Meredith

William Bremner, Lethbridge; Ginger beer **1856** (Arnold: –)

<i>Geelong Advertiser and Intelligencer</i>	17 May. 1856:5	William Bremner of Lethbridge, ginger beer brewer, listed as entitled to vote in the Legislative Assembly
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Goldfields districts

Ballarat district, including Clunes and Creswick

Charles Atkins, Main Road, Clunes; Soda water – 1860 (Arnold: –)

<i>Star</i>	6 Jul. 1860:3	The whole of the buildings and brewery of Charles Atkins for sale. Atkins trades in Clunes and adjoining embryo townships
	26 Jul. 1860:5	Atkins, a cordial manufacturer, is declared insolvent, partly due to the falling-off of business
	5 Feb. 1861:3	The premises of Charles Atkins, main road, Clunes, to be auctioned. The brewery plant includes a soda water machine, bottling apparatus, a spring cart and all that is necessary for carrying on a ginger beer and soda water business

Cooper, Lee & Co., Dawson St, Ballarat; Soda water, lemonade, ginger beer 1858–1859 (Arnold: –)

PROV, VPRS 7260/P0002, Ballarat Rate Books	1857–1858	Dawson Street East: Cooper and Lee, ginger beer factory, Section 5 Allotment 19
<i>Star</i>	8 Sep. 1858:2	Plaintiffs Cooper & Lee in court to recover a debt
	12 Jan. 1859:4	Thomas Lee, of Cooper, Lee & Co., lemonade and soda water manufacturer, a witness in the District Police Court
	11 Feb. 1859:3	Supreme court executed auction at the premises of Cooper and others, Dawson St, Ballarat. Sale includes a dray, water cart, 3 spring carts, soda water machine, and bottles
	21 Feb. 1859:3	Stephen Cooper, George Thomas Lee and James Hill declared insolvent
	18 Apr. 1859:3	Cooper, Lee & Co.'s former premises as a lemonade and ginger beer manufactory to be sold or let. Cottage and stables attached

Dawson & Lee, Dana St, Ballarat; Lemonade, ginger beer – 1857 (Arnold: 1857)

Public Record Office Victoria, VPRS 16171/P1, Ballarat -10 Township Plan, Imperial Measure 5030		B. Dawson was the first to purchase Allotment 12 of Section 20 from the Crown on 31 Dec. 1855, at Dana Street, between Errard and Raglan Streets,
<i>Star</i>	9 Jun. 1857	Dawson & Lee, lemonade and ginger beer manufacturers, to sell their property at Dana Street

		(Allotment 12, Section 20), which includes manufactory, spring cart and lemonade machine
	3 Jul. 1857:3	Dissolution of partnership between Benjamin Dawson and George Thomas Lee

Francis, –, Ballarat; ginger beer **1856** (Arnold: –)

Heath and Cordell	1856:78	Francis' ginger beer manufactory business (as of Dec 1855), is listed under the general location 'Flat, Main Road, including Red Hill'
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John Gibbs, Charlie Napier Hotel, Main Road, Ballarat; Lemonade, Soyer's Nectar **1856–1859** (Arnold: –)

<i>Star</i>	23 Aug. 1856:3	A half-share of the Charlie Napier Hotel for sale, which includes a lemonade manufactory
	24 Dec. 1857:3	John Gibbs of the Charlie Napier Hotel, Ballarat, and late partner with Mr. Soyer of London (inventor of Soyer's nectar), has fitted up machinery and apparatus from London for the manufacture of Soyer's Nectar (a soft drink)
	25 Apr. 1859:3	The Charlie Napier Hotel on Main Road, Ballarat, to be auctioned, including the soda water manufactory. Allotments 26 and 27, Block B

Innes & Buchan, Drummond St, Ballarat; Soda water, lemonade – **1857** (Arnold: 1857)

<i>Star</i>	25 Jul. 1857:2	Innes & Buchan, lemonade manufacturers, in court to recover payment for goods
	10 Aug. 1857:3	Supreme Court execution notice for the lemonade and soda water manufactory to be sold, belonging to Innes and another. Factory in Drummond Street, near the Swamp
	9 Sep. 1857:2	Innes and Buchan's soda water machine seized
	12 Jun. 1858:3	Description of the insolvent estate of William Buchan, aerated water manufacturer. Includes a soda water machine, gasometer, two generators, large wheel, pipes, fittings and boiler

Jensen & Huston, then **Jens Jensen**, Clunes then Happy Valley, then Mair St Ballarat; Soda water, ginger beer **c. 1861 – 1870** (Arnold: 1861, 1867, 1870)

<i>Star</i>	2 May 1861:3	Dissolution of partnership between Joseph Huston and Jens Jensen, carrying on business as ginger beer and soda water manufacturers at Clunes. Jensen to carry on the business
	31 Oct. 1861:3	Jensen advertises for a tyer.
	14 Mar. 1866:2	Jensen & Huston operating business at Happy Valley

<i>Ballarat Star</i>	1 Feb. 1867: 3	Dissolution of partnership between Jensen & Huston, lemonade, ginger beer and soda water manufacturers
	16 Jun. 1868:1	Jensen & Huston, aerated water manufacturers in Mair Street, Ballarat, by appointment to H.R.H. the Duke of Edinburgh and Sir J.H.T. Manners Sutton
<i>Herald</i>	3 May 1870:3	Jensen & Huston declared insolvent. Causes of insolvency include having involved themselves in the erection of expensive building and plant
<i>Ballarat Courier</i>	22 Jul. 1874:4	Manufactory was located on the corner of Mair and Yuille Streets

Maine & Co., Errard St, Ballarat; Soda water, lemonade, ginger beer **1858–1860** (Arnold: 1857)

<i>Star</i>	4 Feb. 1858:3	Philip Maine of Errard Street advertises for an experienced soda water and lemonade bottler
	23 Apr. 1858:3	Mr P. Maine's company named as Maine & Co., soda water and ginger beer manufacturers
	3 May 1860:3	Maine's manufactory for sale. Land being Allotment 10, Section 17, with a frontage on Errard Street. Stock includes two copper boilers built in with brick, one shell boiler built in with bluestone, one large lead-lined tank, soda-water machine and spring cart

Moyle, Crowell & Co., Creswick; Ginger beer, soda water **c. 1861 – 1865** (Arnold: 1862)

<i>Maryborough and Dunolly Advertiser</i>	13 Mar. 1861:3	Report of a fire in a pine building occupied by Messrs Moyle, Crowell & Co. as a ginger beer factory and formerly Collier's theatre, Creswick
<i>Star</i>	29 Dec. 1862:3	Moyle and Crowell advertiser for a tyer for their soda water manufactory
	27 May 1865:4	Richard Moyle and Francis Crowell declared insolvent
Dicker: Ballarat District directory	1865:126	Moyle and Crowell's address listed as Cambridge St

Rowlands & Lewis, then **E. Rowlands,** Yuilles's Swamp, then Sturt St, then Cnr Dana and Doveton Sts, Ballarat; Soda water, ginger beer, lemonade **c. 1854 –** (Arnold: 1854–1876, 1876–1935)

<i>Star</i>	22 Sep. 1855:1	Reference to Rowlands and Lewis, soda water manufacturers at Ballarat
	23 Aug. 1856:3	Reference to Lewis and Rowlands in Sturt Street
PROV, VPRS 7260/P0002, Ballarat Rate Books	1856–1857:1, rate no. 12	The Ginger beer manufactory of Rowlands and Lewis at Sturt Street, north side, Section V Allotment 14

<i>Star</i>	10 Sep. 1861:2	News report: Due to their superior quality of soda water and ginger beer over that of Melbourne, Rowlands and Lewis intend to send large quantities of both to that city as soon as the railway is opened
<i>Argus</i>	13 Jan. 1868:3	A Melbourne wine and spirit merchant advertises that Rowlands & Lewis' soda water, seltzer and lemonade are always on sale
<i>Ballarat Courier</i>	4 Mar. 1870:3	New manufactory opened on the corner of Dana and Doveton Streets
<i>Telegraph, St Kilda, Prahran and South Yarra Guardian</i>	4 Oct. 1873:3	Melbourne premises opened at 116 Collins Street West
<i>Bendigo Advertiser</i>	28 Jun. 1879:1	Product exported to Bombay, Calcutta and other cities in India as well as locally. Rowlands & Lewis patent for a marble-stoppered bottle about to be introduced.
<i>Ballarat Star</i>	12 May 1880:2	News of three trademarks recently registered by Evan Rowlands, including one of a Miner and Farmer on a shield
<i>Ballarat Star</i>	7 Jun. 1894:4	Lewis retired from the business in 1876. Rowlands died in 1894. The firm continued.
The following two sources refer to Rowlands & Lewis' distant past		
<i>Sydney Daily Telegraph</i>	25 Aug. 1883:6	On the opening of a Sydney branch, it is stated that the firm of Rowlands & Lewis was established at Ballarat in 1854
<i>Ballarat Star</i>	2 Apr. 1921:7	The original manufactory was located at Yuille's Swamp, now Lake Wendouree

William Saunders, Learmonth Street, Buninyong; Soda water, lemonade c. 1859 – (Arnold: – 1873)

<i>Argus</i>	28 Jul. 1859:1	A sodawater machine wanted. W. Sanders, post office, Buninyong
<i>Star</i>	7 Dec. 1861:3	W. Saunders, soda water manufacturer at Buninyong, advertises for a good tier
	2 Jun. 1862:3	Saunders advertises for a stout lad for his lemonade manufactory
Dicker: Ballarat district directory	1865:126	William Saunders, soda water manufacturer, address listed as Learmonth Street, Buninyong
<i>Ballarat Star</i>	23 Jan. 1873:2	Saunders, soda water manufacturer, declared insolvent

Smith, –, Main Road, Ballarat; Soda water, lemonade, ginger beer – **1858** (Arnold: 1856)

<i>Star</i>	30 Dec. 1858:3	The whole of Smith's manufactory for sale, including Tyler's soda water machine, pumps, boilers, bottles, water cart and dray, stock and fixtures
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William Train, then **Train & Hart**, Smythesdale; Aerated water, ginger beer, cordial **1859–1865**
(Arnold: 1864)

<i>Star</i>	28 Jun. 1859:2	Report of success at the Roxburgh Castle prospecting claim, Smythesdale, opposite Mr. Train's lemonade factory
	30 Oct. 1861:1	Report of Train opening a department at Linton
	4 Dec. 1862:3	Bottler and tyer wanted for Wm. Train's soda water manufactory
	12 Dec. 1863:3	Train and Hart advertise for a bottler for their soda water manufactory at Smythesdale
<i>Ballarat Star</i>	28 Feb. 1865:3	The trust estate of William Train, including the whole of the machinery and plant, to be auctioned on 3 March. The manufactory is situated on Allotment 9 Section 35.

Walker & Nicholson, then **William Nicholson**, The Swamp, Ballarat; Lemonade – **1858**
(Arnold: –)

<i>Star</i>	21 Feb. 1857:3	Dissolution of partnership between Samuel Walker and William Nicholson, lemonade manufacturers at the Swamp, Ballarat. Nicholson to continue business
	30 Oct. 1858:3	Nicholson's estate at the Swamp to be sold. Property adjoins the brick flour mill, with frontage to Wendouree Parade, part of allotment 40, township of Ballarat (east of Pleasant Street). Property includes the Swamp Hotel, a detached cottage and a large shed used as a ginger beer and lemonade manufactory, fitted with boilers, stables and outhouses.
<i>Mount Alexander Mail</i>	2 Feb. 1859:3	Fire destroys the Swamp Hotel, a large wooden building with a shingled roof, plus a large number of partly detached buildings composed of slabs, which had been used for a ginger beer manufactory.

Ward & Topp then **Fox & Topp**, Brown's diggings; Ginger beer, aerated waters c. **1859 – 1861**
(Arnold: –)

<i>Star</i>	17 Aug. 1859:3	Ward & Topp at Brown's advertise for a strong horse to run a lemonade cart for their manufactory
	20 Mar. 1860:3	Dissolution of partnership between William Ward and Charles Topp of Ward & Co., cider and cordial manufacturers at Brown's

	16 Jul. 1861:3	Dissolution of partnership between Richard Fox and Charles Topp, aerated waters, ginger beer and cider manufacturers
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Whatley & Byles, then **James Byles**, Market Square, then Swamp, Ballarat; Lemonade, soda water c. 1854 – 1858 (Arnold: 1857)

<i>Star</i>	23 Dec. 1856:3	Whatley & Byles' new brick building in Market Square, Ballarat, adjoins Allotment 3 of Section 47
	13 Feb. 1857:3	Dissolution of partnership on 12 Feb 1857 between Thomas Whatley and James Hodge Byles of Whatley & Byles, hotel keepers and lemonade manufacturers at Ballarat. James Byles to continue the business
PROV, VPRS 7260/P0002, Ballarat Rate Books	1857–1858, no. 6	Facing Swamp, east side: Ginger Beer manufactory, J. Byles, Section 1 Allotment 30, 2 acres
<i>Star</i>	9 Apr. 1858:3	The insolvent estate of James Byles, soda water manufacturer, is sequestered
	24 Apr. 1858:3	Sale of Byles' insolvent estate at the premises, Swamp, Ballarat, adjoining McPhillimy, Baird and Brown's Flour Mill. Estate includes stock and fixtures and bottling apparatus
	11 Jun. 1858:3	In the matter of Byles' insolvency, Whatley & Byles's partnership is referred as between April 1854 to April 1857, and their partnership in the Market Square Hotel

Castlemaine district

Christian Archer, Shakespeare Hotel, Campbell's Creek (Castlemaine); Soda water, lemonade, syrup **1855** – (Arnold: 1855)

<i>Mount Alexander Mail</i>	21 Sep. 1855:3	Christian Archer, one of three aerated water manufacturers, is compelled to charge for all bottle deficiencies at the rate of 7s per dozen (due to ruinous losses)
	7 Dec. 1855:3	C. Archer, syrup, soda water and lemonade manufactory, Shakespeare Hotel, Campbell's Creek. Will supply product within 15 miles of Castlemaine.

Evans & Jones, then **E.W. Jones**, Pennyweight Flat, Forest Creek (Castlemaine); Soda water, lemonade, ginger beer and cider c. **1853** – **1862** Tarrangower (Maldon) **1856–1862** Malmsbury **1859–1862** (Arnold: Evans and Jones 1853–1855, Jones 1853–1864, Tarrangower 1858–, Malmsbury 1858–1864)

<i>Mount Alexander Mail</i>	29 Dec. 1854:5	Mention of a Forest Creek cricket match held on the flat near Evans and Jones
	18 May 1855:3	Death of Evans after a delirium on 13 May. Mention of G.W. Paulson, a traveller in the employ of Evans and Jones, and Stanton, Paulson's mate
	21 Sep. 1855:3	E.W. Jones, one of three aerated water manufacturers, is compelled to charge for all bottle deficiencies at the rate of 7s per dozen (due to ruinous losses)
	15 Sep. 1856:4	Announcement of a new manufactory established at Tarrangower
	24 Dec. 1856:1	Report of a soda water machine in use, calculated to produce from 200 to 300 dozen per day
	24 Dec. 1858:8	Completed extensive alterations to manufactory premises. In business upwards of five years. (Suggests a beginning circa 1853)
	25 Nov. 1859:3	New branch establishment opened at Malmsbury to serve customers in the Kyneton, Malmsbury and Taradale areas
	7 May 1862:3	Complete estate of E.W. Jones to be auctioned on 14–16 May, by order of mortgagee. Includes brewery at Malmsbury, manufactory at Maldon, then house, cottage and manufactory stock-in-trade at Pennyweight Flat. Vehicles mentioned: Spring carts, waggons, drays, and water carts. Soda water machines to be sold.
	13 Aug. 1863:3	The plant of the late E.W. Jones to be sold or let. Includes a Tyler's soda water machine

Robert Formby, Templeton St, Castlemaine; Soda Water, Lemonade, Ginger Beer **1858–1883** (Arnold 1858, 1853–1883)

<i>Mount Alexander Mail</i>	20 May 1856:1	Robert Formby, a partner in T. Pye & Co.
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	18 Jan. 1858:3	Partnership dissolved on 15 Dec 1857 between Pye and Formby. Business to continue under the name Thomas Pye
	10 Nov. 1858:1	Formby commenced business as a manufacturer at his old Templeton Street address. Purchased a new soda water machine
<i>Glass's Almanac and Directory for Castlemaine</i>	1861	Formby and four staff listed in the directory: 2 assistants, 1 bottler and 1 carter
<i>Mount Alexander Mail</i>	19 Feb. 1864:1	Ginger beer and soda water manufacturer, Templeton St
	16 Apr. 1883:3	Robert Formby, cordial manufacturer, has granted a lease of his factory and business to his adopted son David Ogilvy Brown (generally known as David Formby). The business will be carried on under the style of 'D. Formby'.

George Keiller & Son, Aberdeen Hill, Forest Creek Road, near Castlemaine; Soda water, Lemonade, ginger beer, confectionery **1856** – (Arnold: –)

<i>Mount Alexander Mail</i>	31 Dec. 1856:3	Advertisement for George Keiller & Son, late of Dundee, practical confectioners and manufacturers of soda water, lemonade and ginger beer etc.
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Edward Lock, Grave St, Castlemaine; Ginger beer **1861** – (Arnold: –)

<i>Glass's Almanac and directory of Castlemaine</i>	1861:47	Edward Lock listed in the directory as a ginger beer manufacturer at Grave Street
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Pestell & Heynes, then **John Heynes & Co.**, Market Square, Forest St, Castlemaine; Soda water, lemonade, ginger beer, syrups and cordials **1855–1857** (Arnold: 1855, John Heynes 1855–1856)

<i>Mount Alexander Mail</i>	19 Jan. 1855:1	Advertisement for Pestell & Heynes, soda water, lemonade and ginger-beer manufacturers, Market Square, Castlemaine
	21 Sep. 1855:3	Pestell & Haynes, one of three aerated water manufacturers, are compelled to charge for all bottle deficiencies at the rate of 7s per dozen (due to ruinous losses)
	21 Sep. 1855:3	Partnership dissolved on 31 July 1855 between William Pestell and John Heynes. Heynes to continue the business
	22 Oct. 1856:1	Spring cart for sale: John Heynes, soda water manufacturer
	14 Dec. 1857:1	Heynes & Co.'s manufactory at Forest Street to be sold at public auction on 14 December, including 2 spring carts
	18 Dec. 1857:5	Shop in Forest Street to let, lately occupied by John Heynes & Co., as lemonade and ginger beer manufactory

Paulson & Stanton, then **Paulson & Richter**; Campbells Creek (Castlemaine); Aerated waters, ginger beer, cordial **c. 1856 – 1864** (Arnold: 1856–1864)

<i>Mount Alexander Mail</i>	18 May 1855:3	G.W. Paulson in the employ of Evans and Jones
	12 Mar. 1858:1	Received a Tyler no. 1 soda water machine at their aerated waters and ginger beer manufactory
	16 Nov. 1859:3	Steam machinery erected for the manufacture of soda water, lemonade etc.
	23 Nov. 1859:2	Paulson and Stanton commenced manufacturing aerated waters three years ago (suggests a beginning circa 1856). Approx. 500 dozen of soda water produced daily. An increasing demand meant fifteen men and boys and seven horses and carts could not keep up. This compelled Paulson and Stanton to substitute steam power for manual labour in forcing gas into the bottles.
	12 Dec. 1859:2	Cool summer season temperatures resulted in slow business, so Paulson & Stanton cannot find employment for half the number of hands normally employed for the season.
<i>Age</i>	18 Jul. 1864:4	Announcement of the death of Mr. Charles Stanton on 16 July, aged 39, after a short but severe illness
<i>Bendigo Advertiser</i>	15 Jun. 1865:3	Auction of G.W. Paulson's insolvent estate
<i>Mount Alexander Mail</i>	17 Nov. 1865:2	Prize winners at the Grand National Show at Castlemaine: Paulson and Richter, prize for 3 dozen ginger beer, 3 dozen lemonade, 2 dozen soda water.

Thomas Pye & Co., Templeton St, Castlemaine; Soda Water, Lemonade, Ginger Beer **c. 1853 – 1858** (Arnold 1853–1859)

<i>Mount Alexander Mail</i>	17 Nov. 1854:5	Pye thanks the public for their patronage during the winter months. Lemonade prices will be reduced to 3s 6d per dozen. Bottles not returned will be charged for.
	20 May 1856:1	Robert Formby part of T. Pye & Co.
	4 Nov. 1856:5	Four years' experience at the premises. Price reduction to 3s per dozen. (Suggests a beginning circa 1853)
	23 Mar. 1857:3	Partnership of Thomas Pye, Robert Formby and Robert Hawksley dissolved on 17 Jan 1857 as far as Hawksley is concerned
	18 Jan. 1858:3	Partnership of Pye and Formby dissolved on 15 Dec. 1857. Business to continue under the name Thomas Pye
	21 Jan. 1859:5	Pye & Co.'s soda water manufactory for sale or lease but is in the possession of Robert Formby (since Nov. 1858 at least).

Rockliff Brothers; Maldon/Tarrangower; Ginger beer, lemonade – **1857** (Arnold: 1857)

<i>Mount Alexander Mail</i>	6 Apr. 1857	Partnership dissolved on 28 Mar. 1857 between John Russell and Joseph Bullen Rockliff, from Rockliff Brothers, ginger beer and lemonade manufacturers, Maldon, Mt. Tarrangower
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David Stewart, then Peter Stewart & Co., then Stewart & Graydon, then Charles Graydon, Taradale; Ginger beer, soda water c. **1861** – (Arnold: –)

<i>Argus</i>	21 Oct. 1861:3	Legal notice that the goods of David Stewart, ginger beer manufacturer, late of Taradale, deceased, be granted to Peter Stewart of Taradale (ginger beer manufacturer), son of the deceased
<i>Mount Alexander Mail</i>	2 Apr. 1862:3	Partnership dissolved on 31 Mar. 1862, between Taradale ginger beer manufacturers Peter Stewart & Co. as far as Walter Carson is concerned. Stewart and Grayson to continue the business
	5 May 1863:3	Partnership dissolved on 1 May 1863: Stewart retiring from Stewart and Graydon, soda water, ginger beer and cordial manufacturers. Charles Graydon to continue

Jas. Tanswell, Castlemaine; Soda water, lemonade **1854** – (Arnold: –)

<i>Mount Alexander Mail</i>	17 Nov. 1854:2	Reference to Jas. Tanswill, soda water manufacturer
	1 Dec. 1854:5	Reference to work done in early 1854 on the spring cart of Tanswell, a soda-water manufacturer in Castlemaine
	8 Dec. 1854:5	Reference to Tanswell being a lemonade maker

Williams & Co., Church's Flat, Fryer's Creek; Ginger beer, lemonade **1855** – (Arnold: 1855, 1864–1867 at Vaughan)

<i>Mount Alexander Mail</i>	16 Feb. 1855:1	Advertisement for Williams & Co., ginger beer and lemonade manufacturers, Church's Flat, Fryer's Creek
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Bendigo

F.G. Beard, Irishtown, then back of Australian Hotel, White Hills Road then Arnold St Bendigo; Ginger beer, soda water, lemonade c. **1855 – 1862** (Arnold: 1852–1862)

<i>Bendigo Advertiser</i>	19 Aug. 1856:3	Frederick George Beard, one of many residents removed from Irishtown and prosecuted by the Camp Bailiff with occupying Crown Lands illegally. Apparently, Beard had been located on the same spot for years.
	1 Sep. 1856:1	Beard, soda water, lemonade, ginger beer and cordial maker, has removed to his new premises at the back of the Australasian (Australian) Hotel, White Hills Road
<i>Geelong Advertiser</i>	5 Feb. 1862:2	Declared insolvent. Causes: depression in trade, and pressure of creditors
<i>Age</i>	14 Feb. 1862:2	Beard's estate placed under sequestration on 3 Feb. 1862
<i>Maryborough and Dunolly Advertiser</i>	14 Feb. 1862:5	The insolvent estate of Beard is open for tender. Beard named as the oldest established aerated water and cordial manufactory in Bendigo. Includes a Tyler's double-action patent soda-water machine, nearly new, dog-cart, soda-water and ginger beer bottles. The recent introduction of water from the Bendigo Works makes the establishment complete.
<i>Mount Alexander Mail</i>	14 Feb. 1862:1	
<i>Star</i>	14 Feb. 1862:3	

Brother & Sauze, then **Sauze & Co.**, Irishtown, Bendigo; Lemonade, ginger beer c. **1857 – 1858** (Arnold: –)

<i>Bendigo Advertiser</i>	16 Dec. 1857:3	Brother & Sauze advertise for hands for lemonade factory at Irishtown
	23 Feb. 1858:3	Mr. Brother's half-share in the lemonade and ginger beer business to be sold
	4 Mar. 1858:3	Partnership between Brother & Sauze dissolved. Sauze and Co. to continue
	5 Jun. 1858:1	Sauze & Grimson advertise to publicans and others when they will collect all ginger beer and soda water bottles belonging to them
	8 Jun. 1858:1	The estate and effects of William Sauze and John Grimson to be assigned to others to discharge their debts

William Bruce, Eaglehawk; Ginger beer, soda water, lemonade **1862 –** (Arnold: – 1859)

<i>Bendigo Advertiser</i>	12 Dec. 1862:3	A boy wanted to tie lemonade and soda water. William Bruce, Eaglehawk
	15 Aug. 1864:3	Bruce in partnership with Michael Macnamara to bottle and supply George Elliott's ales at Sandhurst, under the name William Bruce & Co., while continuing his aerated waters business at Eaglehawk

	29 Mar. 1866:3	A. Phillips of Lucan Street has transferred his ginger beer and cordial business to Bruce
	23 Oct. 1876:3	'W. Bruce, Sandhurst' stamped on his bottles
	28 Jul. 1883:3	Business as brewer and aerated water maker will be carried on under the name of 'Wm. Bruce and Sons from 1 August 1883.

Cardinali & James, Golden Gully; Soda water – 1856 (Arnold: –)

<i>Bendigo Advertiser</i>	28 Aug. 1856:1	Partnership dissolved on 27 August 1856 between Ercole Cardinali and James, soda water manufacturers at Golden Gully, opposite the Yorkshire Arms
	12 Oct. 1857:2	Conway bought James's share in the business in 1856

Cusworth & Co., Sandhurst; Lemonade, soda water 1854 – (Arnold: – 1857)

<i>Argus</i>	3 Jan. 1854:5	Report of Cusworth & Co. having commenced an aerated lemonade and soda water manufactory at Sandhurst, and already received patronage. The machine used to make their beverages is one by Tyler & Co., London, a model of which was exhibited at the Great Exhibition. Dr. Owen (politician and doctor) is engaged in this speculation.
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Dickson & Moorhead, Seventh White Hill, Bendigo; Ginger beer, lemonade, soda water 1857, Watson & Moorhead – 1858 (Arnold: – 1857)

<i>Bendigo Advertiser</i>	14 Feb. 1857:3	Dickson advertises for hands in a lemonade manufactory at Seventh White Hill
	4 May 1857:3	Partnership dissolved on 1 May 1857 between Andrew Dickson and Robert Moorhead
	7 Dec. 1857:3	Moorhead advertises for two lads in his soda water manufactory
	5 Feb. 1858:3	An account of a bottle tier working for the Messrs. Watson that raced a tier from another company, to see who could tie the most bottles in an allotted time.
	26 Feb. 1858:3	In the Supreme Court: Moorhead v. Watson. The effects of James Jonathan Watson, cordial manufacturer at 7th White Hill to be sold, which includes a lemonade machine

C.R. Goulding, McCrae St, Bendigo; Ginger beer, lemonade 1861 – (Arnold: –)

<i>Bendigo Advertiser</i>	10 Jan. 1861:1 – 16 Mar. 1861:1	C.R. Goulding announces the opening of his McCrae Street lemonade factory for making lemonade, ginger beer and more
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Ed. Garsed, McCrae St, Bendigo; Soda water 1854–1855 (Arnold: –)

<i>Argus</i>	21 Sep. 1854:5	In the Bendigo Exhibition on 14 September, Mr. Garsed gained a first-class prize certificate for his soda water
<i>Bendigo Advertiser</i>	29 Dec. 1855:4	D. Heckscher, at the Albert Hotel, has made arrangements with Mr. Garsed for the sole use of his aerated water machine
	12 Feb. 1858:1	Garsed, chemist and druggist, has removed from McCrae Street to the newly erected premises on his other frontage in Bridge Street

David Heckscher, Albert Hotel, McCrae St, Bendigo; Ginger beer, soda water, lemonade 1855 (Arnold: –)

<i>Bendigo Advertiser</i>	29 Dec. 1855:4	D. Heckscher has made arrangements with the chemist Mr. Garsed for the sole use of his aerated water machine, for making lemonade, soda water and ginger beer. Albert Hotel, opposite the Exhibition Building
Bendigo Regional Archives Centre, VPRS 16267/ P0001 Corporation of Sandhurst, Rate Books	1856:38, rate no. 762	David Heckscher's hotel at McRae Street, 3 doors from Garsed.

Hopper & Co., Irishtown; Ginger beer, cordial 1859–1862 (Arnold: 1860)

<i>Bendigo Advertiser</i>	10 Dec. 1859:3	Hopper & Co. at Irishtown advertise for a cordial maker
	9 Sep. 1862:4	Horses, carts, casks and other materials for sale at the manufactory
	24 Dec. 1862:1	Named as one of numerous industrious aerated water manufacturers in Sandhurst

Howard & Dixon, then T.J. Howard, Hargreaves St, Sandhurst; Lemonade, soda water, ginger beer 1856–1861 (Arnold: 1858–1872)

<i>Bendigo Advertiser</i>	5 Jan. 1856:3	Hands wanted: Howard & Dixon, lemonade makers at Hargreaves St, Sandhurst
	15 Nov. 1856:3	Partnership dissolved on 14 Nov. 1856 between T.J. Howard and Edward J. Dixon, ginger beer and soda water makers
	10 Dec. 1858:3	Mr. Howard, lemonade manufacturer in Long Gully
	9 Feb. 1859:3	T.J. Howard, lemonade manufacturer in Long Gully
	5 Mar. 1861:3	Thomas J. Howard, ginger beer manufacturer, auction at Long Gully of ginger beer machine, horse, spring cart and more

<i>Herald</i>	13 Jun. 1861:7	The insolvent estate of Thomas James Howard of Sandhurst was placed under sequestration 6th June 1861
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Keep & Meader, Napier St, White Hills; Soda water, ginger beer – 1862 (Arnold: – 1862)

<i>Bendigo Advertiser</i>	1 Jul. 1862:4	Keep and Meader's soda water and ginger beer manufactory plant at Napier Street, White Hills to be sold at auction
	3 Sep. 1862:1	Dissolution of partnership between Robert Keep and William Meader, 1 Sep. 1862

Kirkby, George W., Bridge/ Bernal St; Soda water, ginger beer, lemonade 1856–1865 (Arnold: 1856 – mid 1860s)

<i>Bendigo Advertiser</i>	27 Nov. 1856:3	Kirkby's lemonade manufactory at Bridge Street advertises for a servant
	11 Dec. 1857:3	Advertisement for a boy to tie lemonade at G.W. Kirkby's factory
	16 Mar. 1860:3	Mr. Kirkby donated lemonade and ginger beer to the Benevolent Asylum's inaugurative ceremonies
	26 Dec. 1865:2	Insolvent certificate granted to Mr. Kirkby, Sandhurst sodawater maker

C.C. McDonald and James McDonald, McCrae St, Bendigo; Soda water, lemonade c. 1854 – (Arnold: 1852–1872)

<i>Argus</i>	21 Sep. 1854:5	In the Bendigo Exhibition on 14 September, McDonald gained a second-class prize certificate for his soda water
<i>Bendigo Advertiser</i>	1 Sep. 1855:1	C.C. McDonald in the newspaper business directory as a lemonade and soda water manufacturer in McCrae St, late C. and J. McDonald
	10 Apr. 1858:2	6 Mar. 1858: Death of James Matthew McDonald, aged 31 years, at his address in McCrae St
	4 May 1858:3	Estate of James McDonald, late of McCrae St, soda water manufacturer
<i>Age</i>	29 Mar. 1859:6	In a report of legal action between James McDonald's widow and C.C. McDonald, it is revealed the two men were brothers
	24 Dec. 1862:1	McDonald mentioned amongst others as one of Bendigo's industrial aerated water manufacturers
	21 Jan. 1863:1	C.C. McDonald still listed as a soda water manufacturer in McCrae Street

John O'Donnell, Kangaroo Flat; Ginger beer 1856 – (Arnold: –)

<i>Bendigo Advertiser</i>	14 Nov. 1856:3	Wanted: A lad to drive a spring cart. John O'Donnell, ginger beer and cordial maker, Kangaroo Flat
	12 Nov. 1857:3	Wanted: A good ginger beer tier for J. O'Donnell's.

Peel & Bolton, then **Peel Brothers**, Golden Square then Wills St; Soda water, ginger beer, lemonade **c. 1857 – 1878** (Arnold: 1866–1884)

<i>Bendigo Advertiser</i>	5 Mar. 1857:3	Wanted: A young man to drive a soda-water and lemonade cart. Peel & Bolton, Golden Square
	3 Sep. 1859:1	Partnership dissolved on 31 Jul. 1859 between S.R. Peel, R.R. Peel and R. Bolton. Peel and Peel will carry on the business
	24 Dec. 1862:1	Peel Brothers noted as one of many local industrial aerated water manufacturers
	2 Mar. 1867:3	An article about Peel Bros. recounts Peel & Bolton beginning some 11 years prior (implying 1856). Peel & Bolton have improved the business and moved to Wills St, off Mitchell St, Sandhurst, before their dissolution of partnership
	11 Jul. 1878:2	Mr. Wm. Bruce has purchased the soda water business of Messrs Peel Bros.

Abraham Phillips, Lucan St, Bendigo; Lemonade, ginger beer **c. 1861 – 1866** (Arnold: 1861–1865)

<i>Bendigo Advertiser</i>	13 Sep. 1861:1	Phillip's lemonade factory in Lucan Street to have slab stables erected
	3 Dec. 1863:1	Abraham Phillips takes on Henry Williams as a partner in Phillips and Williams
	31 Mar. 1866:3	Phillips has disposed of his business to Mr. William Bruce of Eaglehawk

Platt & Peak, Lucan St, Sandhurst; Soda water, lemonade, ginger beer **c. 1858 – 1863** (Arnold: 1862)

<i>Bendigo Advertiser</i>	21 May 1858:4	The premises occupied by Platt and Peak, cordial manufacturers, to be sold. Allotment 14 of section 26 C, township of Sandhurst
	16 Mar. 1860:3	Platt & Peake donated aerated water products to the Benevolent Asylum inaugurative ceremonies
	6 Apr. 1861:8	News report: One of ginger beer maker Messrs Platt and Peak's horses bolted down Bridge Street while harnessed to a cart (without driver), which came into contact with another vehicle, causing the passengers to be injured
	12 Sep. 1862:4	Land for sale: Part of Allotment 1 (19?), Section 27C, currently occupied by Mr Platt for a ginger beer manufactory
	16 Jan. 1863:1	William Platt announces a meeting to be held of creditors of the late Richard Peak
	6 Feb. 1863:3	Auction of Platt & Peak's soda water and lemonade manufacturing plant, allotment 14, section 26C, having a frontage of 102 feet, with the same frontage to Bridge Lane

	6 Feb. 1863:3	Public sale of Platt and Peak's soda water manufactory and land: allotment 15, section 26 C (house, stables, outhouse etc) and adjoining allotment (?14) (soda water plant) and allotment 17, section 27 C (frontage to Bayne St and a roadway)
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Pohl, Olbrech & Burnham then **Pohl & Olbrech**, Raglan St, White Hills Hamlet / Seventh White Hill; Soda water, lemonade, ginger beer **1857–1858** (Arnold: 1856–1858)

<i>Bendigo Advertiser</i>	30 Jan. 1857:1	Advertisement for Pohl, Olbrich and Burnham, Sodawater and cordial manufacturers, Raglan Street, White Hills Hamlet
	30 Nov. 1857:3	Wanted: two hands for a lemonade business, must be good tiers
	5 Feb. 1858:3	On 27th January 1858, a bottle tier from Pohl, Olbrech & Burnham bettered a tier from another manufactory, in a competition for the number of bottles tied within one hour
	9 Apr. 1858:1	Partnership dissolved on 6 April 1858 between Carl Pohl, August Olbrich and John Burton Burnham, as far as Burnham is concerned
	26 Jun. 1858:4	For auction on 21 July: The whole of Pohl and Olbrich's business plant in the soda water, lemonade and ginger beer manufacture. Includes: 2 carriages, 3 carts fitted with boxes, machine, 150 gross bottles, corks, 110 cane baskets, twine, acids, ginger essences, 5000 labels, wire, tin foil, harness, taps, empty cases, &c.

Ryan & Pillon, Bridge St, Sandhurst; Soda water, ginger beer – **1861** (Arnold: –)

Bendigo Regional Archives Centre, VPRS 16267/ P0001 Corporation of Sandhurst, Rate Books	1861:70, no. 1873	Ryan & Pillon ratepayers for a block on Bridge Street, on which a factory is situated.
<i>Bendigo Advertiser</i>	6 Aug. 1861:2	John Sarsfield Pillon and Ed Ryan of Sandhurst, formerly carrying on the trade of ginger beer and soda water manufacturers (Ryan & Pillon) declared insolvent

James Skene, Mundy St, adjoining the Freemason's Hotel; Soda water, lemonade **1856** (Arnold: –)

<i>Bendigo Advertiser</i>	16 Jul. 1856:4	Advertised as a wine and spirit merchant and a soda water, lemonade, and cordial manufacturer at the above address
	25 Nov. 1856:3	Auction of the Freemason's Hotel announced. A soda water machine and all the necessary

		apparatus connected therewith to be included in the sale
	6 Dec. 1856:2	Report on the sale of the Freemason's Hotel as the property of Moore and Skene
	22 May 1857:1	Skene and Burrowes continue as wholesale wine and spirit merchants at Mundy Street

Alexander S. Smith, Sandhurst; Ginger beer – 1859 (Arnold: –)

<i>Bendigo Advertiser</i>	6 Aug. 1859:2	Alexander S. Smith of Sandhurst (currently a prisoner in gaol), ginger beer manufacturer, declared insolvent due to pressure of creditors and losses in trade
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William Smith, Kangaroo Flat; Ginger beer 1856–1858 (Arnold: 1857–1859)

<i>Bendigo Advertiser</i>	24 Nov. 1856:3	A strong active lad wanted by W. Smith's ginger-beer manufactory at Kangaroo Flat
	5 Mar. 1858:3	A hand wanted for the ginger beer trade, at Smith's manufactory

Wilson & Francis, High Street, Sandhurst; Ginger beer, lemonade 1858–1859 (Arnold: 1859)

<i>Bendigo Advertiser</i>	12 Nov. 1858:3	Wilson and Francis of High Street, near Yorkshire Hotel, advertise for a man for a ginger beer cart
	16 Nov. 1858:3	Lemonade machine mentioned
	3 Dec. 1858:1	Partnership dissolved between Chas. Wilson and Joseph Francis on 1 December 1858. Wilson will carry on the business
	11 Feb. 1859:3	New insolvent: C.F. Wilson, butcher, lemonade and ginger beer manufacturer. Causes of insolvency being losses in trade and pressure of creditors
	11 Feb. 1859:1	Named as Charles Fairburn Wilson

Maryborough, Dunolly and Talbot district

Baker & Co., Back Creek; Aerated waters 1859 – (Arnold: –)

<i>Maryborough and Dunolly Advertiser</i>	21 Sep. 1858:3	Advertisement for Mr. Sault's Daisy Hill Hotel, Back Creek, Amherst
	16 Dec. 1859:3	Baker & Co. announce they have commenced manufacturing aerated waters in the store lately occupied by Messrs. W. and D. Stavely, next to the Daisy Hill Hotel, Back Creek. Their branch depot is located at the Theatre Royal Hotel, New Rush (in Scandinavian Crescent)

William Barclay, Dunolly; Ginger beer – 1857 (Arnold: –)

Wilson, J. Noble	1862	William Barclay, Dunolly ginger beer manufacturer, declared insolvent 12 Jan 1857
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William Carkeet, Green St, Carisbrook; Back Creek; Soda water, lemonade, ginger beer c. 1858 – (Arnold: –)

<i>Maryborough and Dunolly Advertiser</i>	30 Nov. 1858:1	Advertisement for William Henry Carkeet, ginger beer, lemonade and soda water manufacturer, in Green Street, Carisbrook
	25 Feb. 1859:1	Carkeet's additional location at Scandanavian Lead, Daisy Hill. Also manufacturing ginger beer and cider
	23 Nov. 1860:3	Wm. H. Carkeet thanks the inhabitants of Carisbrook and surrounding district for their support for the last three years in business. In consequence of depressed trade, he provides lower prices for ginger beer and cider at his Carisbrook Ginger Beer Manufactory

Dickens & Harris, Avoca; Lemonade, ginger beer – 1857 (Arnold: 1857)

<i>Argus</i>	23 Apr. 1857:8	Dissolution of partnership between John Charles Dickens and W.R. Harris, ginger beer and lemonade manufacturers at Avoca, on April 6th
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F. Finch, Broadway, Dunolly; Lemonade, ginger beer – 1859 (Arnold: –)

<i>Maryborough and Dunolly Advertiser</i>	8 Jul. 1859:3	The plant and premises of F. Finch's ginger beer and lemonade manufactory at Broadway, Dunolly to let
Public Record Office Victoria, VPRS 16171/P1, Dunolly Township Plan, Imperial Measure 5257		F. Finch purchased his double-fronted block on the corner of Broadway and Hardy and Inkerman Streets in July 1857 from the Crown

P. Frayne & Co., High St, Maryborough; Dunolly; Soda water, lemonade, ginger beer 1857 –
(Arnold: –)

<i>Maryborough and Dunolly Advertiser</i>	18 Dec. 1857:3	Having received a soda water machine, P. Frayne & Co. advertise lemonade and soda water at usual rates. Delivery within twelve miles of Dunolly
PROV, VPRS 11153/P0001, Maryborough Municipal Council Rate Books	1858–1859	P. Frayne & Co (owner and occupier), Lot 3, Section 9, Brewery and Dwelling, High Street
<i>Maryborough and Dunolly Advertiser</i>	22 Oct. 1858:1	Manufacturers of ginger beer and cordials, Maryborough and Dunolly
	18 May 1859:1	Frayne advertises his Family and Commercial Hotel in Dunolly
	25 Nov. 1859:4	Frayne's Commercial Hotel advertises for a hand able to work a soda water machine

Maryborough ginger beer and cordial manufactory, Maryborough; Ginger beer – 1857
(Arnold: –)

<i>Maryborough and Dunolly Advertiser</i>	16 Oct. 1857:4	Ginger beer and cordial manufactory for sale. Apply to Mr. Bodell, Victoria Family Hotel, Maryborough
	20 Oct. 1857:4	Manufactory for sale named as the Maryborough Ginger beer and cordial factory
	2 Mar. 1858:3	James Bodell's Victoria Hotel for sale, High Street, Maryborough

P. Maxton, Amherst and Back Creek; Aerated waters, soda water, ginger beer c. 1858 – 1863
(Arnold: –)

Public Record Office Victoria, VPRS 16171/P1, Amherst Township Plan, Imperial Measure 5009		P. Maxton purchased a quarter-acre block (Section 18 Allotment 2) on the corner of Herschel & Babbage Streets, Amherst, from the Crown on 4 Nov. 1859.
<i>Maryborough and Dunolly Advertiser</i>	25 May 1859:1	Advertisement for P. Maxton, aerated waters and ginger beer manufacturer, Amherst and Back Creek
	3 Apr. 1863:5	Peter Maxton to retire from the business he carried on in association with George Noblett. His entire interest in the business and premises at Ballarat St, Talbot (Back Creek) to be sold, including the plant and stock-in-trade
	24 Apr. 1863:5	Maxton's business named as being the oldest established business of this kind in the district
<i>Victorian Government Gazette no. 101</i>	2 Oct. 1863:2192	Maxton declared insolvent, 26 Sep. 1863

George Noblett (& John Forrest), Maryborough and Back Creek (Talbot); Soda water, ginger beer – 1859, c. 1863 – c. 1875 (Arnold: 1866–1881)

<i>Maryborough and Dunolly Advertiser</i>	2 Jun. 1859:3	George Noblett and John Forrest mentioned as ginger beer and soda water manufacturers at Maryborough and Back Creek
<i>Argus</i>	9 Jun. 1860:7	Noblett declared insolvent, citing the great rush to Inglewood, death of three horses, and general depression of trade as causes
<i>Maryborough and Dunolly Advertiser</i>	13 Jun. 1860:3	The insolvent estate of George Noblett of Back Creek and Lamplough to be sold. The sale is to be held at the Brewery, Back Creek Flat
	12 Jun. 1861:3	John Forest, soda-water manufacturer, found dead at Navarre
<i>Age</i>	11 Jul. 1860:5	The insolvent court complains Noblett is obstructive in the manner of the disposal of his estate
<i>Age</i>	20 Feb. 1862:3	Noblett requests to be granted a certificate of discharge regarding his insolvent estate
<i>Maryborough and Dunolly Advertiser</i>	30 Mar. 1863:2	An account of a visit to Noblett's soda water factory at Talbot includes the mention of a Tyler & Sons patent beam engine at work
	3 Apr. 1863:5	Noblett named as a business associate of Peter Maxton in Maxton's impending retirement and sale of plant and stock-in-trade. The business is at Ballarat St, Talbot
<i>Ballarat Star</i>	30 Oct. 1875:4	Noblett from Talbot wins a prize for his soda water, lemonade and raspberry vinegar at the Victorian Grand National Show
Ancestry.com (2010), <i>The Australian Cemetery Index, 1808–2007</i>		George Noblett buried in Amherst/Talbot cemetery. Died 10 Jan 1880, aged 49

A.G. Sears, Cnr Inkerman & Burke Sts, Maryborough; Soda water, lemonade, ginger beer, cordial 1859–1862 (Arnold: –)

<i>Maryborough and Dunolly Advertiser</i>	11 Jan. 1859:1	Advertisement for A.G. Sears, ginger beer, lemonade, soda-water and cordial manufacturer, located at the corner of Inkerman and Burke Streets, Maryborough
	19 Dec. 1860:1	Sears diversified his business by offering horses and carts for hire
	20 Dec. 1861:1	Sears offers corks, bottles and essences for sale
	26 Dec. 1862:1	Final listing for Sears in the newspaper's business directory

Stanley & Co., Back Creek, Amherst; Ginger beer – **1860** (Arnold: –)

<i>Maryborough and Dunolly Advertiser</i>	1 Jun. 1860:3	Partnership dissolved between James Stanley and George R. Lynch of Stanley & Co., ginger beer manufacturers at Back Creek, Amherst, 16 Apr. 1860
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Ovens and Murray District

J. Clark & Co., Milkman's Flat; Lemonade **c. 1858** (Arnold: –)

<i>Ovens and Murray Advertiser</i>	26 Mar. 1858:3	Public notice: All persons indebted to the firm of J. Clark and Co., lemonade manufacturers, Milkman's Flat, are requested not to pay any monies due to the above firm, until further notice, pending legal proceedings
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Duncan & Couper, then **Couper's**, Foot Bridge, Spring Creek; Soda water, lemonade, ginger beer – **1857** (Arnold: –)

<i>Ovens and Murray Advertiser</i>	11 Feb. 1857:3	For sale advertisement: Couper's (late Duncan and Couper) old established Soda Water, Lemonade and Ginger Beer Factory located at the Foot Bridge, Spring Creek
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E.H. Dunn, Loch St, Beechworth; Soda water, lemonade, aerated waters **c. 1857 – c. 1865** (Arnold: 1856)

<i>Ovens and Murray Advertiser</i>	5 Jan. 1857:3	Advertisement for E.H. Dunn, syrup and cordial manufacturer, Loch Street, Beechworth
	13 Oct. 1860:2	E.H. Dunn, manufacturer of syrups, cordials, ginger beer, lemonade, soda water and other aerated waters, advertises a reduction in the price of his syrups and cordials
	22 Nov. 1862:2	Dunn received a new soda water machine in order to supply the growing demand for his product
	20 Jun 1865:3	Mr. E.H. Dunn's garden referred to as adjoining the soda water manufactory, which was lately occupied by him

Alfred George, Loch St, Beechworth, then Rutherglen; Soda water, ginger beer **1857–1861** (Arnold: –)

<i>Ovens and Murray Advertiser</i>	8 Dec. 1857:3	George's soda water manufactory advertises for an active lad
	4 Apr. 1859:3	Alfred Samuel George's manufactory in Beechworth's Loch Street broken into. George found the perpetrator taking bottles out of a cask.
<i>Herald</i>	18 Jun. 1861:5	Alfred Samuel George of Rutherglen, ginger beer manufacturer, declared insolvent. Causes of insolvency: dullness of trade, losses of business and pressure of creditors
<i>Age</i>	26 Jun. 1861:3	George's estate placed under sequestration on 15 June 1861, in order to pay his creditors

John Hattersley, Woolshed; Ginger beer c. 1856 – (Arnold: Woolshed 1856, Yackandandah 1857–1889, C.E. Hattersley 1889 –)

<i>Ovens and Murray Advertiser</i>	1 Jan. 1857:2	John Hattersley, ginger beer manufacturer at the Woolshed, has taken to court his former partner James Stirling for stealing ginger beer bottles. Both manufacturers traded with the Smithville Hotel at Woolshed, and Hattersley lost some bottles from the hotel's bar. He knew his bottles by the brand, colour, and shape, the brand being 'Price Bristol'
	18 Mar. 1869:2	Mr Hattersley produces soda water, lemonade and ginger beer at his new manufactory in Havelock Road, Beechworth. He has been making soda water at Yackandandah for some years.

Lewis's, Europa Gully; Soda water, ginger beer 1857 – (Arnold: –)

<i>Ovens and Murray Advertiser</i>	5 Feb. 1857:4	Lewis's lemonade factory, opposite Europa Hotel at Europa Gully, advertises for a boy
	13 May 1857:2	Report of a felled tree that landed on the roof of the frail manufactory dwelling, crushing it to the ground, and destroying almost all within that was breakable, including soda water and ginger beer bottles

John Reed, rear of Mackenzie's Store, New Town; Hurdle Flat (between Milkman's Flat and Europa Gully), then Indigo; Soda water, lemonade, ginger beer – 1858 (Arnold: –)

Wilson, J. Noble	1862	John Reed of Beechworth, ginger beer manufacturer, declared insolvent on 16 April 1858.
<i>Ovens and Murray Advertiser</i>	1 May 1858:3	The insolvent estate of John Reed for sale. Includes: a log hut, calico tents and the plant of a lemonade business at Hurdle Flat. The lemonade factory, in the rear of Mackenzie's Store in New Town (Beechworth), to be auctioned the following day
	26 Jun. 1858:2	John Reed, soda water manufacturer, had been previously a carter at Richmond and except for two horses and drays, had no capital when he commenced business.
	13 Jan. 1859:2	Reed, lemonade and ginger beer manufacturer, Main Road, Indigo, offers a reward for his lost horse

Alfred Sawton, Allen's Flat; Yackandandah Creek; Ginger beer 1861 (Arnold: –)

<i>Ovens and Murray Advertiser</i>	26 Nov. 1861:3	The wife of Mr. Alfred Sawton, ginger beer manufacturer, Allen's Flat, narrowly escaped being accidently shot
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James Stirling, Woolshed; Ginger beer 1857 (Arnold: 1856)

<i>Ovens and Murray Advertiser</i>	1 Jan. 1857:2	James Stirling accused by John Hattersley with stealing ginger beer bottles. Both parties are ginger beer manufacturers at Woolshed and were previously in a partnership
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Other Goldfields places

Farnsworth & Bell, Vincent St, Daylesford; Ginger beer – 1862 (Arnold: –)

<i>Herald</i>	10 Apr. 1862:1	The estate of Thomas Farnsworth and William Bell, ginger beer manufacturers at Daylesford, indentured for the benefit of their creditors
<i>Mount Alexander Mail</i>	7 May 1862:3	Farnsworth and Bell's estate to be auctioned on their premises at Vincent Street, including stock in trade and two spring carts. The land and buildings are Allotment 2 Section 23, fronting Vincent and Standbridge Streets

George Field, Ararat; Ginger beer – 1859 (Arnold: –)

<i>Star</i>	17 Mar. 1859:2	New insolvent: George Field of Ararat, ginger beer maker. Causes of insolvency: pressure of creditors, losses in trade, and depreciation of property at Pleasant Creek
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Horsey & Skinner, Mount Ararat Soda Water and Lemonade Manufactory, Ararat; Soda water, lemonade – 1858 (Arnold: –)

<i>Maryborough and Dunolly Advertiser</i>	26 Jan. 1858:4	Horsey and Skinner offer the Mount Ararat Soda Water and Lemonade Manufactory for sale, including a Tylor's improved soda water machine with bottling machine attached. The manufactory premises are situated near Arnold's Brewery, Ararat
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Appendix B. Product ranges

SW: soda water, L: lemonade, GB: ginger beer, Co: Cordial, Sy: syrups, GW: ginger wine, Sa: sarsaparilla, Ci: cider, SB: Spruce beer

Manufacturer	District	SW	L	GB	Co	Sy	GW	Sa	Ci	SB
Andrade, E.	Melbourne		L							
Atkinson & Elliott	Melbourne	SW	L		Co					
Atkinson & Stewart	Melbourne	SW	L		Co					
Barton	Melbourne		L	GB	Co					
Brandreth, Henry	Melbourne		L	GB						
Brown, William	Melbourne	SW								
Bruce, George	Melbourne			GB	Co					
Burke, T.	Melbourne	SW								
Butiment, Thomas	Melbourne	SW			Co					
Candy, William	Melbourne	SW								
Chapman, James	Melbourne	SW		GB						
Clay, Wilkinson & Co.	Melbourne	SW	L							
Cohu & Carmody	Melbourne	SW	L	GB	Co			Sa		
Cohu, Andrew	Melbourne	SW		GB		Sy				
Connell, Hugh	Melbourne			GB						
Constantin & Cohu	Melbourne	SW	L	GB				Sa		
Cook, Robert	Melbourne	SW								
Coverlid, John	Melbourne		L	GB						
Crellin, William	Melbourne									
Dawbarn, William	Melbourne	SW								
Dixon & Cassidy	Melbourne	SW	L							
Dixon, P.G.	Melbourne	SW	L		Co	Sy	GW	Sa		
Edwards	Melbourne		L	GB						
Ellis, J.E.H.	Melbourne	SW	L	GB						
Evans, James	Melbourne	SW	L	GB				Sa		
Featley, John	Melbourne			GB						
Field, F.T.	Melbourne			GB						
Field & Kent	Melbourne			GB						
Flanagan, James F.	Melbourne	SW	L	GB						
Flanagan, William	Melbourne	SW	L	GB						
Fouracre & Whitehead	Melbourne	SW			Co					
Freeth, Henry	Melbourne	SW	L	GB						
Frith, Charles	Melbourne		L	GB						
Gibson, W & Co.	Melbourne	SW	L							
Gill & Menzies	Melbourne	SW	L	GB						
Graves & Purdy	Melbourne	SW	L	GB	Co	Sy		Sa		
Greig & Co.	Melbourne	SW								
Habberlin, William	Melbourne	SW								

Manufacturer	District	SW	L	GB	Co	Sy	GW	Sa	Ci	SB
Habberlin & Murcutt	Melbourne	SW	L							
Harrington, H.G.	Melbourne	SW	L	GB						
Harrison Brothers	Melbourne	SW	L	GB						
Havilah Store	Melbourne	SW	L							
Hodgkiss, William	Melbourne			GB						SB
Hood, John	Melbourne	SW	L							
Hopkinson & Co.	Melbourne	SW		GB	Co					
Horneman & Co.	Melbourne	SW		GB						
Jennings, John	Melbourne	SW	L	GB						
Jennings & Morris	Melbourne	SW								
Joel, S. & M.	Melbourne	SW	L							
Knight, Edward	Melbourne	SW	L	GB						
Letchford, Frederick	Melbourne	SW	L	GB	Co					
Letchford & Raper	Melbourne	SW			Co					
Lovelock & Sanders	Melbourne		L							
Lowe, George G.	Melbourne	SW								
McAdam, James	Melbourne	SW								
McAdam, Mrs	Melbourne	SW	L							
McDougall, T.W.	Melbourne	SW	L	GB				Sa		
McDowell, Alex	Melbourne	SW	L							
McGrath, –	Melbourne			GB	Co					
McKeever, Bernard	Melbourne			GB						
McLaughlin, J., J. & W.	Melbourne	SW	L							
McLaughlin, J. & J.	Melbourne	SW	L		Co		GW			
McLean, James	Melbourne	SW	L	GB						
McLean & Baldwin	Melbourne	SW			Co					
McLean & Hamilton	Melbourne	SW			Co					
McLean, Thomas	Melbourne	SW	L							
McNichol, Stuart	Melbourne	SW								
McWey, John	Melbourne			GB		Sy				
Makinson, John B.	Melbourne			GB						
Marshall's	Melbourne	SW	L							
Mills, John	Melbourne			Gb						
Morris & Co.	Melbourne	SW								
Murcutt, Robert	Melbourne	SW	L	GB	Co		GW	Sa		
Murcutt & Phillips	Melbourne	SW	L	GB						
O'Shea, Michael	Melbourne	SW	L	GB						
Palmer, J.F.	Melbourne	SW	L	GB						
Plummer, W & Co.	Melbourne	SW	L	GB						
Polak & Joel	Melbourne	SW	L							
Prevôt, E.J. & Co.	Melbourne	SW	L	GB	Co					
Puettelkow, August	Melbourne	SW	L	GB						
Purnell, Thomas	Melbourne	SW	L	GB	Co					
Pyke, Vincent	Melbourne		L							
Reeves, Gordon & Co.	Melbourne		L	GB	Co	Sy				

Manufacturer	District	SW	L	GB	Co	Sy	GW	Sa	Ci	SB
Rimington & Co	Melbourne	SW	L	GB	Co			Sa		
Roche, Michael	Melbourne	SW	L	GB	Co					
Sanders, James	Melbourne		L							
Shaw, John & James	Melbourne		L	GB						
Shepherdson & McDougall	Melbourne	SW	L	GB	Co			Sa		
Shepherdson, J.B.	Melbourne	SW	L	GB	Co					
Simpson, George	Melbourne	SW	L	GB	Co			Sa		
Simpson, William	Melbourne	SW	L	GB						
Simpson & Harper	Melbourne		L							
Smith, G. & Co.	Melbourne	SW	L	GB						
Spencer, A.W.	Melbourne	SW								
Strike, John & William	Melbourne	SW								
Summons, Everitt	Melbourne		L	GB	Co					
Sutherland, James	Melbourne		L	GB	Co	Sy				
Tayler & Doherty	Melbourne		L		Co					
Thompson, James	Melbourne	SW		GB						
Watson, R.C.	Melbourne	SW	L	GB						
Watts, J. & Co.	Melbourne	SW	L							
Whelan & Summons	Melbourne		L	GB	Co					
Wilson & Co.	Melbourne			GB	Co					
Wilson, Charles	Melbourne			GB	Co					
Wilson, Robert & Co.	Melbourne	SW	L							
Alder, James	Geelong	SW	L	GB	Co					
Atkinson, Samuel	Geelong	SW		GB	Co					
Baylden, James	Geelong	SW	L	GB						
Giles & Co.	Geelong	SW	L							
Maine, Philip	Geelong	SW	L	GB	Co					
Mathews & Howey	Geelong	SW	L	GB	Co					
Mathews & Menzies	Geelong	SW								
Pattison & Talbot	Geelong		L		Co					
Pearson Bros & Co.	Geelong	SW	L	GB	Co					
Pearson, C.	Geelong			GB						
Pearson & Atkinson	Geelong	SW	L	GB						
Pulbrook, John	Geelong	SW	L	GB		Sy				
Shepherd, T.	Geelong			GB						
Simmons & Newlands	Geelong		L	GB						
Talbot, Alfred	Geelong		L		Co					
Uther, A.	Geelong	SW	L							
Wilson, G.F.A.	Geelong			GB						
Haferkorn, Charles	Hamilton	SW	L	GB	Co					
Clarke, Thomas	Portland	SW	L		Co					
Richards, David	Portland			GB						
Jamieson, –	Port Albert			GB						
Liston, I.F.	Port Albert	SW	L							
Ralston, Gavin	Port Albert	SW	L	GB	Co		GW			

Manufacturer	District	SW	L	GB	Co	Sy	GW	Sa	Ci	SB
Williams, R.	Port Albert	SW	L							
Caudy, W.	Kyneton		L		Co					
Gardner, Henry	Kyneton		L	GB						
Hobbs, A.	Kyneton	SW	L	GB						
Touer, Patrick	Kyneton		L		Co					
Bremner, William	Meredith			GB						
Hartrick & Webster	Meredith		L							
Webster, John	Meredith	SW		GB						
Atkins, Charles	Ballarat	SW								
Byles, James	Ballarat	SW	L							
Cooper & Lee	Ballarat	SW	L	GB						
Dawson & Lee	Ballarat		L	GB						
Fox & Topp	Ballarat		L	GB					Ci	
Francis, –	Ballarat									
Gibbs, John, Charlie Napier Hotel	Ballarat									
Innes & Buchan	Ballarat		L							
Jensen & Huston	Ballarat	SW		GB						
Jensen, Jens	Ballarat	SW	L							
Maine & Co.	Ballarat	SW	L	GB						
Moyle & Crowell	Ballarat	SW		GB						
Nicholson, William	Ballarat		L	GB						
Rowlands & Lewis	Ballarat	SW	L	GB						
Saunders, William	Ballarat	SW	L							
Smith, –	Ballarat	SW	L	GB						
Train, William	Ballarat	SW	L	GB	Co					
Walker & Nicholson	Ballarat		L							
Ward & Topp	Ballarat		L		Co				Ci	
Whatley & Byles	Ballarat		L							
Archer, Christian	Castlemaine	SW	L			Sy				
Evans & Jones	Castlemaine			GB						
Formby, Robert	Castlemaine	SW	L	GB						
Heynes, John, & Co.	Castlemaine	SW	L	GB						
Jones, E.W.	Castlemaine	SW	L	GB	Co	Sy	GW	Sa	Ci	
Keiller, George, & Son	Castlemaine	SW	L	GB		Sy				
Lock, Edward	Castlemaine			GB						
Paulson & Stanton	Castlemaine	SW	L	GB	Co			Sa		
Pestell & Heynes	Castlemaine	SW	L	GB	Co	Sy				
Pye, Thomas, & Co.	Castlemaine	SW	L	GB						
Rockliff Brothers	Castlemaine		L	GB						
Stewart, David	Castlemaine			GB						
Stewart, Peter, & Co.	Castlemaine			GB						
Stewart & Graydon	Castlemaine			GB	Co					
Tanswell, Jas.	Castlemaine									
Williams & Co.	Castlemaine		L	GB						
Beard, Frederick G.	Bendigo	SW	L	GB	Co					

Manufacturer	District	SW	L	GB	Co	Sy	GW	Sa	Ci	SB
Brother & Sauze	Bendigo		L	GB						
Bruce, William, & Co.	Bendigo	SW	L							
Cardinali & James	Bendigo	SW								
Cardinali, Ercole	Bendigo	SW								
Cusworth & Co.	Bendigo	SW	L							
Dickson & Moorhead	Bendigo		L	Gb						
Garsed, Ed	Bendigo	SW								
Goulding, C.R.	Bendigo		L	GB						
Heckscher, D.	Bendigo	SW	L	GB						
Hopper & Co.	Bendigo			GB	Co					
Howard & Dixon	Bendigo	SW	L	GB						
Howard, T.J.	Bendigo		L	GB						
Keep & Meader	Bendigo	SW		GB						
Kirkby, G.W.	Bendigo	SW	L	GB						
McDonald, C. & J.	Bendigo	SW	L							
McDonald, C.C.	Bendigo	SW	L	GB						
O'Donnell, John	Bendigo		L	GB	Co					
Peel & Bolton	Bendigo	SW	L	GB						
Peel Brothers	Bendigo	SW	L	GB						
Phillips, A.	Bendigo	SW	L		Co					
Platt & Peak	Bendigo	SW	L	GB	Co					
Pohl, Olbrich & Burnham	Bendigo	SW	L	GB	Co					
Ryan & Pillon	Bendigo	SW		GB						
Sauze & Grimson	Bendigo	SW		GB						
Skene, James	Bendigo	SW	L		Co					
Smith, Alexander S.	Bendigo			GB						
Smith, W.	Bendigo			GB						
Watson & Moorhead	Bendigo	SW		GB						
Wilson, Charles	Bendigo		L	GB						
Wilson & Francis	Bendigo			GB						
Baker & Co.	Maryborough	SW								
Barclay, William	Maryborough			GB						
Carkeet, William	Maryborough	SW	L	GB					Ci	
Dickens & Harris	Maryborough		L	GB						
Finch, F.	Maryborough		L	GB						
Frayne, P., & Co.	Maryborough	SW	L	GB	Co					
Maryborough ginger beer and cordial factory	Maryborough			GB	Co					
Maxton, P.	Maryborough	SW	L	GB	Co					
Noblett, George & Forrest, John	Maryborough	SW		GB						
Noblett, George	Maryborough	SW		GB						
Sears, A.G.	Maryborough	SW	L		Co					
Stanley & Co.	Maryborough			GB						
Clark, J. & Co.	Ovens		L							
Couper	Ovens	SW	L							

Manufacturer	District	SW	L	GB	Co	Sy	GW	Sa	Ci	SB
Duncan & Couper	Ovens	SW	L	GB						
Dunn, E.H.	Ovens	SW	L	GB	Co	Sy				
George, Alfred	Ovens	SW		GB						
Hattersley, John	Ovens			GB						
Lewis, –	Ovens	SW	L	GB						
Reed, John	Ovens		L	GB						
Sawton, Alfred	Ovens			GB						
Stirling, James	Ovens									
Farnsworth & Bell	Daylesford	SW	L	GB						
Field, George	Ararat			GB						
Horsey & Skinner	Ararat	SW	L							
TOTALS	229	147	148	147	62	12	6	13	4	1

Appendix C. Examples of extant bottles from Victoria

Bottles used by manufacturers and merchants that were established during the study period

The data in this section is limited to that which could be easily found online or within various literature created by Ken Arnold. Bottles are listed in order of region. Some bottles that were probably made after the study period have been included.

Unlike the wider variety of embossed designs apparent on egg-shaped bottles in the latter decades of the 19th century, mid-century examples display simple lettering, commonly within an oval panel (from an interchangeable metal plate mould) (Jones 2009).

For ginger beer bottles, the embossed or impressed brand or potter's mark details are taken mostly from single images and catalogue descriptions. At other times, they are sourced from composite images, or a small number of artefact examples. Therefore, the representation may not be complete for the study period. Examples where it is not known whether a potter's mark is present on a stoneware example or not, are represented with an asterisk (*).

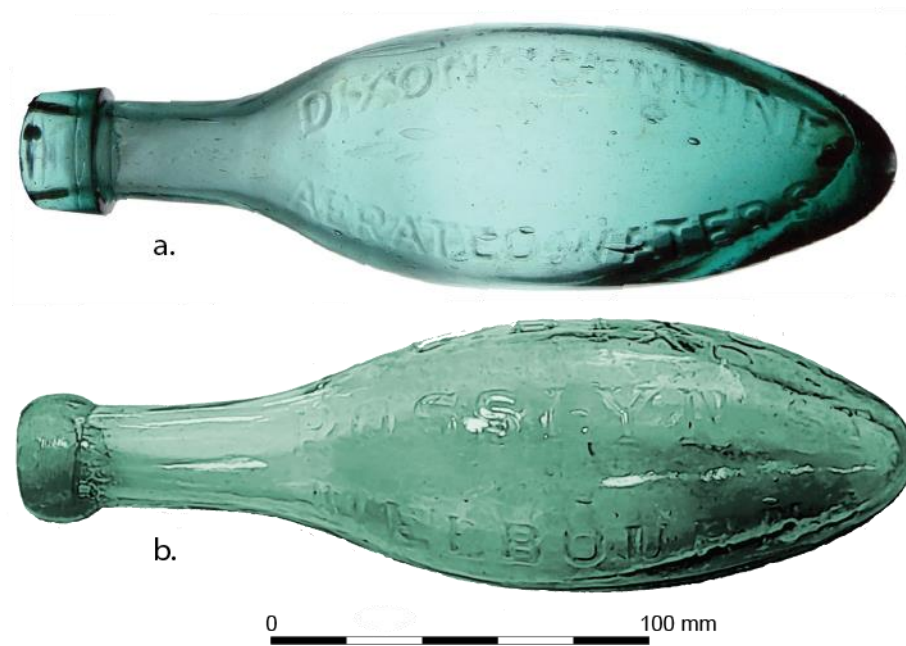


Figure 105: P.G. Dixon egg-shaped bottles, a. 232 mm, b. 238 mm. (Sources: a: Dunn 2011b:6; b. Photo: C. Wolswinkel)

The first light-green, egg-shaped glass bottle (a) in Figure 105 is a 2-piece moulded form exhibiting a square-profiled finish, the ‘finish’ being the term used for the open-ended top of the bottle. It is marked DIXON’S GENUINE // AERATED WATERS // FLAGSTAFF HILL [EMB]. According to the collector Ken Arnold (2005:9), the square-profiled finish is typical of many early egg-shaped bottles. Given that Arnold had the means to compare his list of date ranges against many bottle examples, he has reason for his argument. Indeed, the square-profiled finish is exhibited by several early Melbourne examples in this section, which strongly suggests the form was more likely to have been manufactured during Dixon’s first decade, rather than later. More evidence on this topic will be discussed with Bayldon and Graham’s bottles later in the Geelong section.

The second example (b) in Figure 105 exhibits a more rounded, blob-top finish. It is marked P. G. DIXON // ROSSLYN S^T // MELBOURNE [EMB]. Clearly, both examples pre-date the business name of P.G. Dixon & Co., the business name which first appeared in a newspaper advertisement during 1884 (*Lorgnette* 24 Jan. 1884:2). A rampant demi-lion trademark was first applied for in 1881, so any egg-shaped bottles displaying this trademark will have been made after 1881 (*Victorian Government Gazette* 3 Jun. 1881:1452). The embossed address on the two pictured bottles differs, which holds clues to their relative age. Although the actual location had not changed, the first states ‘Flagstaff Hill’, the

second 'Melbourne'. At first, 'Flagstaff Hill' was given as the address in advertisements during 1858 (*Argus* 15 Apr. 1858:8). Then the suburb 'West Melbourne' became used for P.G. Dixon in the 1860 commercial directory, before it was included in advertisements during the following year (*Argus* 18 Dec. 1861:8; Sands, Kenny & Co. 1860:320). From the address details, we can conclude that bottle (a) was made between c. 1855 and 1860, and the second (b) could not have been made earlier than 1860 but may have been made as late as 1881.

Melbourne: McLaughlin, 1854–1866



Figure 106: McLaughlin egg-shaped bottle, 215 mm. (Source: Dunn 2012a:16)

The example in Figure 106 is a 2-piece moulded egg-shaped glass bottle exhibiting a square-profiled finish. The bottle is marked M^c.LAUGHLIN [EMB]. The oval seam is evidence from an interchangeable engraved plate mould that was inserted into a generic bottle mould (Boow 1991:56; Lindsey 2020).

Melbourne: E.J. Prevôt, 1854–1878



Figure 107: An egg-shaped bottle used by E.J. Prevôt & Co, 226 mm. (Source: Dunn 2021:17)

The example in Figure 107 is a 2-piece moulded egg-shaped glass bottle exhibiting a square-profiled finish. The bottle is marked E J PREVÔT [EMB]. Similar to the previous example, the oval seam is evidence from an interchangeable engraved plate mould. Given

the other examples evident in this section, the form of the finish suggests this bottle was made during the earlier period of Prevôt's business, rather than from the late-1860s.

The salt-glazed stoneware ginger beer bottle example in Figure 108 is marked: E J PREVÔT & C^o [IMP] (at heel). No pottery marks are evident on this example.



Figure 108: A ginger beer bottle used by E.J. Prevôt & Co. (Source: Dunn 2020:28)

Melbourne: M.J. Roche, 1841–1861



Figure 109: An egg-shaped bottle used by M.J. Roche, 217 mm. (Source: Dunn 2017a:14)

The form in Figure 109 also exhibits a square-profiled finish on a 2-piece moulded egg-shaped glass bottle. The bottle is marked M.J. ROCHE // MELBOURNE [EMB].

Melbourne: Anderson & Black, c. 1850 – 1851



Figure 110: Anderson & Black egg-shaped bottle, 235 mm. (Source: Dunn 2011b:6)

The item in Figure 110 is a 2-piece moulded, egg-shaped glass bottle with a square-profiled finish. The bottle is marked ANDERSON & BLACK // MELBOURNE [EMB]. No evidence was found in this survey for Anderson & Black manufacturing soda water.

Anderson & Co. were registered with the City of Melbourne as wine and spirit merchants in both 1850 and 1851 and were located in Flinders Lane (*Argus* 25 Jan. 1850:4). A later store was located at 223 Elizabeth Street (*Argus* 15 Jul. 1851:3). The company's name was mentioned in shipping intelligence reports multiple times, for the receipt of goods, then once referred to as Anderson & Black, for 19 casks of bottles from Liverpool, via the ship *Lady Eveline* (Melbourne Daily News 21 Apr. 1851: 2). Figure 111 shows when Anderson & Black dissolved their partnership. John Black carried on the business afterwards at the Elizabeth Street store (*Argus* 16 Aug. 1851:3).

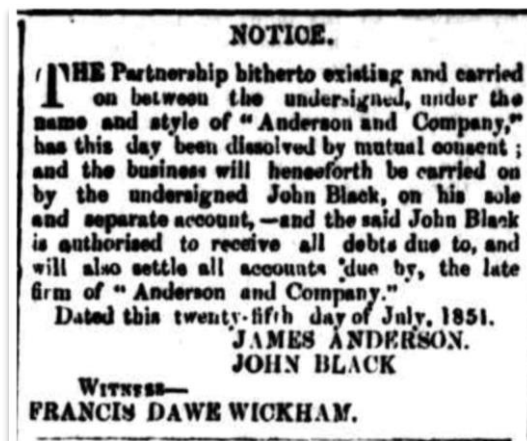


Figure 111: Dissolution of Partnership notice for Anderson & Black. (Source: *Argus* 26 Jul. 1851:3)



Figure 112: Huxtable & Co. egg-shaped bottle with a non-original finish, 218 mm. (Source: Dunn 2018c:22)

The item in Figure 112 is a 2-piece moulded, light-green egg-shaped glass bottle with a square-profiled finish. However, this finish does not belong to the bottle, but rather, has been placed onto the bottle after its recovery in modern times, due to the broken example missing its finish (Dunn 2018c:22). Therefore, in Figure 112, the finish has been greyed over, because it is not guaranteed to be correct. The bottle is marked HUXTABLE & C^o // MELBOURNE [EMB] within an oval seam mark. The oval seam is evidence from an interchangeable engraved plate mould.

The evidence from this survey indicated that Huxtable & Co. were merchants, rather than soda water manufacturers. Initially, C.H. Huxtable & Co., previously from Hobart Town, purchased a stationery business at 49 Collins Street East from Joseph Pittman in 1852 (*Argus* 13 May 1852:3). In the following year, Huxtable & Co. added fancy goods to their stock (*Argus* 6 Aug. 1853:11). Earlier, during January 1853, the company advertised for soda water and lemonade makers, those who also understand the manufacture of cordials, then another man to do the same at Hobart Town (*Argus* 5 Jan. 1853:5, 21 Jan. 1853:6). Given no other related evidence was found, the company has been interpreted here as an agent, rather than the maker. The marked bottles may have been received later in the same year when Huxtable advertised ‘a few crates’ of freshly imported soda water bottles for sale (*Argus* 3 Oct. 1853:1). No other evidence of soda water bottles in connection to the company was found. The estate of C.H. Huxtable was first subject to claims in 1855, then dividends receivable in the following year, before the final dividend of C.H. Huxtable’s insolvent estate was payable in 1862 (*Argus* 30 May 1855:7, 4 May 1857:8; *Age* 29 Apr. 1862:8). Therefore, the business probably finished operating in 1855.

Geelong: Mathews & Howey, 1854–1871

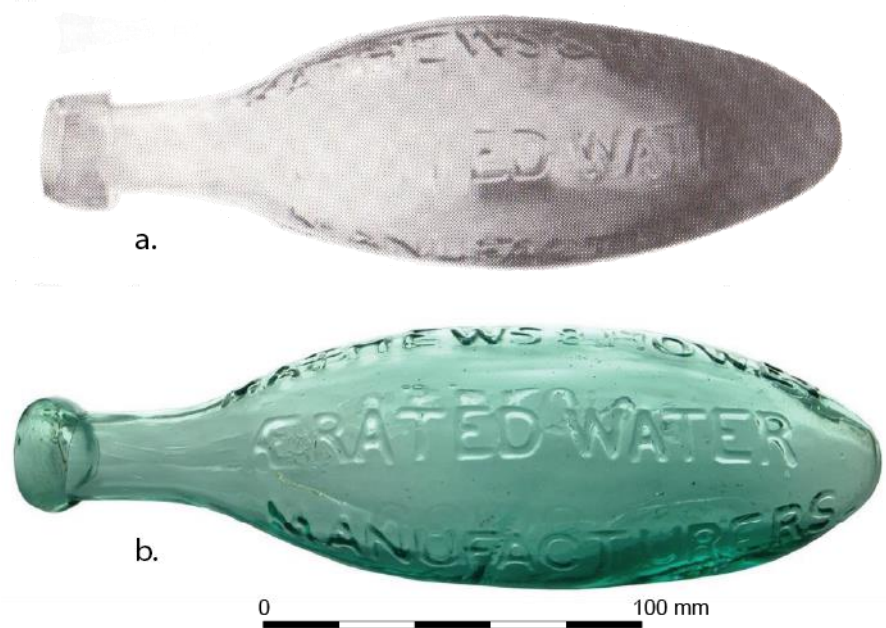


Figure 113: Mathews & Howey egg-shaped bottles, a. square-profiled finish, b. 228 mm blob-top finish. (Source: Arnold 1983/1984:17; Dunn 2016:16)

The second example (b) in Figure 113 is a 2-piece moulded, light-green egg-shaped glass bottle with a blob-top finish. The bottle is marked MATHEWS & HOWEY // AERATED WATER // MANUFACTURERS // GEELONG [EMB]. The finish shape was more typical in the 1860s and 1870s period, rather than the 1850s. In contrast, the first bottle example (a) appears to have been embossed similarly but exhibits a square-profiled finish. This style of finish appears exclusive to bottles made before 1860.

Geelong: Bayldon & Graham, c. 1848 – 1874

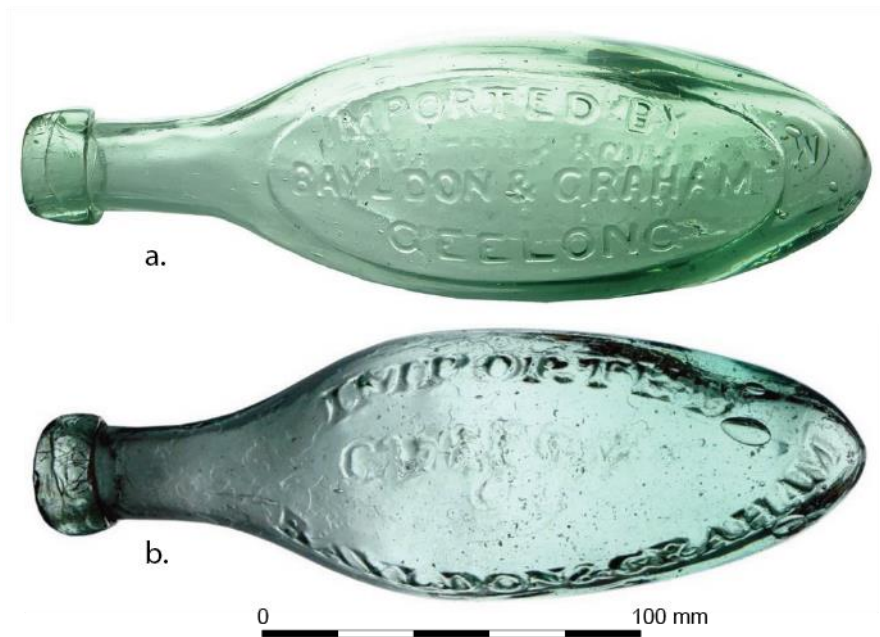


Figure 114: Bayldon & Graham egg-shaped bottles, a. 224 mm, b. 220 mm. (Source: Dunn 2011b:6, 2016:16)

From the evidence found in contemporary newspapers, Bayldon and Graham were merchants and importers (and soap and candle manufacturers) rather than aerated water manufacturers (*Geelong Advertiser and Intelligencer* 10 Jul. 1852:3). They appeared to have first imported ginger beer bottles in 1853 (*Argus* 23 Jun. 1853). The merchants advertised aerated water supplies for sale during 1855 and 1857 at a minimum, the list including soda water bottles (*Geelong Advertiser and Intelligencer* 14 Feb. 1855:6, *Star* 29 Oct. 1857:3). During 1856, Bayldon and Graham imported 59 crates of bottles of a type not stated (*Geelong Advertiser and Intelligencer* 6 Feb. 1856:2). It is likely the first and possibly the second example in Figure 114 was imported during this period. The business of Bayldon and Graham finished in 1874.

The first example in Figure 114 is a 2-piece moulded egg-shaped glass bottle exhibiting a square-profiled finish that appears to have been more common during the 1850s and earlier. The bottle is marked IMPORTED BY // BAYLDON & GRAHAM // GEELONG [EMB]. The oval seam is evidence from an interchangeable engraved plate mould, inserted into a generic bottle mould (Boow 1991:56; Lindsey 2020). From the image, it appears that two plates have been engraved with the same markings on opposite sides.

The markings on the second bottle appear to be: IMPORTED // BAYLDON & GRAHAM
// GEELONG [EMB].

The second example exhibits a different finish shape to the first, a blob-top shape with a rounded profile rather than a squared one. Extant bottle examples pictured in Jones' (2009:100, 274, 368, 524, 528, 715, 842, 946, 966) study of Sydney soda water manufacturers show that all egg-shaped examples from the study period have square-profiled finishes, bar one example with a rolled lip finish. However, it does not follow that all square-profiled or blob-top finishes were created in either the earlier or later period. For instance, Tooth & Co., not in existence till 1889, used an egg-shaped bottle with a squared profile, but the pictorial embossing design was typical of a later age (Jones 2009:946). In addition, the Victorian example in Figure 117 from the study period appears to have a blob-top finish. Helpfully, Jones (2009:842) provides separate dates for one Sydney manufacturer's egg-shaped bottles, c. 1846 – 1862 for the squared finish and 1862–1869 for the blob top. Therefore, if the Bayldon & Graham examples changed in a similar fashion, the first (a) was probably made during the study period and the other (b) sometime afterwards.

Ballarat: Rowlands & Lewis, c. 1856 – 1876



Figure 115: Rowlands & Lewis egg-shaped bottles, a. 237 mm, b. 240 mm. (Source: Dunn 2011a:5, 2014:21)

The two light-green, egg-shaped glass bottles in Figure 115 are 2-piece moulded, with blob-top finishes. Example (a) is marked: ROWLANDS & LEWIS // AERATED WATER // MANUFACTURERS // (then allegedly) STURT STREET // BALLAARAT [EMB]. The second example (b) is marked in a smaller font: ROWLANDS & LEWIS'S // AERATED WATERS // (then allegedly) STURT STREET // BALLARAT [EMB]. Dunn (2011:5) believes the former example is an earlier version of a bottle from the Sturt Street address. The company was at Sturt Street from c. 1856 – 1870.



Figure 116: Example of a ginger beer bottle used by Rowlands & Lewis. (Source: Lancaster 2018)*

The salt-glazed stoneware ginger beer bottle example in Figure 116 is marked: ROWLANDS // AND // LEWIS [IMP] (at heel)*. The date range (c. 1854 – 1876) for the manufacture of this example relates to the beginning of the company's existence, to the retirement of Lewis. However, the manufacture of this form may have ended earlier.

Castlemaine: E.W. Jones, c. 1855 – 1862



Figure 117: A drawing of an egg-shaped bottle used by E.W. Jones. (Source: Arnold 1990:92)

The egg-shaped glass bottle in Figure 117 is shown to have a blob-top finish. It is marked: E.W. JONES // FOREST CREEK [EMB].

Campbell's Creek: Paulson & Stanton, c. 1856 – 1864



Figure 118: A ginger beer bottle used by Paulson & Stanton, 168 mm. (Source: Dunn 2017a:26)*

The salt-glazed stoneware ginger beer bottle example in Figure 118 is marked: PAULSON & STANTON [IMP] (at heel)*.

Bendigo: F.G. Beard, c. 1852 – 1862



Figure 119: An egg-shaped bottle used by F.G. Beard. (Source: Arnold 2004:9)

The bottle in Figure 119 is a 2-piece moulded, egg-shaped form, with a square-profiled finish. The bottle is marked: F G BEARD // SODA WATER // LEMONADE // MANUFACTURER // BENDIGO [EMB]. That Beard's business closed during 1862 strengthens the theory that most, if not all bottles with the square-profiled finish, date only from this period. As explained previously, Sydney's pre-1862 examples show this inclination (Jones 2009).

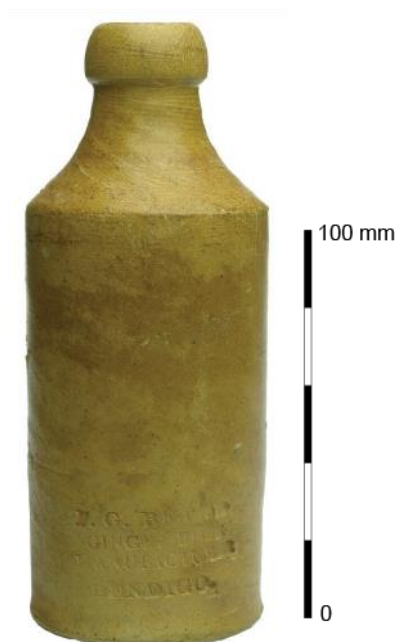


Figure 120: Example of a ginger beer bottle used by F.G. Beard, 162 mm. (Source: Dunn 2017b:25)

The salt-glazed stoneware ginger beer bottle example in Figure 120 is marked: F.G. BEARD // GINGER BEER // MANUFACTURER // BENDIGO [IMP] (at heel)



Figure 121: Pottery mark from a ginger beer bottle used by F.G. Beard. (Photo: C. Wolswinkel)

The salt-glazed, stoneware fragment with buff-coloured fabric in Figure 121 is impressed with a potter's mark: VITREOUS STONE BOTTLES // GUARANTEED NOT TO ABSORB // BOURNE & SON // PATENTEES // CODNOR PARK POTTERIES // NEAR DERBY [IMP] (at heel). The reverse bears the same mark as that in Figure 120.

Eaglehawk: W. Bruce & Co, 1862 – c. 1914



Figure 122: An egg-shaped bottle used by William Bruce, 244 mm. (Source: Dunn 2018b:15)

The light-green, egg-shaped glass bottle in Figure 122 is 2-piece moulded, with a blob-top finish. It is marked: W^M BRUCE // SANDHURST [EMB]. The report of a newly embossed (Hogben) patent bottle in Figure 123 hints that Bruce may not have used embossed bottles until the appearance of the patent bottle. Therefore, an embossed egg-shaped bottle may not have been manufactured for him until the 1870s.

PATENT BOTTLES.—The enterprise of Mr. Wm. Bruce, gingerbeer, lemonade, ginger ale, and cordial manufacturer, has been noticed on many occasions, but he has still something new to bring out, and the latest novelty is a neat glass bottle for holding his agreeable summer beverage, ginger ale. This bottle is neat in shape, and has the name "Wm. Bruce, Sandhurst," stamped on the glass, so that people can tell from the inscription whether they are getting the genuine article or not.

Figure 123: William Bruce announces a new embossed patent bottle for his ginger ale. (Source: Bendigo Advertiser 27 Jan. 1876:2)

Back Creek (Talbot): George Noblett, c. 1859 – 1860, 1863 – c. 1880



Figure 124: Example of an egg-shaped bottle used by George Noblett, 230 mm. (Source: Dunn 2019:18)

The light-green, egg-shaped glass bottle in Figure 124 is 2-piece moulded, with a blob-top finish. It is marked NOBLETT // BALLARAT ST // TALBOT [EMB]. Given the address and the name Talbot, rather than Back Creek, the bottle was manufactured during the Noblett's second stage at Talbot (c. 1863 – c. 1880).

Ovens: John Hattersley, 1856 – c. 1857 (Woolshed), till 1880s (Yackandandah)



Figure 125: Example of an egg-shaped bottle used by John Hattersley, 232 mm. (Source: Dunn 2012b:18)

The light-green, egg-shaped glass bottle in Figure 125 is 2-piece moulded, with a blob-top finish. It is marked: J HATTERSLEY // YACKANDANDAH // VICTORIA [EMB]. The earliest newspaper reference found to Hattersley in Yackandandah was in 1866 (*Ovens and Murray Advertiser* 30 Aug. 1866:3). Therefore, the newspaper evidence does not support a manufacture of an embossed example in existence, any earlier than the mid-1860s.

Appendix D. Supplier data

This section lists the suppliers that advertised equipment and other necessities for soda water manufactories between 1839 and December 1862. Those who appeared to be once-off sellers of bottles or soda water machines have been left off this list. Auctioneers with a wide variety of goods have also been excluded from this list.

Melbourne suppliers advertised in Melbourne newspapers

Supplier	Goods advertised	Newspaper reference	Date of reference
W.M. Bell & Co., 121 Lt. Collins St	Sugar, lemonade and ginger beer bottles	<i>Argus</i>	17 Oct. 1853:12
A. Bial, 106 Bourke St west	Corks: ginger beer, lemonade	<i>Argus</i>	21 Feb. 1856:7
John Broadfoot, Collins St	Soda water bottles and corks	<i>Port Phillip Gazette</i>	14 Sep. 1844:3
W.F. Brown, wine store, La Trobe St east, between Elizabeth and Swanston Streets	Sodawater bottles, tinned bottling wire, tartaric and sulphuric acids, corks, whiting, fruit essences	<i>Argus</i>	3 Jan. 1855:8, 25 Jan. 1855:3
Cleve Brothers, 114 Lonsdale St west (1855–1857), 30 Queen St south (1859–1862)	Sodawater and ginger beer bottles	<i>Argus</i>	17 Jan. 1855:8, 3 Feb. 1862:3
G.W. Cole	Sodawater bottles and corks	<i>Port Phillip Gazette</i>	19 Aug. 1840:2
F. Cooper & Co., 42 Collins St	Soda water machines, corks	<i>Argus</i>	13 Jan. 1855:8
Creeth, Hicks, and Creeth, A'Beckett St (1854), 37 La Trobe Street east (1855–1857)	Lemonade and soda water bottles, loaf sugar, sulphuric acid	<i>Argus</i>	23 Jan. 1854:8, 18 Jan. 1855:8, 25 Jan. 1856:3
R. Davies & Co., Little Collins St east	Soda water machines, acid, bottles and wire	<i>Argus</i>	12 Nov. 1853:7

De Pass Brothers, 24 Queen St	Sodawater and lemonade bottles, tartaric acid, corks, Jamaica ginger	<i>Argus</i>	9 Dec. 1857:7
Josiah Doulton, 91 Flinders Lane west (1857–1860)	Ginger beer bottles	<i>Argus</i>	26 Nov. 1857:7, 6 Nov. 1860:7
S. Elliott, Cnr Bourke and Russell Sts, opp. Felix Hotel	Sodawater and ginger beer bottles, ginger	<i>Argus</i>	7 Sep. 1853:1
Emerald Store, York St, Emerald Hill (1855–1858)	Lemonade and ginger beer bottles	<i>Argus</i>	9 Jan. 1855:8, 13 Oct. 1858:2
Etna Glass and China Store, 117 and 136 Great Bourke St (1853–1857)	Lemonade, soda water, and ginger beer bottles	<i>Argus</i>	19 Oct. 1853:7
Fairhorne & Harrison, 111 Elizabeth St	Spanish cut ginger beer corks	<i>Argus</i>	29 Jan. 1855:8
H. Farrar & Co., Bourke St west	Ginger beer corks, tartaric acid	<i>Argus</i>	9 Dec. 1856:7
Flower, McDonald & Co., 69 William St (1860–1862)	Sodawater bottles	<i>Argus</i>	27 Nov. 1860:3, 3 Feb. 1862:3
Ronald Gibbs & Co., 22 Queen St	Sodawater bottles, Cossipore sugar	<i>Herald</i>	18 Sep. 1861:8 23 Dec. 1862:3
Gideon's, 41 Flinders Lane east, near Swanston St	Lemonade and ginger beer bottles, corks, tartaric acid, tartar crystals, ginger, whiting	<i>Argus</i>	25 Sep. 1856:6
Griffiths, Fanning & Co, Elizabeth St	Sugar: loaf, crushed, Cossipore no. 1, Snowdrop, crystallized no. 1	<i>Argus</i>	18 Dec. 1857:1 21 Dec. 1857:4
T.B. Guest & Co, 97 and 99 William St	Sulphuric acid in leaden packages	<i>Argus</i>	20 Mar. 1861:7
Harvey & Occleston, bottle merchants, 8 Lt. Collins St east (1854–1856), Then: Thos. J. Occleston & Co. (1856–1862)	Sodawater, lemonade and ginger beer bottles Corks, Sodawater and ginger beer bottles, essence of lemon, cream tartar, sulphuric and tartaric acid, copper wire, tinfoil, capsules, ginger, Tylor's	<i>Argus</i>	31 Oct. 1854:1, 3 Dec. 1855:3 23 Jun. 1856:6, 28 Aug. 1856:3, 9 Sep. 1856:6, 23 Oct. 1857:7, 22 Feb. 1858:7

	sodawater machines with bottling rack, whiting, sugar		
Richard Harvey & Co., 30 Lt Collins St east, bottle merchant and cork importer (1856–1862)	Sodawater, lemonade, and ginger beer bottles, corks, sulphuric acid, ginger, tartaric acid, capsules, tying twine, all goods used by sodawater manufacturers and brewers	<i>Argus</i>	4 Jun. 1856:7, 25 Aug. 1856:3, 4 Nov. 1856:6, 25 Mar. 1857:7, 18 Sep. 1858:7, 10 Apr. 1861:3
Henriques Brothers & Co., 27 King St (1854), 128 Lonsdale St (1856–1858)	Sodawater, lemonade, and ginger beer bottles, corks, tartaric acid	<i>Argus</i>	16 Dec. 1854:8, 9 Dec. 1858:2
Holdsworth & Beard, (?)317 Swanston St, drug importers	Sulphuric acid, lemon essence, tartaric acid, cream tartar, ginger beer bottles and corks	<i>Argus</i>	31 Aug. 1853:8
James Hope, 28 Flinders Lane east	Lemonade, sodawater, and ginger beer bottles, corks, ginger, essence of lemon, sulphuric acid, tartaric acid, whiting, bottling wire	<i>Argus</i>	2 Dec. 1854:8, 6 Feb. 1855:8
Hope & King, Cnr. Collins and Elizabeth Sts	Lemonade and ginger beer bottles, Jamaican ginger, cream tartar, whiting, corks, lemon essence, bottling wire, tartaric acid, fruit essences	<i>Argus</i>	25 Oct. 1855:6, 29 Nov. 1855:7
John Hughes, 145 Elizabeth St, Chemist	Glass lemonade and ginger beer bottles, corks, bottling wire, sodawater machine (Tylor's no. 4)	<i>Argus</i>	9 Oct. 1854:1, 10 Oct. 1854:8,
J. Katzenstein & Co., 24 Lt. Collins St (1856–1858), 44 William St (1861)	Lemonade and ginger beer bottles	<i>Argus</i>	17 Sep. 1856:7, 11 Oct. 1861:3
E. & M. Keogh, 11 La Trobe St east	Tartaric acid, Thomson's ginger beer bottles, sulphuric	<i>Argus</i>	20 Sep. 1859:7
Kirchner, Sharp & Co., 108 Flinders St west	Sulphuric acid	<i>Argus</i>	6 Oct. 1858:7
Leveson & Smythers, 61 Flinders St east (1855–1856), 47	Sodawater and ginger beer bottles, corks	<i>Argus</i>	19 Oct. 1855:7, 28 Nov. 1855:7, 9 Jan. 1862:3

Elizabeth St (1856–1862)			
Levy Brothers, 24 Bourke St east (1858–1861)	Sodawater and ginger beer bottles	<i>Argus</i>	20 Sep. 1858:7, 13 Dec. 1861:3
Lorimer, Mackie & Co., 122 Collins St west	Sodawater bottles, sulphuric acid	<i>Argus</i>	26 Feb. 1859:7, 3 Oct. 1860:7
George Martin & Co., 108 Lt. Bourke St west	Sodawater and ginger beer bottles	<i>Argus</i>	3 Sep. 1856:3, 9 Nov. 1857:7
Edwin Maund, 3 Queen St (1854–1855), 42 William St (1855–1856)	Sodawater machine, loaf sugar, corks, sodawater and ginger beer bottles	<i>Argus</i>	25 Oct. 1854:8, 5 Apr. 1855:7, 17 Dec. 1855:3, 3 Jan. 1856:2
Macfarlane, Bogle & Co., 186 Elizabeth St	Corks, sodawater machines	<i>Argus</i>	13 Aug. 1853:1
Miles, Kingston & Co., 82 King St, 97 Flinders Lane west	Corks, sodawater bottles	<i>Argus</i>	28 Feb. 1855:9, 23 Dec. 1858:7
David Moore, 102 Bourke St west (1854–1862)	Corks, ginger, essence of lemon, tartaric acid	<i>Argus</i>	4 Sep. 1854:1, 27 Oct. 1854:8
Walter Powell, ironmonger, Collins St (1851), Swanston St (1853–1858)	Sodawater, lemonade and ginger beer bottles, sodawater machines, corks, bottling wire, tartaric acid	<i>Argus</i>	14 Nov. 1851:3, 12 Aug. 1853:11, 13 Nov. 1854:7, 20 Sep. 1858:7
E.B. Primrose, La Trobe St	Tartaric and sulphuric acid, sodawater bottles	<i>Argus</i>	21 Oct. 1853:3
W.F.A. Rucker	Corks, sugar, tartaric acid, ginger	<i>Argus</i>	1 Dec. 1848:3
E.F. Sichel, 20 Flinders Lane west (1857–1861)	Sodawater and lemonade bottles	<i>Argus</i>	4 Dec. 1857:7
Smith, Merry & Co., 19 ½ Queen St	Tartaric acid, sodawater bottles, corks	<i>Argus</i>	28 Nov. 1857:7
F. Spicer, 14 Mincing Lane, Wharf	Sulphuric acid	<i>Argus</i>	19 Feb. 1857:7
Henry Steward, 31 then 15 Flinders Lane east, importer (1856–1861)	Lemonade and ginger beer bottles	<i>Argus</i>	10 Sep. 1861:3

Charles Watt & Co., 54 Lt. Collins St (1857–1858)	Sodawater and ginger beer bottles, sodawater machine, corks, ginger, tartaric and sulphuric acid	<i>Argus</i>	8 Jan. 1857:7, 7 Oct. 1858:2
Westgarth, Ross & Co., 31 Market St	Sodawater bottles and machines, corks, ginger	<i>Argus</i>	2 Apr. 1855:7, 9 Jan. 1857:7
G.H. Williams, wholesale druggist, Brunswick St	Sulphuric acid, whiting, cream of tartar, tartaric acid, raspberry essence	<i>Argus</i>	3 Oct. 1854:8
Youngman, McCan & Co., 125 Russell St (1855–1857)	Ginger, cream of tartar, tartaric acid, corks, sodawater bottles, wire	<i>Argus</i>	13 Jan. 1855:8, 27 Feb. 1857:7

Melbourne suppliers advertised in regional newspapers

Supplier	Goods advertised	Newspapers advertised in	Reference
Etna Glass and China Store, 117 and 136 Great Bourke St, Melbourne	English ginger-beer bottles, glass lemonade and soda water bottles	<i>Mount Alexander Mail</i> (Castlemaine) <i>Ovens and Murray Advertiser</i> (Beechworth) <i>Portland Guardian and Normanby General Advertiser</i> <i>Gippsland Guardian</i> (Port Albert)	2 Feb. 1855:4 28 Dec. 1857:3 30 Dec. 1857:1 15 Jan. 1858:1
Gill, Forster & Co., 13 Lt Collins St West, Melbourne	Whiting in small barrels, carbonate of soda in small barrels, sulphuric acid in stone bottles, tartaric acid in glass, essences of lemon, peppermint and raspberry in glass, Jamaica ginger in small barrels, corks, glass and stone bottles	<i>Mount Alexander Mail Star</i> (Ballarat)	18 Dec. 1857:1 21 Dec. 1857:4
F. Letchford, soda water manufacturer, La Trobe St, Melbourne	Soda water machines, sulphuric acid, tartaric acid, whiting, corks, essential oils. Carbonate of soda, cream of tartar, soda water and ginger beer bottles, wire and twine	<i>Geelong Advertiser and Intelligencer</i>	25 Jun. 1856:4
Thomas W. McDougall, soda water manufacturer,	Lemonade and ginger beer bottles, whiting, sulphuric acid, tartaric acid, cream of	<i>Maryborough and Dunolly Advertiser</i>	4 Aug. 1857:4

rear of the Bull and Mouth, Lt Collins St, Melbourne	tartar, corks, twine, bottling wire, tinfoil, machines		
Symons and Perry, auctioneers, Collins St west, Melbourne	Soda water machine with bottling rack, sulphuric acid, ginger beer and lemonade corks, white ginger beer bottles, glass bottles	<i>Bendigo Advertiser</i> <i>Ovens and Murray Advertiser</i> (Beechworth)	30 Oct. 1858:4 3 Nov. 1858:4
Walter Powell, wholesale ironmonger, Swanston St, Melbourne	Soda water and ginger beer bottles and corks Ginger beer and lemonade bottles Soda water bottles, tartaric acid	<i>Mount Alexander Mail</i> (Castlemaine) <i>Geelong Advertiser and Intelligencer</i>	29 Jul. 1854:8 – 23 Mar. 1855:4 19 Feb. 1856:3 4 Dec. 1855:1
Youngman, McCan & Co., importers and wholesale druggists, 125 Russell St, Melbourne	Citric acid, tartaric acid, acetic acid, essence of lemon, soda water and ginger beer corks, Barbados and Cochin ginger, lime juice.	<i>Mount Alexander Mail</i> <i>Ovens and Murray Advertiser</i> (Beechworth)	12 Jan. 1855:4 3 Mar. 1855:2
E.F. Sichel & Co., merchants, Melbourne	Soda water, lemonade and ginger beer bottles	<i>Bendigo Advertiser</i>	29 Oct. 1860:1

Geelong suppliers to Ballarat

H. and H. Fink's, Yarra Street, Geelong	Lemonade and ginger beer corks	<i>Star</i>	7 Aug. 1857:3
Dickson, Anderson & Co., agents for Bayldon & Graham, Corio St, Geelong	Ginger beer and lemonade bottles, tartaric acid, Cochin, Jamaica and African ginger, oil of peppermint, sulphuric acid, essence of lemon, cream of tartar, ginger beer and lemonade corks	<i>Star</i>	29 Oct. 1857:3
Gill, Fowler & Co. , 13 Lt Collins St, Melbourne	Whiting in small barrels, carbonate of soda in small barrels, sulphuric acid in stone bottles, tartaric acid in glass, essences of lemon, peppermint and raspberry in glass, Jamaica ginger in small barrels, corks, glass and stone bottles	<i>Star</i>	21 Dec. 1857:4

Appendix E. References to less common bottle shapes sold

Flat-bottomed soda water and ginger beer bottles, glass

Quantity, bottle type	Seller	Newspaper reference	Reference date
7,200, Ginger beer	30 Collins Street, Melbourne	<i>Argus</i>	24 Jan. 1856:3
21,528, Soda water and Ginger beer	A.G. McCombe, auctioneers, Collins Street	<i>Age</i>	4 Mar. 1857:7
43,200, Lemonade	Symons & Perry, auctioneers, Collins Street	<i>Age</i>	19 Dec. 1858:7
1 crate, Ginger beer	Ogilvie & Robinson, auctioneers, Geelong	<i>Geelong Advertiser</i>	28 Feb. 1859:3
4,320, Soda water	Symons & Perry, auctioneers, Collins Street	<i>Argus</i>	11 Apr. 1859:2
7,200, Soda water	W. Easey & Co., 33 Collins Street	<i>Argus</i>	17 Nov. 1859:2
43,200+ (300 x 1 or 2 gross), Lemonade	Symons & Perry, auctioneers, Collins Street	<i>Argus</i>	10 Dec. 1859:2

Long-shaped soda water bottles

Quantity	Seller	Newspaper reference	Reference date
100 crates	James Henty & Co.	<i>Argus</i>	3 Jan. 1857:7
18,000 (approx.), Soda water	Greig & Murray, Melbourne, Sold at 22s per gross	<i>Argus</i>	1 Nov. 1860:3, 9 Jan. 1861:4
Soda water	Flower, McDonald & Co., 69 William Street, Melbourne	<i>Argus</i>	27 Nov. 1860:3

Appendix F. Bottles imported into Victoria

References to bottles imported into Victoria were found within import lists and merchant advertisements. However, lists of imported goods were not often published. If the multitude of bottles listed for sale in advertisements are an indication, the quantity imported was far greater than what the import listings indicated. Therefore, the following entries that list ports of origin for bottles are a sample, an unknown percentage of the imported bottles. Bottles that arrived full are also not included here. The ports of origin could always be found when searching for the ship's name within shipping intelligence reports.

Bottles were also exported from Victorian ports, but these movements have not been included here. Therefore, some of the bottle numbers listed below probably moved on to other ports in the colonies.

Soda water or lemonade bottles

	Origin, ship: International	Origin, ship: Domestic	Newspaper	Reference
3 casks	Leith, <i>Ben Nevis</i>		<i>Port Phillip Gazette</i>	16 Apr. 1842:2
10 crates	London, <i>Caledonia</i>		<i>Port Phillip Patriot and Melbourne Advertiser</i>	11 Aug. 1842:2
15 mats	Leith, <i>Britannia</i>		<i>Port Phillip Patriot and Melbourne Advertiser</i>	12 Nov. 1842:2
	Leith, <i>Camoenae</i>		<i>Melbourne Times</i>	10 Oct. 1843:2
1 case		Port Albert, <i>Elizabeth</i>	<i>Port Phillip Patriot and Morning Advertiser</i>	6 Oct. 1846:2
	London, <i>British Queen</i>		<i>Port Phillip Patriot and Morning Advertiser</i>	8 Feb. 1847:3
7 crates	London, <i>Maitland</i>		<i>Melbourne Argus</i>	23 Nov. 1847:2
	London, <i>Sultana</i>		<i>Port Phillip Patriot and Morning Advertiser</i>	2 Aug. 1848:3

50 mats	Leith, <i>Globe</i>		<i>Argus</i>	17 Oct. 1848:2
6 crates	London, <i>Senator</i>		<i>Melbourne Daily News and Port Phillip Patriot</i>	15 Nov. 1848:3
7 mats	Leith, <i>Wuzeer</i>	Via Adelaide	<i>Argus</i>	6 Mar. 1849:2
3 crates	London		<i>Port Phillip Gazette and Settler's Journal</i>	19 Jun. 1849:3
	London, <i>Archer</i>		<i>Port Phillip Gazette and Settler's Journal</i>	16 Aug. 1849:3
76 crates	London, <i>Maitland</i>		<i>Port Phillip Gazette and Settler's Journal</i>	10 Jan. 1850:2
25 cases	London, <i>Senator</i>		<i>Melbourne Daily News</i>	19 Nov. 1850:2
	London, <i>Lochnagar</i>		<i>Argus</i>	2 Feb. 1852:3
45 dozen	Liverpool, <i>Serampore</i>		<i>Argus</i>	13 Oct. 1852:4, 18 Oct. 1852:2
44 gross	Glasgow, <i>Sir William Molesworth</i>		<i>Argus</i>	16 Mar. 1853:6
40 gross	Liverpool, <i>Ocean Bride</i>		<i>Argus</i>	18 Apr. 1853:4, 20 Apr. 1853:5
7 crates		Sydney, <i>Meg Merrilles</i>	<i>Argus</i>	25 Apr. 1853:4
2 hhds and 200 gross		Sydney, <i>Picard</i>	<i>Argus</i>	25 Apr. 1853:4, 5 May 1853:6
644 dozen	Liverpool, <i>Amphitrite</i>		<i>Argus</i>	8 Aug. 1853:8
50 gross	Glasgow, <i>Idare</i>		<i>Argus</i>	1 Oct. 1853:8
12 crates	London, <i>Tyne</i>		<i>Argus</i>	2 Nov. 1853:1
6 cases: 22 and ½ dozen	Liverpool, <i>Esk</i>		<i>Geelong Advertiser and Intelligencer</i>	21 Apr. 1854:7
13 crates 2 casks		Launceston, <i>Water Witch</i>	<i>Geelong Advertiser and Intelligencer</i>	17 Aug. 1854:4

	London, <i>Elizabeth</i>		<i>Argus</i>	2 Dec. 1854:8
22 casks			<i>Argus</i>	1 Jan. 1855:2
160 casks		Sydney, <i>Flora</i>	<i>Age</i>	20 Jun. 1855:4
36 crates		Hobart Town, <i>Don Pedro</i>	<i>Argus</i>	27 Sep. 1855:4
17 crates		Hobart Town, <i>Pilot</i>	<i>Age</i>	20 Nov. 1855:4
	London, <i>Anglesey</i>		<i>Argus</i>	23 Nov. 1855:2 29 Nov. 1855:7
6,000	Bristol, <i>Rajah of Sarawak</i>		<i>Argus</i>	28 Nov. 1855:7
30 cases	London, <i>Neerlands Indie</i>		<i>Argus</i>	3 Dec. 1855:4
	Liverpool, <i>Chimera</i>		<i>Geelong Advertiser and Intelligencer</i>	28 Mar. 1856:3
13 casks	London / Deal, <i>Haltwhistle</i>		<i>Geelong Advertiser and Intelligencer</i>	7 Apr. 1856:2
	Bristol, <i>Sea Breeze</i>		<i>Age</i> <i>Argus</i>	17 Oct. 1856:4 21 Oct. 1856:7
55 gross	Middlesbrough-on-Tees, <i>Tasmanian Maid</i>		<i>Age</i>	6 Dec. 1856:4
100 crates	Leith, <i>Yarra</i>		<i>Argus</i>	10 Dec. 1856:4
20 cases	London, <i>Roxburgh Castle</i>		<i>Age</i>	8 Jan. 1857:4
2 hhds	Bristol, <i>Magna Bona</i>		<i>Age</i>	13 Jun. 1857:4
4-gross packages	Liverpool, <i>Cairnsmore</i>		<i>Maryborough and Dunolly Advertiser</i> <i>Argus</i>	11 Sep. 1857:2 22 Sep. 1857:7
50 crates @ 2 gross each	London, <i>Linda</i>		<i>Argus</i> <i>Ovens and Murray Advertiser</i>	29 Oct. 1857:7 22 Oct. 1857:2
30 crates	Liverpool, <i>Monarch of the Sea</i>		<i>Argus</i>	3 Nov. 1857:4

60 crates	London, <i>Eclipse</i>		<i>Argus</i>	3 Nov. 1857:4, 12 Nov. 1857:7
7 cases, 31 8–12 doz.	Liverpool, <i>Carrier Dove</i>		<i>Argus</i> <i>Mount Alexander Mail</i>	12 Nov. 1857:2 4 Nov. 1857:2
9 hhds	Liverpool, <i>Athenais</i>		<i>Age</i>	17 Nov. 1857:4
50 crates @ 2 gross ea.	London, <i>King Phillip</i> and/or <i>Birgitte</i> <i>Melchior</i>		<i>Argus</i> <i>Kyneton Observer</i> <i>Argus</i>	18 Nov. 1857:4 27 Nov. 1857:2 2 Dec. 1857:3
	London, <i>Agnes Leeds</i>		<i>Star</i> <i>Argus</i>	30 Nov. 1857:2 4 Dec. 1857:7
5 packages	Dublin, <i>Industry</i>		<i>Argus</i>	22 May 1858:4
1 & 2-gross packages	London, <i>Emigrant</i>		<i>Mount Alexander Mail</i> <i>Age</i>	1 Oct. 1858:4 8 Oct. 1858:8
2 gross crates	London, A.B. Thompson		<i>Age</i> <i>Argus</i>	4 Nov. 1858:4 10 Nov. 1858:3
30 crates	London, <i>Water Nymph</i>		<i>Maryborough and</i> <i>Dunolly Advertiser</i>	12 Nov. 1858:3
100 crates	London, <i>Coleroon</i>		<i>Age</i> <i>Argus</i>	24 Nov. 1858:4 3 Dec. 1858:7
12 hhds, 75 gross	Bristol, <i>William Jackson</i>		<i>Argus</i>	10 Dec. 1858:1 20 Jan. 1859:2
17 crates @ 2 3–12 gross ea & 8hhds, 60 gross	Liverpool, <i>Tasmania</i>		<i>Age</i> <i>Argus</i>	23 Dec. 1858:4 20 Jan. 1859:2
30 crates @ 2 gross + 3 doz ea & 50 crates @ 2 gross ea	Liverpool, <i>Shepherdess</i>		<i>Age</i> <i>Argus</i>	29 Dec. 1858:4 20 Jan. 1859:2
100 crates	London, <i>Monarch</i>		<i>Kyneton Observer</i> <i>Argus</i>	20 Jan. 1859:2 24 Jan. 1859:2
22 crates	London, <i>Emma</i>		<i>Argus</i>	11 Feb. 1859:2
9 hhds	Liverpool, <i>Marco Polo</i>		<i>Argus</i>	16 May 1859:4
300 gross	London, <i>Exodus</i>		<i>Argus</i> <i>Mount Alexander Mail</i>	7 Oct. 1859:2 7 Oct. 1859:4

	Leith		<i>Star</i>	11 Oct. 1859:2
11 casks	Greenock, <i>Aldinga</i>		<i>Age</i>	10 Oct. 1860:4
13 crates		Sydney, <i>Amelia Breillat</i>	<i>Age</i>	16 Oct. 1860:4
Crates, 2 gross ea	London, <i>Rising Sun</i>		<i>Mount Alexander Mail</i> <i>Argus</i>	19 Oct. 1860:4 24 Oct. 1860:7
	London, <i>Uncowah</i>		<i>Age</i> <i>Argus</i>	25 Oct. 1860:4 19 Oct. 1860:3
	London. <i>Union</i>		<i>Age</i> <i>Argus</i>	25 Oct. 1860:4 25 Oct. 1860:3
25 crates	Liverpool, <i>S. Gildersleeve</i>		<i>Argus</i>	15 Nov. 1860:4
	Liverpool, <i>Zoboah</i>		<i>Mount Alexander Mail</i> <i>Argus</i>	7 Nov. 1860:2 30 Nov. 1860:3
	Liverpool, <i>Wigtownshire</i>		<i>Age</i> <i>Argus</i>	24 Dec. 1860:4 27 Nov. 1860:3
	London, <i>Witch of the Wave</i>		<i>Argus</i> <i>Star</i>	13 Dec. 1860:3 31 Jan. 1861:2
13 casks		Launceston, <i>Black Swan</i>	<i>Argus</i>	26 Jan. 1861:4
3 kegs		Portland, <i>Queen</i>	<i>Herald</i>	31 Jan. 1861:4
	Liverpool, <i>Glen Monarch</i>		<i>Mount Alexander Mail</i> <i>Age</i>	10 Jul. 1861:2 1 Aug. 1861:4
150 cases	London, <i>Sarah M</i>		<i>Star</i>	5 Aug. 1861:2
100 cases	London, <i>John A. Parkes</i>		<i>Age</i> <i>Argus</i>	29 Jul. 1861:4 14 Aug. 1861:2
27 cases, 10 tierces @ 8 gross ea	Greenock, <i>Walter Lord</i>		<i>Star</i> <i>Argus</i> <i>Age</i>	25 Oct. 1861:2 20 Nov. 1861:2 24 Oct. 1861:4
50 crates @ 2 gross ea	London, <i>Themis</i>		<i>Argus</i> <i>Star</i>	13 Nov. 1861:3 8 Nov. 1861:2
50 cases	London, <i>Blue Jacket</i>		<i>Star</i> <i>Argus</i>	6 Jan. 1862:2 17 Mar. 1862:2
50 cases	London, <i>British Trident</i>		<i>Herald</i> <i>Argus</i>	21 Jan. 1862:4, 17 Mar. 1862:2

50 crates @ 2 gross ea	London, <i>Charles</i>		<i>Herald</i>	21 Jan. 1862:2
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Ginger beer bottles, ceramic

Quantity (if known)	Origin, ship: International	Origin, ship: Domestic	Newspaper	Reference
		Sydney, <i>Christina</i>	<i>Port Phillip Gazette</i>	7 Sep. 1839:2
3 casks		Hobart Town, <i>Flying Squirrel</i>	<i>Port Phillip Patriot and Melbourne Advertiser</i>	18 Feb. 1841:2
	London, <i>Ann Sophia</i>		<i>Port Phillip Patriot and Melbourne Advertiser</i>	10 May 1841:3
2 crates		Hobart Town, <i>Flying Squirrel</i>	<i>Port Phillip Patriot and Melbourne Advertiser</i>	20 May 1841:2
6 casks		Hobart Town, <i>Truganini</i>	<i>Port Phillip Patriot and Melbourne Advertiser</i>	21 Jun. 1841:2
7 crates	Leith, <i>Alemema</i>		<i>Port Phillip Patriot and Melbourne Advertiser</i>	21 Oct. 1841:2
2 crates		Launceston, <i>Dusty Miller</i>	<i>Port Phillip Patriot and Melbourne Advertiser</i>	29 Nov. 1841:2
	Greenock, <i>Marquis of Bute</i>		<i>Port Phillip Patriot and Melbourne Advertiser</i>	16 Dec. 1841:1
1 hhd		Hobart Town, <i>Flying Squirrel</i>	<i>Port Phillip Patriot and Melbourne Advertiser</i>	17 Mar. 1842:2
1 crate		Hobart Town, <i>Flying Squirrel</i>	<i>Port Phillip Gazette</i>	30 Nov. 1842:2
		Sydney, <i>Martha and Elizabeth</i>	<i>Melbourne Courier</i>	19 Nov. 1845:2
1 crate		Launceston, <i>Swan</i>	<i>Port Phillip Patriot and Morning Advertiser</i>	19 Sep. 1846:2
	London, <i>British Queen</i>		<i>Port Phillip Patriot and Morning Advertiser</i>	8 Feb. 1847:3
724		Sydney, <i>Minerva</i>	<i>Argus</i>	24 Nov. 1848:2
2 crates	London		<i>Port Phillip Gazette and Settler's Journal</i>	19 Jun. 1849:3

	London, <i>Archer</i>		<i>Port Phillip Gazette and Settler's Journal</i>	16 Aug. 1849:3
1 crate		Sydney, <i>Christina</i>	<i>Melbourne Daily News</i>	17 Oct. 1850:2
5 crates, 5 gross ea		Sydney, <i>Dart</i>	<i>Argus</i>	1 Oct. 1851:3
(Glass and stoneware)	London, <i>Lochnagar</i>	Via Portland	<i>Argus</i>	2 Feb. 1852:3
2 crates		Launceston, <i>Tamar</i>	<i>Argus</i>	9 Feb. 1852:2
crates	Guernsey, <i>Water Witch</i>		<i>Argus</i>	25 Mar. 1852:4
	Bristol, <i>Fortitude</i>		<i>Argus</i>	18 Aug. 1852:1
34 puncheons		Melbourne, <i>Vesta</i>	<i>Geelong Advertiser and Intelligencer</i>	22 Jun. 1853:2
13 crates	London, <i>Tyne</i>		<i>Argus</i>	2 Nov. 1853:1
	London, <i>Elizabeth</i>		<i>Argus</i>	2 Dec. 1854:8
20 crates	(Unknown Staffordshire pottery)		<i>Argus</i>	1 Jan. 1855:2
12 crates		Launceston, <i>Black Swan</i>	<i>Argus</i>	25 Jan. 1855:4
1 crate		Launceston, <i>Lady Bird</i>	<i>Argus</i>	10 Feb. 1855:4
20 crates	London, <i>St. Louis</i>		<i>Geelong Advertiser and Intelligencer</i>	14 Feb. 1855:2
349 dozen	Guernsey, <i>Surprise</i>		<i>Argus</i>	15 Jun. 1855:4
30 crates	London, <i>Aerolite</i>		<i>Argus</i>	27 Jul. 1855:4
6,000	Bristol, <i>Rajah of Sarawak</i>		<i>Argus</i>	17 Oct. 1855:4
	London, <i>Anglesey</i>		<i>Argus</i>	23 Nov. 1855:2 29 Nov. 1855:7
	Liverpool, <i>Red Jacket</i>		<i>Argus</i>	5 Dec. 1855:4 11 Dec. 1855:3
15 cwt	London, <i>May Queen</i>		<i>Geelong Advertiser and Intelligencer</i>	28 Jan. 1856:2

15 crates	Plymouth, <i>Ocean Monarch</i>		<i>Age</i>	15 Jul. 1856:4
	Bristol, <i>Sea Breeze</i>		<i>Age</i> <i>Argus</i>	17 Oct. 1856:4 21 Oct. 1856:7
20 crates	London, <i>Roxburgh Castle</i>		<i>Age</i>	8 Jan. 1857:4
17 crates	London, <i>Margaret Mitchell</i>		<i>Age</i>	7 Feb. 1857:4
6 crates	Bristol, <i>Magna Bona</i>		<i>Age</i>	13 Jun. 1857:4
240 gross	London, <i>Northumberland</i>		<i>Age</i>	9 Sep. 1857:7
	Liverpool, <i>John Linn</i>		<i>Argus</i> <i>Maryborough and</i> <i>Dunolly Advertiser</i>	10 Oct. 1857:3 6 Oct. 1857:2
104 gross	London, <i>General Nowell</i>		<i>Argus</i>	1 Jan. 1858:2
One and two gross packages	London, <i>Emigrant</i>		<i>Mount Alexander Mail</i> <i>Age</i>	1 Oct. 1858:4 8 Oct. 1858:8
30 crates	London, <i>Water Nymph</i>		<i>Maryborough and</i> <i>Dunolly Advertiser</i>	12 Nov. 1858:3
200 gross	Liverpool, <i>Sir William Eyre</i>		<i>Ovens and Murray</i> <i>Advertiser</i>	29 Oct. 1859:1
5 crates, 9 hhds		Hobart Town, <i>North Star</i>	<i>Age</i>	31 Oct. 1859:4
50 cases		Hobart Town, <i>Don Pedro</i>	<i>Argus</i>	16 Nov. 1859:4
50 cases	London, <i>Sarah M</i>		<i>Star</i> (Ballarat)	5 Aug. 1861:2
10 crates	London, <i>John A. Parkes</i>		<i>Age</i> <i>Argus</i>	29 Jul. 1861:4 14 Aug. 1861:2
19 crates	London, <i>Golden Horn</i>		<i>Age</i>	17 Dec. 1861:4
25 casks	London, <i>Blue Jacket</i>		<i>Star</i> <i>Argus</i>	6 Jan. 1862:2 17 Mar. 1862:2
25 casks	London, <i>British Trident</i>		<i>Herald</i> <i>Argus</i>	21 Jan. 1862:4, 17 Mar. 1862:2

Flat-bottomed Soda water and ginger beer bottles, glass

Quantity (if known)	Origin, ship: International	Origin, ship: Domestic	Newspaper	Reference
19 hhds, 6 ½ gross ea	Bristol, <i>Sea Breeze</i>		<i>Argus</i> <i>Age</i>	17 Oct. 1856:4 4 Mar. 1857:7
4 hhds, 6 ½ gross ea	Bristol, <i>Morning Star</i>		<i>Age</i>	3 Dec. 1856:4 4 Mar. 1857:7

Appendix G. Bottle prices

This list of prices has been extracted from advertisements, notices, law reports and wholesale pricelists for imports, within a range of regional and Melbourne newspapers.

Bottle type	Price	Details	Newspaper advertised in	Reference
Soda water	6s per dozen	Due to the scarcity of soda water bottles, Mr. O'Shea is compelled to charge for bottles not returned, in consequence of having lost upwards of 260 dozen of bottles since May last	<i>Port Phillip Patriot and Morning Advertiser</i>	29 Jan. 1847:3
Soda water	3s per dozen	In consequence of the practice having much obtained of persons borrowing from Licensed Houses (and afterwards detaining for sale, Lemonade and Soda Water bottles), John Jennings, manufacturer, reminds his customers that all bottles not returned will be charged for	<i>Melbourne Daily News</i>	17 Feb. 1851:2
Soda water Ginger beer	6s per dozen 3s per dozen	Due to the deficiency in number of returned bottles, combined with the difficulties in now replacing the same, owing to the present almost exhausted state of the market for ware, and when procurable, the exorbitant price thereto attached, Geelong soda water manufacturers Phillip Maine and James Alder must charge for non-returned bottles	<i>Geelong Advertiser and Intelligencer</i>	7 Sep. 1852:2
Soda water	8s per dozen	Watson and others in court to recover costs from 58 dozen bottles not returned by the manager of the Royal Hotel, Brighton	<i>Argus</i>	9 May 1854:5
Soda water	4s per dozen	Laughlin in court to recover the sum of £98 8s, for a number of bottles supplied to a hotelkeeper, McKinnon	<i>Argus</i>	18 Jun. 1855:7

Soda water Ginger beer	7s per dozen 7s per dozen	Castlemaine aerated water manufacturers, Pestell & Heynes, E.W. Jones and Christian Archer, due to ruinous losses hitherto sustained on bottles, will be compelled to charge for all deficiencies	<i>Mount Alexander Mail</i>	21 Sep. 1855:3
Soda water Ginger beer	40s per gross	Ginger beer and soda water bottles for sale at 192 Bourke St	<i>Argus</i>	7 Dec. 1855:3
Soda water	3s 4d per dozen	Lemonade and sodawater bottles for sale, counted out, at J.B. Shepherdson at La Trobe St	<i>Argus</i>	31 Jan. 1856:3
Ginger beer	18s per gross (1s 6d – doz)	Commercial intelligence, wholesale prices current	<i>Argus</i>	9 Mar. 1857:4
Lemonade and ginger beer	24s per gross (2s per doz)	For sale at 173 Lt. Bourke Street east	<i>Argus</i>	3 Feb. 1858:7
Lemonade and ginger beer	15s per gross (1s 3d – doz)	For sale at 173 Lt. Bourke Street east	<i>Argus</i>	3 Feb. 1858:7
Soda water	£1 10s per gross	Messrs Symons & Perry sold at auction	<i>Age</i>	22 Dec. 1859:4
Soda water Ginger beer	£1 16s per gross £1 per gross (1s 8d – doz)	Geelong wholesale prices, current: Bottles duty free. Supplies: soda water bottles scarce, ginger beer plentiful	<i>Geelong Advertiser</i>	24 Nov. 1860:2
Soda water Ginger beer	£1 16s per gross £1 per gross	Geelong wholesale prices, current: Bottles duty free. Supplies: soda water bottles scarce, ginger beer plentiful	<i>Geelong Advertiser</i>	20 Apr. 1861:2
Soda water Ginger beer	£1 10s per gross £1 per gross	Geelong wholesale prices, current: Bottles duty free, unsaleable	<i>Geelong Advertiser</i>	29 Apr. 1861:2
Soda water Ginger beer	£1 10s per gross £1 per gross	Geelong wholesale prices, current: Bottles duty free. Supplies: soda water bottles none, ginger beer none	<i>Geelong Advertiser</i>	4 Jun. 1861:2
Soda water Ginger beer	£1 10s per gross £1 per gross	Geelong wholesale prices, current: Bottles duty free. Supplies: soda water bottles nominal, ginger beer nominal	<i>Geelong Advertiser</i>	25 Jun. 1861:2

Soda water Ginger beer	£1 10s per gross £1 per gross	Geelong wholesale prices, current: Bottles duty free. Supplies: soda water bottles nominal, ginger beer nominal	<i>Geelong Advertiser</i>	25 Jun. 1862:2
Soda water Ginger beer	£1 per gross 15s per gross	Geelong wholesale prices, current: Bottles duty free. Supplies: soda water bottles nominal, ginger beer nominal	<i>Geelong Advertiser</i>	25 Aug. 1862:2