Toothless in Burton:
A history of the Crescent Brewery, Burton upon Trent and in particular its association with the Tooth family of Cranbrook, Kent and Sydney, Australia

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Introduction

Over the past two centuries, Burton upon Trent has been the home of many commercial breweries, probably far more than anywhere else of comparable size. The number of these rose during the mid and late 19th century reaching a peak of 31 in the late 1880s. As well as those founded by local entrepreneurs many were built or purchased by existing brewers from outside the town as specialist satellite breweries beers in support of their existing and successful operations in London or other population centres. This investment was based on the expectation that a brewery in Burton would enable them to exploit the fashionable taste for Burton pale ale. Subsequently almost all of these 31 breweries were closed or consolidated until, 120 years later, only two of them are still operating. Now, joined by a smattering of more recently founded microbreweries, these two survivors are capable of producing a greater volume than did the 31 breweries combined at their peak.

One of the earlier incomers in this 19th century industrial boom established what later became known as the Crescent Brewery. The history of this brewery is the subject of this paper. Whilst its foundation followed the general principal outlined above it had many unique features, not least of which is its link to the large and successful brewing family the Tooths. They originated in Kent, but arrived in Burton via Sydney, Australia.¹ This link, I believe, represents an early, if unsuccessful, attempt at globalisation within the brewing industry.

The Tooth family’s background

Late in the 18th century a man named John Tooth was a hatter in Cranbrook, Kent. John was a successful tradesman who, when he died, was particular in the way he shared his small estate amongst his family. Of his children, two of his sons, William and Robert, shared and continued in hat making, although apparently trading separately, but with
different degrees of success. William, when he died was merely designated as a hatter, but Robert seems to have achieved the rather more elevated status of hat manufacturer. We do not know if Robert Tooth (the hat manufacturer) married or had children, but several of William's children reached maturity. It is two of these who primarily concern us; Robert, born in 1799 and hereafter referred to as Robert (Snr.) to distinguish him from the five other Robert Tooths in this paper, and John, born 1802.

Since so many Robert Tooths can very easily lead to confusion, in the interests of clarity these Roberts and their relationships (and my suffixes) are listed below. Further clarification of their relationships and those of other Tooth family members mentioned can be gained from the Tooth family tree overleaf.

**Brewing in Kent**

The Tooth family's first link with a brewery was recorded in 1827. This was at Baker's Cross in Cranbrook which, up to that time, had been operated by a Mr James Youell who had become bankrupt resulting in the brewery being auctioned in October 1827. We do not know who bought it, but it seems likely that it was some association between the Tooth and Newnham families, headed by John Newnham, who was described as a timber merchant and brewer. Shortly afterwards and perhaps not totally coincidentally, since there had been political pressure for some time, the Beer Act of 1830 freed up the beer market. Between 1829 and 1835 the rates on the brewery are reported as being paid by Newnham & Co. or Newnham and Tooth. John Newnham's son, Charles is recorded as

Robert Tooth (the hat manufacturer) Uncle to Robert Tooth (Snr.)

Robert Tooth (Snr.) Nephew of Robert Tooth (the hat manufacturer)

Robert Tooth (of Wandsworth) Died 1869
1st cousin and Brother in Law to Robert Tooth (Snr.)
Also Nephew to Robert Tooth (the hat manufacturer)

Robert Tooth (Jnr.) Eldest son of Robert Tooth (Snr.)

Sir Robert Lucas-Tooth (bart.) 1844-1915
Nephew of Robert Tooth (Jnr.) and grandson of Robert Tooth (Snr.)
Figure 1. Part of the Tooth family tree relevant to the Crescent Brewery, Burton.
John Tooth = Sarah
b 1739 m 1767 d 1792

Susannah
b 1772 d 1832

William Tooth
m Catherine Butler
b 1779

Robert
b 1788

John Tooth = Sarah
b 1739 m 1767 d 1792

Edward
b 1784 m 1st Anne Reader
d 1804 b 1801 d 1845

Eliza
b 1799 m 2nd Fanny Tooth*
d 1867 b 1813 d 1872

Robert Tooth Snr
b 1799 d 1867

Rev William Augustus
b 1834 d post 1912

Rev Arthur
b 1836 d 1931

Mary Anne
b 1837

Eliza Jane
b 1841

Sir Sydney O'Nevile
b 1873

Fanny Blanche
b 1846

Annie Maud
b 1850 d 1911

Robert
b 1852 d 1900

Gertrude
b 1856

Catherine Ann

Gower
living in the brewery house and was presumably the practical brewer operating the business.

In 1828 John Tooth, the younger son of William, went to Australia from where he returned briefly in 1830 to marry Elizabeth Newnham, John Newnham's daughter and Charles' sister. On their return to Australia he continued to establish himself by operating cattle runs and as a general merchant and commission agent in Spring Street, Sydney.

William Tooth died in 1832 and, in 1833, John Newnham negotiated additional water rights for the Baker's Cross Brewery from a neighbouring farmer. However, only two years, later in 1835, it seems that Robert Tooth (Snr.) had become the sole owner of Baker's Cross Brewery. It is unlikely that this is totally unconnected with the fact that in the same year John Tooth, in partnership with Charles Newnham, opened a new brewery, the Kent Brewery, on the Parramatta Road in Sydney, Australia.

Robert Snr. appears to have become something of a general businessman and entrepreneur and at some point, probably before gaining the benefits of owning a successful brewery, he had developed interests in hop growing. In 1841 he is recorded as a hop merchant at 12, Little Tower Street, London, but it has not been possible to find details or corroboration for the claim that in around 1843 he purchased a second brewery, this time in London. In the following years he continued to widen his business activities and progressed into banking, ultimately becoming a partner in Overend and Gurney. This was a major discount house for bills and bonds; in effect a Bank which became a major financial institution and, in some respects, came to rival the Bank of England. By the mid 1840s Robert (Snr.) had become wealthy enough to outshine the local gentry of Cranbrook purchasing, in 1847, the three storey Queen Ann house and estate of Swifts Park. At this time it was a substantial property which, for a period up to 1820, had been owned by Major John Austen, a relative of the famous Jane Austen. Robert Tooth (Snr.) had a large family, nine sons and two daughters by his first wife, followed by four daughters by his second. Fanny, his second wife, was in fact his first cousin. She was the sister of another Robert Tooth (Robert Tooth of Wandsworth), and the daughter of Robert (Snr's.) uncle Edward, the elder brother of William Tooth.

The first reference to the Tooths exporting beer to Australia is in 1839 when, it is claimed, Robert Tooth (Snr.) exported beer from Baker's Cross. The beer travelled to Maidstone by road, then by barge to the coast and finally by ship to Sydney where, no doubt, its sale was managed by his brother, John. At some point, probably in 1841, Robert (Jnr.) took over Robert (Snr.'s) business as a hop merchant at 12, Little Tower Street and exported hops, spirits and London and Edinburgh ales to John Tooth in Sydney and also to J.P. Bilton in Hobart.
Brewing in Australia

The Tooths, both in Sydney and in London, were undoubtedly in close touch with trends in the beer market, chief amongst them in the early 1840s would have been the rapidly increasing popularity of Burton pale ales. Burton beer, already well known, had become more readily available both across the U.K. and, after 1839, when the building of the Birmingham to Derby Railway through Burton on Trent was completed, for export.\(^{16}\) The Tooths were proud of their origins and emphasised Kent at every opportunity, including the name of their Sydney brewery, the Kent Brewery, in brands such as Tooth's K.B., (that is brewed at the Kent Brewery, Sydney) and later in the use of the rampant Kent horse as their trade mark. However, even to them, it must have been apparent that beer imported into Australia from Kent, and in particular from the obscure Baker's Cross, would never have the cachet of that from Burton on Trent. It is suggested that one of Robert (Jnr's) brothers (possibly referring to Edwin or it may be to Charles Newnham, his brother in law, who at that time was actually resident in Australia), visited Australia in 1842 and also, in that year, there is a reference in correspondence to laying the 'foundation at Burton of doing future good business'.\(^{17}\) This most probably meant the purchase of Burton ale for export to Sydney, but it is an indication of their awareness of Burton and a likely early expression of a deeper interest in the products that town.

Australia was to become an important market for U.K. beer brewers throughout the mid 19th century, particularly for Bass, for which it was second only to India. Bass had ten agents in Sydney as well as others in other Australian states. Some time later, in 1873, the volume of cask beer exported from the U.K. to all of Australia was 57,000 barrels of which 7% came from Bass.\(^{18}\)

In 1843 there appears to have been a problem in the export of beer to John who was clearly having business difficulties.\(^{19}\) At the ages of 22 and 21, Robert (Snr's) two elder sons Robert (Jnr.) and Edwin went out to Australia together, and Robert (Jnr.) was commissioned to open business with Messrs Deloitte. Also in 1843 Charles Newnham withdrew from his partnership with John apparently having his own problems with another business venture, Newnham's Soap Manufactury. Problems did not end there; in 1844 John, over-extended by his pastoral interests, was forced to mortgage the brewery, almost certainly to the Tooths of Kent & London. He then leased it to his two nephews for what, on the face of it, seems the large sum of £4,000 a year. The two brothers traded as R. & E. Tooth, but they were not content with brewing. They already had, and continued to undertake, a wide range of other business activities, as individuals, in partnership with each-other, and in partnership with others. Their interests spread from operating cattle runs and importing and farming Peruvian Alpaca to hop growing, from mining to sugar
They were essentially all round businessmen and their interests were so widespread that it is unlikely that they ever had time, or indeed the skills, to be hands-on brewers manning the mash tuns each day. During this period records from Sydney indicate shipments to the Tooths in Sydney of Bass Ale, spirits, glass, hoop iron, staves and hops. Payment was by remittance or as wool and tallow consigned to Tooth's London business.21

Figures 2 and 3. Two early views of Tooth's Kent Brewery, Sydney. From The First Hundred Years: A brief History of Kent Brewery 1835 to 1935.
In 1848 John Tooth, by then no longer active in brewing, became bankrupt. This was a common fate for Australian businessmen in the difficult economic conditions of the colony at that time. His brewery was mortgaged for £30,200. Despite these vicissitudes Robert (Jnr.) and Edwin’s business continued. The most significant characteristic of Tooth’s Brewery, in fact, was its ability to survive. Of the ten breweries operating in Sydney in 1835 only three, including Tooth’s, were still operating a decade later. Over the next 25 years seven other breweries started up in Sydney making a new total of ten potential candidates, but of these only two survived and again one was the Kent Brewery which was by then trading as R. & F. Tooth. The Tooth brothers enjoyed consistent success over this whole period. It may have been the quality of their beer, which was always a tricky issue in the hot Australian climate. However, it was more likely due to business acumen combined with the undoubted advantage of strong family connections overseas supporting their import business. Surviving correspondence emphasises the importance of the import trade in beer, wines and spirits from London. In the 1850s Australian beer brewed in the English style was not held in high regard and as late as the 1870s importing and wholesaling drinks from the U.K., and later European lager, was considered to be the most profitable part of the Tooths' business.

Alfred, the third of Roberts (Snr.)’s sons, seems to have taken on the London end of the Tooth businesses as a merchant. In 1855, working out of 14, Mincing Lane in the City of London, he registered the ‘black horse’ bottle design incorporating the rampant Kent horse (patent office 102519, 9th Nov 1855). He and a Robert Tooth, presumably Robert (Jnr.), are recorded as partners in Tooth & Co in London Directories from 1853 to 1858. Robert (Jnr.), Edwin and Frederick are also recorded as hop merchants and general merchants with other London companies at various points between 1848 and 1868 and, in some cases, possibly acting as agents since they were in Australia for much of that time.

The Baker’s Cross Brewery was sold by Robert Tooth (Snr.) in 1848. Perhaps this release of funds provided money for the mortgaged Sydney brewery which then became the only brewery in Tooth ownership. Subsequently Baker’s Cross is recorded as owned by William Barling Sharpe in 1846 and by 1892 it had become known as Sharpe and Winch. Later it was owned by Frederick Leney & Sons who subsequently became part of Whitbread & Co Ltd. The premises were subsequently occupied by a furniture manufacturer trading as Tudor Oak.

Although times were difficult in Australia in the 1840s the Tooth Brothers brewery survived and eventually circumstances began to look up. First came the California gold rush during which R. & E. Tooth exported beer to supply the many Australians who went from Sydney to the United States. This was followed, in
1851, by the start of the Australian gold rush, initially in New South Wales but later and more significantly in Victoria.\textsuperscript{28,29} In its wake the population soared and economic activity boomed, as did the rates of pay for skilled workers.\textsuperscript{30}

In January 1853, with trade in the colony rapidly expanding, the Tooths suffered a serious fire in their Sydney brewery. Although the site was severely damaged and a lot of uninsured raw material and stock was lost, it still fell short of a total disaster. Brewing was still possible on a reduced scale and after some months of intensive work and expensive repairs, which were covered by insurance, the brewery was able to attain normal production again.\textsuperscript{31,32} There is no direct evidence to suggest that the Sydney fire directly influenced subsequent events, but it must have focussed the Tooths' minds on the nature and future of their Australian brewing business, on its security and on its potential for expansion. 1853 had suddenly become a busy and important year for the Tooths. We have a reasonably clear picture of the Tooth brothers' actions at this time. Robert (Jnr.), now 32, was established in New South Wales and Edwin, who was 31, had returned to Sydney after a period in Tasmania attempting to grow barley. Alfred, who was 29, Frederick, aged 26, and the sixth son, Charles, aged 22, were in London. The fifth son, John Sydney, had died in infancy. The Tooth brothers were available in numbers and, in some cases, with considerable business skills and experience.

With Australia seemingly awash with money (or, even better, gold) and with demand and prices high, it is likely that the local breweries could sell every barrel they could brew, import or borrow - and sell them at previously unimagined prices. However, in the overheated Australian economy with skilled wage rates running at several times pre-gold rush levels,\textsuperscript{33} the opportunity to expand brewing capacity in Sydney to meet local demand must have seemed either impossible or impossibly expensive. The Tooths found that increasing the supplies of their own Sydney brewed product was a difficult and expensive option. It is also likely that supplies of imported beer from U.K. breweries would have had severe competition for cargo space from many other imports, not least of which was a flood of new gold prospecting immigrants. The supply of imported beer may well have been insufficient to meet market demand and the Tooths must have felt that the Australian boom was a profit opportunity they were failing to exploit to its full potential.

It seems probable, for what proved to be only a short period, that it was cheaper to build additional brewing capacity in the England rather than Sydney. This is probably supported by the fact that virtually all of the brewing raw material used in Australia was imported from the U.K. where, without additional shipping costs, it would have been cheaper. Again, in the short term, labour in the Britain was probably cheaper than in the overheated Australian labour market. This gave the
U.K. an all round cost advantage over the colony, both in terms of capital investment in new capacity and in running costs. This would have offset some, if not all, of the transport costs of shipping finished beer around the world. This presented the Tooths with an opportunity if, as well as brewing in Sydney, they could also brew their own beer in the U.K. They would still be able to exploit their strong local name when marketing Tooth's beer from either brewery in Sydney, but with the added potential to build up their established wholesaling presence in London. They could also exploit their direct access to the growing British market as a whole as well as link all these aspects of their businesses into a globally integrated operation.\textsuperscript{34} In fact the creation of a business which was focussed partially on the costs of production at different locations and operated by shipping goods around the globe would be an early, if not the earliest, example of globalisation in the brewing industry.

We do not know what alternative sites, if any, the Tooths considered for a U.K. brewery. London may have had attractions, as would their original home base of Kent, but in the 1850s the growth product of the day was the fashionable Burton ale. The only possible place to brew this authentically was in the Staffordshire town and their decision was to build a new brewery in Burton on Trent. This may have been influenced by allegations that deliveries of Bass draught beer to Australia were, at that time, experiencing quality problems and by claims that Allsopp's beer was also inferior to Tooth's own. The brothers' estimate of the market for imported beer into the colony (presumably just New South Wales) was 7,600 hogsheads (11,400 barrels) and their extremely optimistic target (subject to quality) was to quietly supply up to two thirds of that trade.

The travels of the brothers in this period become significant. Robert (Jnr.), by then a director of the Bank of New South Wales, left Sydney in 1853 for London. The fourth brother, Frederick, left London to join the Australian operation, becoming a partner in the Sydney brewery which then traded on as R.E. & F. Tooth. Robert (Jnr.) remained in the U.K. for two years but returned to Australia in 1855. In the same year Edwin, by then also a director of the Bank of New South Wales and a resident in Sydney, returned to England to establish himself in London.\textsuperscript{35}

The first surviving Australian record of what was initially a proposed new brewery in Burton on Trent dates from 1854. It is clear that Edwin and Frederick in Australia were doubtful about the venture and wanted to delay it on the grounds of market uncertainty.\textsuperscript{36} They also emphasised the developing potential (and cost saving) of growing barley locally, but the enthusiasm of Robert (Jnr.) in the U.K. seems to have carried the day. The new Burton brewery went ahead. Robert (Jnr.), Edwin and Frederick became major investors and probably mortgagees in the Tooth Brothers Burton Brewery.\textsuperscript{37}
The Australian gold rush certainly gave an enormous fillip to the colonies economy as a whole. We do not know if the Tooths had drawn any conclusions from the Californian gold rush as to how long they expected the benefits of this local manifestation to last. The reluctance of Edwin and Frederick suggests that they had some doubts and hindsight makes it clear that the economic situation in Australia was unstable and the boom likely to be of finite duration. The decision to invest was undoubtedly driven by the rapidly rising popularity of Burton beer. With so many Australian consumers suddenly prosperous and able to afford to develop a taste for expensive, imported Burton beer and with other brewers in the U.K. following the trend of brewing in Burton, who could lose money by opening a brewery there? Even if the Australian market faltered surely Burton was still the best place in the world to own and operate a brewery. Even with the benefit of hindsight this argument clearly had some merit since the Burton fashion and the town's reputation were advantages which, to a greater or lesser extent, lasted for at least the next 100 years.

Brewing in Burton

There were, of course, significant differences between the Tooths' project and the enterprises of the other Burton brewers. The businesses of the indigenous Burton brewers were based on volume trade in the British market, which was still growing rapidly as a result of population growth and the consolidation of craft and domestic brewing into industrial scale operations. This trade was supported by a large network of experienced sales agents in the U.K. which gave a sound base from which the larger brewers were able sell across the Britain and from which they were able to build trade abroad, through a parallel group of agents, and to export significant amounts of beer to many markets across the world.

The Tooth brothers' project did not conform to this model. It started by producing beer in Burton primarily for export to a single country, with the potential for some London and U.K. trade. A successful future relied on the hope that they could continue and extend this trade, building up a wider export trade whilst, at the same time, developing a significant British market. The hard facts of life were that the Tooths would need a large and stable sales volume to fill the capacity and cover the costs of what was a large, new, and untested brewery. Given the cyclical nature of Australian trade they would sooner or later have to ensure that their Burton brewery was capable of standing alone in its home market with minimal support from its Australian parent. They were embarking on a task for which they had little experience and no track record.
Figure 4. Family portraits of three Tooth brothers and Edwin's Son, Sir Robert Lucas Tooth. A modified composite from The First Hundred Years: a brief History of the Kent Brewery 1835 to 1935. Sydney: Tooth and Co Ltd. (1935).
In the year 1855 the first U.K. references are found to a newly built brewery in Horninglow, a village recently absorbed into the fast growing town of Burton upon Trent. This began trading as Tooth Brothers’ brewery, the managing partner being Mr Charles Tooth, Roberts Snr’s. sixth son, then age 24. Charles began to take an active part in local affairs, being elected in 1856 as one of three Town Commissioners for the new Horninglow ward and sitting alongside other Burton brewery worthies such as Messrs. Worthington and Nunneley. He is recorded as living just a few miles further down the Horninglow road in the small and ancient town of Tutbury where many fine houses from that period still survive.

The new Tooth Brothers’ brewery was a significant business venture. It must have been some time in the planning and building, at least since 1854, and it was to operate for many years (and under a succession of owners) with, as far as we can tell, little change. As an indication of its size, in 1861 the brewery termed by Owen as ‘Tooth Bros, (London and Colonial)’, was estimated as having 80 employees and producing 25,000 barrels a year, which was nearly half the size of Worthington or Salt. Based on this data, from a standing start it had very rapidly become the 6th largest brewery in Burton (out of the then 18). In output it was larger than those owned by many famous brewers such as Ind Coope, who first bought a brewery in Burton in 1856 which, Owen suggests, had 50 employees and was producing 6,000 barrels a year. However, to put its scale into perspective, of the growing breweries in Burton Bass was of course by far the largest and was producing 191,000 barrels at that time from two “breweries”.

Tooth’s brewery was built from scratch on a green-field site. Historically the land had been scrub owned by the Paget family (hereditary Earls of Uxbridge and, post, Waterloo the Marquises of Anglesey). However, it had been secured by a Freehold Land Society and partly became, and until very recently still was, allotments. There must have been some serious ‘earthing up’ of potatoes because the activities of the workers led to the area first being called locally ‘the Diggings’ and then ‘California’, an allusion to the earlier famous gold rush of which the locals seemed to be well aware.

The Tooth brewery was built on a roughly oblong site running north-west to south-east with the narrow end of the oblong fronting north-west onto the Trent and Mersey canal. The Tooths had their own basin on the canal and were, in fact, the only brewery in Burton to own or even to have direct access to such a facility. Their site was split in two by a newly built road, Victoria Crescent. The brewery itself was situated on the smaller southern third of the site, fronting onto the road. This location, at first sight, appears to be anomalous since, if access to the canal was a prime reason why the Tooths bought the plot, the brewery was
built on the part furthest from the canal. The reason for this was probably based on sound brewing practice. To make sense of a Burton venture the brewery would have had to have its own well delivering the rock hard Burton water from the gravel beds of the Trent valley. The only wells used at this time were the classic shallow Burton wells, typically around 25-30 feet deep. The Tooths’ brewery was possibly the first of the Burton breweries to exploit the water from this particular area of the gravel beds, on the western edge of the Trent valley, which was furthest from the modern course of the river. It was a region from which, within 30 years, all the major breweries would come to extract their premium brewing water. In this context the greatest risk to the quality of the well water was seepage through the lining of the nearby canal and canal basin, therefore locating the wells as far as possible from this was a wise precaution to protect the source of the key brewing water. It would also be desirable for the brewery to be reasonably close to the well so that a single steam engine could drive the water pump while at the same time providing a power source for mechanised brewing plant. Hence the brewery was built on the southern part of the site. Sadly the usual situation applies and we have no specific information as to the layout of the brewery or the nature of its plant.

Tooths brewery is recorded in Whites’s Directory of Derbyshire in 1857 as being one of five breweries in Burton to export beer, which presumably they did via their canal basin. This location and potential use of the canal is interesting since it suggests a firm commitment to canal transport, nearly two decades after the arrival of the crucial rail link to Burton in 1839.

In the decade following the opening of this rail link beer production in Burton had increased by a factor of four (and was to treble in each of the next three decades). The opening up of the beer market to Burton pale ale has been largely ascribed to cheaper and more rapid transport of beer by rail within the U.K. and to ports for export as opposed to the pre-existing canal transport. At this time rail is thought to have carried two thirds of the goods moving in and out of Burton, however the boom in volume and in the use of the railway system had the secondary consequence that road traffic within the town of Burton also grew enormously. Most of the beer produced was conveyed the distance from the breweries to the station, which, in some cases was over half a mile, on small horse drawn carts called floaters. This generated long, slow moving queues of floaters through the town and, in particular, down Station Street to the station sidings where wagons were continuously loaded throughout the day. By the mid 1850s the railway system, or more accurately the road access to the goods facilities set up to service the railway, had become grossly overloaded and the speed and financial advantage of rail transport was probably being eroded. The Tooths, with a strong export focus, may have seen the Burton...
traffic congestion as a problem and intended to avoid this difficulty by eschewing the railway and locating its brewery directly on the Trent and Mersey canal which had links, albeit slower than rail, to the major ports in the U.K. Presumably the delay of another two weeks of slow canal transport were irrelevant when compared to three months on the high seas, largely in the tropics, on the long, hot journey to Australia. Perhaps, in the early days of rail, goods arriving at an export port by established canal route also avoided similar road transport delays between railway station sidings and the dockside prior to loading on board ship.

The Tooths, because of the location of the brewery on their split site, had their own, if relatively minor, internal traffic problem in moving their beer the comparatively short distance from their brewery across the road to their own store rooms and canal basin. In response to this, in 1855, Tooths became the first brewery in Burton to obtain permission for a tramway (a horse drawn railway line) to cross a public road (Victoria Crescent) for an easement of £1 per year. This level crossing created a precedent which was soon to be followed and greatly expanded by the other brewers in the town. Following unsuccessful earlier attempts, The Midland Railway, The London North Western Railway and the Marquis of Anglesey succeeded in passing the Midland Railway and Burton upon Trent Bridge Act 1859 and later the Midland Railway (Burton Branches) Act. So began what was to become Burton’s unique commitment to rail transport, culminating in 87 miles of private track and 92 sets of sidings and yards in the town, a system which at some point was to cross and recross all of the town’s major roads.

Ironically, the many level crossings of Burton were eventually to cause as many problems to general road traffic as the floaters they eliminated. The more immediate result of the new branch lines was that by the early 1860s all the major breweries were able to load goods directly into railway wagons within their premises and later to receive returned containers and then raw materials in similar fashion. The railway wagons were at first pulled to the main line by horses which were soon replaced by the breweries own steam trains. It must have been clear by 1858/9 that if the Tooth brothers had gained any advantage for their brewery from their canal-side location and prototype internal railway, it would be short-lived. In fact any advantage finally disappeared completely when The Midland Railway obtained permission in 1867 to construct the Horninglow branch line. This ran from the main line to the canal crossing Victoria crescent alongside Tooths’ old tramway and then running down King Street, which as a result was closed. This line was complete by 1873 and then linked the brewery on Victoria Crescent to the main line in one direction and to the canal in the other.

The brewery location and some of these developments are shown in the sketch map (see opposite) of the Victoria
Figure 5. Sketch plan of Tooths Brewery, Victoria Crescent.
Crescent area of Burton which also includes developments over the next 50 or so years.

The strongest evidence that the Tooth brothers Burton brewery successfully exported their beers from Burton to Australia comes from the Australian end of the enterprise where, after his return to Sydney, Robert (Jnr.) wrote congratulating Alfred in London, Charles and his brewer. Then and subsequently the need for a top quality product was emphasised, presumably since premium prices were charged for imported beers. Physical evidence in the form of embossed trade marked bottles from the Tooth brewery (the ‘black horse’ bottle embossed with a rampant horse representing the white horse of Kent) have been found in Australia.

As well as the family connection there is also indirect evidence of an Australian link in the naming of a pub (or perhaps a hotel) near to the Burton brewery. This was not owned by Tooth Brothers, but was built on Horninglow Road less than 100 yards from the Toothy brewery and was called the Dingo Hotel a name unique amongst British pubs and which must surely be a reflection of intense local interest in the colony. We have no evidence of Tooth Brothers owning any pubs, but they did have an agency and stores in Derby. This would have supplied some local trade whilst Alfred and Robert Tooth are recorded, in London directories, as principals in the firm Tooth Brothers, which had an Ale stores at 14, Mincing Lane, and 76, Freeschool Street, Horsleydown. With this connection ‘Tooth’s Burton Ale’ presumably found a market in London.

Of course, the Toothys were far from alone in jumping on the Burton on Trent bandwagon. The 1850s were the start of a long period of major building projects in the town. Other breweries built, or substantially developed, in this decade were the Bass New Brewery, later called the middle brewery (1852), Eversheds brewery in Bank Square (1854), Eadies in Cross Street in 1854, Ind Coope in Station Street (1856), and Allsopps new brewery (1859). We can estimate the expense of building a new brewery such as Toothys from scratch based on figures quoted for the building of the larger Bass New Brewery. This cost £28,000, a sum which did not include the price of the land, which had been purchased earlier and separately, nor the expensive holding of casks raw material and stock down a long slow distribution chain which already existed. The total cost of Toothys’ brewery enterprise, given only existing London and Sydney infrastructure, would, at most, have been £60,000, including stock, casks and product in the distribution chain. This sum, although not beyond the assets of the combined Tooth brothers, clearly needed either the major liquidation of other business assets or the use of significant loans or mortgages. What proportion of the capital was supplied by the Tooth brothers, by Robert (Snr.), by external sources such as the bank of New South Wales or even by...
Overend and Gurney, we do not know. Twenty years later the rather larger Albion brewery, built by Mann Crossman and Paulin on a larger greenfield site, cost £77,000. This price is comparatively high because it included the land and a sizeable local farm, but would arguably have been offset by their London brewery being able to supply some of the casks.

During this period Charles Tooth seemed settled in Tutbury where, in 1857, he demonstrated early signs of a religious interest when he apparently won a close election to become a Churchwarden of Tutbury Church. The result was to be subject to a review the result of which we do not know, but the churchwarden's records which survive do not indicate that Charles ever acted as a Churchwarden. However, he did serve as an Inspector on Tutbury Town Lighting Review from January 1855 to December 1860 after which he disappears from Tutbury. He is mentioned in February 1858 as summoned for non payment of sewerage rates - probably a protest against the inadequate sewerage service in the developing Horninglow suburb and as reporting a theft from his brewery, but he is not mentioned as a Town Commissioner after June 1858. Resignation in protest over the sewage situation is possible, but no mention is made of this and it is more likely that he was overtaken by events later that summer.

Sadly, in August 1858, Edwin Tooth, whose main home since returning to the England had been in London, died whilst in Tutbury. His death certificate states that the cause was peritonitis, which he had endured for five days, and his demise was registered by Charles who was present during his final moments. Edwin was buried near the family home in St. Dunstan's churchyard, Cranbrook, Kent. In early 1859 Robert (Jnr.) briefly returned to the U.K. and in 1860, shortly after Edwin's death, James Mitchell, whom the Tooth brothers had appointed brewery manager in Sydney in 1856, joined the Australian partnership, possibly acquiring some of Edwin's stake in the business as well as a major role in its future management.

Edwin was already a widower, his wife Sarah Lucas having died in 1854 leaving him to look after their five surviving children. Only the day before he died he added a codicil to his long, complex will changing the arrangements for the guardianship of his children He appointed his friend and partner in some of his Australian and U.K. business ventures, William Mort and his wife Louisa. The total size of Edwin's estate is not clear as it probably depended on the realisation of his assets and winding up his various partnerships in Australia. He seems to have based his bequests on an estate of around £50,000, but it has been suggested that including his Australian assets, a total of £150,000 is more accurate. The Morts took their guardianship responsibilities seriously sending Edwin's eldest son, Robert Lucas Tooth, to Eton after which, in
1863, he returned to Sydney to join the Australian brewery.

After a short period of just less than six years, between early 1855 and the end of 1860, the Tooths disappeared from Burton even more quietly than they had arrived. They slipped in and out of the town unrecorded by the census in either 1851 or 1861. It was an age when there were no shock-horror headlines in the local press at the prospect of a brewery closure or change of ownership and the transfer of ownership and withdrawal from Burton was not formally recorded in any extant local record.

There are a variety of possible reasons for the Tooths’ departure from Burton and it is likely due to a combination of them. The only direct evidence we have as to why the Tooth brothers apparently lost interest in their Burton venture is given in correspondence from Robert (Jnr.) which contains the crushing reference to ‘trading difficulty’ in the colony. It is likely that the mid and to 1850s were a difficult time for the export trade of Burton brewers in general. To fund the Crimean war a 10 shillings a barrel duty had been imposed, and the Indian Mutiny must have effected trade to this prime export market, but the Tooths were, of course, heavily focused on Australia. In evaluating Robert (Jnr.)’s brief comment it seems reasonable to believe that in the later 1850s the beer wholesaling business in Sydney may well have failed to meet the expectations which had been raised in the early gold rush years, both in the volume of trade or its profitability. Certainly the influence of the gold rush began to disappear after 1855 when mining peaked and then fell back settling at a much lower, if steadier, level. In 1858 gold fever moved on to British Columbia where another find sparked a rush, albeit not as large as that in Australia. In other words the gold rush ran out of steam and the cost and pricing issues it raised began to revert back to ‘normal’. Although the population had risen sharply wages had fallen back and consumers now had to spend their incomes more carefully. They would inevitably trade down from premium imported Burton beers to cheaper local brews and, even in Australia, cut back their per capita level of consumption. The failure of the Tooths’ chief market to deliver the necessary volume to a Burton brewery, largely dedicated to it, must have raised questions about the Tooths continued investment in Burton and the brewery’s survival.

Even by the time of Edwin’s death, in 1858, this decline in their key market would put the Tooth brothers under pressure. They were probably amongst the first to have to face up to a problem which has become common amongst breweries. If you operate more than one brewery, but your sales volume falls such that this can be produced by only one, which do you close or sell? In the colony’s post gold rush phase logic suggests that, as well as demand and prices falling, the production costs in Sydney would also have fallen. This would have
restored the cost advantage to the Kent Brewery in Sydney, particularly taking into account the slow and costly transport of beer half way around the world. If a brewery had to go, on a strict cost basis, Burton was the favourite candidate. Viewed solely as a business asset, the relatively new brewery in fast growing Burton would surely find a ready market and achieve a good or at least reasonable sale price. Selling it would recover more of the Tooths’ investment than the alternative of disposing of the Kent brewery in Sydney. The Kent brewery had only a local reputation and a local market with no export potential to the U.K., but it had evolved and prospered well before the Burton ‘experiment’. It was a market the Tooths had seen slowly developing and in which they were comfortable. Furthermore, it was now flooded with new immigrants and potentially was much larger. It probably seemed that it was likely to be more profitable in the future to operate a Sydney brewery in volume production rather than import and sell a smaller volume of imported premium Burton beer even if it was branded with the ‘local’ Tooth name. The Tooths saw Australia as a land of opportunity and their decision was to pull out of Burton and sell the brewery.

Edwin’s sudden death and the unwinding of his partnerships in Australia did not help to sustain the brothers’ financial position. Robert (Jnr.) was particularly unhappy at being forced to buy out some of Edwin’s assets and partnerships. Charles’ relative lack of management experience or ability may also have been a consideration and losses made by Alfred and Charles, who were in debt to Robert and Frederick, are referred to, although the cause of these debts is not clear. Perhaps, given the closeness of the Tooths, with its record of keeping tight family control over its investments, it began to seem that it had run out of willing or able brothers.

Little is known of Alfred after the Burton brewery disposal. He is recorded as marrying Adelaide Lainson in 1853 at Old St. Pancras church, but not as having any children. He may have a claim as something of a technologist for more than his bottle design because he is recorded as an Analyst/Merchant having one successful patent and an even more interesting failed patent application to his name.

We have, apart from the Tutbury Gas Lighting Review meetings, only a few other references to Charles Tooth after Edwin’s death in 1858. In 1860 he is referred to as manager of the London and Colonial Brewery on Victoria Crescent. Correspondence from Robert (Jnr.) indicates that he was far from happy with Charles to whom he is scathing but unspecific, suggesting he had either deceived him or was incompetent in incurring a debt of £6,000. It may be that Robert (Jnr.)’s verdict on Charles’ business abilities was generally held within the family and that Charles’ fate was sealed, thereby making the doors of the church his most attractive
prospect. He was present at and registered his father Robert Snr's death in 1867 when he is recorded as living in Falfield Gloucestershire. More significantly he is recorded in a Tooth family tree held at the Powerhouse Museum in Sydney in which he is referred to as the Reverend Charles Tooth. The details of his clerical career are revealed in the successive volumes of *Crockfords Directory* which inform us that he graduated from Cambridge in 1862 (two years after he left Tutbury) and was ordained as a priest in 1864. Oddly this was in the same year that both Arthur and William, who both also attended Cambridge, were ordained as priests. 1864 was certainly a year for the Tooth family to remember with the entry of three brothers into the priesthood, undoubtedly a sequence of events which must have contributed to the family parable. Charles' ordination superficially seems to confirm the family verdict on the level of his success in commerce, but possibly more kindly, may also express the final manifestation of a religious calling already in evidence in Tutbury. Charles had a long career ministering to several parishes in England, including Falfield, before finally becoming Chaplain to St. Marks in the parish of Florence in Gibraltar where he died in 1894.

Another possible factor easing the Tooths' departure was that they had learnt all they needed of Burton's advanced brewing technology. The technical reasons for Burton's success as a brewing centre are usually quoted as Burton water and the use of Burton Unions as a fermentation system. Whilst this is far from the whole story, the nature of Burton water was reasonably well understood by 1859. In fact, even as early as 1830, the effect of gypsum, if not its mechanism, was understood to the extent that its use as an aid in brewing a Burton style beer was recorded. Burton water could be imitated, albeit crudely, by the addition of gypsum (Burtonisation) and within a few years it was known almost everywhere, probably even in Australia. Similarly the use of Burton unions as a method of fermentation could easily be, and actually was, exported to Australia. We do not know exactly when Burton unions were introduced to Tooths brewery in Sydney which also used a more primitive form of cleansing of beer in puncheons. Photographs of both Tooth's puncheons and union sets, it is believed from the early 1890s, survive in the Powerhouse Museum in Sydney and provide one of the earliest photographic records of union plant. The acquisition and subsequent export of union set technology to Australia, possibly around 1860, may have eased the Tooth brothers' decision to withdraw from Burton and consolidate in Sydney. Here they could confidently produce a credible pale ale and, with more justification than many breweries today, describe it as being in the Burton style.

In the late 1850s new limited liability legislation had been enacted permitting changes in the financial structure of industry. Implementation of this coincided
with wishes expressed by Robert (Jnr.) in late 1859, indicated in correspondence, that he was anxious to sell out all their interests and mortgages in Burton and that forming a company (presumably a limited liability company) was a favoured prospect. He was anxious that they faced a significant loss, but this prospect apparently disappeared in 1860 when Robert (Snr.) induced a large investor to enter the company. Robert (Snr.), with a strong interest in banking, would have been amongst the first to become aware of the opportunity that limited liability legislation presented to entrepreneurs as a means to raise capital and so establish or expand a business. He must also have been aware that it offered a new opportunity for entrepreneurs to withdraw their original capital and any capital gains from a business entirely or piecemeal, by going limited or public. It was recorded in correspondence by William Mort (of Tooth and Mort in London) that in late 1859 ‘the Burton brewery had been sold to a company’ (which surely could only have been the London & Colonial Brewery Company Limited) and that Robert (Snr.) ‘at least was a director’.

Indirect confirmation that the Tooths’ Burton brewery was not a resounding or even a passable commercial success comes from the total absence of any reference to it in the official histories of the Tooths’ Australian brewery. These were commemorative books, the first published in 1935, *The First Hundred Years: a brief history of the Kent Brewery - 1835-1935* and a reprint of it published around 1953, *Over a Century of Brewing Tradition*. In these the Burton brewery has been completely air-brushed from the company’s official history.

**The London and Colonial Brewery Limited**

There are no surviving local references in Burton to the almost seamless change in ownership or title between the Tooth Brothers brewery and their successors, The London & Colonial Brewery Company Limited. Many sources at the time and subsequently seem to have been confused about it and used either or both names indiscriminately. It looks as if the change of title took place in late 1859. Management continuity was provided on a temporary basis; firstly by Charles working with and handing over to the new management, which may have been a condition of sale rather than reflecting an ongoing financial link, and secondly by Robert (Snr.) remaining on the Board, possibly as Chairman. Both of these factors may have contributed to this confusion, but for the next eight years the brewery in Victoria Crescent was correctly referred to as The London & Colonial Brewery Company Ltd. rather than Tooth Brothers. In fact it was one of only two breweries in Burton to be limited companies at this point in time.

Suggestions of a loose ongoing commercial link between London & Colonial and the Tooths or their business in Sydney post 1859 come from correspondence in
This also asserted that Robert Tooth (Snr.) was the Chairman and Director of the company at its foundation and that as late as 1863 Robert (Snr.), in an unstated capacity, was in touch with an associated company of London & Colonial in Melbourne. There is no indication as to the size of any shareholding held by Robert (Snr.) (although it cannot be ruled out that he might himself have been a shareholder) and neither is there any suggestion that any of the other Tooths retained a financial interest. It seems likely that the business association between London & Colonial and R. & F. Tooth was solely that of the Tooth brothers acting as their agent in Sydney. Frederick apparently entered even this limited arrangement with little enthusiasm and with heavy emphasis on the quality of the product being of paramount importance.

Charles Tooth stayed on with the London & Colonial Brewery as manager into 1860 but from that date onwards there was a new manager, Mr Edward Wingfield Guilding, who had been born on St. Vincent in the West Indies, perhaps another potential export market and colonial link. Guilding was appointed, rather than elected, as a Town Commissioner to replace Mr William Prince who was deemed to have vacated his public office through non-attendance for six months. Whether Mr Prince was linked to the Tooth brothers or to the London & Colonial we do not know, but the records do not suggest Edward Guilding’s appointment lead to an improvement in the attendance record of the Horninglow ward representatives. Edward Guilding only attended one meeting, that being two weeks after his appointment. He and his family, with two pupil brewers and four servants, are recorded in the census of 1861 as living in the ‘White House’, which still stands adjacent to the brewery site and which was until recently a doctor’s surgery. He presumably arrived in Burton as early as 1859 since his two year old son is recorded in the 1861 census as being born in the town, whereas his daughter, one year older, was born in Portsmouth. Edward Guilding and Charles Tooth seem to have worked together at London & Colonial for at least a year.

On 2nd of April 1862 Edward Guilding protested to the Town Commissioners about what was still a running sore, the state of the drains and sewers in Horninglow. In 1863 he is referred to in Kelly’s Directory as Managing Partner of the London & Colonial Brewery Company Limited. (apparently the subtleties of managers and directors titles within limited company terminology were yet to develop). In the same year he sat on a committee in Burton aiming to build a church in Horninglow which was completed in 1865 primarily with support from the Marston family and their connections with St. Johns, Horninglow.

However, in 1867, Robert Tooth (Snr.) died and just two weeks afterwards the London & Colonial Brewery Company itself failed. A strong link between these two events seems probable.
Mr Guilding was by that time apparently no longer managing the brewery site. The brewery secretary (usually a term for its general manager) was Mr John Spong who subsequently took part in the liquidation operation. The liquidation of London & Colonial was voluntary and, very unusually, the petition was presented by 'a large shareholder' rather than creditors. The official reason given for London & Colonial's failure was 'depression of trade'.

The volume shipped to Tooths in Sydney had certainly fallen sharply between 1865 and 1866 and ceased in the course of 1867. Also in 1867 there was a sharp rise in the price of barley. This increase temporarily checked trade to the extent that even Bass experienced a greater fall in sales between 1864 and 1888 than in any other years. The increase was probably too late to have had any direct influence on the profitability of London & Colonial prior to its liquidation. Although Bass and other Burton breweries were able to ride out what was a short term slowdown, even if the London & Colonial brewery had survived into 1868 it would almost certainly have failed then.

Information on the London & Colonial Brewery Company Limited is as scarce as that on the Tooths' Brothers Brewery. Apart from very rare snippets from local newspapers, and the Tooth & Co. Ltd. records held by the Noel Butlin Archive in Canberra, we only have the reports from the Court of Chancery of two legal cases, one against and one by the liquidators. These confirm the Managing Director at the time of liquidation to have been Mr Frederick Thomas Elworthy and the Company Secretary as John Spong. There is no reference to any other Directors, named Tooth or otherwise, or to any other specific shareholders.

The details of the liquidation cases indicate a level of eccentric, if not incompetent, management by London & Colonial. In 1866 they took a 21 year lease on large premises at 18, Billiter Street in the centre the City of London at a rent of £1,800 a year. This was a cost roughly equivalent to the wholesale price of 750 barrels of beer and the profit from perhaps twice or three times that volume, around 6-9% of the brewery's output. These premises were presumably intended to be either a head office or at least the administrative office for a London agency. They were acknowledged by the liquidators, and even his honour Vice Chancellor Sir G.M. Giffard, as being much larger than they needed since they only ever occupied one floor of it. One would have expected that if the Tooths, who had been trading in various capacities and from various premises in and around London for many years, had any significant input into the business they would neither have been so unjustifiably ambitious nor have made so fundamental an error. They would surely have found smaller premises at a lower cost and perhaps on a shorter lease.

In 1865 the court records also show London & Colonial engaged Mr Robert
Calvin Clark of Melbourne as their agent for that town and presumably that area of Australia. Not only were his financial terms ambiguous, but they seemed to have been made up as they went along, changing in each port as the ship on which he travelled came closer to Australia. After the company failed this uncertainty lead to a series of claims and counter claims between the liquidators and Clark. It seems unlikely that this was a situation which the Tooth brothers, as experienced business professionals with knowledge of both sides of commercial agency agreements, would have allowed to develop. It may reflect either a lack of experience or success in appointing overseas agents, a key factor which may have contributed to London & Colonial's problems.

The new London office and the fresh appointment to the Melbourne agency confirm that Australia and London were the principal target markets. A detailed examination of the legal claims and counterclaims indicate that Clark's efforts were indeed successful in generating sales but alone were far from sufficient to justify the operation of a large brewery.

The company's financial structure may also have had a bearing on its limited lifespan. It was one of the early companies formed under the developing Limited Liability legislation. In the late 1850s the introduction of this legislation, in a series of steps, lead to an exciting period of increasing interest and opportunity in commercial investment, an area which expanded quickly. Many investments in this initial period of this system were perhaps over-enthusiastic or injudicious generating a 'bubble' of unjustifiably high investor expectations and equally unrealistic company valuations. Like all bubbles it burst, triggered by the notorious collapse of Overend & Gurney in 1866. The subsequent fallout from the insolvency of this major financial institution lasted for some years and it destroyed or severely damaged many Victorian investors and their families including Robert Tooth (Snr.) and many of the newly formed Limited Companies.

It has been suggested that, as a partner in Overend & Gurney, a partnership with unlimited liability, Robert (Snr.) was directly ruined by the collapse. In fact the matter was far more complex, but the result was the same.

Robert (Snr.) died six months or so after Overend's collapse. This was on the 18th February 1867 following three month period of mental illness described as 'urea on the brain'. He had, of course, for part of his life been closely connected to the hat industry noted for mercury poisoning. Furthermore, he must have gone through a period of intense stress following Overend & Gurney's collapse, either or both of which factors could have contributed to his death. Significantly, no probate or letters of administration were granted on Robert's estate. It is inconceivable that a man who had been so wealthy would not, at some point, have made a will and even without one his
once extensive effects would, in normal circumstances, have needed legal authority to realise and dispose of them. This brings us again to the inescapable conclusion that the collapse of Overend & Gurney and its consequential fallout was a situation from which Robert (Snr.) was unable to escape. It seems that all of his assets were used to meet his extensive liabilities from Overend & Gurney. As a result Robert had no estate to leave.

The direct consequence of this was that any holding Robert (Snr.) had in London & Colonial would have had to be sold. Maybe the timing of the sale of Roberts holding was delayed because of Robert (Snr.)'s infirmity and this offers a possible explanation for the close link between Roberts death and two weeks later the voluntary liquidation of the London & Colonial Brewery Company Limited. Perhaps Robert (Snr.) himself (or his administrator) was the large shareholder.

In the Tooth's Australian brewery's commemorative books, Robert (Snr.) is described as a brewer of London. He is briefly noted as supporting his brother John and his sons in the early years of the Kent Brewery, but no mention is made of him subsequently. The successful Tooth & Co. of the 1930s, by then much less interested in pale ale than in lager, clearly wanted not only to draw a veil over the entire Burton adventure, but also over aspects of their founding fathers. This applied particularly to Robert (Snr.), tainted as he was by a major financial scandal, the bankruptcy at Overend & Gurney and (even if posthumously) the failure of London & Colonial.

For a period Robert (Snr.)'s wife, Fanny, was able, or was permitted, to continue living at Swifts and, fortunately for her, she was soon afterwards to be the principal beneficiary under the will of her brother Robert Tooth, of Wandsworth, who died in February 1869. Perhaps a general glut of country houses on the market as a result of Overend & Gurney financial collapse delayed its sale, but eventually the house was sold and Fanny moved out. She took up residence in Tenby, which was where her eldest daughter, Fanny Blanche, lived and where Fanny died intestate on 25th February 1872. Letters of Administration on her estate were granted to her daughter, but these offer no details and suggest that her estate, although adequate, was not of great value. In fact it was just a little larger than that of her late brother. Swifts still stands, having passed through many hands, but has now been renamed Oak Hill Manor.

The liquidation of London & Colonial was expected to pay all company creditors out in full, presumably at the expense of the shareholders as the remaining capital was called up. Payment to creditors of seven shillings and sixpence (in the pound) and two shillings and sixpence are recorded in the court records but not as final payments.

The vulnerability of London & Colonial seems to be confirmed by a more
detailed analysis of its financial details. Comparing figures between different companies, even with today’s tight accountancy standards, is not necessarily easy. Definitions and interpretations 150 years ago were much more fluid, but the figures quoted below, although not strictly comparable, do seem to be financially significant.

Earlier, the estimated set-up costs for the Tooth Brothers Burton Brewery in 1855 were around £60,000. There is no definitive account of the extent and nature of the London & Colonial Company’s business assets, but the notice of liquidation confirms that its main activities were in Burton and it seems likely that these (Billiter Street apart) were substantially the same as that of the Tooth brothers. However, at its liquidation the capitalisation of the London & Colonial Company figures was stated as £360,000, of which £70,000 had not been called up, leaving a net capitalisation of £290,000. This all seems to have been in the form of shares of £100 and none of it in the form of preference shares or debenture stock.

In later years it was to be quite usual to issue non-voting stock at a level of at least 50% of total capitalisation for subscription by the public, if only to leave control in the hands of the founding owners. There is no evidence or recorded reason to suggest why the asset value of the business should have increased so much (fivefold) between 1855, when the Tooth’s brewery started trading, and 1859 when they sold out and a limited company was formed or equally between 1859 and the London & Colonial company’s failure in 1867. This capitalisation was an amazingly high sum even if there had been substantial growth in the business under the Tooths, for which we have no evidence (and in fact the evidence suggests the contrary, there being a decline in the late 1850s), or if there had been significant investment in premises, casks and stock at sales agencies. There is no evidence of any investment in a tied estate of public houses which would have been unusual at this time, particularly outside London, although it was to become the basis of brewery capitalisation later in the century. The trading agreement of 1860 for the supply of beer into Tooth’s businesses in Sydney or in London might have been considered as a valuable intangible asset, but it seems to have been concluded almost as an afterthought rather than as a key factor for either party. The Tooths almost certainly intended and succeeded in supplying as much of the Australian trade as possible from their Sydney brewery.

Further evidence of how inflated this capitalisation was is gained by comparison with that of Bass in 1859 in which the partners capital was recorded as £586,350, with M.T. Bass still owning and leasing back the Old Brewery, modestly valued in 1853 at £18,000. The total was perhaps a little over £600,000. This was only double that of London & Colonial’s at a time when Bass’ output is recorded as around 15 times that of London & Colonial and Bass had, of course, an incomparably greater reputa-
tion, that is a fast growing value in what we might call 'goodwill'. Even if supported by the rising popularity of Burton ales, by the investment surge prompted by the rising enthusiasm for the idea of limited liability and by the Australian gold rush (before its future decline was widely recognised) the Tooth Brother's brewery changed hands at a remarkably inflated price.

We are left with a significant inconsistency between, on the one hand, Robert (Jnr.'s) brotherly ire at the £6,000 loss which Charles is accused of making or obscuring and, on the other hand, the proceeds from the inflated capitalisation of the company which must in some way have represented monies which changed hands in favour of the original owners. Perhaps the £6,000 loss hurt his pride, because it arose in the day to day management, the profit and loss of the operation, which was personally covered by the brothers' own funds (and there may have been other losses or liabilities not exposed by the surviving correspondence). A sharp distinction appears to have been drawn between the profit and loss account and the valuation of all assets in the balance sheet. Perhaps Robert (Jnr.) feared that any weakness or loss shown in the brewery accounts could severely damage the prospects of the sale of the brewery and of its price. We do not know how much of London & Colonial's capitalisation was received personally by the Tooth brothers for their share of the brewery, but the gross proceeds may have had to be split with other partners, investors and mortgage holders. Of course, the Tooth brothers did have strong banking connections through their father Robert Snr. and their own connections with the Bank of New South Wales. Nonetheless, if the Tooth Brothers or Tooth family successfully sold all of their Burton brewing interest to London & Colonial (which is what Robert (Jnr.) wanted), for this paid up capitalisation figure of £290,000, then they were indeed very shrewd or very lucky businessmen. If they did not gain significantly then someone else, perhaps manipulating the finances in the background, did come off rather well. In any event the London & Colonial Company Limited was left with the major problem of generating an appropriate return on this large capitalisation, a task in which it was doomed to fail.

The London & Colonial's liquidation was long and presumably complex since the liquidators were still advertising for final claims against it in the Burton press in 1872, that is five years later and long after the brewery itself had been sold. It may reflect the time necessary to wind up a company with international connections, but it may also suggest that it took time for all concerned to scale down their expectations as to the true market value of the assets for which the shareholders had paid so much. The sale of the brewery took place three years after the liquidation commenced. In view of this delay it is possible that this particular brewery, in size, facilities or price, did not meet the requirements of

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prospective purchasers, but more likely the delay suggests that, as even as early as 1870, a Burton brewery was not the asset it might have appeared to be in 1855. Whatever the reason, it took three years for a customer to be found or for the price to drop to a level acceptable to him.

The Tooths' Australian success story

The Tooths remaining in the Australian business, Robert (Jnr.), Frederick and later Robert Lucas, apparently ran a tighter or, at any rate, more successful ship and certainly did well out of brewing. Robert (Jnr.) retired from R. & F. Tooth in 1872 and must by then have been a man of some substance. Like most of the Tooths he had built an English style mansion in Australia and bought a living for his young brother Father Arthur Tooth in Hatcham, a parish in south-east London.122,123,124 Robert (Jnr.) died in America in 1893. Frederick Tooth retired from the Sydney operation soon after, in 1873, and moved back to London and Sevenoaks, Kent. When he died, also in 1893, Frederick left the then enormous sum of £339,472 in the U.K. and £48,000 in Sydney. It is not clear how much of this may have arisen from his other investments as well as his brewing interests.125 Edwin's Eton educated son, Robert Lucas Tooth, (who also married his uncle Frederick's daughter, thus becoming his son in law) rose to be the major player in the Tooth brewery and the driving force behind its eventual incorporation as a public company. In 1888 he became the first Chairman of Tooth & Co. Ltd. before retiring from the business in 1889 and returning to the U.K. He was made a baronet in 1906 "for services to the Empire".126 On his death in 1915 probate was granted on estates valued at £905,000 in Britain and £276,000 in Sydney. His two sons died in World War I, but the baronetcy was recreated for a grandson, Sir Hugh Lucas-Tooth, in 1920. Two of Frederick's sons remained in the business, Alfred E. Tooth, as Secretary and eventually Manager, and Arthur William Tooth, who became Head Brewer and who, when he left it in 1916, seems to have been the last Tooth to hold a senior position in the business.127 Arthur William died in 1928.

When it was incorporated as a Limited Company, in 1888, Tooths' Australian brewing business was the largest and most successful in Australia. It became a public company with a total capitalisation of £900,000 shares of £1 of which £520,000 were issued as fully paid to the vendors and £320,000 was taken up on the first day of the public subscription.128 The launch was a great success, but perhaps the foundations for these large sums had been laid in the gravels of the Trent valley at Burton rather than on the playing fields of Eton or the gold mines of Australia.

In the same year the initial total capitalisation of Bass, when it went public, was £4M; consisting of £1.36M129 of preference and £1.36M of ordinary shares and
£1.36M of debenture stock. The public were only permitted to apply for two thirds of the debenture stock. These figures are reasonably comparable since this was at a time when Bass had only just begun to purchase pubs and begin the transition into a property owning company. In 1889 Bass produced 914,000 barrels of beer. Shortly after that, in 1893, the total amount of beer brewed in Australia was just over 1 million barrels and this was virtually all ale. Up to this time all lager was imported, but by 1896 a controversy had developed over the use of ice machines, in particular in Mssrs. J.T. & J. Toohey's Standard Brewery, Sydney. This undoubtedly demonstrated interest in, and the potential for, lager brewing, a tempting prospect in a country where shade temperature were often 120°F. This controversy was not new in terms of trade press criticism of British brewers who, despite any advantages of the Empire, were losing their dominance in export markets. They remained loyal to exporting ales and ignored the success of continental lager brewers in world markets, such as India and Australia, where ale export volumes were falling.

In Australia Tooth & Co. Ltd. continued to expand and became a very successful brewery, partly due to being in the forefront of the move into the increasingly fashionable lager market. They also took over many other Australian breweries until, as breweries inevitably do, they themselves fell to a predator. Carlton United Breweries bought them in 1982 for $160M (Australian) and continued to operate the brewery until it was finally closed in January 2005. It is now awaiting redevelopment.

The Crescent Brewery

We need to return to the oddly named Dingo Hotel to pick up the fate of the Tooth brother's brewery in Victoria Crescent, Burton. The Dingo Hotel (or Inn as it was sometimes called), at the corner of William St. and Horninglow Road, was sold in 1857 by Mr George Pickersgill who owned and had possibly had it built. It appears to have been bought by Mr George Rose Bircher who shortly afterwards constructed a small brewery on land behind it. Not surprisingly this was called the Dingo Brewery. In 1856 or 1857 he employed a young man called Edward Wright as a brewer who, when Bircher sold the brewery, continued in employment with the new owners, T. Cooper & Co.

'The Dingo' brewed successfully under Wright's management and its five quarter brewhouse was replaced in 1865 by a larger ten quarter plant. In late 1869 T. Cooper & Co. seem to have to have begun to use the crescent as a trade mark. There is some confusion about the brewery name, but it may have briefly been renamed as the Crescent Brewery and the Dingo Hotel was certainly renamed the Crescent Hotel, although neither the Dingo Brewery nor the Crescent Hotel was actually located
on Victoria Crescent. These moves may have been in anticipation of a planned move to London & Colonial’s brewery which seems to have taken place in 1870. We do not know what price T. Cooper & Co. paid for a brewery which had stood empty for three years. A small, successful local company, no matter how anxious it was to expand, was unlikely to be in a position pay over the odds for a larger site. It seems likely that T. Cooper & Co. retained the Crescent Hotel, but in the course of acquiring the land for the Horninglow branch line the Midland Railway bought the Dingo brewery which, after the disruption in building the line, it subsequently sold on to a brewer named Clayton. Perhaps this railway development both prompted and contributed funding to the purchase of the ex-London & Colonial brewery.

In 1872 a partnership between Edward Wright and Herbert Keeling of Shelton Hall bought out Thomas Cooper & Co. which then continued to go from strength to strength. A new malting was built in 1874 and in 1876 the company even survived the ambitious and high-risk activity of building a new office block fronting

![Figure 6. The Offices of the Crescent Brewery fronting onto the south side of Victoria Crescent © P.V. Bayley (1973).]
Figure 7. View of the front of the Crescent brewery on the south side of Victoria Crescent from the east. The fencing from left marks the line of the former branch level crossing. © P.V. Bayley 1973.
Figure 8. The rear of the Crescent Brewery from the southeast. © P V Bayley 1973.
onto Victoria Crescent on which the name the Crescent Brewery was proudly emblazoned.

The production of the Crescent Brewery, trading in 1874/5 as T. Cooper & Co., was 34,206 barrels (more than Trumans, and significantly more than Charringtons and Mann Crossman and Paulin) although these newly established breweries eventually went on to produce much greater volumes.\textsuperscript{147} In 1886 the Wright-Keeling partnership was dissolved and E. Wright continued as sole proprietor going on to become Mayor of Burton in both 1886 and in 1887.\textsuperscript{148,149} In 1884 T. Cooper brewed 40,000 barrels at the Crescent Brewery and the former Dingo Brewery trading, as Clayton & Co., produced 15,000 barrels.

Edward Wright died in 1903 leaving £215,943 in his will.\textsuperscript{150,151,152} This is presumably an indication of the total value of the company, which by then included a significant, but unknown, number of public houses. The Crescent Hotel apart, we know of only two, both in Shropshire. As sales fell in the early years of the century one of these, The Coopers Arms, Madeley, became, in 1907, the first in pub in Shropshire to close under the Compensation Act, 1904. For that sale T. Cooper and Co. received compensation from the fund raised by the brewing trade.\textsuperscript{153} The second, the Commercial Inn in Madeley, was closed in 1970 for redevelopment.

Edward Wright's sons continued the business, but the two elder ones only survived him by a few years and in 1919 the brewery was transferred to the ownership of E.J. Miller & Co. Ltd.\textsuperscript{154} This company was almost certainly just a financial vehicle registered to facilitate the sale of the company and it's almost immediate purchase by Salt & Co. The latter immediately closed The Crescent Brewery whilst retaining the licensed houses. E.J. Miller's capitalisation was £200,000,\textsuperscript{155} very similar to the valuation of Edward Wright's estate in his will a few years earlier and presumably was the price paid by Salt & Co. This was at a time when, compared to 1859, the brewing trade was in steady decline, and this valuation must have been almost entirely in respect of its tied houses.\textsuperscript{156,157} It is unlikely that any great value was attached to the sale of the brewery and its equipment, even on quite a large site. As a comparison, two years after the death of its founder the Burton company of Sydney Evershed Ltd. was recorded in the 1905 annual report and accounts of Marston Thompson & Co. Ltd. as being bought for a similar figure of £205,000. Evershed's assets then consisted of 70 freehold and 16 leasehold public houses and a brewery of similar capacity to T. Cooper, but on a small landlocked site close to the High Street in Burton. In the fullness of time Evershed's brewery was inevitably also closed.

Just after Bass had taken over Worthington, in 1927, Salts were also purchased by Bass for the sum of £1,284,856.\textsuperscript{158} Again the intention was to eliminate a rival and acquire its tied
house estate and, immediately after buying Salt & Co., Bass sold the Crescent Brewery for £1,800. It is not clear if by then it had been stripped of its brewing equipment, but the price reflected the depressed state of the beer market and the minimal value of brewery production facilities in a period of rapid industry consolidation. Even if not absolutely comparable, this is quite a fall from the likely build cost in 1855 of £60,000 or the paid up £290,000 capitalisation of the London & Colonial Brewery Co. Ltd. in 1859/60. Whatever T. Cooper & Co. paid for the brewery, they, and particularly Edward Wright, did well to generate a company value of over £200,000, much of which must have been achieved by steadily purchasing licensed houses as the value of the brewery declined.

The brewery site after brewing

The smaller southern part of the brewery site has subsequently had a chequered history and was employed for a variety of businesses. Geo. Orton, Sons & Spooner, a fairground roundabout manufacturer, used it for a period in 1924 after they had suffered a fire in their nearby erecting shed, and later it held a printers, Harold Wesley Ltd., before being demolished in 1980. The brewery building was replaced by a modern warehouse/factory unit used to manufacture pet-food. This also burnt down was rebuilt by the present owners of the site, Stonell Direct, who supply decorative stone finishes. The larger, northern part of Tooths’ site was used after 1919 by two Belgian engineers trading as Cyclops Engineering and making metal drums. During World War II the site was employed for munitions manufacturing and afterwards Cyclops was bought by Van Leer, also a metal container manufacturer. It, in turn, was recently bought out becoming Greif (U.K.) Ltd., part of the large international Greif group, engaged in a similar line of business. Still just visible in the middle of this site and surrounded by modern buildings are the remains of a Victorian building, probably Tooth’s storehouse originally built alongside their canal basin. The basin was filled in between 1881 and 82 when owned by Coopers to enable the building of yet another of Burton’s railway lines, the Dallow Lane branch line, which ran south of and parallel to the Trent and Mersey canal. This was built as a fully signalled dual track line which during World War II enabled it to be used to bypass the main line and sidings in Burton. Where it crossed the site of the original canal basin the Dallow Lane line was placed on an embankment and over a bridge which allowed access from the Horninglow branch line, mentioned earlier, to the canal where a coal wharf was built. Part of the Dallow Lane line embankment survives, running between the canal and a drainage channel constructed in the 1970s for rainwater and flood relief around the north side of Burton.

It is recorded that Mr Clayton of Clayton & Co., who purchased the Old Dingo
Brewery, was injured in an accident in 1881, but we do not know if this is connected with the subsequent liquidation of the brewery in June 1883. By then it had been renamed the Trent Brewery and was sold immediately after liquidation. The Dingo Hotel, still known as the Crescent Hotel, continues to trade to the present day. On the site of the demolished Dingo brewery there is now a dance studio.

**Conclusion**

The Crescent Brewery was one of the earliest of many ventures into Burton by outsiders intending to exploit the town’s growing reputation. At that time it was one of the largest breweries, one of the first on an out of town green-field site, the first to own a canal basin, and the first to operate a railway line across a public road.

Figure 9. View of the modern buildings on the Greif site north of Victoria Crescent viewed from the remains of the embankment of the Dallow Lane railway line alongside the Trent and Mersey Canal. The brick built Tooths Storehouse can be seen standing in the middle of modern buildings. January 2006.
Fundamentally, it was the only one with at least a nominal non-U.K. origin, aimed primarily at the export trade. Furthermore, it was one of the first, if not the first, breweries to practice globalisation within the industry. The failure of this attempt resulted in the brewery having a chequered early history, first under the Tooth family and then under The London & Colonial Brewery Company Limited.

After it was abandoned the brewery was successfully operated for many years, and through more difficult trading times, by less ambitious local owners who following the developing U.K. model of acquiring an estate of tied houses. Like many breweries, even in difficult times and in an age when Burton’s reputation was high, the abilities and commitment of the owning family were vital. When this waned, as with so many breweries in and outside Burton, the Crescent Brewery’s operating life was ended by its sale to a local competitor. By then its value as a brewery was minimal compared to that of its tied houses.

Some 80 years later the result of this demise is that neither the site of the Crescent Brewery nor its name are commemorated in any way. In the brewery

Figure 10. The Crescent Hotel (previously Dingo Hotel) on the corner of Horninglow Road and William Street. January 2006.
cemetry which is Burton on Trent the Crescent Brewery resembles most of Burton's lost breweries (or maltings, or cooperages, or other supporting industries) in that precious few buildings remain to act as headstones. Few of the sites of these breweries are marked with commemorative plaques and, with few exceptions, records of them in the literature or archives are very sketchy. Moreover, they are almost totally forgotten by the population at large.

Acknowledgements

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Powerhouse Museum, Sydney, for access to an early version of the Tooth family tree parts of which I have selectively developed to clarify the text.

Betty Carman, Archivist and the Cranbrook Museum, for her assistance.

Ray Anderson for information on E.B. Miller & Co.

Peter Allen of Cranbrook for information on the history of Swifts.

References

1. The significance of this route and the Tooths' status as 'foreign' or at least 'overseas' investors has passed un-remarked. The ultimate source of their finance may be subject to debate but at the time and for many years it was unique within the brewing world and was certainly one of the more unusual attempts at globalisation within brewing in the 19th or indeed any other century.

2. This was evidenced, in 1817, by his building of what was called the 'Hat Factory', which was a three storey building in Georgian style which still stands today on a narrow alley called Chitteden's Passage, off Stone Street in Cranbrook where, even in this restricted and obscure location, it has made a rather fine residence.


We do not know to what extent Robert (Snr.) or his brother John were involved in hat making. They probably recognised the approaching decline of a traditional industry due to both progressive industrialisation and to the swing in fashion away from the highly water resistant but expensive beaver felt hats, which had been popular during and after the Napoleonic wars. The recognition or even anticipation of changes in fashion in various
markets was to mark the commercial careers of successive generations of the Tooths. It certainly seems likely that Robert and John Tooth had developed wide business interests well before the events outlined in his paper.


Strangely a few years later Mr John Youill was selling up his home and brewery in Burton on Trent on 9th July 1856 at about the same time as another chapter in this history was unfolding; an odd coincidence of an unusual or very similar name and somewhat similar circumstance. Other potential links between other Youels, Youells and Youils worth considering are:

Mr John Youil (the spelling changes even within the same patent) of Ardwick in Lancashire presented a very detailed patent in 1850 No 13074 for a very advanced set of bottle washing, filling and corking machines.

Mr John Youil of Burton on Trent patented a mode of raising liquids using atmospheric pressure in 1853, No2973, and in 1854 Mr John Youil of Burton on Trent presented a patent No. 1957 for “Improving the mode of fermenting liquor and in the machinery employed therein”. This really a method of applying the then current fetish for the exclusion of air from fermentations, in this case from Burton Unions. Presumably much of this patent he published in his book of September 1855 entitled The Brewers Perfect Guide - being a clear and practical illustration of the principles of Brewing together with specification of his patent self acting fermenting apparatus”.

No connection between the Youils / Youills of Ardwick and Burton and the Youells of Cranbrook has been established. Whilst they could be connected they might equally well be totally unrelated people whose paths may never have crossed the Tooths’.

5. Singleton, A.F. Correspondence with Dr Ferguson of Wahroonga Australia 8 February 1994 held in Cranbrook Museum.


7. It is possible that his death may have released a limited amount of capital and stimulated Robert (Snr’s.) and John’s future business enterprises. These may equally have been facilitated by their Uncle Robert (the hat manufacturer), a man of apparently greater substance, either acquiring William’s residual hat making interests or even lending capital.

8. Legal Agreement for J. Newnham to draw water. 1833 Cranbrook Museum.


12. Little is known of Edward Tooth except that he appears to have had family differences with his father John, being left only the sum of £10 in his will but no share of the family’s hat making business.

13. An interesting light is thrown on Robert (Snr’s.) personality in the autobiography by one of his grandsons. Mary Ann Tooth, Robert (Snr’s) first daughter (by his first wife), was the mother of Sydney Nevile, (later Sir Sydney Nevile) who was to become a Managing Director of Whitbread’s Brewery, a Chairman of the Brewers’ Society and a significant figure in brewing in the first half of the 20th Century. Sydney was told (presumably...
by his mother) that Robert (Snr’s) custom was to give each of his sons, on his 21st birthday, the sum of £5,000 and to tell him to go into the world and see what he could do with it. If the son did not prosper he was considered unfit for business and was prompted by his father to go into the Church. Perhaps the tale applied primarily to the younger sons as Robert (Snr’s) wealth grew or maybe it was simply a family joke constructed retrospectively. Robert (Snr.) may well have been generous to his sons but, if the figure of £5,000 is in anyway correct, Robert was indeed a seriously wealthy man. £5,000 was a very considerable sum and, on the basis of a good wage for a skilled worker then being about £50 a year, £5,000 is close to £2M in today’s money. His eldest son Robert (Jnr.) would have been 21 in 1842 followed less than two years later by Edwin, so if they benefited from his largesse Robert (Snr.) must have acquired these large sums very early in his career. Amounts of that order would certainly have enabled his sons to become the financiers of business and the best evidence for this family story is that his elder sons rapidly did just that: they became successful serial entrepreneurs and the owners of businesses rather than day to day managers.

32. *Sydney Morning Herald* Jan 17 and 18 1853.
34. At its simplest Globalisation can be viewed as the financing and production of goods, agrarian, extracted or manufactured, which find their market in another part of the world, and certainly outside their country of production, for example exporting English beer from Bakers Cross to Australia. This has
occurred for centuries and in terms of small quantities of high value, even high added value goods, for millennia, examples being jewellery and artefacts in precious metal, ceramics and even valued textiles. In its simplest commercial sense goods are finding their way to the most advantageous market.

In more recent times this has developed into a series of more complex models which include amongst others the planning and even financing in one place of the production of goods in other globally remote areas. This can confer a variety of benefits, primarily economic, which include the use of local skilled or cheap labour, the benefit of a favourable local climate or the local availability of raw material. The finished or part processed goods are subsequently moved to market elsewhere around the globe, to areas which can include, amongst others, those originally providing the finance, the concept and the design or even the brand identity. It seems that the twenty year old Tooth's brewery in Sydney with local management and entrepreneurial drive and with significant Australian finance as well as possibly some from the UK became a rather precise parallel to this model. Working in Sterling, this essentially Australian business invested for purely economic reasons in production capacity in the U.K. Its intention was always primarily to export back to the market in Australia with the recognised potential to sell into other markets, particularly within the U.K. It was a truly global venture of a far more complex nature than the earlier and volumetrically much larger export of Burton and other European beers to colonial markets such as India. It is a clear attempt, possibly the first within the brewing industry to achieve what we would recognise as the modern model of globalisation.

40. Burton Town Commissioners Minutes, 1856-59. Lichfield Record Office.
41. The Burton Times 6 Sept 1856.
42. Many of these houses would have been suitable for a Partner in an progressive and expanding new brewery, but we do not know in which of them, if any, he resided.
44. ibid. Table 4.10. p.222
46. It has not been possible to determine whether the Tooths actually had the canal basin built or located their brewery adjacent to a pre-existing facility built speculatively by some third party.
48. John Marston's original brewery was then the only brewery further out from the town centre and in fact was quite close to Tooths, just a little further up the Horninglow road. However it was not in the Trent valley but just on the hills to the North west and it did not in fact draw water river valley gravels.
49. The Albion brewery built by Mann.
Crossman and Paulin and later purchase by Marston Thompson & Co. was also on a large site adjacent to the canal and has, amongst others, two systems of wells of classic depth and style. The Crossmann St wells, closest to the canal always produced water of inferior quality and were never used for prime brewing purposes. The field wells are located on the western edge of the sports field as far away from the canal as it was possible to get and these were always the source of the brewing water. The field wells were almost directly in line with the highly valued Bass Nile well, the Cuckoo well and the Maltings well at Allsopp's Maltings all close to the western edge of the Trent valley. If, as seems likely, the proximity to a canal with a clay lining, does cast some doubt over a well's water quality and therefore over the quality of the ensuing beer. It may well be that as well as the commercial considerations, covered later, there were also technical ones contributing to the eventual fate of the brewery on Victoria Crescent.

61. Overend and Gurney were, at about this time, beginning to develop a side line to their long standing and profitable bill discounting operation. This was as purchasing and dealing in (junk) bonds, financing by this adventurous means the growing Victorian industries particularly shipping and railways. This was the activity which ultimately lead to Overend's downfall. I am not aware that brewing has been identified as an area in which Overend & Gurney showed any interest but the subsequent evidence in Burton seems to be consistent with their approach revealing a lack of financial astuteness and control.

64. Burton Times 6th Feb 1858.
65. Minutes of Tutbury Town Lighting District. Staffordshire Records Office D3353/5/2.
67. Burton Times 20th Feb 1858.
68. Burton Town Commissioners Minutes, May - June 1858. Lichfield Record Office.
71. Over a Century ... . op. cit. p.16
72. Will of Edwin Tooth Probate Registry.
73. Noel Butlin Archive. Tooth Letterbooks 1856/7-1860 (N20/437).
74. Ibid.
76. Tooth Alfred Patent No. 2415 16 Oct
1856. Alfred Tooth filed a patent for ‘An improved method for the bleaching of malt whereby the colour is rendered more suitable for the brewing of pale or bright malt liquors’. This consisted of burning sulphur on the malt kiln during the kilning process. Whether it was an original concept or as I suspect the opportunistic patenting of a procedure already in widespread use I cannot confirm. It would have had little effect on the true colour of the malt in so far as it affected the colour of the wort or final beer but cosmetically it did make the malt look pale and bright and much more attractive. Appearance was a matter of considerable importance in selecting malt for use and in purchasing malt from sales maltsters since the reliance on hand evaluation (detailed appearance) continued as a practice in widespread use for many years until the analysis of malt developed and its acceptance gradually came to dominate purchasing.

The burning of sulphur continued for many years during which time kilns were coal fired (mostly by anthracite) but this was discontinued as kilns began to be converted wholesale to natural gas in the late 1960s and the 70s when the value of sulphur was rediscovered. New analytical techniques demonstrated minute amounts of objectionable compounds in malt called nitrosamines (NDMA), which were found to be present on the borderline of detectability (parts per billion) in some malts dried on gas fired kilns. These materials were produced by interaction with nitrous oxides (NOX) present in the atmosphere and generated on the gas fired kilns but not in malt from coal fired kilns. This was due to the natural but low level of sulphur in the coal being burnt. The burning of sulphur on kilns although corrosive and destructive of plant was thus justified and enjoyed a resurgence.

Whether Alfred made any money from his patent or gained any reputation is doubtful but it is very likely that the Tooth brothers would have used sulphur in their Burton maltings and probably in their Australian ones.

Some years later, on 27 November 1873, and by then living in Philpot Lane in the City of London he filed another patent No. 3877 for ‘Improvements in the treatment of beer’. This suggested that to avoid haze and acidity in beer (bottled beer in particular) and to render it suitable for bottling in the most distant and tropical climes it should be heated (to an unspecified temperature) for a time (again unspecified) and by a method which was also not revealed.

Unusually this application was recorded and numbered but not even given provisional protection (which is normal pending consideration of a detailed specification). In practice it means the application was all but dismissed out of hand. This may have been for lack of detail but also may have been because his proposed technique, with a similarly vague level of detail, was already in the public domain having been published by Pasteur in 1866 in his book *Étude sur le vin* and strangely a second edition of this work was published also in 1873. It is also alleged by Lloyd Hind, in his classic text *Brewing Science and Practice*, that after Pasteur’s first edition, *Brewers in Bavaria*, had experimented with the technique for beer. This was all well before Pasteur published his book *Étude sur la Bière* in 1876. It would seem that Alfred Tooth was far from the first to use or propose this heating technique and he got no further with his patent so we have been spared terminology on the lines of ‘Tootherisation’ or
'Tootherised milk'.


80. Of Henry, the next brother in line, we know little although a reference in Val Tooth’s internet database (op. cit.) suggests that he married but, unusually, the name of his wife is not recorded and no reference is made to children. More concrete and slightly contradictory is what can be inferred from Edwin’s will (op. cit.). In this document Edwin left provision, in the event of the early death of his own children, for his assets to be shared amongst his siblings. This potential split gave Henry and each of his full sisters double the share of his other brothers and of his half sisters. Henry may simply have been a favourite but this favouring of Henry was further emphasised since Henry’s share was to be held in trust for life implying that he was not regarded as likely to be capable of managing his own affairs.

Another son, John Sydney, had died in infancy and of William, the penultimate son, we know nothing of any business experience, but he joined the church, eventually becoming the chaplain at the Industrial School for boys (an early reform school) at Brighton.


82. The life of the youngest son, Arthur, is also covered in http://justus.anglican.org/resources/pc/bios/atooth.html.

Arthur’s story also supports the family legend and Robert (Snr’s.) alleged and rather literal application of the parable of the talents. Arthur was a remarkable young man who did not seriously try his hand in business at all.

After graduating in science at Trinity College Cambridge he travelled round the world twice, in the course of which he became a first class horsemanship and crack shot, all presumably within his budget of £5,000. Then, whilst in Australia, he experienced a strong calling to the Church. This resulted in him taking the cloth and becoming the staunch and almost notorious Anglo-Catholic Father Arthur Tooth. Strangely, this calling caused Arthur to be the only one of Robert’s children to see the inside of one of H.M.’s prisons. This unfortunate acquaintance, nominally for contempt of court, arose from his prosecution for breaking the 1874 Public Worship Regulation Act in maintaining the Catholic style of church ritual. After this, although no longer as a parish priest, he actively followed his calling until his death in 1931.


90. Mr Edward Wingfield Guilding, from St. Vincent, West Indies, was in New South Wales in 1827 (shipping on the Admiral.
Cockburn) and planning to grow cotton and sugar. Co-incidentally the Tooth brothers also had large sugar refining interests. If it is the same man this would have made him well over fifty when he lived in Burton. Alternatively, he may have been the father or a relative of the Burton brewery manager and in either event could have been the 'large investor' supporting the establishment of the company or perhaps 'a large shareholder' petitioning for liquidation.

92. Burton Town Commissioners minutes, 3 Oct 1860.
93. ibid. 17 Oct 1860.
94. Burton Town Census Returns, 1861.
100. Court of Chancery (1868-69) LR 7 Eq 550 RE London & Colonial Company ex parte Clark.
101. Court of Chancery (1867-68) LR 5 Eq 561 London & Colonial Company Horsey's Claim
102. Court of Chancery (1868-69) LR 7 Eq 550 RE op. cit.
103. Clark's success as a salesman is not immediately obvious from the data we have but some information can be prised from it. In the course of Clark's counterclaim, receipts in 1867 from the Melbourne agency (presumably a financial year rather than the limited 3 months of trading in 1867) were conceded by the liquidators to have been 'not more than £23,484'. On the basis of a round wholesale price of £2.50 per barrel that suggests sales of perhaps some 9,400 barrels of beer (consolidated on the basis that it was all due to beer and not other imported goods) and commission for Clark at his commission rate of 2.5% of £587.

Clark's claim for lost commission of £2,570 for the next 3 years (to complete his 5 year contract after the liquidation) suggests he anticipated annual sales of £34,266 or 13,700 (consolidated) barrels a year.

The confirmed sales based on the only quoted actual sales figures to 2 major customers (over an unspecified period) only was 5576 barrels, again assuming it all to be beer. Ignoring potential exaggeration in Clark's claim (particularly in view of the hardening Australian market) and considering only the smaller figure of 5,576 (consolidated) barrels, which, although significant, is probably conservative, Clark was doing a good job for London and Colonial in Melbourne.

Although Clark was providing a very useful contribution from a single agency, London and Colonial would need other several similar operations to support a substantial Burton Brewery. To survive it was likely to need production and sales in the order of the 25,000 barrels a year, quoted by Owen as achieved in 1861 which was the first year of ownership under London & Colonial. The only direct comparison we have in this context is that the December shipment to Tooths in Sydney in 1865 was for some 350 barrels of beer which further dwindled to around 100 barrels in 1866 and virtually nil in 1867, no doubt reflecting the cause of the company's failure. Presumably the Tooths were brewing and selling a much larger volume of their own beer from the Sydney brewery. A few years later in the year to September 1873 the vol-
ume of cask Bass sold into all of New South Wales according to Owen was a mere 1,450 barrels reflecting a further and perhaps general decline in the link between Burton and Australia.

This volume drop may be an indication of the success of the local brewers, in particular Tooths, or as mentioned earlier that the standards expected of beer brewed and even imported into such a hot climate were very different from those in a cool European one. At this time there was no refrigeration, little or no imported lager and no means to cool it and even 20 years later in 1893 local ale (and it was virtually all ale as opposed to lager) was described by a 'local correspondent' as mawkish and gruesome with little hop and as flat and stale. Although Owen suggests some brewer's all malt products, called 'English' were in better condition than the expensive import.

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108. Elliott, G. (2006) op. cit. The impact of the Overend & Gurney collapse on Robert Tooth (Snr.) is not as straightforward as Nevile depicts since in 1865 Overend & Gurney took advantage of the opportunity presented by comparatively recent Limited Liability legislation to transfer the assets of their business (by then largely liabilities) into a Limited Liability Company of the same name whilst at the same time offering new shares to outsiders.

This may have been inspired self interest which verged on sharp practice (indeed it lead to a long fraud trail which focussed on the wording of the share prospectus) and was perhaps driven by the desire to survive a little longer in the hope that something would turn up to save them. The partners all exchanged their share in the ownership of the old business for shares in the new company (which they all kept) but to support the share launch they had to personally guarantee the new company's capital against liabilities with their own personal wealth and assets. In addition, the new company's shares, all 100,000 of them at £50 had been launched on the basis of it being the directors' "intention" to call up only £15 per share. However, once the collapse had occurred it became apparent that the company's finances were so dire that this good intention was to prove disastrously misleading. The remaining £35 per share eventually had to be called up to meet liabilities, thus severely embarrassing most of the shareholders with, out of 2,219 shareholders, 43 becoming bankrupt with 151 demonstrably unable to pay in full and 40 of them 'disappearing'.

From the former partners point of view the share call up was not the worst of it. The personal guarantee of the capital meant that their personal fortunes and assets were needed to offset the company's liabilities. Roberts (Snr.'s) losses seem for all practical purposes to have been total. This was further exacerbated since with such a widespread financial disaster and so many partner's and
shareholders assets and even country houses and estates coming onto the market together meant that the market was depressed and their anticipated value was unlikely to be fully realised.

There was one not insignificant survivor to this in the shape of the Gurney’s old bank in Norwich which was quietly moved into the hands of new directors just two weeks before Overend & Gurney collapsed. Perhaps others did not see or chose not to take parallel opportunities

110. Copy of Will of Robert Tooth of Wandsworth Cranbrook Museum.
111. Death certificate of Fanny Tooth. Registry of Births Marriages and Deaths.
115. Court of Chancery (1867-68) LR 5 Eq 561 London & Colonial Company Horsey’s Claim.
118. ibid. Table 4.9 p.221.
120. The complete liquidation of the much larger Overend & Gurney in fact took 25 years but that time was presumably spent tracing largely worthless paper and non-existent credit in other companies rather than their own tangible assets.
122. www.woolahara.gov.au
124. Perhaps Arthur had spent his £5,000 endowment or used it for charitable purposes.
127. *Over a Century* ... . op. cit. p.29.
128. ibid.
137. Spooner’s Map of Burton 1867.
138. *Burton Weekly News* 16th Jan 1858.
139. ibid. 19 Jan 1888. Address at complimentary Luncheon to the Mayor
140. ibid. 19 Dec. 1857.
141. ibid. 22 June 1876.
142. ibid. 14 June 1883.
147. Owen, C.C. (1978) op. cit. Appendix 34. Owen’s production figures appear to be
based on a possibly contemporaneous hand-written record in the Archive within the Museum of brewing at Coors visitors centre. Whilst the figures seem reasonable and likely to have been checked as far as possible could and were no doubt accurate for Bass and the breweries which subsequently became its subsidiaries, the exact source of the data is not clear. Local excise data could account for the production but not the employment data. A local exchange of information for any number of technical or commercial purposes is possible but out of so many breweries one would expect some dissenters if it was in any way voluntary.

149. ibid. 19 Jan 1888. Address at complimentary Luncheon to the Mayor.
150. Burton Mail 16 Oct 1903.
152. Grant of Probate on Estate of E Wright London 2 Feb 1904.
156. Burton Mail 28th June 1919.
159. ibid.

162. Burton Mail 15 July 1980. 'Former Brewery Tumbles'.
167. ibid.
168. Confusingly 'Trent' was a name used for the Boddington brewery on the Trent bridge, which was later used by Everards. The name was also later used for the Thomas Sykes brewery in Cripplegate St /Anglesey Road introduced sometime between it's building in 1881 and the liquidation of the Trent Brewery Company in 1896 and this brewery eventually also came into the ownership of Everards.
169. The name Tooth has arisen in two other connections with U.K. brewing. One is a Thomas Tooth who is briefly recorded in Wesley's Directory of Burton on Trent 1844 as a Beer house keeper and a common brewer but is not recorded in Whites Directories in 1834 or 1851. The other is Alexander Frederick Tooth whose ownership of the Castle Brewery in Cambridge between 1894 -1899 is noted in a Century of British Brewers Plus. Neither of these seems to be connected with the Tooths of Cranbrook.