

BREWING IN INDIA: THE FIRST 120 YEARS

MARTYN CORNELL

The earliest years

Beer was being carried to India from the earliest years of trading by British merchants with the sub-continent: the German traveller Johan Albrecht de Mandelslo found English beer available at Surat, in Gujarat, in 1638.¹ Later, as the East India Company, set up in 1600 to monopolize trade between England and India, expanded, and the number of ‘civil’ and ‘military’ servants in its employ grew, imports from Britain of pale ale, and, in particular, porter grew, to satisfy the thirsts of expat clerks and soldiers. In November 1732, for example, 146 tuns and 99 barrels of beer were shipped from Great Britain to the East Indies, more than 300,000 pints.² By the 19th century brewers in Britain, and in particular brewers in London, were sending large quantities of porter to India. In December 1852, for example, Whitbread in London shipped 12,692 hogsheads of London porter to India.³ They were also shipping out pale ale, but in vastly smaller quantities.

Inevitably, entrepreneurs began brewing on the spot, hoping to be able to produce beer in India that could be sold cheaper than the imported version. The first European to open a brewery in India, in 1825, in Meerut, some 40 miles north-east of Delhi, was Henry Moorhouse Bohle (spelt Bhole, in apparent confusion with the Indian surname, in at least a couple of sources).⁴ Bohle's father, also called Henry, had moved from Germany to Ireland (his surname suggests his family origins were in Northern Germany⁵), where he married a woman called Moorhouse, apparently from Edgeworth Town in County Longford.⁶ Henry junior was born in Ireland in 1789, according to one source,⁷ or 1785, according to another.⁸ He was evidently living in Newport, Hampshire in 1810, when his daughter Julia was born,⁹ and he supposedly moved to India in 1811.¹⁰

Bohle was undoubtedly drawn to start brewing in Meerut because of the large number of thirsty British soldiers there: it was home to the second-largest East India Company garri-

son. A town where the average temperature even in January is 71.4°F/22°C was not a good place to try to run a brewery using early 19th century technology, however. In 1829 or 1830, ‘in the hope of being able to make beer with less difficulty than he had encountered in the hot and variable climate of Meerut’,¹¹ Bohle began brewing in the hill station of Mussoorie, in the foothills of the Himalayas, 105 miles north of Meerut. Mussoorie, where a convalescent depot for British soldiers had been opened two years earlier,¹² stood at an elevation of around 6,500 feet/2,000 metres, with annual temperatures averaging just 64°F/18°C.

The events of the early years of Bohle's brewing operations are muddled and muddled by several contradictory narratives that give different and irreconcilable timelines. But the closest contemporary account, written in 1842, says Bohle closed the Mussoorie brewery in 1831, ‘partly owing to other engagements and partly to Mr Bohle's finding that he had not the means to extend his establishment to the degree necessary to secure a sufficient return for his trouble’.¹³ Another account, published in 1907, said Bohle closed the brewery in 1832, selling the estate to a Mr Parsons:¹⁴ the same author suggested Bohle had ‘got into trouble’ with Colonel Frederick Young, the East India Company soldier who was then Commandant of Landour, the cantonment two miles to the east of Mussoorie, over soldiers who came down from Landour to the brewery with forged passes and who were supplied with beer,¹⁵ and it was pressure from Young that saw the brewery close.

It appears that Bohle then returned to Meerut to brew (if, indeed, he ever stopped brewing at Meerut). In May 1836 the *Delhi Gazette* declared that ‘The beer sold by Mr Bhole [sic] at Meerut is excellent of its kind, being pleasant in the taste, perfectly wholesome, and so light that no quantity of it could injure the most determined swiper.’ Others disagreed, violently: the *Agra Akbar*, an Urdu newspaper, wrote in July the same year that ‘the beer brewed by Mr Bhole [sic, again] at Meerut ... is sour, highly impregnated with gas, and

“blows up a man like a bladder,” as Falstaff says of grief.’ The newspaper claimed to have ‘reason to believe that the opinion of the principal medical men at Meerut is decidedly adverse to the introduction of Mr Bhole’s beer into the [army] canteens, and that its use in some was prohibited a considerable time since.’ It suggested a way to get ‘something near the flavour’ of Bhole’s beer: ‘Suck a sour lemon for one minute, then wash the mouth out with a wine glass full of compound powder of jalap and water, after which inhale from a gas pipe for five minutes’.¹⁶ Meanwhile the Calcutta-based Agricultural and Horticultural Society of India reported in August 1836 a letter from ‘Mr Bhole’ (sic, again) at Meerut requesting hop seeds or plants.¹⁷

According to the *Bengal and Agra Annual Guide and Gazetteer* of 1842, ‘In 1836 Mr Bhole visited Mussoorie for his health, and brewed a small quantity of beer, since which period five small brewings have been made at intervals. The quality has been unequal, owing, as Mr Bhole alleges, to his inability to remain long enough to complete all the processes himself, and to ignorance and carelessness on the part of the natives whom he is obliged to trust in his absence. However, the beer, when most successfully prepared is relished, at the best tables in the settlement, and all meets with sale in some quarter or other.’

The *Gazetteer’s* report continued: ‘The malt is made of barley, some of which is the hill produce and is considered superior in quantity to that grown in the plains. The quantity is however small, and the chief supply is obtained from Bunneahs [grain dealers] at Rajpore [90 miles due west], who have either bought it of the farmers or imported it from Saharunpore [45 miles to the south-west of Mussoorie] and other districts beyond the Kechrie Pass. The hops are all imported from England, via Calcutta. New hops, with the aroma fresh, would enable Mr Bhole to give beer a superior flavour, and experience having proved that the plants will thrive at Mussoorie, the Allsops [sic] and Basses of future years will have a formidable rival in the proprietor of this brewery, should hops be cultivated in sufficient quantity’.¹⁸

An item of news from 1836 noted that ‘Mr Bhole, the gentleman who has distinguished himself by the introduction of beer brewing into India, has proposed to cut a road from Budraj to the Dhoon, with the view of affording accommodation and comfort to travellers to and from the hills’.¹⁹ Budraj is just south of Mussoorie, and overlooks the Doon valley: clearly Bhole continued to have interests in Mussoorie. A newspaper letter-writer in 1884, more than four decades after the events, suggested that brewing of Bhole’s beer, which was ‘used largely at regimental messes,’ switched seasonally between the two places: ‘In summer operations were carried on in the hills, and in winter in the plains’.²⁰

The same report claimed that the ‘delapidated’ (sic) remains of Bhole’s brewery, dating from ‘about 1845,’ could then still be seen ‘by the Begum’s Bridge and on the City Road’ in Meerut, adding: ‘I remember on one occasion the 29th Foot leaving Meerut and taking away every available cask of beer from the brewery.’ The letter writer, who signed themselves A.P.W., was not completely reliable: they called Henry Bhole ‘Mr John Bhole.’ But as the 29th (Worcestershire) Regiment of Foot did not arrive in India until 1842,²¹ this memory, if correct, suggests Bhole was still brewing at Meerut in the early 1840s, at least. Bhole had married his second wife, 15-year-old Alice Flannagan, in December 1834 at Agra, when he was 44.²² (Bhole had become the guardian of Alice and her two sisters, daughters of friends, after his first wife died²³), and in 1842 Alice gave birth to a son, Henry Mackinnon Bhole, in Meerut. Premises in Meerut still known as Bhole’s Brewery, and in the occupation of a firm of cotton traders called Cohn, Feilman and Co, were offered for sale in June 1872 by Mrs Mackinnon,²⁴ presumably Henry Bhole’s daughter Julia, who had married John Mackinnon in Meerut in December 1834.

In April 1841 the secretary of the Agricultural and Horticultural Society in Calcutta, Henry Harpur Spry, reported that he had ‘received a letter from Mr Bhole at Meerut stating that he has for several years past manufactured beer for the men of the European Regiments at Meerut,’ and ‘that at times the consumption has been to the amount of four thousand three hundred gallons a month,’ or 120 imperial barrels, while ‘At the present time the consumption is 40 gallons a day,’ equal to 33 barrels a month.²⁵ Spry continued: ‘At Mussoorie Mr Bhole states he has found a ready sale amongst the Officers and their families resident there and thinks if he were duly encouraged he could brew a superior description of beer for the Canteens.’ The wording suggests that Bhole was still brewing at Meerut, though the report in the society’s proceedings is headed: ‘Beer Brewery at Mussoorie—Himalayas.’

The 1842 report, meanwhile, declared of Bhole’s brewing in Mussoorie: ‘At least a thousand dozens of beer quarts per annum [just over 80 imperial barrels] have been made in every year during which the brewery has been at work, and it has all been consumed by residents in Mussoorie and Landour. The beer is sold at four rupees for a dozen quarts.’

Brewing at Mussoorie, it said, had

been little more than experimental, the result has been so encouraging that he has begun the construction of a large concern on a regular plan, on a site a little below the original brewery; when this is completed, and when the projected road from Mussoorie to Rajpore is made so as to afford an easy and cheap mode of convey-



Figure 1. View of the old Mackinnon's Brewery, Mussoorie, India, December 1888, painted by Mrs M.E. Clarke

ing beer to the plains, Mr Bohle intends residing permanently at Mussoorie and carrying on the business of brewing on a large scale.²⁶

If as Bohle told the Agricultural and Horticultural Society in Calcutta in 1841, he had been supplying 'the men of the European Regiments at Meerut' with between 33 and 120 barrels of beer a month, this must have been from the brewery in Meerut, as the brewery in Mussoorie was only making 80 barrels a year. The original Mussoorie brewery site had come into the hands of Bohle's son-in-law, John Mackinnon, in the mid-1830s. Mackinnon, born in Elgin, Scotland in 1806,²⁷ had been a gunner in the East India Company's artillery. He purchased his discharge early, and opened a school for the sons of 'European gentlemen' in Meerut in 1830.²⁸ Mackinnon then bought Bohle's former brewery site in Mussoorie from Parsons either in 1834²⁹ or 1837,³⁰ relocating his school in the hill town, where it grew to 130 pupils. One source says Bohle 'returned about the same time' and reopened the brewery site, relocating it in 1838 at a site on the

spur to the north of the original brewery,³¹ on land that in 1871 was described as having 'an abundant supply of pure water'.³²

In 1849 brewing operations in Mussoorie were moved back to the original site, abandoning the 1838 'New Brewery' site.³³ About this time ill-health forced John Mackinnon to close his school, and he joined the brewery business:³⁴ it may be this move that led the company to declare in its later advertising that it was 'established 1850'.³⁵ Henry Bohle died in Mussoorie in June 1851, aged 67:³⁶ the same month 'Bohle's Brewery' was described as standing 'on a small rise in the centre' of the ravine behind Landour.³⁷ According to the letter-writer of 1884, 'his widow worked the Bohle breweries at Mussoorie and Meerut, and left the country after the Mutiny' (ie 1858: the Indian Mutiny actually began in Meerut, in May 1857, and one source says Alice and her sisters 'survived the Indian Mutiny by dressing and living as natives and were protected by the locals'³⁸). That Bohle's brewery continued in Meerut in the early 1850s is confirmed



Figure 2. Philip Walter Mackinnon, grandson of the first European to brew in India, Henry Bohle, from the *Cyclopedia of India*, 1908.

by a report from 1864 detailing how, when the 14th Dragoons were based in the town from 1851 to 1855, they were drinking 'a light description of draught beer brewed at the station, and sold a little cheaper than English beer,' which was 'for a time very generally used'.³⁹

Alice Bohle seems to have been in England in 1861, before emigrating to Australia with her family in 1862, where she died in Waterloo, Sydney, New South Wales in 1881.⁴⁰

Meanwhile John Mackinnon continued brewing at Mussoorie, where in 1860 his beer and porter were described by the *Bombay Gazette* as 'of an excellent quality, and better adapted for this climate than that brought out from home'.⁴¹ Around 1865 he finally received the due encouragement his father-in-law had sought, when the government contracted with the Mussoorie brewery and one of its rivals, the Murree Brewery Company to supply beer to army canteens at the same rate paid for English beer, 'to encourage a young industry'.⁴²

At the same time the import duty on hops was cut from 7½ percent to one percent 'in order to place the produce of the Indian Breweries on an equal footing with the beer imported from England,' which paid just one anna a gallon duty. The loss of revenue was estimated to be about £1,000, suggesting Indian brewers were importing hops to the value of £15,000 a year.⁴³ Earlier, in 1858, the government had bought 150,000 hogsheads of ale and porter for the use of the 'European' troops, at a cost of £750,000. The beer was sold below cost to the troops for four annas a bottle, bringing a loss to the government on its sale of 'upwards' of 80,000 rupees.⁴⁴ The fact that the beer ordered from the two Indian breweries was canteen beer, for the ordinary soldiers makes it very likely that the beer being brewed was porter. A road was built, still known today as Mackinnon's Cart Road, to enable 'trucks' drawn by one hill-bullock each to carry cases of full beer bottles down from Mussoorie to the commissariat at Meerut and bring the empties back.⁴⁵

Mackinnon died in 1870, and much, if not all the property devolved to his wife, Henry Bohle's daughter Julie, who was living at the Old Brewery in Mussoorie in 1872. That year she put up for sale a host of properties, including the New Brewery site in Mussoorie, the former Bohle's Brewery site in Meerut, and two houses called 'The Quart' and its neighbour, 'The Pint,' at 'Dehra', on 'the high road to Rajpure', today Dehradun, ten miles south of Mussoorie and some 4,700ft/1,430 meters lower.⁴⁶ (Julia died at Mussoorie in October 1890, aged 80.)⁴⁷

The business was carried on by Mackinnon's fourth and sixth sons, Philip Walter, who was born in Dehra Dun, near Mussoorie, in 1849, helped his father in the brewery 'from an early age,' and travelled to England the year after his father died to study brewing at Burton upon Trent;⁴⁸ and Vincent Arthur, born in Mussoorie in 1852. By 1877 Mckinnon & Co was selling pale ale, XXXX strong ale and XXX porter, offering 'Liberal Discount' to messes and canteens, and boasting that the firm was 'Brewers by Appointment to His Excellency the Viceroy and Governor-General of India'.⁴⁹ In 1879 it was also making 'delicious' India Pale Ale.⁵⁰

The brothers expanded production, more than doubling output at what had become known as the Old Brewery, after the opening of the rival Crown Brewery in Mussoorie, from 5,100 imperial barrels a year in 1889⁵¹ to 10,500 barrels a year in 1908.⁵² All the machinery was operated by water-power, and the brewing liquor, which came from a nearby spring, at a temperature never exceeding 56°F/13°C, 'by analysis has been proved to closely resemble the water supply of the famous breweries at Burton-on-Trent'.⁵³ Fuel for heating the coppers was local wood: in 1887 Vincent Mackenzie wrote that he and his brother burned 25,000 'maunds'

of wood a year, over 800 tons, 'from our own forests,' and would soon burn 50,000 maunds.⁵⁴ The brothers meanwhile became well-known as naturalists and botanists, and in particular as collectors of ferns, hunting rare plants on trips between 1878 and 1883 into the high Himalayas as far as Tibet, discovering 'several species new to India, if not to the world',⁵⁵ and having one species of lady-fern endemic to the Himalayas, *Athyrium mackinnonii*, named in their honour, while Philip had two species of reptile named for him, Mackinnon's Wolf Snake, *Lycodon mackinnoni*, which he discovered in his own garden, and Mackinnon's Worm Snake, *Typhlops mackinnoni*.

The firm opened a second brewery at Jubbulpore (now Jabalpur), 500 miles to the south in central India, in 1895, according to one source, 1896, according to another,⁵⁷ or 1897 according to a third,⁵⁸ which was making almost 5,250 imperial barrels of beer in 1899-1900, of which 97% was sold to the military in the cantonments of Jabalpure, Saugor, Pachmari and Nowgaon. By 1907 the Jubbulpore brewery was making 6,000 barrels of beer a year. All the barley was grown in India and malted in a German-made maltings at Mussoorie, while the hops came from Kent.⁵⁹ Much of the output of both breweries went to the army: the firm had 'very large contracts for the supply of beer to the troops in various cantonments'.⁶⁰

However, the reforms made to the canteen system by Lord Kitchener, then commander-in-chief of the British Army in India, in 1907 as part of a general shake-up of British forces on the sub-continent, which ended the long-term contracts the Indian government signed with local brewers, 'robbed Indian breweries of their practical monopoly of the supply of beer to the British soldier'.⁶¹ Within two years output at Jubbulpore had plunged by a third to 4,000 barrels a year, and the brewery was only working three months of the year, though still employing 60 people. Unsurprisingly, it was reported that the concern 'is said not to be paying now,' though the ice machine at the brewery 'gives a handsome return on its capital'.⁶²

Philip Mackinnon died in London in 1912, aged 63. His only son, Charles Arthur Mackinnon, born in 1886, had gone to school at Marlborough College in England, and then entered the Royal Military College at Sandhurst. In 1909, however, he was admitted to a private mental asylum in Dorset, having been described as 'insane.'

Two years after Philip's death, in 1914, the firm of Mackinnon & Co. became embroiled in a legal dispute with the Bhargava Commercial Bank which resulted in the bank being awarded a decree for 15,000 rupees. The district court ordered the brewery premises in Jubbulpore to be locked up

and the brewery and its contents, from tables and clocks to the ice-making machine and 177 casks of beer, to be sold.⁶³ Mackinnon and Co. fades from view after this.

Vincent Mackinnon died in September 1916 in Mussoorie, aged 64, a year after his two sons, Vincent junior, 22, and Colin, aged 18, had died while fighting with the British Army. Vincent junior, who was serving as an officer with the 53rd Sikhs, was killed in a battle with Turkish forces near Aden in July 1915. Colin died only two months later in the Battle of Loos in Northern France with the 1st Battalion, Middlesex Regiment, which he had joined just seven months before, on graduating from the Royal Military College in Sandhurst. By 1920, the Old Brewery at Mussoorie was closed as well.⁶⁴

Brewing in the north

Three of the biggest brewing concerns in India, the Murree Brewery Company, Dyer, and Meakin (the latter two later to combine into one firm), were linked via a brewery at Kasauli, a cantonment town in the Himalayan foothills, 30 miles south of Shimla, at a height of 5,200ft/1,600 meters. The 'Kussowlie' brewery, also known as the Eagle brewery, had been started by a former East India Company officer called Captain Robert Beavan in 1850 to serve the troops there. The Bombay Gazette hailed the venture, declaring: 'The position is good, as all the Europeans on the Hills, at Umbala, and even at Julundhur, can be supplied from thence with this wholesome beverage'.⁶⁵ Beavan asked the authorities to help him procure coolies to work on erecting the buildings for his new brewery, a request backed by the local commander in chief, 'in consideration of the great advantages of such an establishment to the European Troops'.⁶⁶ However, Beavan died aged 45 at the Pavilion Hotel in Shimla in October 1853, just three years after starting the Eagle Brewery.⁶⁷ Beavan was described much later, probably unfairly, as 'a broken-down gentleman ... a man of some cleverness and a good chemist; but his capital was too small ... and he died unsuccessful'.⁶⁸

Brewing was continued at Kasauli by Edward Abraham Dyer,⁶⁹ second son of John Dyer, an officer in the East India Company's navy who had been born in Devon, England in 1799. Edward was born in Calcutta in 1831 but returned to England with his father and mother early in the 1840s, where he trained to be an engineer.⁷⁰ His family had planned on his joining the Royal Military Academy at Woolwich, but he persuaded his father to let him spend the money intended to buy him a military commission on returning to India to follow a career there.⁷¹ It looks as if Dyer was employed between 1849 and 1851 as a 'third-class sub-assistant' on the Great Trigonometrical Survey, the mapping of the Indian



Figure 3. The Murree brewery, Ghora Gali, photographed from the muddy road leading up to the brewery some time in the 1860s. From the Bellew Collection, the photograph album of Surgeon-General Henry Walter Bellew.

sub-continent led by George Everest.⁷² His older brother, John, was working as a barrister in Mussoorie, where he would have known the Mackinnons and their brewery, and John suggested to Edward that there were opportunities in India in brewing English beer for the British troops.⁷³

Edward returned to England to learn to brew, and came back to India in 1855, aged 24, to start a new operation on Beavan's old site,⁷⁴ still under the name of the Eagle Brewery. The brewery equipment, and a steam engine, were imported from Glasgow.⁷⁵ (In 1857 the establishment at 'Kussowlic' was referred to as the Himalaya Brewery, in a newspaper notice for the birth of Dyer's daughter.⁷⁶) By 1860 Edward Dyer was making beer using Indian-grown hops, though only enough hops had grown at the small plantation by the brewery to make 16 casks of beer.

That same year, 1860, a group of army officers and civilians founded a joint stock company, the Murree Brewery Company Ltd.,⁷⁷ to brew in Murree, another British Army sanatorium

town, in the north-east of the Punjab and 30 miles from Rawalpindi. The spot chosen for the brewery was at Ghora Gali, 6,100ft/1,865 meters up and actually six miles from Murree. The chairman of the company, which was officially incorporated on February 28 1861,⁷⁸ was Colonel John Anderson Barstow, a retired Bengal Army soldier formerly in charge of the 58th Native Infantry Regiment,⁷⁹ and other members of the board included Dr Henry Walter Bellew, an assistant surgeon in the Bengal medical service, C.E. Herbert, head manager of the Punjab Bank, and William Laban Holman, one of the founders of the hill station at Murree,⁸⁰ as well as two captains and two majors. (Later narratives have credited the foundation of the Murree Brewery Company to the engineer Sir Proby Cautley, who promoted and led the construction of the Ganges Canal in the 1840s, and Lieutenant Colonel William Olpherts, who had won the VC in the Indian Mutiny.⁸¹ However, Cautley had left India in 1854, and never returned,⁸² while Olphert in 1860 was busy with military operations on the North-West Frontier.⁸³)



Figure 4. A Dyer Meakin pale ale label from the 1930s.

Shortly after closing its original share list, the Murree brewery struck a deal to acquire the Kasauli brewery, issuing more shares to pay for the purchase,⁸⁴ and asked Edward Dyer to become their manager. He departed Kasauli for Murree,⁸⁵ with brewing starting at Ghora Gali in the autumn of 1861.⁸⁶ In 1862 the Murree brewery's beer was described as 'really first-rate, far better than any country stuff I have yet tasted. The porter is very passable too, many prefer it to the beer ... the only fault to be found is a sweetness in both beer and porter'.⁸⁷ The brewery at Ghora Gali had been founded on the side of a hill with a natural spring near the summit, described in 1920 as giving water that was 'exceptionally pure, and eminently suitable for brewing the best quality of ales and stouts'.⁸⁸ The builders took advantage of the geography of the site, building maltings highest up the hill, and the brewhouse, coolers, fermenting chambers and cellars progressively further down, so that gravity would do as much work as possible in the brewing process.⁸⁹

In 1866 Dyer left the Murree Brewery Company and moved to Simla (today Shimla) to set up on his own with yet another brewery, in Chota ('lower') Simla Bazaar, which was known as the New Brewery,⁹⁰ in contrast to an earlier attempt at starting a brewery in the settlement begun in 1860 (see below). The following year, 1867 Dyer was reported to

be brewing 'very fair beer and excellent porter',⁹¹ and a price list for 1870 showed the New Brewery producing porter and ale at two rupees a gallon in cask and 3¼ rupees per dozen pints.⁹² The business prospered enough for Dyer to open a second, vastly bigger brewery at Solon (today Solan), 15 miles to the south, in 1877 that was making 8,500 imperial barrels of beer a year in 1884, against under 700 barrels a year at Simla. The Solon brewery was on a site with a good supply of spring water, and it was also closer to where supplies of coal had to be hauled up from by Kashmiri laborers, which made brewing there cheaper than at Simla.⁹³

Dyer followed this with two breweries, in 1882 at Lucknow, 260 miles east of Delhi in the plains of North India, where a brewery even bigger than the premises at Solon was erected in the old rajah's palace on the banks of the Gomti river,⁹⁴ which was brewing 13,000 imperial barrels in 1888; and at Mandalay in Burma in 1886, which was brewing 9,700 barrels in 1892.⁹⁵ The Lucknow brewery, which used refrigerating machinery to help make beer in a climate where even in the coldest month, January, average highs were 76°F/24.5°C, was the first successful brewery in the plains. It was run from at least 1886 by Hector Lionel Marsden, brother to Arthur and John Marsden (see below), who was there in July that year when he was advertising for sale in a local newspaper 'one silver pedometer, only used on one or two occasions'.⁹⁶ Like his brothers, Hector had also trained to be a brewer, and he had been with his brother Arthur at the Naini Tal brewery in 1879.⁹⁷ Dyer's beers in 1891 included 'Prime India Pale Ale,' and Extra Stout 'specially recommended for delicate Ladies and Invalids,' both at 2½ rupees per dozen pints.⁹⁸

Edward Dyer died in April 1902 at Solon,⁹⁹ and command of his brewing empire was taken up by his second son, Edward junior,¹⁰⁰ born in 1860. Edward junior and his older brother Arthur had founded a distillery at Amritsar, in the Punjab, in 1898. In 1910 E. Dyer & Co., seeing which way consumer preferences were going, built a new lager beer brewery, which exhibited in product at the United Provinces Exhibition in Allahabad.¹⁰¹ Edward Dyer junior died in 1911, and his brother Alfred in 1913. The Lucknow brewery was shut by November 1913,¹⁰² though around 1912 Dyer & Co. opened a distillery in the city which continued to operate.¹⁰³

In June 1917 E. Dyer & Co. turned itself into a limited company, with its head offices at Jalandhar in the north of the Punjab, 85 miles west of the brewery at Solon, and 45 miles east of the distillery at Amritsar.¹⁰⁴ Four years later Dyer merged with its big rival Meakin, to form Dyer Meakin & Co. Ltd.

After Dyer's departure for Simla in 1866 he had been replaced by a young brewer from England, Henry Whymper,

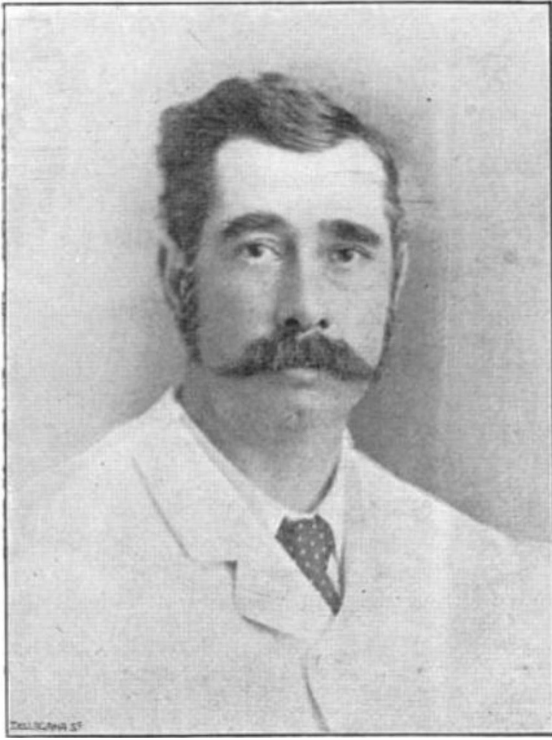


Figure 5. Henry Whympers, from *Ars quatuor coronatorum*: being the transactions of the Lodge Quatuor Coronati, No. 2076, London, England, 1895, p.95.

who was just 21, but came out in October 1866, in time for the brewing season, as managing brewer of the Kasauli brewery on behalf of the Murree Brewery Company. He brought with him a sheaf of testimonials from breweries in and around Burton upon Trent, including one from the managing brewer of Bass & Co.¹⁰⁵ Two of Henry's brothers were to join him in brewing in India: a fourth, the eldest, Edward, was a mountaineer who had led the first successful climb of the Matterhorn in 1865.¹⁰⁶ According to Henry Whympers's obituary in a Freemasonry journal, the chairman of the Murree Brewery Company had travelled the (pre-Suez) 14,000 miles from North India to Burton to try to recruit someone, and Henry had been the only brewer to volunteer. Whympers's family were minor gentry from Suffolk, though his grandfather Nathaniel had started a brewery in Ipswich. Henry's father Josiah moved to Lambeth, South London, where he worked as a successful and much-admired wood engraver.¹⁰⁷

Arriving at Kasauli, Henry Whympers 'at once gave signal proof of his ability and resource, by turning the beer made by his predecessors into vinegar, and selling it at a profit,' going on to produce beer so good that the company shifted

him from Kasauli to the main brewery at Ghora Gali.¹⁰⁸ The Indian brewing industry was still tiny, with less than 3,000 hogsheads of beer being brewed in the country in 1866, of which the Murree brewery contributed 946 hogsheads, while imports from Britain amounted to 203,703 barrels, valued at £587,626.¹⁰⁹ By 1879 the ten breweries now open in the Punjab and the North-West Provinces were making two million gallons of beer a year, equal to more than 55,000 barrels, a 12-fold increase in 13 years.¹¹⁰

Whympers had apparently moved to Ghora Gali by 1871, when he was an agent there for the Commercial Union Assurance Company.¹¹¹ There he was brewing porter and ale at two rupees per gallon in wood, and 3½ rupees for a dozen pint bottles.¹¹² In 1873 the *Pioneer* newspaper in Allahabad hailed Whympers's work, declaring: 'Never has the Murree Brewery turned out such excellent beer as it has under Mr Whympers ... the soldiers prefer the beer to English beer, it is universally drunk at Murree, Pindie, Peshawur and other places and highly appreciated'.¹¹³

Around 1871 Henry's brother Joseph, born in 1850, sailed from England to join him at the Murree brewery.¹¹⁴ In 1876 Joseph, who had been assistant managing brewer and analyst at the Murree Brewery, left to open his own concern, the Crown Brewery, on land with a spring at Jharipanu two miles from Mussoorie proper. He announced in September 1876 that brewing would start 'this next cold weather,' with beers ready for issue 'about January 1'.¹¹⁵ Joseph also advertised a vacancy for a pupil brewer: 'Only a gentleman who has received a liberal English education will be admitted'.¹¹⁶ By the following spring, 1877, J. Whympers & Co., the Crown Brewery was advertising XXX stout and pale ale at the usual two rupees the imperial gallon in wood, and 3½ rupees per dozen pints. In 1878 the brewery was producing 2,000 hogsheads (3,000 barrels) of beer a year.¹¹⁷

The following year it received a big boost with a contract to provide the Indian government with more than six times as much beer. The government had put out tenders for 97,750 hogsheads of Indian-brewed beer, and six firms picked up slices as follows:¹¹⁸

Brewer	Hogsheads	%
Murree Brewery Co	30,664	31%
Meakin and Co, Kasauli	24,296	25%
Whympers and Co, Mussoorie	13,213	14%
Dyer and Co, Simla	10,985	11%
Nynee Tal Brewery Co	10,234	10%
Mackinnon and Co, Mussoorie	8,358	9%

Whympers & Co. became a limited company in 1884.¹¹⁹ Then in January 1886 Joseph was in Delhi when he was

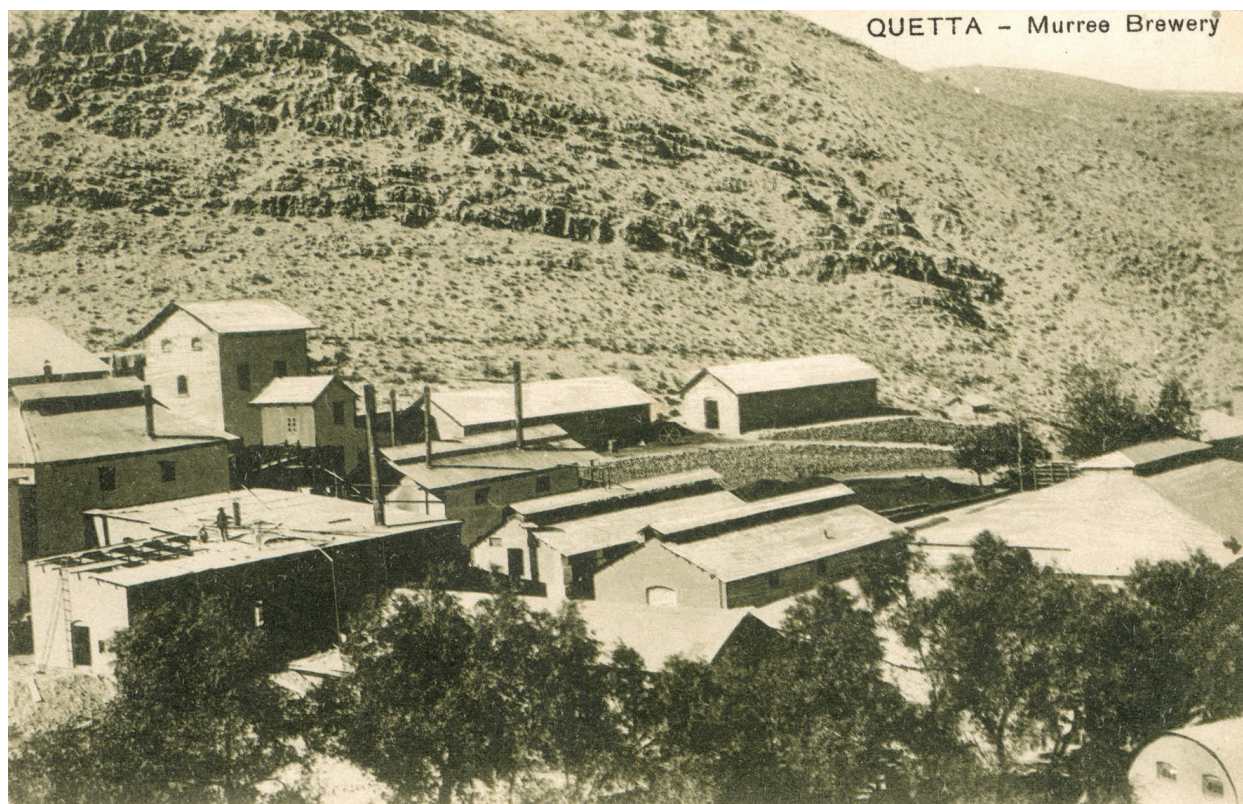


Figure 6. The Quetta brewery, Baluchistan, opened in 1886, destroyed by an earthquake 1935.

thrown from his dogcart after the horse swerved and one wheel mounted a bank. He was taken to the Fort hospital with a badly broken leg, and though seven doctors decided amputation was unnecessary, three days after the accident, 'mortification setting in,' he sank rapidly and died the same night.¹²⁰ A month later the Crown brewery was advertising for sale 'a well-made, easy-running and stylish dog-cart by J. White, London, complete with rugs, whip, very little used and is in perfect order', together with 'a single set of English plated silver harness'.¹²¹ The brewery continued running, and in 1889 it was the fourth largest in India, producing 11,420 Imperial barrels a year, behind the Murree Brewery Co.'s Ghora Gali brewery, on just under 32,000 barrels, Meakin & Co.'s brewery at Daporee, Poona (today Pune) on just under 14,000 barrels, and the same company's Kasauli brewery, on 12,500 barrels.¹²² The Crown brewery was still going in 1907, when its managing director was Joseph Whympers's younger brother Samuel,¹²³ formerly of the Naini Tal brewery, but it was placed into liquidation some time shortly before 1916.¹²⁴

The Murree Brewery Company, meanwhile, had thrived under Henry Whympers, giving shareholders returns of up to

15% a year.¹²⁵ It sent its beers 10,000 miles to the Centennial International Exhibition of 1876 in Philadelphia, winning praise from the judges for its IPA, strong ale and XXX stout, with the stout described as 'first-rate'.¹²⁶ However, a correspondent for the *Brewers' Guardian* two years later, reporting on the brewery's beers from an exhibition in Paris, complained that its ale had 'a flavor suggestive, I think, of an overdose of American hops,' while the stout 'has probably, as well as the ale, suffered from the long journey,' and was 'not of a quality to make those who have a large capital embarked in the export trade to the East tremble much at present'.¹²⁷

A report in 1883 described the Ghora Gali brewery, 'perhaps the largest and most perfectly furnished single brewery in India',¹²⁸ built entirely of sandstone, with its own maltings, three wort coppers, and eight fermenting vats, all ten feet high, varying between six feet and ten feet in diameter. The beer was 'cleansed,' that is, the final fermentation took place, in trade casks, which were then dry-hopped, with hops grown in Kashmir. All the fuel used on the boilers was wood, 'which throws out more sparks and requires more stoking,' there being no source of coal 'within a reasonable

distance,' but to reduce the risk of fire 'no two buildings with wooden roofs are together, but one with corrugated iron roof is interposed'.¹²⁹ That year it brewed 20,800 imperial barrels.¹³⁰

The Ghora Gali firm was speedily expanding its empire. In November 1884 it acquired the Nuwara Eliya brewery in Ceylon (now Sri Lanka). The next month the firm had its take-over of the Nilgiri brewery in Ootacamund approved, bringing with it contracts to supply all the 'European' garrisons in the Madras Presidency except one.¹³¹ It opened a brewery in the former ordnance depot in Bangalore Fort, in Mysore, southern India in 1885,¹³² 3,000 feet up, 'designed to be the most complete and scientifically arranged manufactory of its kind in India,' and built entirely of iron, including the flooring. It was now boasting gold medals for its beers — pale, mild and strong ales and stouts — won at exhibitions in Paris in 1878 and Calcutta in 1884, and a medal for excellence at the 1876 Philadelphia centennial exhibition.¹³³ Grateful shareholders at the company's annual meeting that year voted Henry Whymper a purse of 1,000 guineas, perhaps £100,000 today.¹³⁴

The following year, 1886, the Murree Brewery Company opened a brewery just outside the village of Kirani (or Kerani), 5,640ft/1,720 meters up on the slopes of the Chiltan range of mountains and four miles to the west of Quetta, capital of Baluchistan, on what was then the north-west edge of British India.¹³⁵ The town had only come under British control ten years earlier, but was strategically important as a guardpost on the road into and out of Afghanistan, and the Quetta cantonment grew to cover 15 square miles, the home of two British infantry regiments and other military units.¹³⁶ The brewery company paid a local landowner 12,000 rupees for the right to use a spring below the base of the mountains for brewing water.¹³⁷ Because the brewery was built on the side of the hills, most of the production flow was gravity-powered, though the spring water had to be pumped to the top storey.¹³⁸

The Quetta brewery must rank as one of the most difficult postings of any brewer's career. According to Henry Whymper the sun was

so intensely hot, even in the winter months, that a brewer has to wear a sun helmet whilst at the same time he has to clothe himself in a fur-lined coat to protect himself from the biting cold which there is in the shade ... The cold which is occasionally experienced is too great to make it safe to employ much steam power, and although the Company, in the first instance, erected a steam plant, it had to be replaced by the open boiling system; pipes, pumps, and injectors, steam pressure gauges, and blow-off cocks were all frozen up, and burst in the most impartial manner.¹³⁹

The weather was not the only problem. Disease, including dysentery, cholera and typhoid fever, was common in the district: Agnes McGowan, the wife of the Quetta brewery manager, died from typhoid in August 1891.¹⁴⁰ One August evening in 1899 the brewery was attacked by a band of 25 to 30 armed raiders later identified as Brahui tribesmen from Kalat to the south. Five brewery workers, including coopers and carters, were killed immediately, 'being shot or hacked to pieces,' with six more dying of their wounds later. The raiders were apparently scared off only after the brewery manager, Mr Stranack, caused the brewery bell to be rung as an alarm.¹⁴¹ After the raid, arms and ammunition were issued to the brewery staff in case of a repeat attack, barbed wire was placed around the premises, and the workers' quarters were surrounded by a high wall with a guarded entrance.¹⁴²

The attack did not hold back the brewery's growth: output of 'all kinds of ale and stout' rose from an average of 6,730 imperial barrels a year in the 1890s to 9,645 barrels in 1903. Around 100 workmen were employed at the brewery, with the skilled workers a mixture of Sikhs, Hindus and Muslims from the Punjab, all earning more than they would have done at home. The brewery used 9,000 'maunds' (300 tons) of locally grown barley, and 12½ tons of hops, imported from England, California and Bavaria. More than 60% of the beer produced was sold to the military, but by 1903 the brewery was selling its ales and stout as far away as Hyderabad and Karachi, some 340 to 360 miles away over the mountains.

A new 50-quarter maltings was erected in 1904: the dry climate of Quetta proved extremely suitable for malting, but it was impossible to malt during the summer 'owing to the exceedingly high temperatures'.¹⁴³ During World War One the brewery was 'strained to its utmost capacity' to meet the requirements of the 'abnormally large' number of British troops stationed in Sind and Baluchistan, despite its by now 20-quarter plant, fitted with 'thoroughly up-to-date machinery and plant,' being able to turn out between 1,000 and 1,200 hogsheads a month during the cold season, though output saw 'a considerable reduction' from May to early September, when 'the water attains too high a temperature'. In 1920 the brewery was making pale ales, champagne ale ('a liquor of light gravity') and stout for bottling, as well as ales specially suitable for canteen and private customers.¹⁴⁴

The brewery's end came in the early hours of 31 May 1935, when Quetta was hit by a massive and deadly earthquake estimated at 7.7 Mw. Some 20,000 of its inhabitants are believed to have been killed, including brewery employees, much of the city was left flattened, and many of the surrounding villages destroyed. The brewery site was among

the multitudes of buildings left in ruins,¹⁴⁵ and the Murree Brewery Company declined to rebuild it.¹⁴⁶

The company had also opened a brewery at Topi, about one mile outside Rawalpindi, in the spring of 1889, with its beers winning a silver medal at the Paris exhibition later that same year.¹⁴⁷ The Rawalpindi brewery was designed to brew 'a German-type beer,' which did not prove very popular in the India of the 1890s.¹⁴⁸ However, the new brewery enabled the company to rotate its head office: the hills of Ghora Gali in the summer, from April to October, and Rawalpindi in the cooler months from November to March.¹⁴⁹ A description of the Rawalpindi brewery in 1920 said:

The buildings, which are in the form of a quadrangle, are enclosed by a high wall, and comprise the mill-room and brew-house, with coolers and refrigerators on the top floor, all of which are on the northern side; offices and store rooms on the south side; fermenting rooms with six vats each, having a capacity of 100 hogsheads, are situated on the eastern side; and the bottle-washing, bottling, pasteurizing and packing rooms are on the west: while below the whole structure are huge cellars containing storage vaults capable of holding 3,000 hogsheads. At one end of the bottom floor is the kiln from which the prepared malt is transferred by means of an elevator to the top floor, where there are malt stores, screening rooms, and a steeping cistern. Barley, hops, and other ingredients are raised by steam power to the top floor; the second, third, and fourth floors, made of slate, are used for 'growing' the barley; and the fine maltings have a capacity of 100 quarters of grain. On the eastern side of the outer yard are the cooperage and engineering workshops, together with the boilers and the dynamo-room, the whole building being lighted with electricity. A plentiful supply of excellent water is obtained from two wells on the estate, but in view of an emergency arising a connection has been laid between the brewery and the reservoirs, which meet the requirements of the cantonments and the civil station at Rawalpindi.

The company have their own railway sidings, and thus the facilities for unloading raw materials and for dispatching their products direct from the premises are exceptionally good. The storekeeper's house is near to the gate of entrance, and a large number of storehouses have been erected along one wall, while on the outside of the latter are a palatial residence and fine grounds for the use of the manager and secretary. Bungalows have been provided for the managing brewer; his assistant; the distiller; and the engineers; and suitable quarters have been arranged for the Indian staff, who are from 250 to 300 in number during the winter months.¹⁵⁰

Output in 1889 at the Ghora Gali brewery was more than 31,900 imperial barrels, at Ootacamund almost 9,350 barrels, at Bangalore over 7,400 barrels and at Rawalpindi more than 5,700 barrels, which, with the company's two other breweries at Quetta and in Ceylon, mean it was making

more than 55,000 barrels of beer a year, or around 40% of all the beer brewed in British India.¹⁵¹

Henry Whymper had died in 1893 aged 48 in Bombay, having fallen ill with dysentery after traveling down from Rawalpindi to see off a friend returning to England.¹⁵² The Murree Brewery Company continued to prosper without him: in 1895, while the Bangalore brewery had closed, and the Ceylon and Ootacamund breweries had been sold, the Ghora Gali brewery was making 24,000 barrels of ale and stout, the Rawalpindi brewery 9,000 and the Quetta brewery 6,000.

By the end of the 19th century the Murree Brewery Company had decided there was enough demand for 'pure malt whisky' in British India sold at a cheaper price than the imported article to justify opening a distillery at the Rawalpindi site, which was first licensed in 1889.¹⁵³ By 1920 the distillery, on the eastern side of the brewery, was making 350,000 gallons, equal to more than 2,000,000 bottles, of 'L.P' ('London proof,' 57.06% absolute alcohol) spirit every year, both 'country' spirits, made from molasses and 'gur', the Urdu term for jaggery, sugar from the toddy palm tree, and whisky made from 'the purest barley malt.' The plant included two pot stills as well as continuous stills, 'excellent' water came from the well on the site, and the distillery employed about 50 men.¹⁵⁴

In 1920 the Ghora Gali brewery site was three times the size it had been when it started, despite the handicaps of having to import everything except barley and labour from Europe, and being 32 miles along a hill road from the nearest rail terminus. The Murree Brewery Company had benefited from regular government contracts, but these had ceased in 1907, and the firm had been exposed to open competition for the first time in canteen contracts. But it still boasted the largest share of the beer trade in Northern India, with its products on sale 'in practically every town between Peshawar and Karachi,' a distance of almost 700 miles.

It brewed East India Pale Ale, Light Champagne Ale, and XXX Stout in bottles, and draught beers in casks and jars holding from one gallon up to 54-gallon hogsheads, for supply to British troops and 'the general public.' By the mid-1920s the Murree Brewery Company was also brewing and bottling a beer called Light Lion Pilsner.¹⁵⁵

For the convenience of canteens, and for quick consumption, the company have for many years past filtered most of their draught ales, thus enabling customers to consume the contents of casks and jars to the last drop, but owing to the difficulty of obtaining materials for this process during the late war [ie World War One] this practice was has not been regularly followed.¹⁵⁶



Figure 6. Five men from the 2nd Battalion, Queen's Royal West Surrey Regiment, probably photographed in Allahabad around 1924-6. Each is holding a bottle of Light Lion Pilsener beer, which was made by the Murree Brewery Co of Rawalpindi.

The Ghora Gali brewery now had a brew-house with two 20-quarter mash tuns and two boiling coppers, fermenting chambers containing six vats with a capacity of 100 hogsheads each, and huge cellars with vats of 100 hogsheads capacity, glass enamelled steel tanks of 150 hogsheads capacity, and 'many wooden vessels of varying sizes,' with a total storage capacity of around 3,000 hogsheads.¹⁵⁷

Eventually the Ghora Gali brewery began to have problems with its water supply. It was still brewing in 1927, when Ronald Aubrey Drummond was operative brewer there,¹⁵⁸ but stopped that same year, and all brewing operations were concentrated at the Rawalpindi site,¹⁵⁹ with Ghora Gali used just for malting. An entirely new brewing plant, using the conical fermenters designed by the Swiss inventor Leopold Nathan, was installed at Rawalpindi in 1927.¹⁶⁰ When demand for locally brewed beer soared in World War Two, the

plant hit an all-time high of almost 44,500 barrels of beer a year, four times its normal production, with its Gold Ribbon and London brand beers available across the sub-continent.¹⁶¹ Malting meanwhile continued at Ghora Gali until just before partition in 1947, which put both Murree and Rawalpindi in the new Pakistan.¹⁶² (Shortly after the company stopped operations there the Ghora Gali site was wrecked in a partition riot.¹⁶³)

After the birth of the new Muslim state of Pakistan, British and Hindu directors of the company left the country, and brewing ceased temporarily at the Rawalpindi brewery. But the new owner of the Murree Brewery Company, a member of the Parsi religious minority named Peshotan Dhanjibhoy Bhandara, who bought enough shares to take control by 1949 after having been distributor for the company's beers,¹⁶⁴ was determined to keep going, and production of

beer and spirits eventually restarted. Bhandara died in 1961, and the company passed to his son Minon. The brewery was closed down for two years in 1977-9 by the Pakistani government in an attempt to appease Islamic hardliners, but a court ruled that, with the owners being Parsis, the closure contravened minority rights.¹⁶⁵ It continued brewing Export Stout alongside lagers and non-alcoholic beers.¹⁶⁶ In 2007 the company was still doing its own malting, using barley from Australia, and producing 8,000,000 liters (49,000 imperial barrels) of beer a year.¹⁶⁷ In 2009 its black beer was an 8% abv product known simply as 'Murree's Stout Beer,' hopped with Hallertau hops from Germany and available in 500ml bottles,¹⁶⁸ and, in 2019, in 500ml cans as well. Minon Bhandara died in a car crash in 2008, and the company is now run by his son, Isfanyar Bhandara.¹⁶⁹

The first attempt at brewing in Simla, in 1860, had been made by a leading local businessman, Charles Harris Barrett, and two others, P. Coville of 'Kussowlic' and R. Hay, who found a property with 'a splendid stream of water' running through it, and had imported brewing and distilling equipment, including a steam engine, iron and copper boilers, a malt kiln and a malt mill, 'at very great expense' from England — 'even the bricks which were employed in the construction of the building were imported from England at an enormous cost'.¹⁷⁰ Potential output was being estimated at 600 hogsheads a month. Barrett had died at the end of 1860, aged 67, and production was hit by the company 'having been unfortunate in the selection of Brewers,' according to Hay, who was the brewery's manager. But in September 1864 it acquired the services on a three-year contract of an experienced brewer from Scotland, David George Blair, eldest son of Alexander Blair, owner of the Townhead Brewery, Alloa.

David Blair, though only 24, had 'conducted the working department' of the Townhead Brewery, founded by his father in 1853, 'for some years'.¹⁷¹ By the end of 1864 the Simla Brewery Company Ltd was brewing Double Brown Stout and XXX strong ale at 2¼ rupees a gallon and single stout at two rupees a gallon, in casks of from five to 27 gallons, and quart and pint bottles at five rupee and ¾ rupees respectively for the single stout.¹⁷² For comparison, bottled Barclay and Perkins's porter was on sale in Calcutta, straight off the ship, at four rupees per dozen pints, and Guinness porter at 4½ rupees the dozen.¹⁷³

By February 1865 the brewery was declaring that Blair 'has already turned out Malt Liquor which is universally admitted to be superior to any brewed in India before'.¹⁷⁴ In June 1865, however, nine months after he arrived to take up his post, David Blair died in Simla aged just 25, after slipping and falling 100 feet into a khud (deep ravine) as he was

walking up a narrow path from the brewery towards the town.¹⁷⁵ Rumours immediately started that Blair's death was the result of foul play, and a magisterial inquiry was launched, which heard that there was 'bad feeling' between Blair and Hay, the secretary and resident director at the brewery, and Blair had been 'obstructed in the performance of his duties' by Hay taking away the servants and coolies, 'and so preventing Mr Blair from going on with his brewing operations'.¹⁷⁶ Evidence was given to the inquiry that Blair had complained of bad treatment from brewery officials, and had expressed regret at having come out to India. After six days of taking evidence, however, including a private interrogation of Hay's wife, Simla's resident magistrate, Major William Paske, gave as his verdict that Blair's death was accidental, with no one to blame.¹⁷⁷

A year later, in June 1866, the Simla brewery and malt-house were put up for sale, 'the value of the Buildings and Machinery ... under-estimated at 150,000 rupees'.¹⁷⁸ This appears to have been a fire sale: soon after, Hay and Colville were taken to court by the Simla Bank Corporation, and the brewery, including steam engine, iron and copper boilers, malt mill malt house, malt mill and dwelling-house, was seized by the Simla Civil Court and put up for auction in September that year.¹⁷⁹ No purchasers seem to have come forward, until in 1869 a consortium began leasing the site of what was now called the Old Brewery from the Simla Bank, spending 150,000 rupees in refitting it, with Henry Meakin, 25, who came from a family of brewers and maltsters in Burton upon Trent, as the manager. (The Meakins had been exporters of beer to India: in 1854 George Meakin's Abbey brewery in Burton had sent out 300 hogsheads of export pale ale to Bombay.¹⁸⁰) The products were advertised as ale and stout, at two rupees a gallon, and XX strong ale at 2½ rupees a gallon; capacity was given as 500 hogsheads a month during the six-months-long brewing season, or 4,500 barrels a year.¹⁸¹

By October 1871 Meakin had taken over Dyer's old premises in Kasauli, 20 miles to the south, to run alongside the Simla Old Brewery.¹⁸² In 1874 the *Times of India* reported that 'Her Majesty's troops in the Hills and at Umballa' (a garrison town 120 miles north of Delhi) had 'taken kindly' to the beer from Henry Meakin's brewery in Kasauli, and

actually prefer it to the beer supplied to the Commissariat from home. This is a strong test, for Her Majesty's forces are the keenest of critics everywhere ... and find faults in such things as beef, bread and porter, which are frequently beyond the ken of their Commanding Officers.¹⁸³

That year the two breweries were selling ale and stout at 3¼ rupees per dozen pint bottles, or two rupees a gallon in



Figure 7. The brewery at Chakrata, a military hill station 7,000 feet up in the Himalayas on the road to Simla, opened by Henry Meakin in 1880.

cask.¹⁸⁴ It also looks as if Meakin acquired the failing Naini Tal brewery in 1874, soon afterwards installing an English brewer named Arthur Eagles Marsden (see below).

Over the next decade Meakin went on to build four more breweries of his own in hill stations and cantonment towns in a line stretching more than 800 miles across the Himalayan foothills, at Ranikhet, 6,100ft/1,869 meters up and 170 miles south-east of Simla (1878); Chakrata, a military hill-station 7,000 feet up and 20 miles from Mussooree on the road to Simla (1880); Panch Pool, at Dalhousie, 125 miles north-west of Simla, a cantonment named for the Marquess of Dalhousie, British governor-general of India from 1847 to 1856, and 6,500ft/1,970 metres up (1881); and the Victoria brewery, Sonada, near Darjeeling (1885), at 6,160ft/1870 meters. He also erected as a large maltings plant in Delhi.¹⁸⁵ (A short-lived rival brewery opened at Seoni, now Sauni, five miles west of Ranikhet, in 1878,¹⁸⁶ which was still going in 1881,¹⁸⁷ but had closed by 1887.¹⁸⁸ In 1881 the managing brewer of the 'Soonee Brewery' was a man named Joseph Alex Archer, who died at Ranikhet on 9 August that year, aged 32, of dysentery.¹⁸⁹)

In 1883 Meakin's brewery at Kasauli produced just under 9,900 imperial barrels, while the Dalhousie branch made 745 barrels.¹⁹⁰ The Dalhousie branch was under the management of a 'comparably young man', John Cecil Marsden, younger brother of Arthur Marsden: in September 1884, after two years in Dalhousie, and at the age of 22, he shot himself, an act that led the *Civil and Military Gazette* to editorialise about the pressures on 'a European in this country living alone a dreary cheerless existence among uncongenial surroundings, who has rushed upon a fate which those more fortunately situated think he might have escaped if he had the safeguards of society and companionship'.¹⁹¹

Production of beer in India was leaping, with a rise from almost 42,330 imperial barrels in 1877-8 to just under 72,150 in 1882-3, surging past imports from the UK, at 32,515 barrels that year.¹⁹² By the 1880s, with 73,000 British troops serving in India, the Indian government had ceased importing English beer (though some regiments apparently still did, independently).¹⁹³ In 1879 the government asked for tenders for 97,750 hogsheads of Indian-brewed malt liquor, and accepted tenders from six brewers: Murree

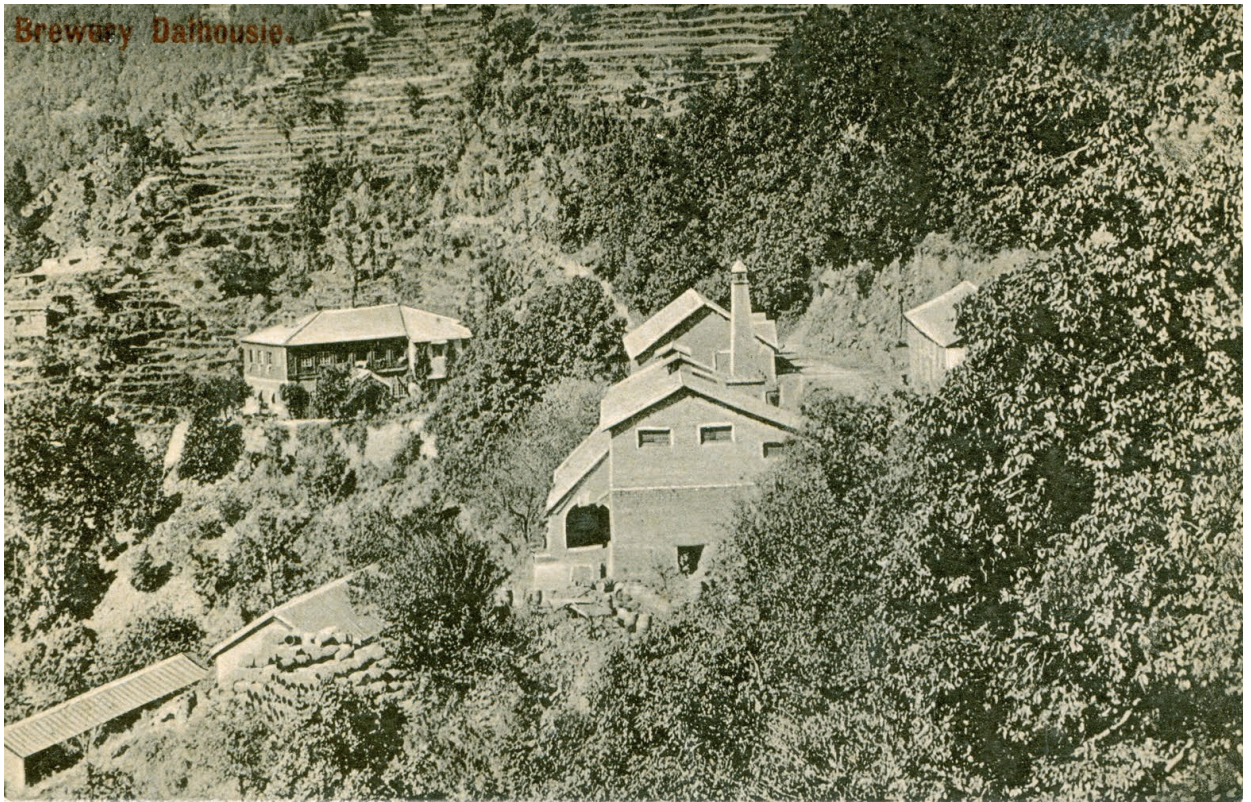


Figure 8. The Dalhousie brewery, Dalhousie cantonment, 6,500 feet up in the Himalayan foothills, opened by Henry Meakin in 1881 and the scene of a suicide in 1884 and two murders in 1893, both involving members of the brewing Marsden family.

Brewery Co. Ltd. (30,664 hogsheads), Meakin and Co., Kasauli (24,296), Whymper and Co., Mussoorie (13,218), Dyer and Co., Simla (10,985 hogsheads), the Naini Tal Brewery Co. Ltd. (10,234 hogsheads), and Mackinnon & Co of Mussoorie (8,358 hogsheads).¹⁹⁴ In 1889 it bought almost 105,000 barrels of Indian-brewed beer for the troops, most of it probably porter, or 73% of a total production of beer in India of just under 143,500 barrels. In 1891 there were 25 breweries in India (though 15 of those were owned by just three companies, Murree, Meakin and Dyer), of which 12, or just under half, had been established since 1879, and another eight, or just under a third, since 1870.¹⁹⁵ Around half were in the Himalayas.

An analysis of six porters brewed and bottled by north Indian brewers in 1882, including Meakin's 'Canteen Issue,' clearly the one served to the troops, found they had an average abv of 6.77%, slightly less than importer porter from the Taylor Walker brewery at Limehouse, in London at 6.81%, itself almost 30% stronger than a typical porter on sale back in London,¹⁹⁶ though the strongest, from Dyer and Co's brewery at Simla, was 7.65% abv. For comparison, two

IPAs brewed in India, from Whymper's Crown brewery and Mackinnon and Co, were 6.91% and 7.37% respectively.¹⁹⁷

Brewer	ABV
Meakin & Co. canteen issue	6.81%
Whymper and Co, Mussoorie	7.25%
Mackinnon and Co.	6.62%
Naini Tal brewery	6.11%
Murree brewery	6.17%
Dyer and Co. Simla	7.65%
Average	6.77%
Whymper EIPA	6.91%
Mackinnon IPA	7.37%
Taylor Walker porter	6.81%

A brief attempt was made to brew at Allahabad using 'condensed beer'. The London and Burton Condensed Beer Company, in operation by 1876, and based at Holborn Viaduct in London, England, sold a product derived from work by Philip Lockwood, one of the founders of the Anglo-Swiss Milk Company of Switzerland,¹⁹⁸ which had pioneered the production of condensed milk in Europe (and which later

merged with Nestlé). ‘Condensed’ beer was made by evaporating the original ale or stout to a sixth or an eighth of its original volume in vacuum pans and then adding back the amount of alcohol originally present.¹⁹⁹ The condensed beer was sold in hermetically sealed cans, and buyers needed only to add water, and let sufficient fermentation take place to add carbon dioxide sparkle. It was promoted as ideal for climates that would otherwise be too warm for regular brewing.

The company was said in 1880 to have established agencies to act as brewers and agents in Colombia, Brazil, Uruguay, Buenos Aires, Mexico, the Cape Colony, Natal, the Transvaal, Madeira, Australia ‘and elsewhere’.²⁰⁰ The US consul in Basle, Switzerland reported in October that year that Great Britain was exporting condensed beer to the value of \$12 million a year, and mentioned that ‘the British Government has recently authorized the establishment of a brewery on a large scale for the use of the army at Allahabad’.²⁰¹ The company charged £3 3s for an eight-gallon tin of condensed Burton Pale Ale, enough to make a hogshead (54 imperial gallons), £2 17s for a tin of condensed Burton Ale, £2 17s 6d for Dublin stout and £2 5s for table ale,²⁰² suggesting that if the American consul’s value on the amount of condensed beer was accurate, the equivalent of an unlikely-sounding 800,000 or more hogsheads a year was being sold.

Three years earlier, in 1877, Lockwood had persuaded the India Office to give the system a trial, and the apparatus for reconverting the extract was sent out from England and erected in a bungalow at Kuttra (today Katra), a suburb of Allahabad.²⁰³ In January 1878 the New Allahabad Brewery, ‘agents of the Condensed Beer Company, London,’ was advertising ‘Best Burton Draught Pale Ale’ and ‘Best Dublin Light Stout’ at 3½ rupees per dozen pints. ‘This new system of brewing,’ the man behind the advertisement, C.J. Jones, told customers, meant that ‘the best English Draught Ale and Stout is supplied here fresh from the Brewery, and at a somewhat lower price than other imported Beer, owing to a saving in freight. The Ale and Stout are confidently recommended to those who desire for table use fresh, light, Sparkling Beer, such as is drunk at home, in preference to the heavy Beers usually required to be taken for export to hot climates ... Orders sent Carriage Paid to any Railway Station within 400 miles of the Brewery ... Special Terms and Discounts to Regimental Messes and Merchants’.²⁰⁴

The Condensed Beer Company sold two types of apparatus for turning its syrup back into beer, a small version, costing £110 (perhaps £12,000 today) and capable of brewing ten to 20 barrels a day, and a larger version, able to brew 50 to 75 barrels a day, priced at £210. The brewing instructions were simple:

To an eight-gallon tin of the condensed beer add 42 gallons of water, mix together in a vat and pour into a clean hogshead. Just as it is being poured into the cask, add about four gallons of brisk [i.e. newly fermenting] beer as a ferment and roll or shake the barrel to mix it well. The cask must be filled almost full, leaving about a quart of empty space on top. The bung must then be driven in tight; the beer will soon commence to ferment, and after a few days will draw off bright and be fit for drinking or for bottling. When mixing, more or less of the condensed beer may be used, according as weak or strong beer is required.²⁰⁵

However, while the New Allahabad Brewery advertised regularly for five months, the adverts stopped after May 1878, and the brewery disappeared, the experiment of making ale and stout in India from concentrated beer brewed in the British Isles evidently a failure. Condensed beer was also imported into Madras in 1880, and beer brewed with it ‘of very good quality, at about 10% under the cost of beer brewed in England when laid down for sale here,’ according to the *Madras Mail* newspaper. However, the paper said, ‘dealers do not at present take to the new article, and it is a question whether it will ever be able to compete with Neilgherry or Murree-made beer. Moreover, it has to be considered that beer is going out of fashion in India, and giving way to whiskey.’ Imports of spirits were up by almost a quarter in 1879-80 compared to 1876-77, it said, while imports of beer had fallen off, ‘and would have shown a heavy decline, had it not been for the unusually large demand on account of the troops in Afghanistan,’ where more than 5,000 British and 13,500 Indian soldiers had invaded the country in the Second Afghan War.²⁰⁶

Condensed ale and porter were also issued to the British troops at Quetta in 1882/3, and ‘accepted by the men without complaint’.²⁰⁷ However, Quetta gained its own ‘proper’ brewery in 1886, and reconstituted condensed ale and porter disappeared from the canteens of the British army in India.

A brewery was opened in 1863 at Jeolikot, on the road three miles from Nainital, a hill station 6,800 feet/2,600 meters up in the outer Himalayas, 180 miles south-east of Simla and 215 miles east of Delhi. The water at the brewery ‘resembles more that of Burton than does any other source in India,’ it was claimed in 1882. However, the business passed through ‘several’ owners, before apparently being acquired by Henry Meakin, who brought in an experienced brewer, Arthur Eagles Marsden, from England via Halifax, Nova Scotia, who took charge as brewer and manager in 1874/75²⁰⁸ (Marsden sailed from Southampton with his wife and young son for Bombay in December 1874).²⁰⁹

Arthur Marsden came from a brewing background: his father, Robert, was a brewer, possibly at Watney’s brewery in

Pimlico, at the time Arthur was born, his grandfather, George Eagles Marsden, was a brewer living in Lewisham, then in Kent, according to the 1841 census, his uncle George Eagles Marsden junior was an operative brewer living in Heather Street, Kingston upon Thames in 1851 and his mother Anna was the daughter of John Hector, owner of the brewery in Blandford St. Mary, Dorset that was later taken over by Hall & Woodhouse. By 1861 Robert Marsden had moved with his family to the village of Stapenhill, on the edge of Burton upon Trent, where he was undoubtedly working at one of the many breweries in Burton, quite likely, given later history, the Meakin family's Abbey brewery, in Abbey Street. Arthur, Robert's oldest son, very likely learned the brewing trade in Burton, but by the early 1870s he was in Halifax, Nova Scotia, working as a brewer. There he met his future wife, Catherine 'Kate' Vaughan, three years his senior, marrying her in New York in January 1873.

Marsden 'obtained a contract to supply the troops at Naini Tal, which tripled his operations'.²¹⁰ The Naini Tal (sic) Brewery Company was brewing XXX double stout at three rupees for a dozen pints in 1876 and two rupees a gallon in casks, as well as pale ale and XXX strong ale: 'Customers supplying their own coolies can obtain their Beers at the Brewery by applying for Delivery Orders from the Agents'.²¹¹ The brewery looks to have been rebuilt in 1877, as Marsden advertised in July that year 'to Parents and Guardians' for a pupil 'to learn Brewing and Malting,' starting from October 1, when 'the spacious new premises, both Brewing and Malting, will then be in working order.' If required, 'the Pupil can be taught the English, Canadian and American, in addition to the Indian System of Brewing, at a slight increase of premium, the advertiser having brewed in some of the largest Breweries in each of these countries'.²¹²

In the summer of 1878 a local newspaper reported that the brewery 'is doing a good trade and ousting the familiar Bass from economical households. But the khansamas [household servants to European families] dislike the Naini Tal Brewery, because the bottles are returned instead of becoming their perquisites, so they hit upon the ingenious idea of putting a few drops of kerosene oil in each empty bottle, with the expectation that the bottles would be refilled with beer the flavour of which would disgust the customers of the objectionable brewery. They forgot, however, that the bottles would be examined to see if they were clean, a process which would never enter the perpetrators' thoughts. It has been found needful to break a large number of bottles publicly in order to convince the khansamas that the manoeuvre was useless'.²¹³

Marsden was still at the Naini Tal brewery in August 1881, when his wife Kate, who was from Halifax, Nova Scotia,

gave birth prematurely to a son who lived only a few minutes.²¹⁴ By 1883, however, he had moved to Henry Meakins's Simla Old Brewery, where in December that year his wife gave birth to another son.²¹⁵ One source claims that the managing brewer at the Naini Tal brewery from 1878 was Samuel Whymper, Henry Whymper's youngest brother.²¹⁶ Samuel had qualified as an analytical chemist at University College, London, and came out to India in 1877 aged 20 to join Henry at the Murree brewery.²¹⁷ A more likely date for his moving to Naini Tal is 1881/2, when he would have been 25 or so, and with four or five years of experience as a brewer. (Marsden seems to have kept an interest in the Naini Tal brewery, probably representing the Meakin interest in the firm, as he is listed among those 'present and by proxy' at the company's AGM in 1888.)²¹⁸

In 1882, as well as the XXX double stout and XXX strong ale, the brewery was brewing an Indian Pale Ale and something called 'Continental,' at 3½ rupees for a dozen pint bottles the most expensive beer the brewery sold, which was 'closely resembling the light German beers now so popular,' and which 'being a very light and agreeable bitter is especially suited for ladies'.²¹⁹ The firm had also been brewer by appointment to the Earl of Lytton, Viceroy of India from 1876 to 1880.

The concern had problems brewers elsewhere never suffered: a report in 1882 said at the Naini Tal brewery 'many dogs have been carried off by leopards, which break the strongest chains to take them away'.²²⁰ The Nainital area is prone to massive landslides triggered by heavy rain — in one, in 1880, more than 150 people were killed, '43 Europeans and Eurasians and 108 Indians', with the brewery hit twice. In the first, in August 1898, 28 people were killed, including Sam Whymper's assistant brewer, R. Beechey, who was buried beneath the fast-moving slip, with the brewery itself and the whiskey distillery alongside partially destroyed, as 5.5 million tons of earth shifted after 40 inches of rain had fallen in eight days. In the second, in 1924, the brewery hotel and restaurant were demolished, along with the police station outpost, shops and outhouses, and four people killed.²²¹

The brewery recovered from the disaster of 1898, and by 1903 it was making more than 6,500 imperial barrels of beer a year, of which around 4,920 barrels, or three quarters, were supplied to the troops. The beer was 'chiefly' conveyed by rail to Bareilly, 70 miles to the south (having first had to be taken the ten miles to the nearest station at Kathdogam, 4,800 feet below), from where it was 'distributed over the north of India'.²²² Around 1908 the brewery was employing 'about 50 hands'.²²³

Sam Whymper, known as 'Bumper Sahib,' the Indian pronunciation of 'Whymper,' gained a reputation as a 'famous' organizer of tiger shoots, and 'whenever there was a particularly obnoxious tiger in the neighbourhood, Bumper Sahib was invariably called in to shoot it, and invariably did.' He was also well known in ornithological circles as an egg collector, climbing above the snow-line to between 14,000 and 18,000 feet to collect the eggs of species such as the snow partridge.²²⁴ Whymper retired in 1912, settling back in London after a round-the-world voyage,²²⁵ and about the same time the Naini Tal brewery company was properly absorbed by Meakin & Co.: it was listed as one of Meakin's breweries in November 1911,²²⁶ though it had not been one of the company's eight breweries, including one at Delhi, listed in March 1910.²²⁷ The brewery was still running in 1920 when Meakin's general manager for the Kasauli, Ranikhet, Naini Tal and Darjeeling breweries, Robert Septimus Stowell, accidentally shot himself in the neck and died when he slipped and fell while out pigeon-hunting near Kasauli.²²⁸

Arthur Marsden and his family, meanwhile, look to have continued living in Simla until 1890, when they moved to Dalhousie, for Arthur to take charge of the brewery where his youngest brother had committed suicide six years earlier.²²⁹ Arthur had become a Freemason in 1878, but in Dalhousie his wife and his two eldest children, Robert, born in 1873 in Halifax, Nova Scotia, and Mabel, born in Nainital in 1876, began attending mass at a Catholic chapel in Dalhousie run by Belgian priests. The tensions in the family this caused, with Arthur's Freemasonry making him virulently anti-Catholic, exploded into murder in October 1893, when Arthur shot and killed his wife and eldest son, and attempted to kill Mabel.²³⁰ At the subsequent trial, Arthur was found not guilty of murdering his son — he claimed he had shot Robert in self-defence after Robert had threatened him with a gun — and guilty but insane over the shootings of his wife and daughter. He was declared by the Pubjabi government to be a 'dangerous criminal lunatic,' and locked up in the Bhowanipur Lunatic Asylum, Calcutta.

India-brewed beer had overtaken imports from Britain by 1904, when the country's brewers made just under 173,000 imperial barrels, of which 46% was bought by the army commissariat. Total imports, of which more than 93% came from the UK, were equivalent to just over two thirds of that figure.²³¹ The country had 27 breweries in operation, with the brewery at Murree being the largest, making around 27,500 barrels a year, or around a sixth of all the beer brewed in India.

In 1910 Meakin & Co. were boasting that 'our long experience in brewing for the Army in India enables us to produce

a malt liquor which gives satisfaction to Commanding Officers and men alike. The Specific gravity of our beer is adjusted specially for the Indian climate, and the only materials used (malt, hops and water) are of the purest. Substitutes such as hop extract, glucose or invert sugars, etc., so often met with, are not used by us ... Being local brewers we are in a position to quote prices which allow of our beer being retailed to the soldier at the equivalent of the price which prevails in England, viz., 4 annas [$\frac{1}{4}$ rupee] per Imperial quart, enabling him to purchase at a lower price than he would have to pay generally for imported beers.' The company was now brewing at eight places, having apparently opened a brewery in Delhi: the others were Kirkee in the south, and Chakrata, Dalhousie, Darjeeling, Kasauli, Ranikhet and Simla in the Himalayan hills.²³²

The Deccan brewery at Kirkee was put up for sale in March 1914 as suitable for 'a fine residence in a quiet, healthy and beautiful situation or a manufactory requiring a large area of land with good water supply'.²³³ The firm also turned itself into a limited company in the November, with registered offices in Kasauli, and 800,000 rupees in paid-up capital.²³⁴

The same year Meakin & Co. disposed of the Darjeeling brewery, more accurately the Victoria brewery at Gorabari, a mile outside Sonada, and five miles south of Darjeeling. The brewery was based in a former 'rest-barracks' used by troops on their way to Darjeeling itself²³⁵ ('Gorabari' means 'abode or settlement of the white people'). It was employing 35 hands in 1907, but producing just 1,500 hogsheads of beer a year.²³⁶ The brewery was sold by Meakin & Co. in 1914 to H.J. Craddock, an English brewer who had arrived in India in 1893. It was brewing XXX stout, XX and XXX ale and pale ale in 1917, using malt made in its own maltings from grain grown at Rewari, near Delhi, and English and US Pacific hops. Power came from an 8hp steam engine, the brewery had its own cooperage and bottling plant, and it now employed 32 hands.²³⁷ The brewery was still running in 1922, when it made 438 imperial barrels of beer, not 20 percent of the output in 1907, and selling exactly half of that to the military authorities.²³⁸ Sometime after this the Gorabari brewery shut down, and the premises, 'old and ramshackle,' were eventually sold around 1938 to a religious institute, the Salesians of Don Bosco.²³⁹

For breweries in India, unlike those in the United Kingdom, which suffered increasing restrictions on beer strength and ever-higher taxes, the First World War saw them able to provide 'large quantities of [beer] to the British soldiers resident in India and to the other beer drinking public at reasonable prices,' while 'a fairly large quantity of beer went overseas also, and 'apart from beer, large quantities of barley malt, processed at the maltings of [Indian brewers],

were sent to Egypt, with a view to enabling the breweries in that country to supply beer to soldiers at reasonable prices'.²⁴⁰

Despite that boost, however, in November 1921 the two big firms of E Dyer & Co. and Meakin and Co decided to merge their operations into a new company, Dyer, Meakin & Co. Ltd, with subscribed capital of 145,000 rupees and registered offices in Jalandhar, in the north of the Punjab and 85 miles west of Solon and Simla.²⁴¹ The Dyer family stayed involved, with Arthur Dyer's son, another Edward, a Royal Flying Corps pilot in World War One, chairman of Dyer Meakin in the 1930s.²⁴² (Edward died in London in 1946.)²⁴³ Most of the two companies' breweries were closed, with brewing concentrated at Solan and Ranikhet, and distilling at Lucknow and Kasauli, while in Mandalay the company continued to run both a brewery and a distillery. The brewery at Solan remained a substantial concern: in December 1928 the brewery at was asking for tenders to supply five lakhs — half a million — empty bottles for the calendar year 1929,²⁴⁴ and in 1943 it was producing 80% of Dyer Meakin's beer output.²⁴⁵

In 1937 Burma was separated from British India to become a separately administered colony, and the Mandalay brewery and distillery operation was turned into a separate company, Dyer Meakin (Burma) Ltd., which ran until October 1954, when it was nationalized by the Burmese government under the name Mandalay Brewery and Distillery.²⁴⁶ In India, meanwhile, by the 1930s Dyer Meakin was marketing its beers, including stout, using the brand name Solan.²⁴⁷ Early in 1941 the brewery was selling three beers under the Solan brand: K ale, pale ale and XXX stout.²⁴⁸ However, it had been struggling from 1935 against competition from overseas lager brewers, with imports from Japan, Germany and the United States, as well as British lager brewers including Allsopp's of Burton upon Trent, Jeffrey's of Edinburgh, Red Tower of Manchester, Wrexham of North Wales and Barclay Perkins of London all advertising in Indian newspapers. Although Dyer Meakin was producing its own Gymkhana brand pilsner, changing tastes meant 'its very existence was in jeopardy'.²⁴⁹

What saved the company was World War Two, particularly the invasion of South East Asia by Japan in 1941. Tens of thousands of troops from Britain arrived in India to fight alongside the army raised from the sub-continent's own peoples, and those troops wanted beer. During the period of conflict 90% of beer production in India was reserved for the armed forces.²⁵⁰ 'Normal' production for Dyer Meakin's two breweries had been around 11,000 imperial barrels a year, with the Solan brewery producing 80% of that. By 1942 output had risen threefold to a flat-out 33,000 barrels a

year.²⁵¹ The company's advertising in 1944 featured members of the Indian armed forces — an army engineer, a dispatch rider, a rear gunner in a bomber 'somewhere in Burma,' an AA unit — and a list of its beers, XXX stout, K ale and pale ale, together with an apology that so little beer was available for 'our civilian friends.'

Even in October 1946, more than a year after the end of the war, Dyer Meakin was still apologizing that the bulk of its supplies was going to the forces.²⁵² Six months later, in March 1947, the supply problem was over, and the company was advertising in XXX stout as 'nourishing, a fine tonic and 'pick-me-up during convalescence, rich in vitamins and proteins and a grand full-bodied heat warming drink at any time'.²⁵³ In August 1947 India gained its independence, and the owners of Dyer Meakin decided to sell the company, offering it to an employee, Subodh Chandra Ghosh, who turned them down.²⁵⁴ It was eventually acquired by an Indian businessman, Narendra Nath Mohan,²⁵⁵ born in 1901, and a member of a Brahmin sect from west Punjab called the Moyhals. Mohan had started his involvement in the beer business as a supplier of bottles to the Murree Brewery Company,²⁵⁶ and was also doing business with Dyer Meakin before the purchase. Under Mohan the brewery dropped the Solan brand name, and ended stout brewing, and launched a lager under the Lion brand, applying to register the trademark in 1965.²⁵⁷

In 1959 Dyer Meakin began building a site at Ghaziabad, 15 miles from New Delhi (and only 25 miles from Henry Bohle's original brewery site at Meerut) called Mohan Nagar to produce a wide range of products from breakfast wheat flakes to malt vinegar to jam. A new brewery and maltings was also built at Mohan Nagar, which, after delays in getting plant and machinery from abroad, opened around the beginning of 1962, the first new brewery in India in the 20th century.²⁵⁸ The brewery was licensed to produce 4,091 kilolitres of beer, a year — 25,000 imperial barrels, which was increased to a capacity of 15,000 kilolitres in 1970, with the brewery actually producing 11,678 kilolitres that year.

Four years earlier, in November 1966, the company's name had been changed to Mohan Meakin Breweries. The 'Dyer' part had become an increasing problem in post-independence India, and the country's first Prime Minister, Jawaharlal Nehru, had refused an invitation from N.N. Mohan to visit the Solan brewery while on his way to Shimla in 1960 because it bore the Dyer name. Edward Dyer's fourth son, Reginald, born in Murree in 1864, who had joined the Indian Army and risen to the rank of acting Brigadier General, had become infamous and reviled in India, after troops he was commanding in April 1919 in Amritsar had fired on an unarmed crowd, killing at least 400 people and

injuring many more, earning Reginald the epithet ‘the butcher of Amritsar’.

The company was still running the brewery at Solan and distilleries at Lucknow and Kasauli.²⁶⁰ Over the next 40 years the number of breweries rose, with new openings in Khopoli, halfway between Mumbai and Pune, in 1970, and in Lucknow the same year, followed by others in the 1970s and 1980s in Chandigarh, Madras, Kakinda, near Hyderabad, and in Nepal. The company name had changed again, becoming just Mohan Meakin in 1980.

Brewing in the south

Brewing in southern India actually dated back almost as far as the first brewery opening in the north. In a letter dated 1826, a year after Bohle had started brewing in Meerut, a successful bid to brew in the Nilgiri Mountains in South India was reported, with the claim that ‘extremely good beer has been brewed on the Neilgherries [sic] from malt of native manufacture (barley being a common growth on the hills) and English hops. Should it be possible once to introduce the hop plant, there cannot be a doubt but that excellent beer might be produced there, and at so cheap a rate as to bring it within the reach of European soldiers as a substitute for the poisonous arrack’.²⁶¹

This appears to be a one-off, non-commercial attempt at brewing: in 1827 the Britons on the ‘station committee’ in the Nilgiri town of Ootacamund (at an elevation of 2,240m/7,350ft, and later to be the summer capital of the Madras Presidency, the local British government) urged the government to establish a brewery to supply the British troops stationed in the neighbourhood. Nothing happened, however. Then in 1838 when the local superintending medical officer, DeBurgh Birch, again declared the suitability of the district around Ootacamund for opening a brewery to supply ‘good beer, which would be an invaluable gift to the European [ie British] soldier’,²⁶² an entrepreneur named Davis was able to obtain a grant from the Madras government of 2,500 rupees to erect a brewery at Kalhatti, a village near Ootacamund.²⁶³

One commentator was dubious about Davis’s venture, writing in 1839: ‘An experimental brewery has been established at the Neilgherries, but supposing good beer can be brewed there, the expense of carriage from the Neilgherries, to the low country would, it is said, be greater than the expense of freight from England’.²⁶⁴ The brewery at Kalhatti was still running in 1840,²⁶⁵ but looks to have vanished by 1848. That year Captain (later Colonel) John Ouchterlony of the Madras Engineers reported on his experiments in brewing in the

Nilgiri Mountains. Ouchterlony reported that the temperature in the district was perfect for malting for at least nine months of the year, and

fermented Malt liquors ... can be made on the Neilgherries with the greatest facility in all the details of the process and at a cost so trifling as to enable the Commissariat to supply the European troops at the three stations more immediately in the vicinity of the Hills, Bangalore, Trichinopoly and Cannanore, with both Ale and Porter at a rate calculated on an extreme estimate not exceeding 10 annas per imperial gallon delivered to the men from the Cask in the Canteen, or 2½ annas per quart, equivalent to 3½d per Pot.

Independent of the importance, both in a moral and economic point of view, of supplying to the troops a liquor which, from its goodness and cheapness, will induce the majority to prefer it to ardent spirit, the subject becomes still more entitled to consideration from the advantages which must result from its successful issue, when the projected measure for the permanent location of a Regiment of European troops on the Neilgherries shall be carried out; for as the chief item in the estimate of cost is the carriage from the Brewery to the station in the plains, Beer will be supplied to those resident on the spot at a greatly diminished rate ... Beer and Porter can under proper management be produced on the Neilgherries in every respect as wholesome and good as that now imported from England, and at a cost less by one half even including cartage to the station where it is to be consumed.²⁶⁶

Ouchterlony said he had now brewed ‘several casks of beer without a single failure in the principal parts of the process, viz Malting, fermentation and fining.’ Hops had been grown locally ‘with great success’, and while the local barley was poor, it could be augmented with ‘excellent’ local sugar in the fermenting vessel. A newspaper report much later said Ouchterlony had sent bottles of his Nilgiri beer to two British Army regiments stationed nearby, the 51st and 94th Foot, and one battalion of Europeans in the East India Company’s service. While the medical officers of the 51st declared it ‘heady and overcharged with alcohol’, the men of the 51st, ‘not perhaps objecting to these properties’, pronounced more favourably, though saying that Ouchterlony’s beer was ‘a little too sweet and new’, and he should hop it more and keep it longer. The 94th agreed, saying they would certainly prefer Captain Ouchterlony’s beer to European, ‘price being considered.’ Unfortunately, while the Madras government backed Ouchterlony’s call to set up a government brewery in the Nilgiris, and forwarded the idea to the East India Company Court of Directors, their memorandum remained unanswered.²⁶⁷

Nine years later, in 1857, a former soldier in the 2nd European Regiment, Bombay Light Infantry (an East India Company regiment) called Samuel Honeywell, who had been dis-

charged in 1844, opened the Glen Arven brewery in the Kaity Valley, otherwise Aravankád, Arvenghant or Arvaghant, four miles from Ootacamund. Honeywell was the son of a country brewer, and had been sent by his father to learn the business at a brewery in Salisbury, Wiltshire. Once the Glen Arven brewery was running he opened beer shops in the locality, and sold beer for 4½ rupees for a dozen quarts, and draft beer for four annas (a quarter of a rupee) a quart. His beer had been up to 8% abv, 'nearly as much alcohol as inferior arrack'²⁶⁸ (distilled fermented coconut sap or toddy) but between 1869 and May 1872 a maximum strength of 6.5% was imposed by the Madras revenue authorities,²⁶⁹ in part to protect the more highly taxed arrack and toddy. The cut in strength saw sales drop off sharply until Honeycombe lowered the price to two annas a quart. His sales in the 11 months from July 1872 to May 1873 were just over 2,000 imperial barrels. His beer was described in 1874 as 'abominable stuff ... bad for both stomach and head of an European, but contains nothing necessarily unwholesome'.²⁷⁰

Honeywell, who flew the union jack outside his brewery to show when he was in residence,²⁷¹ also opened a branch brewery in Bangalore (see below). He bought his hogsheads from the Commissariat at the nearby Wellington Convalescent depot, but made his own malt. He attempted to persuade the local Badagas tribespeople, who already grew southern Indian varieties of barley in the hills, to grow Scottish and English varieties, with limited success: yields were high at first but fell off over three years.²⁷² He also tried to open a brewery in Madras, but the Madras Board of Revenue 'did not believe it possible to make good malt in the plains, and was not inclined to encourage the production, under the name of beer, of intoxicating liquors not made from malt'.²⁷³ Honeywell left the brewery in 1877,²⁷⁴ selling it to a partnership of two local businessmen called Charles Edward Bill and Esoof (or Escoph, or Esof) Sait.²⁷⁵ They evidently renamed it the Castle brewery, though by 1882 Sait was apparently running it on his own – his partner was referred to in June 1882 as 'the late Mr Chas. Bill, the well-known Brewer of Ootacamund' in a reference to his 'distilling a very palatable spirit from coffee berries'.²⁷⁶

Meanwhile a firm called Norton & Co. was running the Bandora brewery at what is now Bandra, just to the north of Bombay (Mumbai) in 1875, offering porter 'of excellent strength and quality, as free from acid as first-class English porter,' at one rupee 14 annas per dozen pints.²⁷⁷ The beer was brewed from tidal water, according to Henry Whymper, and 'this water was quite salt, and the beer was very nauseous; it however kept sound in a most remarkable manner'.²⁷⁸ Norton & Co. was still running in 1883,²⁷⁹ but seems to have disappeared soon after.

The Palhully Brewery Company was started in October 1881 by two brothers named Dee and an Indian entrepreneur called H. Gungadhara Shetty in the village of Palahalli, in the kingdom of Mysore, 70 miles south-west of Bangalore. Machinery and other necessary materials were purchased, and a brewer named Straw hired on terms of 60 rupees a month, free quarters, a bottle of beer a day, and one third of net profits. However, Straw quit his job in March 1883 and disappeared, and the brewery closed, eventually permanently.²⁸⁰ Another brewery opened in Moody Bay, Bombay, also in 1881, but was closed by 1887.²⁸¹

Before that, however, in 1884 it was announced that Meakin & Co. of Kussowlie had been awarded a contract by the Bombay government to supply the European troops at Bombay, Poona (today Pune), Deolali and three other bases with 6,000 hogsheads of beer a year for five years, with Meakin undertaking to build a brewery at Poona to produce the beer.²⁸²

The site chosen for the brewery was the former 'rainy season' government house in the village of Dapuri, set in some 77 acres of land bounded on two sides by the Powna or Pavana river (which, together with wells, gave an 'unfailing water supply), two miles north of Kirkee (now Khadki) and six miles north of Poona.²⁸³ Henry Whymper visited the Poona brewery in April 1886, a year after it opened, and declared it 'The brewery which works most satisfactorily, under the most trying conditions to be met with in India.'

When he arrived, Whymper said, 'The temperature of a well-shaded verandah at 8 that morning was 93° [34°C]; at noon it was 106° F; the brewery office at the same time was 100°. By using a five-ton ice machine as much as possible, the average pitch heats had been about 75° in that month. Nothing had been pitched under 72°. One gyle had to be pitched at 88°, it rose to 101°, at which the attemperators were able to hold it. Beers, brewed under nearly the same unfavourable conditions three months before, were examined and were perfectly sound to the palate. The writer is fully aware this will not receive ready credence in England.' Another visitor later the same year revealed that the brewery had cost 'over six lakhs of rupees' to build, around £40,000 at contemporary exchange rates, perhaps £5 million today. He also noted that the brewery had its own cooperage, and roasted its own malt for its porter and stout.²⁸⁴

Back in the Nilghiris, by November 1883, Sait, too, had died.²⁸⁵ The Castle brewery was in the hands of Henry Thomas Ivatt by March 1884. Ivatt launched a new firm called the Castle Distillery and Brewery Company Ltd., which was seeking an investment from the public of 200,000 rupees for its 4,000 shares. Would-be investors were told

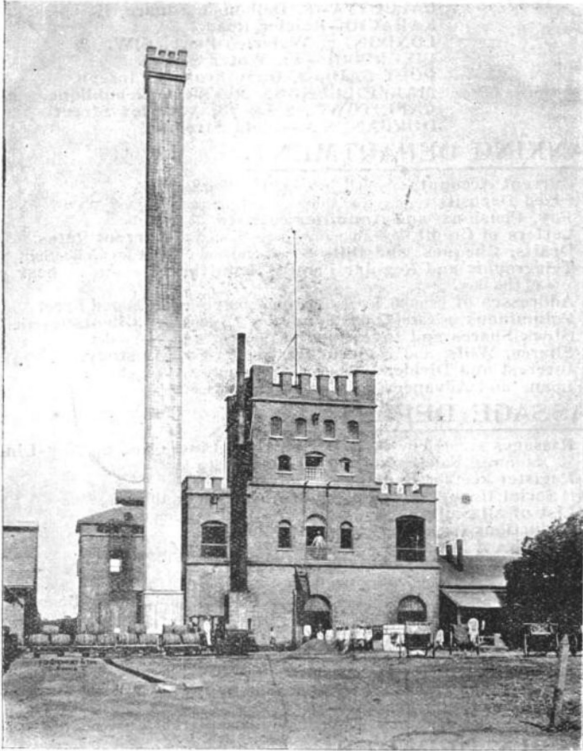


Figure 9. Meakin's Deccan brewery, Dapuri, near Pune, opened in 1885, from the *Times of India Guide to Poona*, 1902.

that the Castle brewery was 'a profitable working concern,' and capable of brewing 450 hogsheads of beer a month, while the distillery could make 100 gallons of proof spirit daily.²⁸⁶ Within four years, by 1888, the Castle brewery was being run by a Scot called Thomas Leishman as Leishman and Co, who was producing 'Finest pale Ales and Stout' in casks at just one rupee a gallon.²⁸⁷ It looks as if Ivatt continued to work at the Castle brewery, however: he was initiated into the local Anchor of Hope Freemasons' lodge in Wellington in 1889, where his profession was given as 'brewer' and his address as Coonoor. Thomas Leishman had joined the lodge the previous year: his address, too, was Coonoor, but his profession was listed as 'merchant'.²⁸⁸

Leishman was born in Alloa, Clackmannanshire, on the east coast of Scotland in May 1850 to John Leishman (or Lieshman), a grocer and tea dealer, and Hannah Thomson. By April 1881, aged 30, Thomas was working as a brewer in Alloa.²⁸⁹ The town was one of Scotland's biggest brewing centres, with eight different breweries blowing the aromas of malt and hops into the Alloa air in the 1880s, at least one of which, George Younger, was exporting its ale and stout to India.²⁹⁰ Three years later, in 1884, Leishman was recorded

as 'brewer, India' in a list of registered (that is, property-owning) voters in Alloa,²⁹¹ suggesting he had sailed to the sub-continent shortly before. His arrival in Ootacamund was recorded by the *Madras Mail* in August that year.²⁹²

By 1886, when he was 36, Leishman had been working for the Murree Brewery Company at the brewery it had just acquired at Ootacamund. This had been founded in 1879 as the Neilgherri (or Nilgiri) Brewery Company by yet another retired soldier, Major General Henry Rhodes Morgan, a pioneer settler in Ootacamund in the 1840s, and one of his sons-in-law, an experienced brewer called Augustus Batchelor. The son-in-law toured the breweries at Mussourie and elsewhere in the North West Provinces in order to understand the 'details peculiar to beer brewing in a hill climate.' A company was formed with Batchelor as managing proprietor and brewer, which opened a brewery in Ootacamund itself, just south of the racecourse.²⁹³ The new concern won a contract to supply amber ale to the 'European' troops at the Wellington depot within a year of opening, and eventually gained contracts to supply all the 'European' garrisons in the Madras Presidency except Kamptee.

By 1881 its beers, in bottle and cask, including 'Indian Pale Ale' made 'with special reference to the climate of India' and brewed 'only from the best Kentish and Sussex hops and the finest malt', were on sale in Bangalore, 120 miles to the north-east.²⁹⁴ The local newspaper reported: 'We lately tried a sample of Neilgherry beer and must pronounce it a first-rate drink. We were rather prejudiced against this beer, as an inferior article had been palmed off on us as being of the right quality. It is equal to that brewed in England, and most decidedly better than any that is bottled in this country. It is clear, has a good head, and is a good tonic. There is no reason why the beer turned out by the Neilgherry Brewery Company should not be extensively used. It is cheaper than that brought out from home, and as we have said, it rivals it in quality. The Company at Ooty ought to take the place in Southern India that the Murree Brewery Company has in the north of the country'.²⁹⁵

In 1884 it produced just under 5,500 imperial barrels of beer. Then on 1 January 1885 the Nilgiri Brewery Company was officially taken over by the fast-expanding Murree Brewery Company, which rebuilt the premises, boasting that the 'magnificent new brewery' was 'the finest in India'.²⁹⁶ The brewery had cask ale and porter available by September 1885, but apologized to customers that 'bottled beer will not be obtainable until November'.²⁹⁷ It was selling XXX stout (also described as porter) at 2¾ rupees for a dozen pints and pale ale at 2½ rupees a dozen, and 'Continental' pale ale, 'as light as it is possible to brew in this climate — certain to be appreciated by consumers of Pilsner,' in club-shaped

quart bottles at four rupees a dozen. In 1886 the Nilgiri brewery's output peaked at 17,666 imperial barrels of ale and porter, second in India only to the original Murree Brewery Company site at Ghora Gali, on just under 20,400 barrels.²⁹⁸

Unfortunately, Leishman had fallen out severely with the manager at Murree's Ootacamund brewery, Mr Holland, who had written to Mr Crichton, the head brewer at the company's brewery in Ceylon, telling him: 'Mr Leishman had failed most utterly, and I have been compelled to inform him that you will take the position of senior brewer at the brewery.' Holland also made accusations against Leishman to directors of the company over alleged mismanagement, neglect of orders and other offences. Leishman tried to sue Holland for defamation, but failed, in a court case that took four years to resolve.²⁹⁹ In the meantime, it looks as if he hopped down the road to Coonoor to run the Castle brewery.

It must have given Leishman much pleasure to see output drop at the Nilgiri brewery after he left, to just over 8,000 barrels in 1890, and in November the following year the Murree Brewery Company closed it down.³⁰⁰ A year later, at the end of 1892, Leishman bought the Nilgiri brewery.³⁰¹ Early in 1893 Leishman & Co. was advertising for a 'European Manager of good character and business experience' to run the offices and agencies of the brewery at Ootacamund.³⁰²

Leishman then moved to Bangalore and sold both the Nilgiri and Castle breweries in 1898 to Rangayya Goundan (also found as Rangia Gounden and Rungiah Gownden), who was the local carrier, and whose premises had been used by the Castle brewery as its stores.³⁰³ Gownden ran the Nilgiri brewery alongside the Castle brewery at Aruvenghat, with the Nilgiri brewery making 'native' beer from jaggery and malt.³⁰⁴ In August 1903 Rungiah Gownden & Co. had their brewing licenses cancelled, and the brewers and the company principals were prosecuted and fined for 'certain fraudulent transactons.' However, fresh licenses for the two breweries were issued just three months later.³⁰⁵

By 1914 a branch brewery had been opened in 'Ooty,' as the town was known, close to the cordite factory, on a site covering 27 acres. Output was now 500 hogsheads a month, of three types of beer, English, 'Continental' — presumably the same beer that the Murree Brewery Co. had made — and native, using Kent and US hops. Contracts had been signed to supply the troops in Madras, Trichinopoly and elsewhere in Southern India.³⁰⁶

However, in 1910 a series of messy court cases had erupted over the sale 12 years earlier of the two breweries, with

claims that the man who acted as Leishman's agent in the sale, Fakeer Mahamad (or Mahomed), had also pocketed money from Gownden in the same transaction.³⁰⁷ The eventual result was that the courts ordered the sale in January 1916 of both the Nilgiri brewery at Ootacamund and the Castle brewery at Aruvenghat, over a debt of 183,000 rupees that, the court decreed, was owed by Rangayya Goundan and Co. to A.R. Hajee Fakeer Mahomed Sait and Sons.³⁰⁸

Before that sale took place, however, in December 1915, a trio of Nilgiris-based brothers called Mudaliar, operating as P.M. Marudachala Mudaliar and Sons, had signed an agreement with Goundan and Co. to buy the two breweries for 370,000 rupees, with 183,000 rupees being paid into court to satisfy Goundan and Co.'s debt to Fakeer Mahomed Sait and Sons. The Mudaliars could not raise the money themselves, and instead borrowed it from Fakeer Mahomed Sait and Sons, agreeing to mortgage the two breweries as part-security for the loan. They then obtained a brewing licence, and ran the business until at least early 1917, opening a depot in Madras. However, it proved impossible for the Mudaliars to come to an agreement with the Goundan family over the conveyancing of the breweries, and they were eventually sold to the newly formed United Breweries, with United Breweries paying the 183,000 rupees court debt.³⁰⁹

Another couple of concerns had also started in the Nilgiris. The British Brewery Company, a very small concern, was opened in Ootacamund in 1902,³¹⁰ but survived for only four years.³¹¹ Earlier, in 1895 the Rose & Crown Brewery had been opened, supposedly by a man called Muni Huchanna (Huchanna being a Bangalore surname) at Kaity (today Ketti), 6,800ft/2,100 meters up on the Ootacamund-Coonoor road, where the average maximum temperature was 70°F/21°C.³¹² In 1900 the Rose and Crown brewery was making only 'native' beer, chiefly from jaggery, with a small amount of malt, though well-hopped.³¹³

Huchanna sold the brewery that year to another Indian entrepreneur, a barrister named C. Akilandiah³¹⁴ or Akilundiah, and in 1903 it was acquired by the Rose and Crown Brewery Company Ltd. By 1914, when the general manager was Stephen Bayly, it was making two types of drink, 'native beer,' for the local taverns in the hills, made largely from jaggery or crude cane sugar but with a Government-ordered minimum of at least two bushels of malt and two pounds of hops per hogshead; and all-malt 'English' beers for 'Europeans and troops' made with 'the finest Kent and Bohemian hops' and malt made on site from barley grown at Rewari in the Punjab, where the Mussooree and Naini Tal breweries also bought their supplies. The 'English' beers, which were sold to the troops at the nearby Wellington bar-

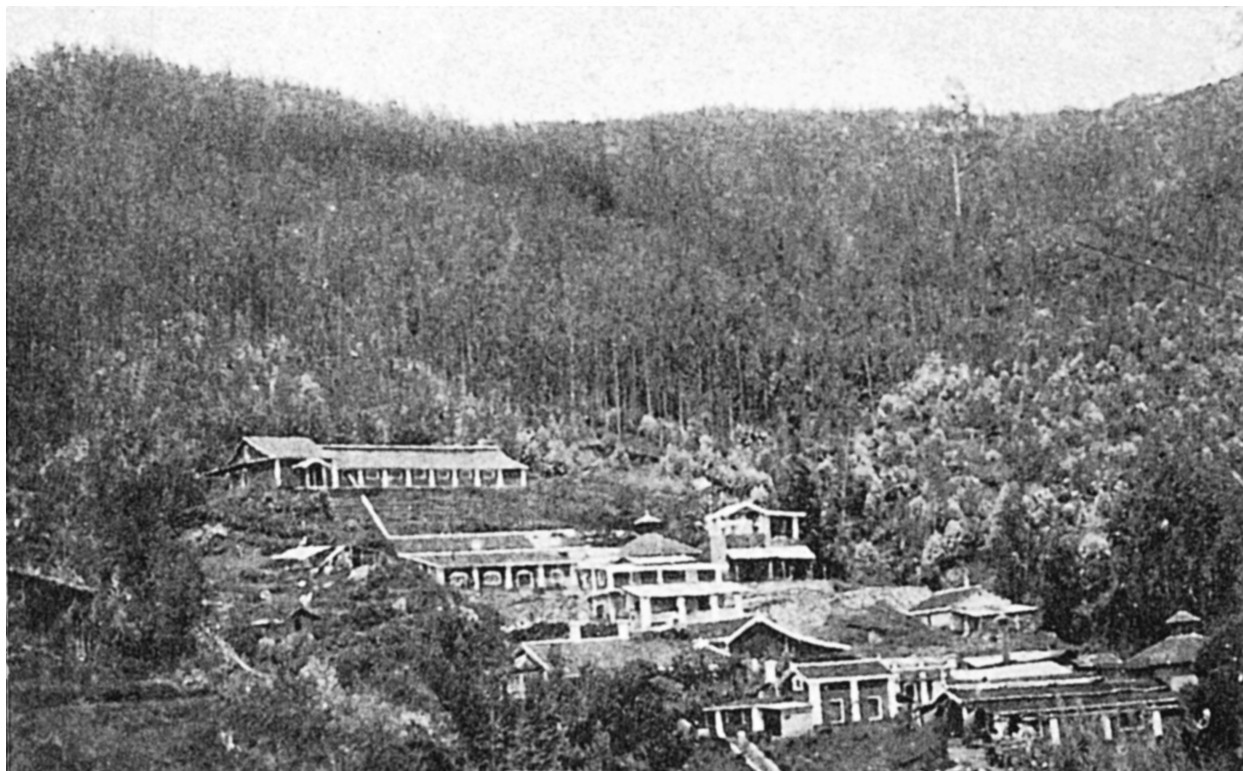


Figure 10. The Rose & Crown Brewery, Ketti, Nilgiris District, 1915, from Somerset Playne (1915) *Southern India: Its History, People, Commerce and Industrial Resources*.

racks and on the west coast, included an ‘excellent’ stout supplied in cask and bottle.³¹⁵

The brewery equipment included two coppers with a capacity of 70 barrels, 11 ‘huge’ vats, a large vertical boiler and its own coopering shop.³¹⁶ As with other hill breweries, the builders had taken advantage of the natural slope, arranging the three malt-houses and kilns up the hill, and then dropping progressively down to the malt-grinder, mash-tun rooms, copper-room, hop-back and coolers, fermenting and racking room, and finally the cellars. A year later, in 1915, the Rose and Crown brewery merged with two other South Indian firms, Leishman’s Bangalore Brewery Company and the Madras B.B.B. Brewery Company, to form a new operation, United Breweries Ltd., with a share capital of 1,000,000 rupees.

The brewing of beer in Bangalore, then the capital of the theoretically independent kingdom of Mysore, to supply the big British-controlled civil and military station there, the largest in southern India, began in 1861. In September that year a colonel in the Madras Artillery, George Briggs, proposed making ale and porter for the European soldiery from

‘Zeilithon’, or ‘grainstone’,³¹⁷ wort evaporated until it became glassy and brittle, a process invented in 1853 by a solicitor from Margate, Kent called Herman Dirs Martens.³¹⁸ Colonel Briggs claimed the ‘anticipated advantages’ of importing grainstone and brewing in India with it by adding water and yeast were a ‘considerable reduction in freight,’ an ‘enormous diminution of expense in land carriage,’ and ‘almost entire prevention of leakage wastage ullage et cetera.’ The government, ‘considering it highly desirable that an experiment promising to afford such material relief to the public finances should be carefully and thoroughly tested,’ authorized Colonel Briggs to buy the necessary equipment for brewing and purchase and convert into beer a supply of grainstone, ‘the liquor, when ready, to be sold in regimental canteens, with a view to its quality being fairly tested and reported upon.’

After a year’s trial of brewing with grainstone at Bangalore, Colonel—now Brigadier—Briggs reported in 1863 that the result was considered ‘so far satisfactory and encouraging.’ Beer produced from the brewery at Bangalore ‘having been freely used at that station by the Artillery and Her Majesty’s 66th Foot, and also pronounced by a Committee of Non-

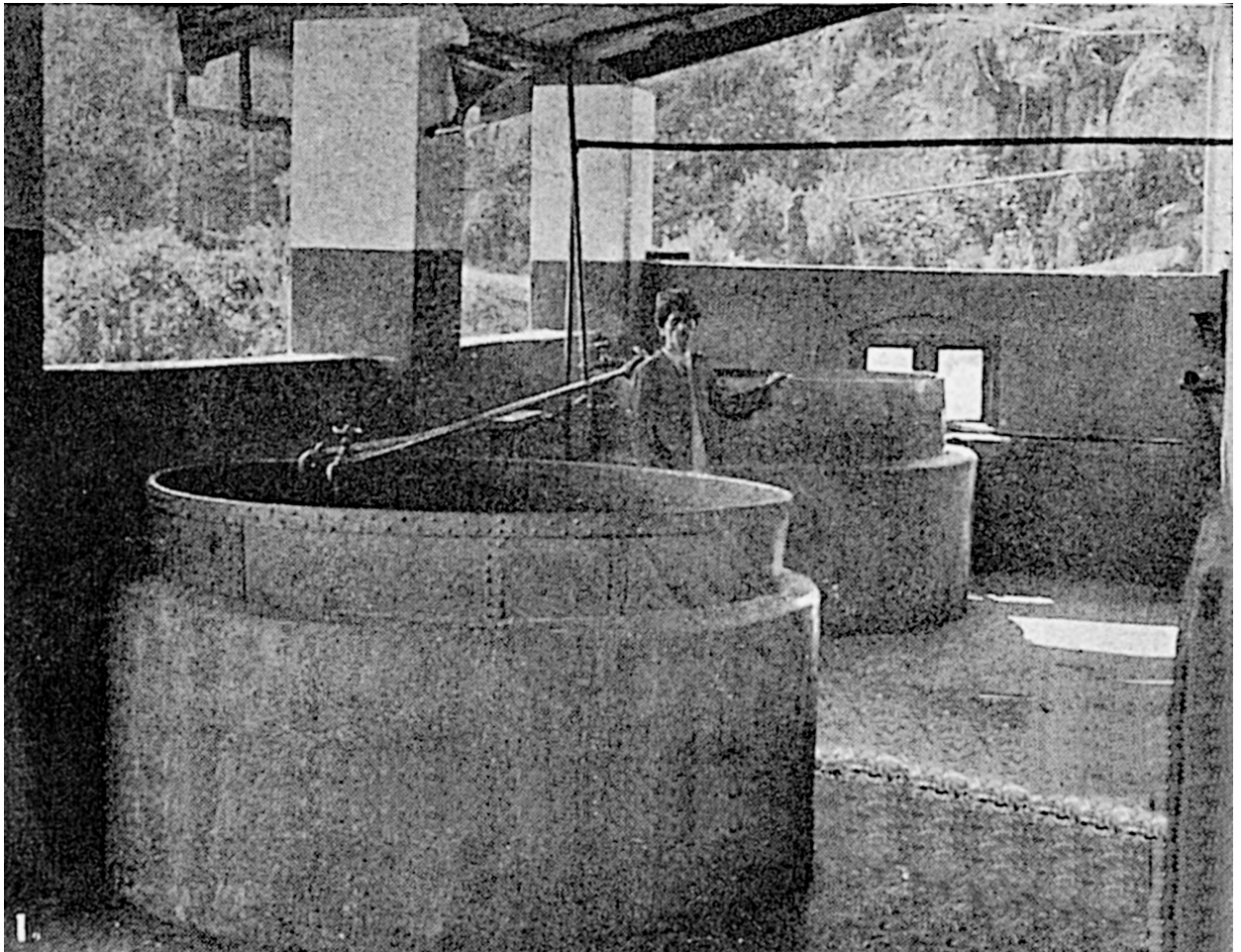


Figure 11. The copper room at the Rose & Crown brewery, Ketti, Nilgiris District, Southern India, 1915, from Somerset Playne (1915) *Southern India: Its History, People, Commerce and Industrial Resources*.

Commissioned Officers at Poonamallee [12 miles west of Madras/Chennai] to be fully equal to what was obtained from the Commissariat.' Measures were being taken for extending the brewery, 'it being Brigadier Briggs' opinion that with enlarged means many stations might be supplied with the produce of the Brewery at Bangalore'.³¹⁹

By the end of 1864 the experimental government brewery at Bangalore was running into problems. A local newspaper reported in February 1865 that 'sometimes' its products 'were worthy of the name of beer or porter, but latterly it was often impossible to call it by any name which the palate could recognize or approve of.' However, the newspaper continued: 'Within the last few weeks the patentee of the material used in the brewery has arrived in Bangalore and has taken the concern off the hands of the Government, and has directed several brewings which, under his own inspec-

tion, have turned out beer of excellent quality, and which no one who has any penchant for malt liquor can deny being a very palatable and wholesome beverage.' The patentee — presumably Martens — has 'connected himself with some gentlemen here,' the newspaper reported, 'and in conjunction with them has purchased the property near the Sumpungy Tank [Sampangi lake, on the border between the cantonment and Bangalore city], lately known as the Government School of Arts, and are fast progressing in the work of turning it into a brewery'.³²⁰

A company was started in Margate, the Concentrated Wort Co., to make grainstone for export,³²¹ and a new concern set up in Bangalore, the Mysore Brewery Company, with Major General James Whistler of the Madras Cavalry as the company president and George Dirs Martens (presumably either son or brother of Henry) and half a dozen

local entrepreneurs as partners. The Mysore Brewery Company ordered 15 tons of concentrated wort a month to be delivered from England via Madras by the Concentrated Wort Co. However, according to an action bought in June 1867 by Concentrated Wort, the Mysore Brewery Co. refused to take delivery of the grainstone.³²² The Concentrated Wort Company sued for 45,300 rupees it claimed it was owed for deliveries of grainstone, but lost the case.³²³ The brewery company, in the meantime, had been wound up after what were later described as ‘disputes’.³²⁴

The Bangalore Brewery Company was begun in 1869³²⁵ by Samuel Honeywell³²⁶ of the Aravankád brewery in the Nilgiri Hills and run, according to a report of 1874, by his son-in-law,³²⁷ though later, at least, it was his son Thomas in charge: Thomas Honeywell married Mary Donne in Bangalore on 24 December 1868,³²⁸ and they went on to have six children born in Bangalore between 1870 and 1885. By 1873 Honeywell was one of two brewers in Bangalore, along with a man called Roberts.³²⁹ However, in 1874 Samuel Honeywell was complaining that the Bangalore brewery ‘turns out more beer than he is at present able to sell’.³³⁰

Despite this, in May 1875 the Bench of Justices in the Bangalore cantonment granted a license to a local firm of traders, Abraham and Co, to brew ‘country beer of a superior quality.’ This looks to be Francis Norris Abraham, whose father, also called Francis, and Francis senior’s older brother Matthew had run a distillery in Bellary (now Ballari), 150 miles north of Bangalore, on the edge of the Kingdom of Mysore, making arrack for locals and British troops.³³¹ Abraham’s Bangalore brewery was behind Richmond Town in the heart of the cantonment, and bordering ‘Gillispie Tope’.³³² After the opening of Abraham and Co.’s brewery ‘near Ukkithimmanhully,’ which was described in 1876 as the largest in Bangalore, beer production leapt from 1,630 imperial barrels in 1873-4 to just over 3,400 barrels the following year.³³³ In 1876-7, when there were still three breweries at work in the Bangalore cantonment, production was 149,832 gallons, or just over 3,900 Imperial barrels. That year the tax on beer in Mysore was doubled from two annas a gallon to four annas, and production plunged to 77,653 gallons.³³⁴ A year later, production had dropped even further, to just 38,448 gallons, or 1,068 barrels, again from three breweries.³³⁵

Doubtless it was the pressure of falling sales that persuaded Honeywell and Abraham to join forces in the spring of 1880, when it was announced that Messers F.N. Abraham and Honeywell ‘have obtained a license for and intend opening an establishment for brewing beer in Bangalore. The sheds and premises on the old Government Experimental Farm have been leased from Government for the new brewery.’

The newspaper report added that ‘Mr Honeywell is quite proficient at brewing, having had many years’ experience in the art, and from his connection with the new establishment something better than ‘thick dish water’ may be expected’.³³⁶

There were still only two brewers in Bangalore in 1881, when they saw off an attempt by the rival Neilgherry Brewery Company of Nilgiri to attack their trade. The Bangalore cantonment municipal board charged 180 rupees for a licence to sell ‘country’ beer, but only 50 rupees to sell ‘English’ beer. The Neilgherry Brewery opened an agency in Bangalore in 1880, based at ‘Snowdrop Villa, Cleveland Town’, selling pale ale, amber ale and stout at 2 rupees 12 annas per dozen pints and 1 rupee 4 annas a gallon in cask, plus Champagne ale at 3 rupees per dozen pints,³³⁷ and managed to persuade the board that as its beer was made from English malt and hops, it should be classified as English beer and pay the lower licence fee. The two Bangalore brewers, un-named, unfortunately, in the newspaper story, who were paying the ‘country’ beer fee, protested, the board relented, and the Nilgiri brewery’s licences rose 260%.³³⁸

Abraham’s brewery ‘in the heart of Richmond Town’ was still running in August 1884,³³⁹ but a brief story a couple of months earlier looks to confirm that there was just one firm running multiple breweries in the city: the *Times of India* reported that ‘Messers Honeywell, Abraham and Co., brewers’ had petitioned the president of Bangalore municipality ‘to be allowed to transfer their breweries within civil and military limits from the beginning of next year. It was intended to separate the town from the cantonment in the matter of these breweries, but as little or no trade in ale is carried on in the town, the petitioners were desirous of closing their branches in that locality, and confining their business solely to the civil and military station limits’.³⁴⁰

Thomas Leishman, meanwhile, married 18-year-old Mercy Charlotte Abraham in Ootacamund in June 1886. Mercy was doubly related to Francis Norris Abraham of the Bangalore brewery: her father, David Vincent Abraham, was his cousin, and her mother, Louisa, neé Blake, was his wife’s aunt. The patriarch of the Abraham family, Matthew, Mercy’s grandfather, was a Tamil Christian convert, originally named Maree Chowry and a member of the *pariyar* caste of ‘untouchables’,³⁴¹ who had married a woman with mixed English and Portuguese parentage, Charlotte Fox, and made enough money from trading, running the distillery in Bellary and money-lending, to send his elder son, Charles, to Queens’ College, Cambridge.³⁴²

In 1889, by which time the cantonment had a population of more than 100,000, the running of Abraham’s Bangalore

brewery looks to have been assumed by Thomas Leishman,³⁴³ who appears to have concentrated his brewing operations in Bangalore after he sold the Castle and Nilgiri breweries in 1898. The Bangalore breweries received a knockback that same year when the government of Madras banned their beers from its borders on the grounds that they were 'not of a quality warranting admission to the Presidency,' a ban repeated in 1900 when the Bangalore beer was 'found to be as bad as ever'.³⁴⁴

Thomas and Mercy Leishman had a child together, Louisa Vincent Leishman, born in April 1887, but by 1895 the couple were divorced, after Mercy's adultery with an official from the Public Works Department.³⁴⁵ (Louisa Leishman died in St. Albans, Hertfordshire, England in 1980, aged 93.) That did not stop Thomas from continuing to be involved in business with Mercy's relatives, however. Abraham's brewery in Bangalore closed for repairs 'for some months' in 1901,³⁴⁶ but at the same time Leishman, together with Abraham and Co., and two firms of local traders and entrepreneurs, Gangadhara Chetty & Co., and Messrs Maigandadeva and Chelvary Mudaliar, came together to form the Bangalore Brewery Company,³⁴⁷ with a new brewery which opened in Bangalore that September 1901. The opening included a formal ceremony with Kristnah Moorti, the Dewan, or chief minister to the Maharajah of Mysore, giving 'a suitable speech' and being presented with a key.³⁴⁸

The Bangalore Brewery Company looks to have run both the new brewery and Abraham and Co.'s old brewery: certainly in 1907, when the problems with the Madras Abkari Department, which regulated sales of beer, arrack and toddy (and also opium and *ganja*, hemp), had been sorted out, the department announced that 'the control of the Bangalore breweries having been brought into complete uniformity with the Madras system, the rules regarding the importation into this country of beer brewed at the *breweries* [my emphasis] belonging to the Bangalore Brewery Company were relaxed'.³⁴⁹

In 1913 the Bangalore brewery was listed as the second largest in India, after the Murree brewery.³⁵⁰ By 1915 Leishman's partnership in Bangalore included H.T. Ivatt, presumably the same Ivatt who had also previously owned the Castle brewery, and V. 'Gungathara' (sic) Chetty & Co. The 10-quarter brewery was making pilsner and stout from Indian and Scots malt with hops from England, Bavaria and the USA. The brewery's offices, stores and other premises covered five acres in Sydney Road, Bangalore, while a compound with malthouses and sheds covered another 12 acres in Langford Road, Richmond Town. The brewer and chief engineer were European, the office staff consisted of five clerks with assistants, and the brewery employed another

100 hands.³⁵¹ The beer was sold in bottle and cask, and distributed direct from the brewery to officers' messes and canteens as far north as Bellary.

The Madras B.B.B Brewery Co., which had only opened in May 1913 in Naduvakkarai, Madras, was the latest in what was intended to be a chain of breweries in the East using two technologies, imported concentrated hopped wort from England and a special strain of high-temperature-tolerant yeast. The technique for making the wort had been invented by Herbert A. Hobson, founder of the Concentrated Beer Company Ltd. of Acton, England, and patented in 1901.³⁵² Among the first of the overseas ventures was the British Beer Breweries (Egypt) Ltd., which was registered in Guernsey in 1906 'to deal in Hobson's Concentrated Beer in Egypt'.³⁵³ The use of a high-temperature yeast called *Saccharomyces thermantitonus* ('the heat resistor') had been pioneered by a chemist called Grove Johnson and his business partner Percy Richard Hare. Johnson had discovered a yeast on eucalyptus leaves that had an optimum fermenting temperature of between 80° and 110°F (27° and 43°C), far higher than ordinary brewing yeast, and which was happy to be pitched at 120°F. Grove and Hare patented the yeast in May 1903, and experiments showed it made excellent stout, though delicate ales were less successful.³⁵⁴

Johnson and Hare's ST Ferment Company merged with Hobson's British Beer Brewers Ltd in 1907 and launched a plan for breweries using their combined technologies in Burma, Singapore, the Straits Settlement, the Federated Malay States, Java, Siam, Hong Kong and China. In September 1908, a new brewery opened in a large converted bungalow in Entally, a western suburb of Calcutta, using *S. thermantitonus*.³⁵⁵ The Entally Brewery survived a scandal in 1909 when its company secretary, an Englishman called Weatherdon, 'a big powerful man in the prime of life,' suddenly declared he had been sent by heaven to wage a continuous war against sin, and began attacking passers-by. He was secured by police, declared insane by a doctor, and committed to a mental hospital.³⁵⁶

Two years later Dr Harold Johnson, Grove Johnson's brother, visited the Entally Brewery. Harold Johnson reported that fermentation with *S. thermantitonus*, which was pitched at between 82° and 105°F, was extremely rapid: malt mashed at 6am would be bright, sparkling cold beer at 2pm the next day, with a wort of 1042° OG falling to 1011° in about 18 hours.³⁵⁷ However, he said, frequently the Entally Brewery's beers had 'a most disagreeable yeast bite,' and the real problem with *thermantitonus* yeast was that it did not produce a sufficiently bitter beer for many tastes, so that a quarter as much again hops were required, usually added late in the boil or during fermentation.

Whatever the problems, the Entally Brewery does not seem to have lasted long. However, in 1913, after two years' work, another offshoot of British Beer Breweries Ltd opened in Madras, with a capital of 2½ lakhs of rupees — ₹250,000 — and the exclusive rights to *S. thermantitonus* in the Madras Presidency (basically south-east India). The man in charge was William Richard Prosser, formerly head brewer with the Bennet Brewing Syndicate of Newfoundland.³⁵⁸ The plans for the brewery were drawn up by the brewing engineers George Adlam & Sons of Bristol, England, who also supplied all the brewing kit, and 14 wells were dug before a supply of spring water was tapped that gave 6,000 gallons an hour. By 1914, with the help of 40 hands, it was brewing 'exceedingly good' India Pale Ale and light dinner ale, from Scots malt and Kent hops; a pilsener made with Bavarian hops and Bohemian malt, and a 'fine double stout of genuine London type' from British malt and hops.³⁵⁹ Water for brewing was supplied from an 18ft diameter well, and the head brewer, W.R. Prosser, came from England. In 1914-15 it made just over 3,200 imperial barrels of beer.³⁶⁰

The following year, 1915, the Madras brewery, the Rose and Crown brewery and Thomas Leishman's operations in Bangalore came together to form United Breweries Ltd. The new company had Thomas Leishman, formerly managing partner of the Bangalore Brewery, as its managing director, with a board that included his partner in Bangalore, Henry Thomas Ivatt, Stephen Bayly of the Rose and Crown brewery at Kaity and Frederick Edmed Hooper, MD of McDowell & Co. of Madras, the managing agents for the Madras BBB Brewery Co. One of the benefits of combining the three breweries, prospective shareholders were told, was 'a considerable saving' in rail and transit charges, since beer would no longer have to be transported from Bangalore and the Nilgiris to Madras 'and other stations on the plains,' but could be supplied from Madras.³⁶¹

The following year United Breweries' Rose and Crown brewery, 'regimental suppliers and brewers,' was advertising 'draft English ale or stout supplied direct from the brewery, in 4, 9 and 18-gallon casks,' as well as pale ale and stout in bottle, and boasting that 'Our beers ... are brewed entirely with malted barley and English hops under the direct supervision of European experts'.³⁶²

In 1917, or very soon after, United Breweries acquired the two remaining brewing concerns in the Nilgiris, the Castle brewery at Coonoor and the Nilgiri brewery in Ootacamund, after the Mudaliar family, which had been running them since early 1916, failed to complete their purchase from the owners, the Goundan family.³⁶³ The two breweries seem to have been closed swiftly.

Thomas Leishman died in April 1925 at the Glenview Hotel, Coonoor, just short of his 75th birthday, still working as managing director of United Breweries.³⁶⁴ His obituary in the *Times of India* declared that 'then brewing industry of Southern India at Bangalore and in the Nilgiri Hills owes practically everything to the pioneering work ... by the late Mr Leishman.'

India's hill station breweries had grown up to take advantage of the captive market provided by British troops in hill cantonments, helped by the cool temperatures and clean water available at heights of 5 or 6,000 feet. Once the troops left, once the arrival of decent air conditioning made it less attractive for the British to retreat to the foothills during the oppressive Indian summers, the breweries in the hills lost their customers and began to close. It was no real problem for the local communities: according to one writer, 'only the smallest hill stations gained any measurable boost from these enterprises'.³⁶⁵ By 1936 the Ranikhet brewery, now run by Dyer Meakin, was the only one left in the United Provinces, and it brewed less than 500 imperial barrels of beer, down 40% on the previous year, a fall attributed to the provincial government not moving to the hills for the summer season that year.³⁶⁶

India's breweries were still making stout at the end of the 1930s, though in tiny quantities — just over 1,200 imperial barrels in 1936-7, just 3.75% of the country's total beer production of 32,400 barrels (less than a quarter of 1890's beer production in India), and barely 1,000 barrels in 1938-9. Stout sales had doubled by 1940-1, however, with total beer sales up 65%. The entry of Japan into World War 2 at the end of 1941, and the sudden threat to India this brought, brought a leap in the number of British troops in the country and, with it, a rise in the amounts of total beer and stout being brewed, to three times the barrelage in 1941-2 compared to 1938-9. Stout barrelage slipped back the following year, to 1,750 barrels, while total output passed 100,000 barrels for the first time.

However, the amount of stout being brewed in India leapt again in 1943-4, to 3,333 barrels, even as total output slipped by 7.5%. Surprisingly, while total output bounced back in 1944-5 to 101,000 barrels, stout production plunged to just 222 barrels.³⁶⁷ India had also been importing stout and porter in considerably greater quantities than the country was brewing itself, with an average of almost 4,200 barrels a year for the five years to 1933-4, falling to 2,800 barrels a year over the next five years and 2,250 barrels in the five years to 1943-4, though imports look to stop in the last two years of the war.³⁶⁸ (Imports of 'ale and beer,' presumably pale ales and lagers, were considerably higher, at 110,000 barrels a year in the quinquennium ending 1934-4 and still 52,000 barrels a year even in the five years to 1943-4.)

United Breweries was still brewing in Bangalore, Madras and at Ketti, with all the malting done at Kaity, up in the hills, and the three breweries had a combined output of around 8,300 imperial barrels a year, under normal conditions. With the departure of British troops post-independence, however, demand for stout plunged. United Breweries, which had been acquired by a young Indian entrepreneur named Vittal Mallya, who became the company's chairman in 1948,³⁶⁹ was still making 'London Stout' at Bangalore in 1994,³⁷⁰ a name perhaps inspired by the London Stout brand that Whitbread was still exporting to India in the 1930s,³⁷¹ but the company seems to have stopped making stout today.

References

1. Davies, J. [translator] (1662) *The Voyages and Travels of J. Albert de Mandelslo into the East Indies*, Book 1. London, England, p.29.
2. Anonymous (1732) *The Political State of Great Britain*, Vol. XLIV. London, England, p.462.
3. India Office Records Z/O/1/12 no. 631. That shipment included 11,482 hogsheads of export pale ale
4. Watt, G. (1891) *Dictionary of the Economic Products of India*. London: W.H. Allen, Vol. V, p.126.
5. Hanks, P. and Hodges, F. (1988) *A Dictionary of Surnames*, Oxford: Oxford University Press, p.38. However, one internet genealogy site suggests his origins were Irish.
6. <http://bit.ly/hbohlemother>
7. Muckleston family tree, accessed at <http://bit.ly/muckleston>
8. <http://bit.ly/hbohledeath>, accessed 11/11/2019
9. *England, Births and Christenings, 1538-1975*. Salt Lake City, Utah: FamilySearch, 2013, FHL Film Number: 1596476
10. Henry Mackinnon Bohle, Australian Stockman's Hall of Fame and Outback Heritage Centre, accessed at <http://bit.ly/bolehistory>
11. *The Bengal and Agra Annual Guide and Gazetteer for 1842*, Vol. 2, Calcutta, India, p.255.
12. Anonymous (1907) *Guide to Mussoorie with Notes on Adjacent Districts and Routes into the Interior*. Mussoorie, India, p.30.
13. *The Bengal and Agra Annual Guide and Gazetteer for 1842*, Vol 2. Calcutta, India, p.255.
14. Anonymous (1907) op. cit., p.32.
15. *ibid.*, p.21.
16. Both newspapers quoted in the *Asiatic Journal and Monthly Register*, London, England, Vol. XXII new series, No. 85, Asiatic Intelligence, January 1837, p.9.
17. *Calcutta Monthly Journal*, Kolkata, India, September 1836, p.372.
18. *Bengal and Agra Annual Guide*, op cit.
19. *ibid.*, p.360.
20. *The Pioneer*, Allahabad, India, 21 August 1884, p.6.
21. Everard, H. (1891) *History of Thos. Farrington's Regiment Subsequently Designated the 29th (Worcestershire) Foot 1694 to 1891*. Worcester, England, p.429.
22. India Office records N/1/39 f.117.
23. <http://bit.ly/bolehistory>
24. *The Pioneer*, June 25 1872, p.8.
25. *Proceedings of the Agricultural and Horticultural Society of India*. Calcutta, India, April 1841, p.30.
26. *Bengal and Agra Annual Guide*, op. cit.
27. The Indian Archives Vols 9-12, National Archive of India, New Delhi, 1958, p.101.
28. *The Madras Mail*, Chennai, India, Wednesday 13 July 1870, p.3.
29. Anonymous (1907) p.32.
30. Everest, G. (1958) *Historical Records of the Survey of India, Vol IV, 1830 to 1843*. (ed. Phillimore, R.H.) New Delhi, India, pp.163, 166.
31. Anonymous (1907) op. cit.
32. *The Pioneer*, Thursday December 7 1871, p.9.
33. Anonymous (1907) op. cit., p.35.
34. *The Madras Mail*, Chennai, India, Wednesday 13 July 1870, p.3.
35. *The Pioneer*, Thursday November 29 1877, p.12
36. *Allen's India Mail*, London, England, Thursday 28 August 1851, p.515.
37. *Bombay Gazette*, Mumbai, India, Saturday 28 June 1851, p.4.
38. <http://bit.ly/bolehistory>
39. Report of the commissioners appointed to inquire into the sanitary state of the army in India, HMSO, London, England, 1864, p.173.
40. *The Sydney Mail and New South Wales Advertiser*, Australia, Saturday 27 August 1881, p.381. The death notice gave her age as 59, which would have made her an extremely unlikely 12 years old when she married Henry Bohle.
41. *Bombay Gazette*, Thursday 8 November 1860, p.3.
42. *The Times of India*, Mumbai, India, Friday 28 September 1888, p.7.
43. *Bombay Gazette*, Thursday 13 April 1865, p.12.
44. *ibid.*, Thursday 13 April 1865, p.12.
45. *The Pioneer*, Saturday 27 May 1871, p.6.
46. *ibid.*, Tuesday 25 June 1872, p.8.
47. *ibid.*, Saturday 25 October 1890, p.10.
48. *The Cyclopaedia of India: Biographical, Historical, Administrative, Commercial*, Vol 2, Calcutta, India, 1908, p.350.
49. *The Pioneer*, Thursday 29 November 1877, p.12.
50. *ibid.*, Tuesday 29 April 1879, p.7.
51. Watt, G. (1891) op. cit., p.127.
52. *Cyclopaedia of India*, Vol. 2, op. cit.
53. *ibid.*, p.349.
54. *The Indian Forester*. Roorkee, India, Vol. XIII, No. 4, April 1887, p.173.
55. Hope, C.W. (1892) 'Indian Ferns,' *Calcutta Review*. Vol. XCIV, Kolkata, India, January, p.172.
56. *Cyclopaedia of India*, Vol. 2, op. cit.
57. Report on the Excise Revenue of the Central Provinces for the year 1899-1900, Nagpur, India, 1900, p.4.
58. Nelson, A.E. (ed.) (1909) *Central Provinces District Gazetteers, Jubbulpore District*, Vol. A. Bombay, India, 1909, p.224.
59. *Cyclopaedia of India*, Vol. 2, pp.349-50.

60. *ibid.*
61. Nelson, A.E. (ed.) (1909) *op. cit.*, p.225.
62. *ibid.*
63. Nagpur Law Reports: Containing Cases Determined by the Court of the Judicial Commissioner at Nagpur and by the Judicial Committee of the Privy Council on Appeal from that Court, Nagpur, India, Vol. 11, 1915 p.67.
64. Kennedy, D. (1996) *The Magic Mountains: Hill Stations and the British Raj*. Berkeley, California: University of California Press, p.217.
65. *Bombay Gazette*, Mumbai, India, Tuesday June 4 1850, p.3.
66. *Homeward Mail from India, China and the East*, *op. cit.*; and National Archives of India, PR000000845660, file No. 22
67. *Bombay Gazette*, Thursday 27 October 1853, p.3.
68. *Weekly Ceylon Observer*, Colombo, Sri Lanka, Wednesday 2 August 1884, p.622.
69. Anonymous (1893) *Barley and European Brewing in India*. Calcutta: Imperial Institute Series, p.15.
70. Colvin, I.D. (2006) *The Life of General Dyer*. Chandigarh, India: Unistar Books, p.1; Collett, N. (2005) *The Butcher of Amritsar: General Reginald Dyer*. London: Hambledon Continuum, p.4.
71. Collett, N. (2005) *op. cit.*
72. National Archives of India, PR 000000801036, file No. 162, part B; PR 000000841822, file No. 340, part C
73. Collett, N. (2005) *op. cit.*, pp.4-5.
74. *ibid.*; Colvin, I.D. *op. cit.* p.2.
75. *Bombay Times and Standard*, Mumbai, India, 13 October 1860.
76. *Homeward Mail from India, China and the East*, London, England, Tuesday 28 April 1857, p.7.
77. *ibid.*, Wednesday 19 September 1860, p.4.
78. Bhandara, M.P. (1999) *Short History of the Murree Brewery Company Ltd*. Rawalpindi, Pakistan, p.1.
79. De Rhe-Philipe, G.W. (1912) *Inscriptions on Christian Tombs and Monuments in the Punjab, North-West Frontier Province, Kashmir and Afghanistan, Part II, Biographical Notices*. Lahore, India, 1912, p.17.
80. Elwin, V. (1964) *The Tribal World of Verrier Elwin: An Autobiography*. Oxford: Oxford University Press, p.4.
81. Foreman, J. (2012) 'Ale under the veil: the only brewery in Pakistan,' *Daily Telegraph*. London, England, 24 March.
82. Brown, J. (1980) 'A Memoir of Colonel Sir Proby Cautley, F.R.S., 1802-1871, Engineer and Palaeontologist,' *Notes and Records (The Royal Society Journal of the History of Science)*. London, England, Vol. 34, Issue 2, February, p.209.
83. Collister, P. (1989) '*Hellfire Jack!*' *VC: the life and times of General Sir William Olpherts, 1989*. London: British Association for Cemeteries in South Asia, p.154.
84. *Bombay Gazette*, Thursday 8 November 1860, p.3; Eastwick, E.B. (1883) *Handbook of the Punjab, Western Rajputana, Kashmir, and Upper Sindh*. London: John Murray, p.253.
85. Colvin, I.D. (2006) *op. cit.*, pp.3 and 6.
86. Bhandara, M.P. (1999) *op. cit.*
87. *Allen's India Mail*, London, England, 19 May 1862, p.405.
88. Playne, S. (1920) *The Bombay Presidency, the United Provinces, the Punjab, Etc: Their History, People, Commerce, and Natural Resources*. Bombay: Foreign and Colonial Compiling and Publishing Co., p.633.
89. *ibid.*
90. *The Pioneer*, Friday 16 November 1866, p.9.
91. *Homeward Mail from India, China and the East*, London, England, Friday 28 June 1867, p.13.
92. *The Pioneer*, Saturday 15 January 1870, p.8.
93. Collett, N. (2005) *op. cit.*, p.9.
94. *ibid.*, p.50.
95. Anonymous (1893) *op. cit.*, p.30.
96. *The Pioneer*, 26 July 1886, p.8.
97. *ibid.*, 20 October 1879, p.8.
98. *ibid.*, Thursday 14 May 1891, p.6.
99. *ibid.*, Friday 25 April 1902, p.4.
100. Collett, N. (2005) *op. cit.*, p.91.
101. *The Leader*, Allahabad, India, Sunday 1 January 1911.
102. *The Tribune*, Lahore, Pakistan, Thursday 13 November 1913, p.2.
103. District Gazetteers of the United Provinces of Agra And Oudh, supplementary notes, Vol xxxvii, Lucknow District, Allahabad, India, 1926, p.5.
104. Report on the Joint Stock Companies, Punjab for 1917-18, Lahore, Pakistan, 1918, p.iii.
105. *The Pioneer*, Friday 26 October 1866, p.7.
106. Henry, E. (2011) *Triumph and Tragedy: The Life of Edward Whymper*. Leicester: Matador, p.12.
107. Dangar, D.F.O. and Blakeney, T.S. (1966) 'A Word for Whymper: A Reply to Sir Arnold Lunn,' *The Alpine Journal*. London, England, Vol. 71, No. 312, p.11.
108. *Ars Quatuor Coronatorum: Being the Transactions of the Lodge Quatuor Coronati*. London, England, Vol. 6, Friday 5 May 1893, pp.98-9.
109. *The Pioneer*, Tuesday 5 January 1886, p.11.
110. *Friend of India and Statesman*, Calcutta, India, Tuesday 26 August 1879, p.14.
111. *The Pioneer*, Monday 4 September 1871, p.14.
112. *ibid.* Tuesday 25 February 1873, p.14.
113. *ibid.*, Friday 15 August 1873, p.3.
114. Smith, I. (ed.) (2008) *The apprenticeship of a mountaineer: Edward Whymper's London diary 1855-1859*. London: London Record Society, p.212.
115. *The Guide to Mussoorie* of 1907 links the Crown brewery with a supposed early attempt to open a brewery 'near Barlowganj' in Mussoorie in 1867 by 'Messers Murch and Dyer,' which had closed in 1869. No more can be discovered about this venture except for an enigmatic reference in the *Pioneer* newspaper of 1 January 1874 to a cottage for rent at Mussoorie 'near Dyer's brewery.'
116. *The Pioneer*, Thursday 14 September 1876, p.8.; Thomson, N.H. and Spankie, G.T. (1881) *The Indian Law Reports: Allahabad series. Containing cases determined by the High Court at Allahabad and by the Supreme Court of India on appeal therefrom*. Allahabad, India, 1881, Vol. 3, p.470.

117. *Guide to Mussoorie*, p.146.
118. *Indian Daily News*, Kolkota, India, Tuesday 17 June 1879, p.21.
119. *ibid.*
120. *The Madras Mail*, Friday 5 February 1886, p.5.
121. *The Pioneer*, Tuesday 2 March 1886, p.11.
122. Watt, G. (1891) *op. cit.*, p.127.
123. *Guide to Mussoorie*, *op. cit.*
124. *The Leader*, Allahabad, India, Thursday 25 May 1916, p.4.
125. Eastwick, E.B. (1883) *op. cit.*
126. Walker, F. (ed.) (1880) *United States Centennial Commission International Exhibition 1876 Reports and Awards*, Vol. IV, Groups III-VII, Washington D.C., p.213.
127. *The Brewers' Guardian*, London, England, 6 August 1878, pp.237-8.
128. *Weekly Ceylon Observer*, *op. cit.*
129. Eastwick, E.B. (1883) *op. cit.*, pp.253-4.
130. *The Madras Mail*, Monday 31 August 1885.
131. *ibid.*, Wednesday 5 December 1884, p.5.
132. *The Times of India*, 27 April 1885, p.5.
133. *The Madras Mail*, 28 August 1885, p.8.
134. *The Pioneer*, 5 January 1886, p.11.
135. Hughes-Buller, R.B. (1907) *Baluchistan District Gazetteer Series, Vol. V Quetta-Pishin District*. Ajmer, India, pp.190-1.
136. Bateman, R. (2018) *Rifleman of the Raj: A Soldier's Journal, British India 1919-1920*. England: Lulu, pp.94-5.
137. *The Pioneer*, Saturday 3 October 1885, p.6.
138. Playne, S. (1920) *op. cit.*, p.859.
139. Watt, G. (1891) *op. cit.*, pp.126-7.
140. *The Pioneer*, Friday 14 August 1891, p.7.
141. *ibid.*, Wednesday 30 August 1899.
142. Hughes-Buller, R.B. (1907) *op. cit.*
143. Playne, S. (1920) *op. cit.*
144. *ibid.*
145. *The Times of India*, 3 June 1935, p.11.
146. Martin, S.C. (ed.) (2014) *The SAGE Encyclopedia of Alcohol: Social, Cultural, and Historical Perspectives*. California, 'Pakistan,' accessed at <http://bit.ly/sagemurree>
147. *The Madras Mail*, Friday 1 November 1889, p.4.
148. Bhandara, M.P. (1999) *op. cit.*, p.2.
149. Robertson, F.A. (1895) *Gazetteer of the Rawalpindi district*. Lahore, Pakistan, second edition, p.168.
150. Playne, S. (1920) *op. cit.*, p.638.
151. Watt, G. (1891) *op. cit.*, p.127.
152. *The Times of India*, 29 April 1893, p.3.
153. Bhandara, M.P. (1999) *op. cit.*, p.1.
154. Playne, S. (1920) *op. cit.*,
155. Photograph, author's collection.
156. Playne, S. (1920) *op. cit.*, p.638.
157. *ibid.*, pp.633, 638
158. *Journal of the Institute of Brewing*, London, England, Vol. 33, 1927, p.190.
159. Bhandara, M.P. (1999) *op. cit.*, p.2.
160. *ibid.*
161. *ibid.*
162. Martin, S.C. (ed.) (2014) *op. cit.*
163. Foreman, J. (2012) *op. cit.*
164. 'How old time religion put the lid on brewing', *The Guardian*. London, England, 13 February 1979, p.21.
165. Foreman, J. (2012) *op. cit.*
166. *Far Eastern Economic Review*, Hong Kong, Vol. 160, 1997, p.74.
167. Foreman, J. (2012) *op. cit.*
168. www.ratebeer.com/beer/murree-stout-8/102792/
169. 'Have a Murree with your Curry,' *The National*. Abu Dhabi, United Arab Emirates, 25 May 2009.
170. Watt, G. (1891) *op. cit.*, p.126.
171. *The Pioneer*, Allahabad, India, Monday February 1865, p.12.
172. *ibid.*, Monday 23 January 1865, p.12.
173. *ibid.*, Monday 21 August 1865, p.11.
174. *ibid.*, Monday 27 February 1865, p.7.
175. *ibid.*, Monday 19 June 1865, p.3; *Bombay Gazette*, Thursday 22 June 1865, p.3.
176. *Bombay Gazette*, Saturday 15 July 1865, p.3.
177. *The Times of India*, Saturday 15 July 1865, p.4.
178. *The Pioneer*, Wednesday 13 June 1866, p.7.
179. *ibid.*, Monday 27 August 1866, p.8.
180. India Office Records reference Z/O/1/12 No 599.
181. Carey, W.H. (1870) *A Guide to Simla: With a Descriptive Account of the Neighbouring Sanitaria*. Kolkota, India: Wyman & Co., pp.76-77.
182. *The Pioneer*, Wednesday 27 December 1871, p.12; Census 1965 Himachal Pradesh, District Handbook of Mahasu, Shimla, India, 1965, p31
183. *The Times of India*, 8 April 1874, p.2.
184. *The Pioneer*, Tuesday 1 September 1874, p.9.
185. *The Times of India*, 7 June 1895, p.7.
186. *ibid.*, Friday 6 September 1889, p.4.
187. Brandis, D. (1882) *Suggestions Regarding Forest Administration in the North-western Provinces and Oudh*. Calcutta, India: Home Department Press, p.152.
188. *Madras Mail*, *op. cit.*
189. *Bangalore Spectator*, Bengaluru, India, Saturday 20 August 1881, p.2.
190. *Madras Mail*, Monday 31 August 1885, p.4.
191. *ibid.*, Tuesday 9 September 1884, p.3.
192. *Madras Mail*, Monday 31 August 1885, p.3.
193. *The Times of India*, 28 September 1888, p.7.
194. *Madras Mail*, 19 June 1879, p.2.
195. Watt, G. (1891) *op. cit.*, pp.126-7.
196. Pattinson, R. (2010) *Porter!* England: Lulu, p.454.
197. Warden, C.J.H. (1882) 'An Analysis of Indian Brewed and Other Ales,' *The Chemical News and Journal of Industrial Science*. London, England, Vol. 45, 16 June, p.258.
198. Phillips Bevan, G. (ed.) (1876) *British Manufacturing Industries*. London, England, pp.66-7.

199. *New Remedies*, New York, Vol. 9, April 1880, p.116.
200. *The Brewers' Guardian*, Vol. 10, January 1880, p.9.
201. Reports from the Consuls of the United States on the Commerce, Manufactures, Etc of their Consular Districts, Washington DC, 1881, p.530.
202. *Madras Mail*, Saturday 6 November 1880, p.2.
203. *The Pioneer*, Tuesday 25 December 1877, p.5.
204. *ibid.*, Saturday 19 January 1878, p.15.
205. *Madras Mail*, op cit
206. *ibid.*
207. *The Pioneer*, Friday 22 February 1884, p.4.
208. Eastwick, E. (1882) *Handbook of the Bengal Presidency: with an Account of Calcutta City*. London: John Murray, p.261; *The Tribune*, Lahore, Pakistan, 13 December 1893 (which says that Meakin had employed Marsden for 19 years, meaning Meakin must have hired Marsden to run the Naini Tal brewery in 1874.)
209. *Allen's India Mail*, 7 December 1874, p.1171.
210. Eastwick, E. (1882) op. cit.
211. *The Pioneer*, Tuesday 1 February 1876, p.14.
212. *ibid.*, Saturday 7 July 1877, p.13.
213. *Allen's India Mail*, 6 September 1878, p.887.
214. *The Pioneer*, Tuesday 23 August 1881, p.7.
215. *Friend of India and Statesman*, Calcutta, India, Tuesday 18 December 1883, p.9.
216. Henry, E. (2011) op. cit.
217. *The Ibis*, London, England, 1942, p.279.
218. *The Pioneer*, Saturday 6 October 1888, p.11.
219. *ibid.*, Saturday 15 July 1882, p.20.
220. Eastwick, E. (1882) op. cit.
221. Shah, G. (1999) *Nainital: The Land of Trumpet and Song*. Nainital, India: Abhinav, p.106.
222. Nevill, H.R. (1904) *Naini Tal, a Gazetteer, being Vol XXXIV of the District Gazetteers of the United Provinces of Agra and Oudh*. Allahabad, India, p.177.
223. *The Imperial Gazette of India*, Vol XVIII, Oxford, England, 1908.
224. *The Ibis*, pp.280-1.
225. *ibid.*, p.279.
226. *The Times of India*, 28 November 1911.
227. *ibid.*, 15 March 1910, p.1.
228. *The Pioneer Mail*, and *Indian Weekly News*, Allahabad, India, Friday 23 July 1920, p.24.
229. *Annals of the Propagation of the Faith*, Vol. 58, Dublin, Ireland, 1895, p.198.
230. *The Pioneer*, 20 October 1893, p.4.
231. *Journal of the Society of Arts*, London, England, 3 November 1905, p.1191.
232. *The Times of India*, 14 March 1910, p.1.
233. *ibid.*, 13 March 1914, p.3.
234. Report on the Joint Stock Companies, Punjab for 1920-21, Lahore, Pakistan, 1921, p.xvi.
235. Newman, W. (1900) *Newman's Guide to Darjeeling and Its Surroundings, Historical & Descriptive*. Calcutta, India, 1900, p.8.
236. *The Cyclopaedia of India: Biographical, Historical, Administrative, Commercial*. Calcutta, India, 1907, Vol. 1, p.337.
237. Playne, S. (1917) *Bengal and Assam, Behar and Orissa, Their History, People, Commerce and Industrial Resources*. London: Foreign and Colonial Compiling and Publishing Co., p.254.
238. *Report on the Administration of the Excise Dept. in the Presidency of Bengal 1921-2*. Calcutta, India, 1922, p.12.
239. Thekkedath, J. (2005) *A history of the Salesians of Don Bosco in India: from the beginning up to 1951-52*, Vol. 2. Bangalore: Kristu Jyoti, pp.1223-4.
240. Superintendent of Census Operations, Himachal Pradesh, *Census 1965 Himachal Pradesh, District Handbook of Mahasu*. Shimla, India, 1965, p.31.
241. Powell, W.W. (1922) *Report on the Joint Stock Companies, Punjab 1921/22*. Lahore, Pakistan, p.iv.
242. *The News*, Adelaide, Australia, Saturday 2 March 1935, p.1.
243. *The Times*, London, England, Wednesday 9 January 1946, p.1.
244. *The Times of India*, 13 December 1928.
245. *Agricultural Marketing in India*, Issue 51, Report on the Marketing of Farm Produce, Delhi, India, 1943, p.33.
246. *Burma: National Economy 1963-4*, Rangoon, Burma, nd (1964-5), p.90.
247. *The Times of India*, 23 December 1936, p.33.
248. *The Times of India*, 2 July 1941, p.4.
249. Registrar General of India, Census of India 1961 Vol. XX Himachal Pradesh general report, p.619.
250. *ibid.*
251. *Agricultural Marketing in India*, op. cit.
252. *The Times of India*, 19 October 1946, p.9.
253. *ibid.*, 8 March 1947, p.7.
254. Sharma, A. (2019) 'Nehru refused to visit Solan's Dyer brewery, its name was changed,' *The Tribune*. Chandigarh, India, Sunday 7 April.
255. Kumar, R. (1992) *Labour participation in management: a case study of two organizations in Uttar Pradesh*. Delhi, India: Ajanta, p.77.
256. *The Times of India*, 16 July 1969, p.11.
257. Application number 23001, class 32, *Trade Marks Journal*, Mumbai, India, no 468-0, 12 January 1968. It has frequently been claimed that the Lion name for beer in India goes back to Edward Dyer. It does not.
258. *The Times of India*, 11 November 1961, p.4.
259. *ibid.*, 16 July 1971, p.9.
260. *ibid.*, 16 April 1967, p.4.
261. Hough, J. (1829) *Letters on the Climate, Inhabitants, Production, &c of the Neilgherries or Blue Mountains of Coimbatore*. London: J. Hatchard, pp.134-5.
262. Birch, d B. (1838) 'Topographical Report on the Neilgherries,' *Madras Journal of Literature and Science*. Madras (Chennai), India Vol. VIII, July-December, pp.96-7.
263. Price, F. (1908) *Ootacamund, a History*. Madras (Chennai), India: Government Press, p.218.

264. *The Asiatic Journal and Monthly Register for British and Foreign India, China and Australasia*. London, England, Vol. XXX, December 1839, p.295.
265. Price, F. (1908) op. cit.
266. Ouchterlony, J. (1868) *A Geographical and Statistical Memoir of a Survey of the Neilgherry Mountains*. Madras, India: E. Marsden, pp.17-22.
267. *Sydney Morning Herald*, Australia, 16 Friday November 1860, p.8.
268. Francis, W. (1908) *Madras District Gazetteers, The Nilgiris, Vol. I*. Madras, India: Government Press, p.289.
269. *Madras Mail*, Saturday 20 April 1872, p.3.
270. *The Revenue Register*, Madras, India, Vol. VIII, April 1874, pp.118-9.
271. *Madras Mail*, Friday 20 July 1877, p.3.
272. Robertson, W.R. (1881) *Reports on the Agricultural Conditions, Capabilities, and Prospects of the Neilgherry and Coimbatore Districts*. Madras, India: Government Press, p.19.
273. Francis, W. (1908) op. cit., p.290.
274. *The Times of India*, 10 March 1877, p.4.
275. Reports on the Settlement of the Land Revenue of the Provinces under the Madras Presidency for Fasli 1286 (1876-77), Madras, India, 1879. The buyers' surnames are also found as Bell and Saib: there seems to have been a row over payment, with Honeywell taking the buyers to court in 1878: see the *Madras Mail*, Monday 30 September 1878, p.4.
276. *The Bangalore Spectator*, Tuesday 20 June 1882, p.2.
277. *The Times of India*, 8 June 1874, p.1.
278. Watt, G. (1891) op. cit., p.127.
279. Hunter, W.W. (1886) *The Imperial Gazetteer of India*. 2nd ed., Vol. IV, London: Trüber & Co., p.617.
280. Hayes snr., J.W. (1889) *The Mysore Law Reports*, Vol. XI 1888, Bangalore, India, pp.284-94.
281. *Madras Mail*, Friday 6 September 1889, p.4.
282. *The Times of India*, 26 May 1884, p.4.
283. *Gazetteer of the Bombay Presidency*, Vol. XVIII pt. III: Poona, Bombay, India, 1885, p.128.
284. *The Times of India*, 23 September 1886, p.5.
285. *The Madras Mail*, Chennai, India, 27 November 1883, p.3.
286. *The Pioneer*, Saturday 22 March 1884, p.17.
287. *The Madras Mail*, 19 May 1888, p.1.
288. United Grand Lodge of England Membership Registers: Colonial and Foreign E 1043-1203 to Colonial and Foreign F 1210-1413, No 1093 Folio 89.
289. Census returns, Scotland, 1881.
290. *The Pioneer*, Wednesday 28 March 1888, p.17.
291. *Lothian's Annual Register for the County of Clackmannan 1884*. Alloa, Scotland, 1884, p.38.
292. *The Madras Mail*, Tuesday 2 September 1884, p.5.
293. *ibid.*, 29 August 1882, p.2.
294. *The Bangalore Spectator*, Thursday 24 February 1881, p.1.
295. *ibid.*, Thursday 10 February 1881, p.2.
296. *The Madras Mail*, 15 June 1888, p.8.
297. *ibid.*, 25 September 1885, p.2.
298. Anonymous (1893) op. cit., p.30.
299. Boulnois, C. and Brown, K. (1891) *The Indian Law Reports: Madras series Vol. XIV*, p.51-2.
300. *ibid.*
301. Boulnois, C., Brown, K. and Nelson, R.A. (1895) *The Indian Law Reports, Madras series, Vol. XVIII*, Calcutta, India, p.41.
302. *The Pioneer*, Wednesday 18 January 1893, p.9.
303. Playne, S., Bond, J.W., and Wright, A. (1915) *Southern India: Its History, People, Commerce, and Industrial Resources*. London: Foreign and Colonial Compiling and Publishing Co., p.254.
304. Francis, W. (1908) op. cit.
305. Report on the Administration of the Abkari Revenue in the Presidency of Fort St George for the Year 1903-4, Madras, India, 1904, p.11.
306. Playne, S., Bond, J.W., and Wright, A. (1915) op. cit.
307. *Amrita Bazar Patrika*, Calcutta, India, 26 January 1911, p.6.
308. *The Times of India*, 1 December 1915, p.2.
309. *The Madras Law Journal*, Madras, India, Vol. 44, 1923, pp.396-407.
310. *The Times of India*, 5 December 1901, p.5.
311. Francis, W. (1908) op. cit., p.290.
312. *ibid.*
313. Report on the Administration of the Abkhari Revenue in the Presidency of Fort St George for the year 1899-1900, Madras, India, 1900, p.34.
314. Francis, W. (1908) op. cit. and *The Times of India*, 3 August 1912, p.9.
315. Playne, S., Bond, J.W., and Wright, A. (1915) op. cit., pp.266-70.
316. *ibid.*
317. Accounts and Papers of the House of Commons, East India, Progress and Condition, pt1, session 5 February-28 July 1863, vol XLI, India Office, London, England, 1863, p.435.
318. Anonymous (1853) *The Repertory of Patent Inventions: And Other Discoveries and Improvements*, Vol. XXIII, January-June, London, England, p.50.
319. Report on the Administration of the Madras Presidency During the Year 1862-1863, Madras (Chennai), India, 1863, p.114.
320. *The Pioneer*, Monday 27 February 1865, p.4.
321. Owens, J. (1879) *Plain Papers Relating to the Excise Branch of the Inland Revenue Department from 1621 to 1878*. Linlithgow, Scotland, pp.159-161.
322. *Madras Mail*, 28 April 1870, p.4.
323. *ibid.*, 16 May 1870.
324. *ibid.*, 7 May 1875, p.3.
325. *ibid.*, 6 September 1889, p.4.
326. *The Cyclopaedia of India: biographical, historical, administrative, commercial*. Calcutta, India, 1907, Vol. 3, p.404.
327. *The Revenue Register*, Madras, op. cit.
328. www.familysearch.org/ark:/61903/1:1:FGVC-8NF, accessed 10 November 2019.
329. *Madras Mail*, 25 June 1873, p.3.

330. *The Revenue Register*, Madras, op. cit.
331. Mallampalli, C. (2011) *Race, Religion and Law in Colonial India: Trials of an Interracial Family*. Cambridge: Cambridge University Press, p.86.
332. *Madras Mail*, Friday 7 May 1875, p.3.
333. *ibid.*, Friday 26 May 1876, p.3.
334. *The Bangalore Spectator*, Thursday 7 February 1878, p.2.
335. *ibid.*, Thursday 12 December 1878, p.2.
336. *Madras Mail*, Saturday 3 April 1880, p.3.
337. *The Bangalore Spectator*, Saturday 14 August 1880, p.1.
338. *Times of India*, 20 May 1881, p.2.
339. *Madras Mail*, Thursday 21 August 1884, p.3.
340. *Times of India*, 25 June 1884, p.3.
341. Mallampalli, C. (2011) op. cit., pp.1, 38.
342. *ibid.*, p.131.
343. Playne, S., Bond, J.W., and Wright, A. (1915) op. cit., p.212.
344. Report on Excise Revenue in Madras 1899-1900, pp.29, 34.
345. *The Pioneer*, Friday 6 December 1895, p.3.
346. Report on the Administration of the Abkari Revenue in the Presidency of Fort St. George for the year 1901-2, Madras, India, 1902. p.12.
347. *The Cyclopedia of India*, op. cit., p.404.
348. *Times of India*, 1 October 1901, p.4.
349. Report on the Administration of the Abkhari Revenue in the Presidency of Fort St. George for the year 1907-8, Madras, India, 1908, p.1.
350. *The Leader*, 3 August 1913, p.3.
351. Playne, S., Bond, J.W., and Wright, A. (1915) op. cit.
352. *Journal of the Federated Institutes of Brewing*, London, England, Vol. 8, p.784.
353. *The British Trade Journal*, London, England, Vol. XLIV, 1 February 1906, p.83.
354. Dye, G. (2011) 'S.T. Ferment Co Ltd and the Model Brewery, Norbury, London,' *Brewery History*. No. 140, Spring, pp.57-70.
355. *ibid.*
356. *The Times of India*, 25 October 1909, p.7.
357. Dye, G. (2011) op. cit.
358. *Brewers' Journal*, Vol. 47, 1911, p.44.
359. Playne, S., Bond, J.W., and Wright, A. (1915) op. cit., p.159.
360. Memminger, L. (1917) 'Market for Beer in the Madras Presidency,' Bureau of Foreign and Domestic Commerce, *Commerce Report*. Vol. 3, July-September, Washington DC, p.588.
361. *The Times of India*, 5 April 1915, p.4.
362. Eagan, J.S.C. (1916) *The Nilgiri Guide and Directory*. Madras, India: S.P.C.K., p.180.
363. *The Madras Law Journal*, Vol. 44, 1923, p.401.
364. *The Times of India*, 28 April 1925, p.9. The newspaper wrongly gave his age as 77.
365. Kennedy, D. (1996) op. cit., p.95.
366. Report on the Excise Administration of the United Provinces for the Year Ending March 1937, Allahabad, India, 1938, p.10.
367. Manjunath, B.L. (1948) (ed.) *The Wealth of India*, Pt. 1, New Delhi, India: Council of Scientific and Industrial Research, p.140.
368. *ibid.*, p.141.
369. Maiya, H. (2011) *The King of Good Times*. South Carolina: CreateSpace, p.2.
370. Hardwick, W. (1994) (ed.) *Handbook of Brewing*. New York: CRC, p.30.
371. *The Times of India*, 2 May 1934, p.9.