

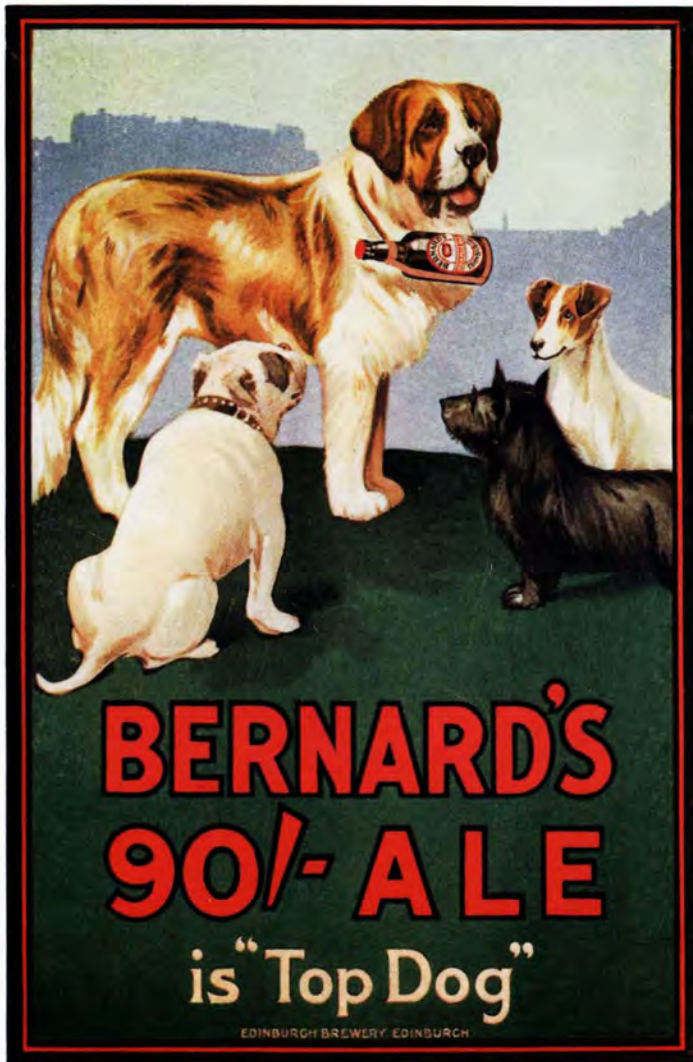


UNIVERSITY
of
GLASGOW

THE ANNUAL JOURNAL
OF THE SCOTTISH BREWING ARCHIVE



VOLUME 1, 1998



T. & J. BERNARD LTD
EDINBURGH BREWERY
EDINBURGH

T&J Bernard's advertisement, c1930s

Front cover: Tennent's take on German competitors, c1910

SCOTTISH BREWING ARCHIVE

Committee of Trustees - List of Members

Office Bearers

Chairman	D I H Johnstone Bass Brewers
Vice Chairman	Dr I L Donnachie Open University in Scotland
Treasurer	Mr David Smeaton
Archivist	Mrs Alma Topen Archives and Business Records Centre, University of Glasgow

Members

Mr J A Hardie	Carlsberg-Tetley Alloa Ltd
Mr I Herok	Belhaven Brewery Company Limited
Mr L Fernie	Brewers' and Licensed Retailers' Association of Scotland
Prof. A Slaven	Centre for Business History, University of Glasgow
Prof. M S Moss	Archivist, University of Glasgow
Prof. A McKinlay	Centre for Business History, University of Glasgow and University of St Andrews
Mr L Hutcheon	Scottish & Newcastle plc.
Prof. G H Palmer	Heriot-Watt University
Dr J C Slaughter	Heriot-Watt University
Mr D Kellock	Maclay & Co Ltd

Co-opted Members

Ms L Richmond	Acting Director of Archive Services, University of Glasgow
Mr Brian Sharp	Scottish & Newcastle plc.

CONTENTS

Page	
3	Editorial
4	J&R Tennent's Lager: The German Connection, <i>by Stefan Manz</i>
13	Brewery Tales: I Could Have Mashed All Night, <i>by Sam PLE Cran</i>
21	Labels: Usher's Amber Ale, <i>by Paul Dean</i>
24	The Maltman Incorporation of Dundee, <i>by Ian Flett</i>
26	Some Speculations on the History of Beer, <i>by DIH Johnstone</i>
32	Ayr Citadel Brewery, <i>by Jane Jamieson</i>
36	Old Ale Tales, <i>by Iain Russell and Alma Topen</i>
39	Friends of the SBA Application Form

Per favor of 24th Inst

Mr. W. M. McRobert *Stranraer*

POSTAL ADDRESS: **Bought of ROBERT KNOX,** TELEGRAMS: **"KNOX, CAMBUS."**
CAMBUS, BY STIRLING. **BREWER.**

CAMBUS. **ALLOA.**

ALE SENT OUT BETWEEN 1ST JULY & 30TH SEPT^R GUARANTEED ONLY SIX WEEKS. ALE SENT OUT BETWEEN 1ST OCT^R & 30TH JUNE GUARANTEED THREE MONTHS
NO ALE TAKEN BACK
unless complained of & found faulty WHILE IN WOOD and within the time guaranteed

CASKS TO BE RETURNED IN THREE MONTHS. PLEASE TAKE A RECEIPT FROM THE PARTY WHO COLLECTS THE CASKS THE USUAL DISCOUNT GIVEN IF PAID IN FULL WITHIN THREE MONTHS.
YOU ARE SPECIALLY REQUESTED TO TAP UP ALL CASKS WHEN EMPTY TO PREVENT THEM GETTING MUSTY & RETURN THEM WITHOUT DELAY.

EDITORIAL

Welcome to the first Annual Journal of the Scottish Brewing Archive.

The lively, new-look SBA Newsletters have proved very popular and have stimulated a great deal of interest in the Archive since the first issue appeared last year. Many of the “newsy” features previously published in the old newsletter have remained within its covers - but we trust that there is still much of interest in the articles on all aspects of brewing history and the history of beer, which will continue to appear here in the pages of the Annual Journal.

Many thanks are due to one of the unsung heroes of past issues, the Glasgow University Archives’ computer technician Neil Leitch. Neil has been on hand to advise on what to do when disk formats are incompatible, viruses plague our systems, and we feel like smashing our screens in frustration. His technical skills ensured that the old Newsletter maintained its smart, professional appearance, and he has promised to continue to offer assistance with the Annual Journal.

Please keep contributions coming in. You’ll find us at the addresses (electronic, telephonic and postalonic!) below.

Alma Topen and Iain Russell, Editors.
c/o The Scottish Brewing Archive
Glasgow University Archives and Business Records Centre
13 Thurso Street
Glasgow G11 6PE

Phone: 0141 330 6079
Fax: 0141 330 4158
E-mail: A.Topen@archives.gla.ac.uk
Website: <http://www.arts.gla.ac.uk/Archives/scotbrew.htm>

Copyright rests with the Scottish Brewing Archive

J. & R. TENNENT'S LAGER: THE GERMAN CONNECTION

The author is a PhD student at the University of Freiburg/Germany writing on "Immigrants and Internees. The German Community in Glasgow, 1864-1918". He would like to thank the staff of the Scottish Brewing Archive for their most competent and friendly assistance.

BREWERY WELLPARK GLASGOW.

J. & R. TENNENT'S

CELEBRATED

LAGER BEER



HIGHEST AWARD
* CHICAGO WORLD'S FAIR, 1893. *
Trinidad, 1890 - Gold Medal. * Jamaica, 1891 - Gold Medal.
Guaranteed Pure, Brilliant and free from sediment.

J&R Tennent's advertisement, 1890s

In 1884 Hugh T. Tennent¹ took over the sole management of the largest brewing firm in the West of Scotland, J. & R. Tennent. He was in his early twenties, highly ambitious and too clever a businessman not to notice the current trend on the consumer market. Reading the trade journals he would learn that Scotch and English ales were unable to get a foothold in the newly emerging Japanese market² or that they were "not altogether to the French taste"³. The bottom line was interchangeable: people all over the world preferred light, German-style lager to dark, English-style ale. With a 300% increase in exports between 1873 and 1887⁴ the German brewing industry was on its way to securing a "Place in the Sun" in the world market. It set about becoming a serious competitor even on the British Isles. Firms like Glasgow-based Bischoff & Co., "importers of foreign lager beer"⁵ were to be found in increasing numbers. "Heavy beers, the favourite tipples of our forefathers, seem

to be altogether discredited in the present age, and the universal demand is for light beers of sparkling quality."⁶

Both its past and present made Germany the ideal country to meet this universal demand. Bottom fermented lager was first brewed by Bavarian monks around 1500. The Bavarian diet quickly passed the *Reinheitsgebot* ("purity law")⁷ which secured high quality standards over the centuries. The emerging global mass market in the 19th century necessitated an increased output. "High-tech" factories, built and operated by highly skilled engineers, brewers and chemists, enabled mass production at constant quality and thereby Germany's increasing share in the world market. In terms of economic performance, Germany was on its way to "overtaking"⁸ Britain towards the end of the century. The brewing industry represents one factor in this general comparative development.

Hugh reacted swiftly. In 1889 he decided to realise "a madman's dream"⁹: importing a complete lager plant from Germany. Two factors stood in favour of this plan. Firstly, techniques for scotch ale production - especially its low temperature fermentation - showed striking similarities to continental lager production. Hugh might have become aware of this fact during his visit to Bavaria in 1881.¹⁰ Secondly, Tennent had survived the concentration process in the Scottish brewing industry during the nineteenth century as one of the few large-scale enterprises. It could therefore afford the necessary investment capital.

As experience is so instrumental in a successful brewing process, personnel had to be brought in from the continent. Alongside several other Germans Jacob Klingler was employed as Head Lager Brewer (Dr Westergaard, the Dane often mentioned in secondary sources as joint lager Head Brewer at Wellpark, is not mentioned in primary sources and, indeed, was only 16 years of age in 1889). Klingler was responsible for choosing a suitable engineering company. He instigated several offers and finally picked the "*Bronce- und Maschinenwaarenfabrik L. A. Riedinger*" from Augsburg, Bavaria. The Riedinger company had vast experience in the field of technology transfer, having previously set up plants in Tiflis, Yokohama, Cuba, Buenos Aires and elsewhere.¹¹ In Tennent's name Klingler commissioned them to set up a model brewery along Tennent's guidelines.¹² During erection works he communicated directly with them and was eager that all arrangements should meet his idea of an ideal lager brewery as he would be the one to use it.¹³

The contract between Riedinger and Tennent, signed in December 1889, fixed the price at £4000. Construction work in Augsburg and the erection of the buildings in Glasgow were to be finished by 15 July 1890. The 72 items at a total weight of 95773 kilograms were to be delivered via Hamburg to Leith. After the mounting of machinery by Riedinger's engineers, brewing was to start in October 1890. Reality, however, turned out to differ significantly from the proposed schedule: the first lager was brewed a whole year later than intended, in November 1891. The reasons for the delay were the serious problems and frictions that incurred during the course of erection works.

The involvement of a third party certainly was the most problematic factor. The Ayrshire contractor firm J & D Meikle was commissioned to execute the erection work of the brew-house "in a good, sufficient and workmanlike manner."¹⁴ Meikle turned out to be unable to meet this standard. Bad quality work and frequent delays caused discontent within the other two parties: the German engineers complained about water coming through the roof of the cooling house and damaging their work, unreasonable time was spent on the installation of the columns in the brewhouse, the brickwork in the arches of doorways was loose... the list of complaints can easily be extended. Naturally, Tennent criticised the "most unsatisfactory state of matters" and expressed "extreme surprise as well as disappointment at the want of progress in the building operations".¹⁵

For the purpose of direct supervision and implementation of their plans, Riedinger sent several employees to Glasgow. Contractually, this would have been one architect to monitor the erection works and two engineers for the fitting up of the machinery. "Mounting" difficulties on the spot, however, necessitated the dispatch of more specialists. In the end, *two* architects and *six* engineers were sent at the expense of Riedinger. For them, the assignment turned out to be an altogether unsatisfactory experience. To a considerable extent, this was due to the fact that they had no knowledge of English. Communication problems affected their very task: giving direct instructions to the workmen.¹⁶ The situation was aggravated by a different understanding of discipline and approach to work. The German engineers frequently complained about the auxiliary workmen who "are not at all punctual & prompt [and] whose licentiousness & slowness is said to have transgressed by far all permitted limits." A constant target of criticism were the bricklayers who "instead to obey the instructions of our engineer, may do what they like, or even refuse to work" (the awkward grammatical constructions often employed by Herr Lang, Riedinger's foreign correspondent who translated the firm's letters from German to English, have been retained here and in subsequent

quotations). The German engineers were also affected by misunderstandings on the organisational level. One example: after receiving a favourable account of erection works Riedinger sent an engineer for the fitting of pipe works. After arrival in Glasgow, however, the engineer found the cellar building not yet excavated which made his task impossible. Tennent's telegram "Keep back engineer for pipe works meantime" had reached Augsburg too late. Engineer Rohloff was immediately sent back to Germany. A futile journey!¹⁷

The German engineers were further strained by an unexpected workload due to parts of the machinery being damaged in transport. After arrival "the dearest & most easily to be damaged pieces of machines [were kept] in the open air or on not covered places, by what these pieces have been exposed continually to all hardness of weather." Riedinger pointed out twice that contractually Tennent was responsible for repair. After receiving no answer, Riedinger saw no other way but to commission their employees to do the repair work themselves. After completion of the plant, a highly critical letter summed up "that not without intention already from beginning of erecting works till to the end of same envy & prejudice has been shown to the German engineers in order to render difficult to us, the furnishing German house, the fulfilment of the contract-duties."¹⁸

Vice versa, there was serious discontent on Tennent's side. For example, Riedinger did not send any wire rope for the travelling crane over the ice boxes in the belief that small materials were, as on the continent, supplied by the respective brewery. For Tennent, however, it was "very annoying [...] and a serious extra expense to be obliged to purchase such like articles here for your machinery without any word of warning from you when an article of special make is so urgently required as in the present instance."¹⁹

The friction reached its greatest height when two referees were commissioned to give an assessment of Riedinger's construction work. Their report contained explosive material in that it stated that several construction faults had been made. It served as a justification for Tennent to withhold the last instalment of £1335 as well as the certificate of deliverance. At this point, Riedinger got exasperated, every criticised point was refused and, according to Riedinger, refuted. The competence of the two referees was questioned, their report having accrued from a fundamental ignorance of advanced continental technology. One example: the carbonic acid refrigerating machine was operated by a compression- rather than an absorption system. According to the referees the compression system was far more energy consuming. Riedinger, however, maintained that this argument "is refuted already in itself, as just on

the continent & especially in the German Empire we are compelled to work with the most economical useful effects by reason of the smaller working expenses with respect to the high prices for coals." The advantage of low energy consumption "has been already recognised since long time by men of learning & by men of practice in our land, as also elsewhere." The company would welcome a second examination "in presence of impartial experts" and would see the result "as a particular distinction for our machines". After all, Tennent's behaviour was described as "a strange kind of utterance of friendly business relations." On the other side, Tennent's managing director J. W. Howard expressed his "regret that you should have ever written such a letter" and thought that "you would [not] have done so had you made sufficient allowance for difference in the language and customs of our respective countries." Until the very end the relationship remained shattered and characterised by mutual reproaches as to who was responsible for delay or damage. However, Tennent paid the last instalment and drew up a certificate which stated: "Messrs J. & R. Tennent wish to express their entire satisfaction as to the quality and style of workmanship of all the machinery supplied and erected in their Lager Beer Brewery by Mr. L. A. Riedinger of Augsburg, Germany."²⁰



Tennent's lager brewery buildings are at the top left of this early twentieth century picture, beneath the twin chimney stalks.

Summing up, the relationship between the two companies can be described as gradually deteriorating. In the beginning it was characterised by professionalism and mutual respect. In the course of work, however, problems arose for which neither of the parties felt responsible, and complaints and reproaches were the consequence. Neither was able to realise that most of the problems accrued not from a lack of good-will or professionalism but from the bi-national character of the venture. Unfamiliarity with the other country's technical conditions and regulations, misunderstandings resulting from different languages and mentalities, lack of direct communication, the problem of transport with its proneness for damage and delay, the involvement of a third party: these were the actual factors that hindered co-operation and impeded the smooth process of technology transfer.

Tennent's lager became an immediate success both in Scotland and abroad. The company was soon especially well known for its lager and Munich beers.²¹ Despite the previous tensions, the German connection remained strong. Several Germans were employed to handle the new plant.²² The co-operation with Jacob Klingler was successful and free from intercultural tension.²³ After he left for Jeffrey's in 1902, Managing Director Wyllie Clarke paid a visit to Germany to interview applicants for the now vacant post of Head Lager Brewer. Mr. G. Sievert, having produced good testimonials, was employed and stayed with the company until 1908.²⁴ His successor was Fritz A. Schreiber who went on to have a brilliant career. After heading the Lager Brewery for two years he was additionally put in charge of the Scotch Brewery. In 1911 he became joint manager and one year later Tennent's Managing Director.²⁵ Schreiber was instrumental in expanding the company's lager production and it was under his direction that the "Wellhead Brewery" in Birmingham was set up. Here again, Tennent relied on German manpower, employing W. Dietrich and successively R. C. Stubbley as Head Lager Brewers.²⁶

The outbreak of war had immediate repercussions on the brewery's German personnel. Glasgow was caught up in the nationwide Germanophobia which perceived the "lazy Germans" as "alien enemies at large in our midst".²⁷ Arno Singewald, Tennent's chief chemist, was arrested by two policemen on an early September morning in 1914 without being allowed to take any of his personal belongings.²⁸ After his internment, Tennent's Board of Directors "resolved that reinstatement in his post could not be entertained"²⁹. Similarly, Fritz A. Schreiber resigned from his position as Managing Director in 1916. The Board let him know that "both internally and externally there has been evinced so very strong a feeling against the re-imposition of the foreign element in the

management that the Board have been forced to the conclusion that, in the interests of the business, it will be impossible for them to hold out any hope of your being offered re-instatement."³⁰ Schreiber was interned and repatriated and died shortly after his return to Germany.³¹ Through R. C. Stublely, however, the "German Connection" was continued. He became Head Lager Brewer in Glasgow in 1918, went on to become "perhaps one of the most powerful and influential among all of the Senior Managers" and served the company up until the nineteen fifties.³²

The Riedinger brewhouse was finally swept away in the course of a renewal programme in the 1950s and 1960s. The machines from Augsburg had to give way to the same principle which had caused their very existence in Glasgow: the necessity to modernise in order to succeed in a highly competitive market.

Stefan Manz



Bottling lager for export at the Tennent's brewery, c1915.

Notes

- 1 Ian Donnachie, Hugh T. Tennent, in Anthony Slaven and Sidney Checkland (eds), Dictionary of Scottish Business Biography, 1860-1960, Aberdeen 1990, vol 2, p70-1.
- 2 Scottish Wine, Spirit & Beer Trades Review 24 May 1887, p51; 6 Sep 1887, p229; 27 Sep 1887, p267.
- 3 ibid., 12 Sep 1888, p230.
- 4 ibid., 24 May 1887, p50.
- 5 Post Office Glasgow Directory 1886/87.
- 6 Scottish Wine, Spirit & Beer Trades Review 12 Oct 1888, p252; about lager's rising popularity, see also Ian Donnachie, A History of the Brewing Industry in Scotland, Edinburgh 1979, p188-89. TR Gourvish and RG Wilson, The British Brewing Industry, 1830-1980, Cambridge, 1994, pp175-78.
- 7 The law was passed in 1516 and forbade other ingredients but malt, hops and water for the production of lager.
- 8 Charles P Kindleberger "Germany's Overtaking of England, 1806 to 1914", in his Economic Response. Comparative Studies in Trade, Finance, and Growth, Cambridge, Mass. and London, 1978, chapter 7.
- 9 Contemporary comment in the local press, quoted by David Johnstone, "100 Years of Lager Brewing in Scotland", in The Brewer, July 1983, p257. Due to his untimely death in January 1890, Hugh did not live to see the realization of his plan.
- 10 Pointed out by David Johnstone, ibid.
- 11 Scottish Brewing Archive T 6/1, Riedinger to Tennent 29 Oct 1889.
- 12 *...eine den Vorschriften der Firma J. & R. Tennent (gegeben im Auftrag Mr. Tennents durch Mr. Klingler) entsprechende Musterbrauerei zu erbauen.* ibid., Contract between Tennent and Riedinger §4. Although the contract was drawn up twice in both German and English, only the German version has survived.
- 13 Scottish Brewing Archive T 6/1, Riedinger to Tennent 29 Oct 1889, 19 Mar 1890, 25 Jun 1890, 1 Dec 1890.
- 14 ibid., Contract between Tennent and Meikle.
- 15 ibid., Tennent's Architect A. Danks to Meikle 17 Sep 1890, 25 Mar 1891, 29 Jun 1891, Tennent to Meikle 18 Sep 1890.
- 16 February 1891 Tennent finally employed an interpreter, see ibid., Riedinger to Tennent 6 Feb 1891.
- 17 ibid., Riedinger to Tennent 29 Dec 1890, 28 Nov 1891, 29 Dec 1890.
- 18 ibid., 26 Nov 1890, 6 Feb 1891, 2 Mar 1891, 28 Nov 1891.
- 19 ibid., Riedinger to Tennent 28 Nov 1891, Tennent to Riedinger 8 Oct 1891.

- 20 *ibid.*, Riedinger to Tennent 28 Nov 1891, 29 Dec 1891; Tennent to Riedinger 19 Dec 1891.
- 21 See especially Charles McMaster and Tom Rutherford, The Tennent Caledonian Breweries, n.p. 1985.
- 22 see e.g. Scottish Brewing Archive T 1/7/1, Director's Minute Book, 9 Sep 1918: "...Germans Michael Kleber and Karl Hebling after about 28 years of service..."
- 23 The National Guardian, 4 Jul 1897; Scottish Brewing Archive T1/6/2, Director's Minute Book, 5 Nov 1928: "Mr. Klingler, our former Lager Brewer had recently spent a holiday in Glasgow, and we had had discussions on various technical subjects of a pleasant and profitable nature."
- 24 Scottish Brewing Archive T 1/6/1, Director's Minute Book 1 Sept 1902, 6 Oct 1902, 13 Jul 1908.
- 25 *ibid.*, 5 Oct 1908, 3 Oct 1910, 6 Nov 1911, 5 Feb 1912.
- 26 *ibid.*, 1 July 1912, 7 Apr 1913, 7 Dec 1914.
- 27 Strathclyde Regional Archives PA 11/II/4, "Enemy Alien Danger, Extracts from speeches at public meeting in St. Andrew's Hall, Glasgow, 13. 6. 1916", p. 4, 18; for a broader picture see Panikos Panayi, The Enemy in our Midst. Germans in Britain during the First World War, New York and Oxford, 1991.
- 28 Bundesarchiv Militärarchiv Freiburg PH 2/588.
- 29 Scottish Brewing Archive T1/6/1, Director's Minute Book 5 Oct 1914
- 30 *ibid.*, 4 Sept 1916.
- 31 Glasgow University Archives DC 402/1/2, *Deutscher Verein* (German Club), p135.
- 32 Donald Smith, "Brewery Tales. From the Bottom of a Barrel", in Scottish Brewing Archive Newsletter, Spring 1997, p19.

BREWERY TALES:

I COULD HAVE MASHED ALL NIGHT

A friend of the Mr Sam PLE Cran, the author, writes: During the 1950s and early 1960s many small breweries were taken over by others which were rapidly growing by acquisition. It was a kind of flocculation (a good brewer's word!) of the brewing industry. A constantly growing demand for beer enabled the expanding breweries to absorb the plant and people and indeed to invest in new equipment. The use of stainless steel was being explored. Equipment was built to the same design as wood or copper vessels but the structural strength of stainless steel enabled the installation of much larger vessels. Ideas were being developed whereby vessels could be of a completely different shape and be cleaned without a man being required to go inside. The change from open fermenting vessels to cylindro-conical FVs is an example.

It was against this background that Mr Cran started his career. Of course, that isn't his real name - cran is a Scots word for a cock or tap. The sample cran was a fundamentally important piece of equipment fitted to all sorts of kit enabling samples to be taken throughout the process. Apart from the obvious use for obtaining laboratory samples, the sample cran made it easy to obtain beer for illicit drinking.

Armed with an academic qualification in biochemistry, a sketchy knowledge of the layout of the brewery and an assumption that the aforementioned qualification would enable him to take over running the shift, the article concerns young Sam's recollections of his first night shift. Facts may have been subjected to some apocryphal treatment, but anyone in production during this era will recognise the concern over status, the pay structure, the culture of blame, and the technology, which were integral features of the industry at the time.

“So you want to learn to be the Mash House Brewer?”

“Aye, that's right!”

The conversation was taking place between a young man wearing a stiff white coat which didn't fit properly, and a wrinkled retainer in a similar garment which fitted and looked right, but was of a brown coloration.

The older man removed the tops from two bottles of export with practised ease, allowing a sound to be emitted that was to become the advertising feature of a well-known soft drinks brand... you know who.

“How come they’ve stuck you on night shift to learn?”

“I don’t know - it must be some kind of punishment.”

A better reply would have been “Because you are the best brown coat to learn from,” but it didn’t seem to matter.

“Finish your beer and we’ll put in the mash. We’d better go and find the black squad.”

“That’s a bit racist!”

“Don’t be ridiculous. I’m talking about the engineers’ labourers, who are covered in oil and grease and muck.”

“Are they at the bottom of the caste system of trades and skills?”

There was no reply. Only a look, which the younger man would encounter many more times as he grappled to communicate verbally with practical men who knew and understood situations much more clearly, without needing to use words.

They walked down endless stairs and corridors until the bodies of the black squad were located. On the way back to the mash house, they made a diversion across the brewery yard.

“Check the temperature on that thermometer,” commanded the man in the brown coat.

A large and impressive instrument attached to the wall was examined, and a completely irrelevant reading was taken.

“We’ll need that to put in the bible.”

“The bible?” thought the younger man. *“Oh well - it is Sunday night, after all.”*

They ascended more stairs, and finally stood in front of a gleaming panel of burnished copper. The splendid array of wheels which, it turned out, were the means of controlling the liquor valves, was interspersed with scientific instruments; the formidable collection of dial thermometers was complemented by temperature recording charts with different coloured inks.

They were joined by a small cheery fellow who, after pleasantries about the fortunes of the local football team, announced "Six is tight."

"So early in the shift!" exclaimed the young man.

"Na, the tun disnae leak."

"Good," said the man in the brown coat, grasping one of the larger wheels and starting to turn it.

"It takes four turns then a wee bit more till that chalk mark lines up with that second nut down on the panel," he explained. This was practical science in action!



An enthusiastic youngster and a "White Coat"

The excitement quickened as there was an awesome splashing through the steels masher into Number 6 tun. Steam filled the mash tun room as the hot liquor was hit by the cold night air. A smaller valve wheel was adjusted. Temperature dials twitched and steadied. An experienced hand was raised to an overhead wheel which controlled the slide to the grist case. The liquor emerging from the steels masher thickened to a porridge and the mash was going in.

“Get the hot liquor flow right, trim the heat with cold liquor, then open the slide to get the right thickness,” said the man in brown.

“What happens if you get it wrong?”

“Too thick and it’ll no’ run. Too thin and it’ll be coming out of the windows! You can start the jumbo.”

Their small cheery companion vanished and coincidentally the consistency of the mash underwent a subtle change.

“What’s happening?”

“We’ve got to mix in the grits with the mash or it’ll no’ run properly.”

“Oh! You mean the adjunct of raw starch which the surplus enzyme in the malt can digest?” The younger man received THAT look again.

“That’ll be about five per cent of the grist,” he added, dredging up memories from nights spent swatting for exams.

“More like 45 per cent!” came the reply.

“But that’s impossible! It would never extract!”

“It will if you remash enough.”

“Remash?” Had the conversation moved on to the tea break?

“Yes, drain the mash tun by shutting off the sparge, shut off the coppers then underlet to lift the bed off the plates before slackening to the coppers again. You’ll get a bit of practice before the shift is over.”

"I suppose by diluting the nitrogen by that much it will give the beer great stability," theorised the young academic. "It will keep well without throwing a haze."

"Aye, that's true. It's just a fortunate coincidence that maize and rice are that much cheaper than malt!"

"It must be something to do with the nightshift which develops such a cynical approach!"

A thunderous reverberation resonated around the steam room. "Was that an earthquake?"

"No, it's the miller signalling that the grist case is empty." Wheels began to spin, and the liquor flow dried up.

"We'll give the rakes a turn to mix the mash before leaving it to infuse. Mash 6 tun!" shouted the brown coat to the waiting copperhead man, and the rake gear started up, winding itself round the tun.

"You've got to stop it at the right places for the hatches. Bang on the side of the tun to warn the copperhead man, then when the rakes are at the right place blow into that mouthpiece and they'll know to stop the rakes. Oh well, too late! You need to give the black squad more warning to stop that big motor. Never mind. We'll have another chance when we remash, which will certainly be before the rakes have to be in the right position for casting the draff. Better fill in the belt times now."

Memories of school punishment flooded back to the younger man. "What are the belt times?"

"That's the programme to pump from the hop back to the chapel cooler."

"But where does the belt come in?"

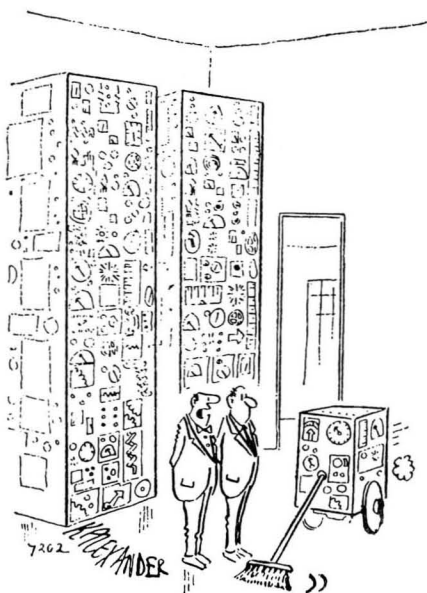
"Ah. Before the electric pumps, a big steam engine drove the belts. The belt was put on by moving it over to engage the drive to the hop back pump. The mash times are related to when the coppers are dropped and the belt goes on."

“You may think the brewery is very modern using electric motors but one day it will be possible to control the sparge temperature, run-off and rake gear all off a computer program,” forecast the younger man.

“A likely story,” came the sceptical reply. “You can’t even spell programme properly.”

The mash house programme was simple enough. Just a case of taking forty-minute increments and translating that into the more conventional way time is measured. Of course the programme had to be entered in pencil because it all had to be rubbed out and rewritten repeatedly, since with the high adjunct the mash tun run-off was never up to schedule. And it wasn’t just the rubber that frayed under the time pressure!

By now, a complicated regime of sparge temperatures had been applied to number 6 tun and the first copper was almost full. “The tun is flooded, so we had better drain it down and remash.”



Yes, they've all been replaced—that's the charlady.

“If the mash is flooded, is that bad?”

“No, it’s the only way it can be run and it doesn’t make any difference to the extract.”

“Well, why are we going to remash?”

“The Head Brewer gets very excited if there is a foot of sparge liquor on top of the mash, so you don’t want to run the tun like that on day shift.”

“You mean he’ll be displeased?”

“Well, it does distract him from

complaining about the steam traps.”

“He doesn’t like to be cruel to steam?”

“No, they’ve fitted steam traps to the copper calandria for extra efficiency.”

That’s good - the Head Brewer is an ecologist.”

“No, he just thinks it will keep his costs down. By-passing steam traps is something to look out for on day shift! Now, come on - we’ve time for a beer while it is underletting.”

They settled in the brewers’ room, and the conversation continued.

“Being qualified, you’ll be on a good wage. But you’ll no’ get shift allowance as staff?” asked the older man, anxious about his status somewhere between the “men” and the “management.” Terms like hourly-paid operatives had not yet entered the language!

“Well, not in comparison with the men, and I don’t get any shift allowance.”

This reply seemed to reassure the brown coat, who said kindly, “It will improve. Young brewers will get paid a decent wage for the job they are doing instead of having to wait for years, and they will get overtime and shift allowances for unsociable hours. But these things go in cycles. It must be only ten years since your father would have had to pay the head brewer to take you on for pupilage in order to complete your training, and I wouldn’t be surprised if by the ‘90s professional people will be prepared to work for nothing just to get experience.”

Back in the plant there was much activity, with ringing of bells, seeking out the black squad, a rat-a-tat-tat on the side of the tun, a loud shout of “Remash 6 tun!”, and a blow down the whistle that would not have been out of place on the Titanic. Communications systems were at the leading edge of Stone Age technology! As the vast electric motor was engaged to accomplish this exercise, the drain of power caused lights to dim across the city. And the entire team became involved in starting motors, engaging clutches and pulling levers to complete the simple operation.

“You got all that?” asked the brown coat. “Tomorrow I’ll show you how to get the mash temperature chart to give a nice steady line so that they’ll be happy with the attenuation limits.”

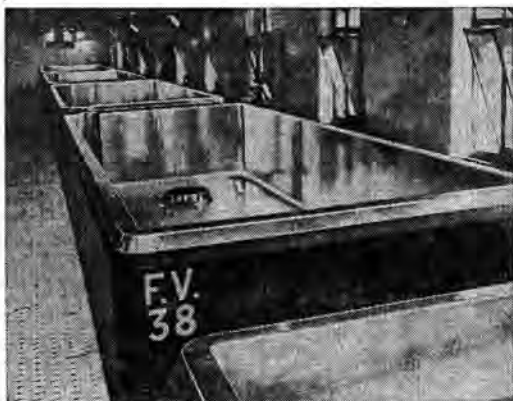
“But I thought... hmm, never mind. By the way, what was that chap’s name again? The wee fellow they call Jumbo?”

“That’s no’ his nickname. That’s his job title - he’s the jumbo man!”

“There’s more to running the mash house than I suspected,” admitted the younger man. “It’s going to take more than one shift before I know it all!”

Sam PLE Cran

STAINLESS STEEL BREWERY PLANT



FERMENTING VESSELS

(illustrated)

136 BARRELS EACH

CONDITIONING VESSELS

CHILLING TANKS

ATTEMPERATORS

SETTLING TANKS

also

VESSELS LINED IN

WELDED COPPER,

ALUMINIUM OR

STAINLESS STEEL

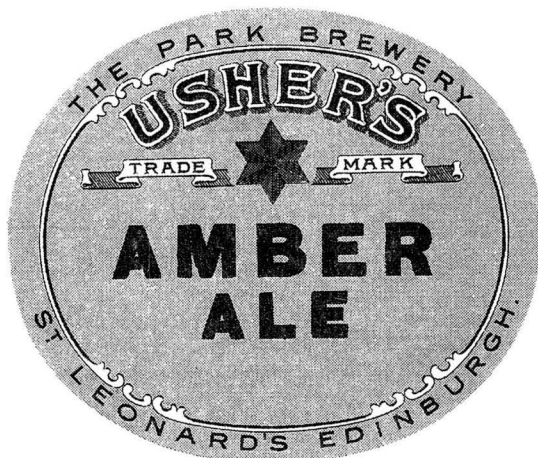
H. BRAITHWAITE & CO. LTD., PEPPER ROAD, LEEDS

Phone: 75491/2.

Grams: Nonferrous. Leeds.

USHER'S AMBER ALE

(No.7 in a series of short articles on the labels of the archive collection)



Although reasonably prevalent in England and to some extent Wales, the term 'AMBER ALE' was rarely used in relation to Scottish beers. Usher's were one of very few Scottish breweries who marketed a bottled beer using this description. T. & J. Bernard Ltd. was another - the Archive collection also contains an example of a 90/- BERNARD'S AMBER ALE label complete with dog! The rather striking label in the illustration dates from 1926 or even earlier, as evidenced in early adverts, and Amber Ale was certainly available in Glasgow at this time - the agent for Thomas Usher & Son Ltd. in the city was A.R. Tait located at 78 St. Vincent Street. However, Usher's were by no means the first to bottle this type of beer - nor for that matter were Newcastle Breweries who started producing their own famous version in 1931. The Anglo-Bavarian Brewery Co. of Shepton Mallet and the North Somerset Brewery Co. are examples of brewers who were bottling Amber Ale before the First World War.

Indications are that the original USHER'S AMBER ALE was not long-lived, but when Vaux acquired the company in 1959, the product re-emerged with bottles sporting the familiar 'Vaux style' labels - parallelogram shaped and applied to the bottle at an angle for effect (in the case of Amber Ale, these were orange and gold). A variant using the 'borrowed' Steel Coulson trademark 'KING SIZE' was also available. Steel Coulson & Co. Ltd. had been taken over by Vaux at roughly the same time as Usher's and after the closure of the

Croft-an-Righ in 1960, Coulson's beers were produced for a while at the Park Brewery. Amber Ale seems to have disappeared from the range altogether, perhaps around 1965, when Usher's Export was relaunched as Usher Vaux Golden Export.

A brief history of Usher's

The firm of Thomas Usher & Son Ltd. traces its roots back to 1831, when the Cowgate Brewery of David Aikman & Co, Campbell's Close, Edinburgh ⁽¹⁾ was bought over by James Usher & Cunningham. The company traded as Usher & Co. from 1839, and then J.& T. Usher from 1843, before moving to the Park Brewery, St. Leonard's in 1860. Thomas Usher & Son Ltd. was registered for limited liability with an authorised capital of £70,000 on 25th March 1895.

Usher's were never more than a small to medium size concern concentrating trade for the most part within the Scottish Central Belt, Aberdeenshire and the Newcastle area, but there was also a somewhat troublesome Belgian market for 'Scotch' beers. In the 1920's, the company set up an ill-fated subsidiary in Brussels - THOMAS USHER & SON SOCIETE ANONYME, BELGIUM - which was the subject of legal actions as local management sought to wrest control from the parent. Nevertheless, Usher's made steady profits throughout most of the years up to and including the Second World War.

The company was carefully managed rather than being at the forefront of industry practice. An entry in the minute book dated 14 December 1910 shows it to have been reasonably slow to realise the benefits of motor transport:-

"The proposal to purchase a Motor Lorry was carefully gone into by the Directors and the probable cost of upkeep and depreciation compared with the savings in respect of having to keep fewer horses and carters. As this appeared in favour of the Motor it was agreed to purchase same at the price of £655."

The directors were, however, able to grasp the advantages of other more bizarre technological innovations as can be gathered from this entry of 16 Feb 1926:-

"A proposal to install a Barley Cockler was considered. It was explained that this is a machine for removing broken pickles of barley.⁽²⁾ These broken pickles are separated by the machine and are collected and subsequently sold for the purpose of hen's food. The estimated cost of this machine is £680. It was agreed that the machine should be purchased."

By 1930, Usher's had a controlling interest in the Devanha Brewery Co. Ltd. of Aberdeen - then being used as a bottling and distribution depot after brewing had ceased in 1928. Smith's Vault (Dundee) Ltd. was another (wholly-owned) subsidiary - again used for distribution and bottling of Usher's beers. Usher's bottled beers were being heavily advertised in the 1930's - compare the advertising budget in 1934 of some £8,000 with the total profits for that year of £12,504.

Vaux and Associated Breweries Ltd. of Sunderland took over Thomas Usher & Son Ltd. together with 170 licensed premises in 1959. Vaux increased capacity at the Park Brewery which was used to consolidate their Scottish interests, changing the name of the subsidiary to Usher's Brewery Ltd. in 1972, and in 1976, to Lorimer's Brewery Ltd. The Park Brewery ceased production for good in 1981 after Allied Breweries Ltd. of London had bought out the Scottish operation.

Paul Dean

Notes

1. A brewery was first established on this site in 1817. The Argyle Brewery of Archibald Campbell was located nearby.
2. i.e. single grains of barley.

Sources not otherwise indicated in the text

Thos Usher & Son Minute Book (1909-1935).
Norman Barber, A Century of British Brewers 1890-1990, (Kent, 1994).
Edward Burns, Scottish Brewery Trade Marks, (Glasgow, 1987).
Ian Donnachie, A History of the Brewing Industry in Scotland, (Edinburgh, 1979).

THE MALTMEN INCORPORATION OF DUNDEE

The City Archivist of Dundee was recently invited to a very convivial lunch with the Maltmen (brewer) Incorporation of Dundee. Active by the sixteenth century, incorporated in 1622, and now consisting of local members of the licensed trade, the guild is an energetic group which still meets quarterly, and on this occasion wished to hear more about their fine collection of records which they had deposited with the City Archives.

The oldest record surviving of the guild is a register of booking of apprentices dating back to 1653, just when the town of Dundee was slowly recovering from the sacking by the Cromwellian General Monck two years earlier. The brewers were traditionally blamed for the fall of the town in 1651, for in the morning of the storming the garrison were rumoured to have been reeling from over-indulgence in the famous strong Dundee ale when the more abstemious Roundheads came piling through. Many of the other trade records restart around this time because of the resulting fire or pillage, but a note on the flyleaf of this volume indicates that it narrowly missed a further ignominy; Hugh Ballingall of Pleasance Brewery, Deacon of the Incorporation, had purchased it in a book sale and had given it back to the Incorporation in December 1876.

An entry in 1739 gives us a glimpse of the riotous behaviour associated with entering new apprentices, known as "head washing". In an attempt to avoid the "abuse and immoralities", let alone the "heavy charge" associated with this ancient custom, the Maltmen laid down that not more than six persons should be present and that not more than one pint of ordinary twopenny ale should be given to each person. Presumably the ale was as strong as in 1651.

There is a series of petitions seeking financial assistance from the Fraternity from 1804 to 1844, together with lists of pensioners going back to 1692. The petitions make heart rending reading, such as that in April 1814 of David Campbell, carter, a former brewer, whose two horses had both had the misfortune to die since January, who vehemently denied allegations that he was possessed of property "of a considerable amount", and begged the Maltmen to buy him another quadruped. Rather more deserving was Barbray Liddle in 1826, an "Old Woman 78 years of age", daughter of James Liddle, late brewer, who respectfully requested assistance as she was no longer able to provide for herself.

There are a good set of Boxmaster's accounts which give financial information about the Craft, such as fees for the intricate mortcloths, or coffin coverings,

which were hired out during funerals, to cover the basic wild west type boxes which former brewers were actually buried in. A common theme which ran through the records was the large proportion of funds which was paid out to represent the interests of the influential Scottish brewing trade in general. This activity was borne out in the Dundee copy of the minutes of the general meeting of the brewers of Scotland, held in the Royal Exchange Coffeehouse (sic), Edinburgh, on 20th May, 1829, which bemoaned the reduction by the Government in the duty on spirits manufactured in Scotland, and stated that it was long observed "that ardent spirits are not only less nourishing than malt liquors, but they directly and strongly inflame those feelings and passions which lead to crime...".

Like Edinburgh, Dundee levied a local duty of two pennies on each Scots pint of ale or beer, and the deposited records of the Maltmen Incorporation tie into the town's public records of collection. The Dundee trade took the lead in 1828 in leading a petition against renewal of this tax, citing appropriately that "as the tax chiefly fell upon small-beer, being not levied upon the quality but the quantity of the liquor, it pressed heavily upon the poorer classes of the community, the great consumers of the commodity taxed - with whom, indeed small-beer was a necessary article of subsistence: It was thus actively a tax upon a necessary of life". Sadly, the Dundee Deacon's comment was true; bad water meant that so many Dundonians would die of water-borne diseases over the next decade that the mortality rate would be higher than London. One good thing about the tax gathering responsibilities of the Maltmen Incorporation was that other major Dundee Institutions circulated them with all kinds of annual reports and general papers for their information.

Thus there is a printed set of rules, c1796 to be observed by the patients attending the Dispensary for the Relief of the Poor, Regulations for the Management of the Dundee Lunatic Asylum in 1817, and a circular subscription for a lecture hall at the Dundee Watt [Mechanics'] Institution in 1835.

The records of the Maltmen Incorporation, together with the town records of tax collection, are available for inspection by appointment at the searchroom of the City Archives, Dundee, at 1 Shore Terrace (to the south of the City Square) in working hours, tel. 01382 434494 on fax 434666.

IAIN FLETT
City Archivist

SOME SPECULATIONS ON THE HISTORY OF BEER

The author writes: Having started on the origins of the beer can four years ago, to celebrate its 60th birthday in the UK, I found myself locked into a three episode saga which left most of you, I'm sure, gasping for air! An unkind but nameless person suggested that if I could drag the beer-can out for three episodes just think what I could do with beer. The brilliance of the unintentionally astute idea hit me like a pie in the face! All my years of unpublished lectures just lying there waiting for revival for a wider and undoubtedly more appreciative audience. Just how many episodes are lying in wait I have no idea. We'll just have to wait and see. I've suffered for my art - now it's your turn!

Origins

40,000 years ago humans developed who were intelligent enough to duplicate the natural alcoholic fermentations which would have been happening spontaneously with grapes, honey or sugar-containing plant juices. For the most comprehensive early evidence of the manufacture of beer, however, we must turn to the ancient Egyptians, who were consummate record keepers and serious brewers of beer as far back as 5,000 BC. Later, the ancient port of Pelusium in the north west corner of the Sinai desert exported dozens of kinds of beer to all over the known world and probably even imported some rare brews from Syria and Asia Minor. Hieroglyphics refer to brown beer, white, black and red beer, beer flavoured with dates, or bitter herbs such as lupin or skirret - hops were unknown. The general term for beer was "Hes", "Hekt" or "Haku", and the basis of manufacture was the barley bread loaf. According to the ancient chemist, Zosimus, writing around 300 AD, half-baked loaves were mashed, crumbled and forced through a reed-basket sieve with water into a large clay jar or "Hat" which was stoppered with a plug of Nile mud. The agent which broke down the cooked starch into sugars was of course not mentioned but has been assumed to be an *Aspergillus* - type fungus, the bread possibly being allowed to go stale. Fermentation would be by naturally occurring wild yeasts. Every household brewed beer but there were many large commercial breweries, records showing firms paying huge Excise taxes for the beer they brewed and sold. There was also a royally-appointed Chief Beer Inspector responsible for quality control!

Anatolia in Turkey, claimed also to be the origin of winemaking, has very early evidence of beer brewing, perhaps going back as far as 5,000 - 9,000 years ago. Cooked cereals, mainly sorghum, were (and still are) used to make a naturally

fermented, alcoholic-lactic, cloudy brew called “Boza”- which may have given rise to the modern term, “Booze”.

The Middle East, in addition to being the cradle of our civilisation, was also the gateway to Africa and it is not therefore surprising that the indigenous African native beer (various names) is very similar to the Boza of Turkey, and also made from *Sorghum Vulgare*, a grain similar to maize but highly resistant to heat and drought. African beer differs from Boza in that the starch conversion is not by cooking or fungal infection but by a crude form of malting whereby the sorghum is steeped, germinated and then dried in the sun. A natural lactic acid and yeast fermentation gives a variable alcoholic brew of low pH with the cloudy brownish-pink appearance and yoghurt-like flavour. This is almost certainly a brew of great antiquity. Running through all of these ancient brews are the threads of the modern process, and in the following papers I will outline how these have been developed over the centuries, or in some cases even remain intact!



An Early Egyptian Brewery belonging to King Amenophis II - from a tomb at Thebes

Early European History

History shows that beer brewing developed in those countries of the known world well suited to viticulture. The Middle East had of course a history of wine production as well as beer, but with the tendency to drought in these areas it can be appreciated that harder grain sources were a more dependable means of deriving alcoholic beverages.

Countries with an eminently suitable climate for growing vines such as France, Italy and Spain have no great history of beer brewing, but as we move north into Central and Northern Europe, Russia, Scandinavia and Britain we find a rich tradition and variation in producing beer.

By the third millennium BC, the early farming communities in the Balkans and Eastern Europe had einkorn and emmer wheat and 6-row barley. Early farmers of the Neolithic period in Britain had cereal crops available for brewing, - carbonised grain (mainly barley) being found at Skara Brae in Orkney.

Early settlers on the Isle of Rhum certainly produced a form of alcoholic beverage some 8000 years ago, as determined from analysis of residues found on a pot during recent archaeological excavations. Analysis of residues from Early Bronze Age pots from Strathallan and Balfarg yielded pollen grains of barley and meadowsweet flowers. Drinking vessels from the same period in England even look like beer tankards!

The early navigator from Marseilles, Pytheas, when exploring the limits of the then known world in the 4th century BC - the land that would one day become Scotland - stated that the inhabitants brewed a potent drink. He was active around 330 - 310 BC. His writings have not survived but are quoted by later authors. Strabo (64 BC - AD 21+) quotes him extensively because he thought he was a liar and had not visited the places he claimed. When referring to the people who live on Thule (possibly Shetland or Iceland) or those who lived close to the frozen north zone he quotes Pytheas as follows: "they live on millet and other vegetables and fruits and roots; and those who have grain and honey get a drink also from them."

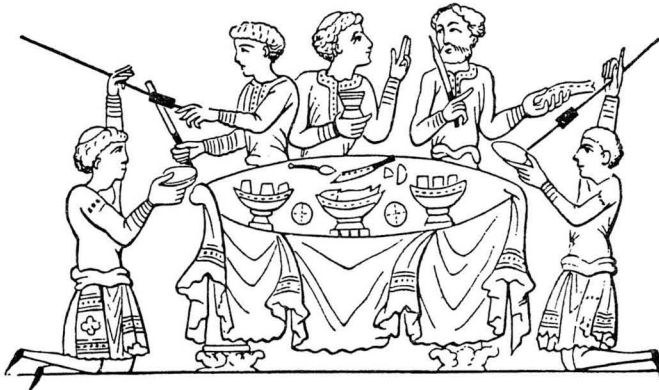
The mythical attempted theft of the secret of producing this drink by the Celts, is commemorated by Robert Louis Stevenson in his poem, "The Heather Ale":

“From the bonny bells o’ heather
They brewed a drink longsyne
Was sweeter far than honey
Was stronger far than wine”

The legend of “The Heather Ale” abounds in Scottish literature and much is made about the “Lost Secret”. However, there is little doubt that the drink was honey based, although Bickerdyke in his nineteenth century book Curiosities of Ale and Beer quotes the following:

“The blossoms of the heather are carefully gathered and cleansed, then placed in the bottom of vessels. Wort of the ordinary kind is allowed to drain through the blossoms, and gains in its passage peculiar and agreeable flavour known to all familiar with heather honey”.

This is obviously describing the process akin to adding fresh hops to the hop back. However, more evidence as to the combined contribution of honey and grain comes from the classical writer Athenaeus, who, describing the Celts stated that “the lower classes drink wheaten beer prepared with honey”. Early Scandinavian beers also seem to have involved the use of honey, and a “Mead Ale” was in fact brewed in Viking-influenced Yorkshire until the late 1950s. The only question remaining is, in the ancient brew, was honey the prime ingredient or the adjunct!



An Anglo-Saxon dinner party, 10th century AD. The character in the centre is making clear his unwillingness to share his ale!

The use of honey can be seen to make two contributions to the brewing of ale. Firstly, it would boost the fermentable matter in days when crude methods of malting would give poor extracts, and secondly it would be a rich source of wild yeasts, which would make spontaneous fermentation something less of a chance event. There is no real evidence that the residue of one fermentation was ever used to initiate another, there being no understanding of the existence of yeast. The nature of the biblical "Leaven" has often been the subject of argument and may or may not have been yeast. The fact that some "modern" brewing practises still rely on spontaneous fermentation (eg Lambic) would tend to suggest that this was the ancient method.

Brewing for the first millennium and well into the second would be carried out in one of two sources; in the home, or by monks in a monastery. In the former case, the brewing would be done by the women of the house and would be variable in strength, quality and flavour dependant on materials available, etc. The monks, however, being the educated classes of their day, would in all probability be able to produce a high quality brew, much in the style of the "Trappiste" brews of Belgium. The monks had in effect a "value added" operation whereby the local growers would bring barley and be returned beer by way of payment.



There were no commercial breweries as we know them until late in the seventeenth century, but in the early part of the sixteenth century we see farmers and merchants local to the monasteries and abbeys producing beer, sometimes in competition to the monks and sometimes "under licence" to them. These would operate much in the same way as the apple farms of Southern England today produce cider as a sideline. As a case to point, the J&R Tennent brewery in Glasgow, although registered as a commercial brewery, was still selling beans, peas and potatoes in the late eighteenth century!

In the sixteenth century inns and taverns began to replace monasteries as a place of refuge for weary travellers and as such began to brew their own beers in greater quantities. This early commercial activity has as its inevitable consequence the formation of official bodies and legislation to protect or organise the trade. In 1556 the Incorporation of Maltmen was formed in



Glasgow and continues to this day. The farmers were traditionally the growers and maltsters, the brewing continuing to be done by the women or “brewsters”.

A famous piece of legislation from the sixteenth century is the Bavarian *Reinheitsgebot* of 1516, which allows only barley, water and hops to be used in the making of beer, yeast being unknown. This has little to do with “purity” as is often held, but the fact that the tax was on the barley, and

use of adjunct avoided the tax, reducing the State’s revenue!

David I H Johnstone

Bibliography

F Marian McNeill The Scots Cellar (1973).

Michael Jackson The New World Guide to Beer (1977).

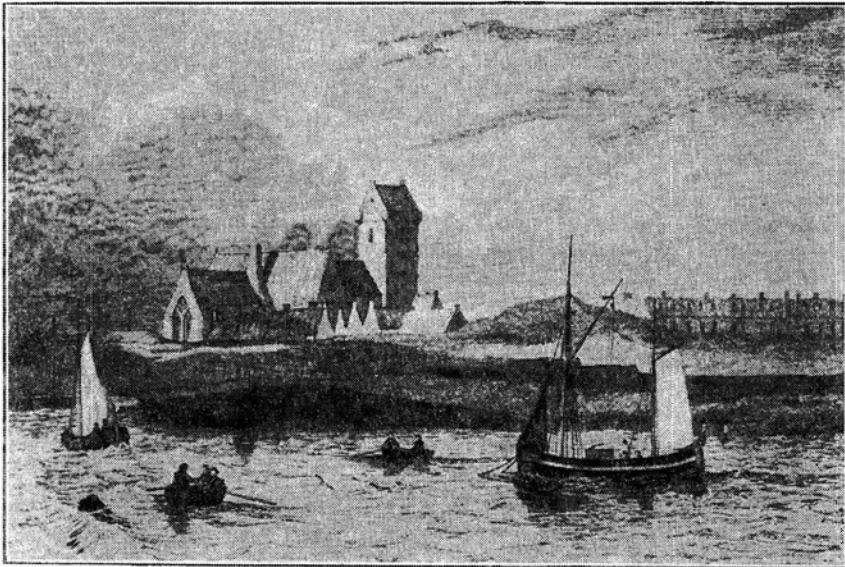
All About Beer vol 10, no 4, Aug 1989.

All About Beer vol 11, no 6, Dec 1990.

AYR CITADEL BREWERY

The following is a transcription of an inventory of the Citadel Brewery in Ayr compiled in 1751 and now in Ayrshire Archives. The background to the formation of this enterprise is rather interesting. It was located in what is now known as the Tower of St John in the area of Ayr known as Fort.

The Tower itself, which is extant, is a medieval structure dating back to c1300 AD and was the earliest church in Ayr. It was still in use when Cromwell invaded Scotland in 1652 and Ayr Kirk Session minutes record the petition of Hugh Kennedy, late provost of Ayr, asking for permission to re-inter the bones of his ancestors as the building of 'the Englishmen' has encroached on the churchyard. He was allowed to have them reburied under the floor of the church. Cromwell's troops used the stones from the church to form the walls of their new fort which had accommodation for 800 foot, 200 horse soldiers with stabling for 220 horses, and had a cornhouse, smithy, storehouses and a mill. This deprived the inhabitants of Ayr of their parish church and Cromwell finally gave 1,000 merks for the building of what is now known as the Auld Kirk of Ayr and worship was transferred there.



Church of Saint John the Baptist, 1693

In 1660 the citadel was dismantled on the order of the Privy Council and ownership passed to Hugh, Earl of Eglinton. He obtained permission to erect it into a burgh of barony separate from the neighbouring Royal Burgh of Ayr, naming it Montgomerieston after his family name. This ploy meant that any brewing or other work of a similar nature was outwith the confines of Ayr burgh and thus not subject to taxes levied by the burgh on items such as malt. However things did not go smoothly and in 1687 the church was bought by John Moore and worship resumed for a short time. John Campbell, provost of Ayr gave over his share in the Citadel in 1726 for building the Tolbooth of Ayr. Thereafter it came into possession of Susanna, Countess of Eglinton, who established the brewery and tried also to distil whisky there for a time. She let the brewhouse in tack which seems to be the cause of the inventory being made, although to judge from the number of bottomless pots and other items in poor repair, the enterprise was not too successful. It was also the subject of dispute with the inhabitants of Ayr concerning brewing and the imposition of malt tax within the boundaries of Montgomerieston. A further letter to the Countess from her tacksman in 1752 concerns the bad state of the grass within the Citadel caused by the trespassing of the local inhabitants which the tacksman held to be done deliberately.

The Countess abandoned her interest in the brewery and it passed to Thomas Kennedy, Earl of Cassillis in 1755 and brewing then ceased. After a brief period as an art school and a gentleman's residence, the Tower was bought by trustees under the chairmanship of the Marquis of Bute in the early years of this century and remains in the ownership of the local council. No evidence of the brewery remains although various archaeological digs have been successful in pinpointing the foundations of what appears to have been a fairly substantial building.

Jane Jamieson

Inventor of Utensils in the Citydale of Ayr Delivered by John McMillan in name of the Countess of Eglinton to James McFie 1751

Inventar of materials and furniture belonging to the Right Honourable Countess of Eglinton and by John MacMillan, her Ladyship's servant delivered to James Mcfie Couper in Ayr who had gott the keys of the Brewhouse Barn and Vaults and Cellars in the hof Ayr belonging to her Ladyship which he is bound to redeliver.

Citydale Ayr 23May1751

Two keys for the small yeat at the foot of the mount
The Well Pump and other materials belonging to it

In the Brewhouse

A Boyler and furnies
Ane iron damper upon the vent
A large water survey with a big and two small brass cocks (one of the small
cocks wanting)
A mask full iron bound with a false bottom and suffarent and a cover for the
same
A wort troth under the same with a pump fixed in it and all graith conform
to it (a bolt and a lead pap wanting)
Four large working pumps iron bound and covers
Three smaller Ditto part iron bound and covers as part under the large
working Tuns ane ale Troch and a pump placed in it and Graith conform to
it (a lead pipe wanting)
A large Still [] back stand and worm with a double block tackle for hoysing
off or on this head and furness sufficient for the same (three fathom of the
tackle wanting)
The second still with [] back stand and worm and furness sufficient
A Low iron cask trunk in the ground with a copper pump standing in it
A large iron bound pumpron
Three iron bound Hodgeheads two of them wanting one end
Three wooden bound pipes
Ane Hodgehead wanting the head
A Therty pint Cask
Two old Casks for Draft a water Bucket Bottomless
Two small dry war Casks 2 box stand borrows
Two wooden covers for the Stills
A small Whirrie Pump
Four Maskin Rudders
Two Coullers
Two iron Shovells
A Brocken Poker
Two Coall Rakes
Three Swine Trochs
A Copper Strape
Six wooden spouts
A watter Carraige betwixt the brewhouse and kiln

In the Malt Loft in the Brewhouse

Two steel milns one of them wanting one pleis and a perte of the hand
A Therty pint Cask wanting one of the ends
A shovell and a pair of cooms

In the Malt Barn

the kiln head with a Haircloth conform
A piece new spair haircloth
A Sturp A Malt wheel borror
Two double blocks for hoysing the Beer to the Garret
Two long and 2 short malt shovells
A Buschell and Roller ane old two peck measure
A new malt Rewe (wanting)
A tackle and Paull for hoysing beer by the back door
Three white iron Sconce Candle Sticks (Two candesticks wanting)
Four Cutch Dales made for the same use
a brocken windress a bedder
A Spout for conveying the Beer to the Steep
A iron Great For the Steip troch (wanting)

In the Stiple

Two Gantries

In the Coach house

A Quarry mele a water iron bound stoup with a stand ane old pump with
three Iron hoops

Received by me James McFie Cooper in Ayr from John McMillan servant to
the Right Honourable Countess of Eglinton the severall Articles on the two
preceeding pages In name of her Ladyship which I am to Deliver back to her or
her order when required In witness whereof I the said John McMillan have
subscribed this and the two preceeding pages (written by Alex. Gairdner wryter
in Ayr) At Ayr the twenty third day of May 1751 before these witnesses John
Evans wigmaker in Ayr and the said Alexander Gairdner. Signatures follow.

OLD ALE TALES

From Colonial times, the Americans developed their own brewing traditions and beer styles. But there was a ready market for Scotch ales there, both before and after the Revolution.

"I lately had an Information from a Person who lived six Years at South-Carolina, and belonged to one of his Majesty's Ships of War there, that they have no Malt-Liquor, but what comes from London or Bristol at ten pence per Bottle. As for their common Drink, a Table-Beer, he says it is very good, but apt to purge those that are not accustomed to it upon their first Drinking it; and if very new, as they are forced by Necessity sometimes to drink it so, it makes them very sick: It is made in the following Manner.

They make Use of no Malt or Hops, but take a sufficient Quantity of the young Pine-Tops (which they have growing in great Plenty in the Woods there, and from which trees is procured the Turpentine they deal so largely in) and boil them in Water for about an Hour, or till the outward Skin or Rind peels or flips off; then they strain the Liquor; to which they put a sufficient Quantity of Treacle (the Quantities he could not inform me) or Molosses, which they boil for some Time; then cool it a little, and put it up in their Vessels, which they call *Punbins*, and so work or ferment it, being Strangers to Yeast. They take some of their Potatoes (which are of three Sorts, the Yellow or *Brimstone* as they call it, the Red, and Brown; there are some of them a Foote or more long, and are very sweet in Taste almost like to our Parsnip, (but the Natives prefer the Irish Potatoe to eat with their Meat). These they cut into Pieces very small, and mash them, then put into their Drink, which works it very well, and their Sweetness gives the Liquor an agreeable Relish; for it is apt to be a little too bitter from the Pine-Tops, which are very strong, but very wholesome; tho' when they can get Spruce, (which is somewhat scarce, and grows among the Rocks) they prefer this Drink before that made with the Pine, both for Wholesomeness and Pleasantness. They preserve the Grounds to accommodate Persons, as we do our Yeast, that are brewing." *The London and Country Brewer, 1744, p136*

"Sold the ale a few days ago at \$1.50, a low figure but finding the wires mostly green and some bottles rather tart thought it best to sell quickly as it might spoil. It did not look fresh when we received it... Large quantities of ale sold in this market. It does not matter whether stone or glass bottles sent. It should not be too brisk. Better not send over 150-200 casks at one time. If you feel

disposed to ship generally then you can keep me supplied.” *William Younger & Co’s agent, Charleston, South Carolina, 8 June 1858.*

“Just received 72 casks India from F & T of which 25 stone jugs appear recently imported and will sell without trouble at \$1.75, but 42 are unsightly both casks and bottles being dirty and mouldy about the corks and wire. Messrs F & T have probably had it some time [and] it is also too brisk. When a bottle is opened half the ale flies out. We want pale ale and sent sweet, not too brisk, and the best time for arrival is March or April but a little will sell always.” *The same agent, 15 November 1858.*

“I think I see a prospect of a really good business in this country. We must, however, brew a special beer - our Pale Ale is too matured for the winter here (it is bitterly cold just now), but will suit splendidly in summer - some people whom I saw say it is the best beer they have seen. What is wanted for winter is an X4. I remember that, some twenty years ago, we had an excellent business for X4 in the States - New York especially, and Mr Kemp might overhaul some of the old brewing books, as far back as ‘56 or ‘57 and brew about 60 hogsheads of the same class of ale - I expect it is the kind of liquor that will also suit Montreal, but I shall see about that when I get there. *Letter from New York, James Marshall to J&R Tennent, 17 December, 1875*

“...many merchants in Savannah, Charleston, Mobile, and New Orleans can recollect the arrival on dock at those cities of five hundred or six hundred barrels by each vessel, regularly, all in stone jugs, and all “Scotch ales” of different strengths.

So great at one time was the quantity imported that the jugs became a nuisance and until this day one may see the pauper’s graves at “Magnolia” and “Bonaventure” cemeteries surrounded with Scottish ale bottles, having their necks driven into the ground, and the round stone bottoms forming quite a unique substitute for plain boards or other borderings.” *National Guardian, 27 January, 1899, p11.*

Iain Russell and Alma Topen

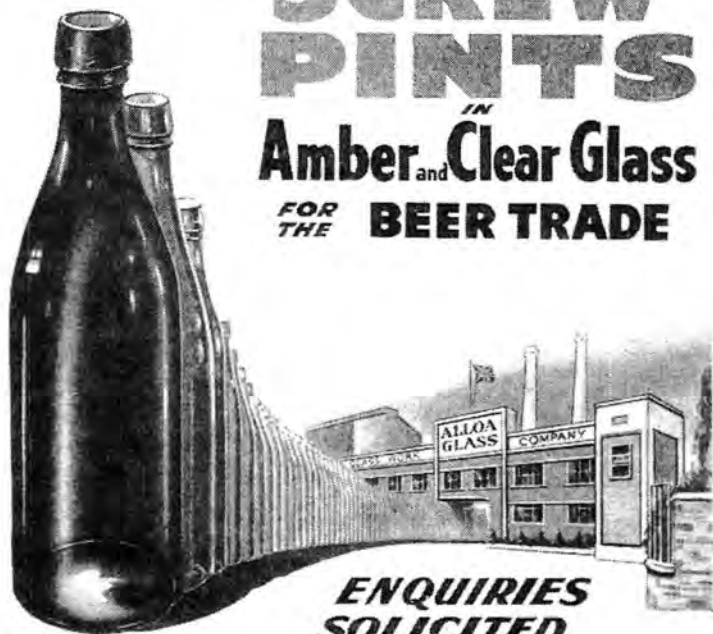
ALLOA GLASS

CARRY
STOCKS *of*

SCREW PINTS

IN
Amber and Clear Glass

FOR THE BEER TRADE



THE ALLOA GLASS WORK CO LTD

GLASSHOUSE LOAN ALLOA SCOTLAND

APPLICATION FORM

I wish to join the Friends of the Scottish Brewing Archive, and enclose a cheque or postal order, payable to the Friends of the Scottish Brewing Archive for the appropriate amount. (Remember £6 is the minimum subscription)

Name _____

Address _____

Tel: _____

To the Manager

Please pay to the Scottish Brewing Archive Trust, Account No 21695230 Sort Code 83-06-08 at the Royal Bank of Scotland, 36 St Andrew Square, Edinburgh EH2 2YE, the sum of £_____ immediately and on the last day of January each year, until further notice.

Name _____

Account No _____

Bank _____

Branch _____

Code _____ Date _____

Signed _____

The Treasurer will forward this form to your bank.

Send cheques, standing order forms etc. to:

David Smeaton
The Treasurer
Friends of the Scottish Brewing Archive
48 London Street
Edinburgh
EH3 6LX

If your address has changed please contact

The Membership Secretary
Friends of the Scottish Brewing Archive
Glasgow University Archives and Business
Record Centre
Glasgow G11 6PE
Tel: 0141 330 6079
Fax: 0141 330 4158

The Scottish Brewing Archive is supported by the following companies

Belhaven Brewery Company Limited, Dunbar

The Caledonian Brewing Co. Ltd., Edinburgh

Carlsberg-Tetley Alloa Limited, Alloa

DiverseyLever Ltd, Northampton

Firth Melvin Automation Limited, Lichfield, Staffs

Guinness Brewing GB

Heather Ale Ltd., Glasgow

Maclay Wholesalers Ltd, Alloa

Pauls Malt Limited, Ipswich, Suffolk

Scottish & Newcastle plc, Edinburgh

J P Simpson and Co (Alnwick) Limited, Berwick-Upon-Tweed

Tennent Caledonian Breweries, Glasgow

Tuchenhagen UK Limited, Warrington, Cheshire



Back cover: Prophetic Scottish & Newcastle advertisement from 1978, showing cocky Scotland supporters sailing off to the World Cup in Argentina on board the Titanic. The Peruvians, of course, travelled by iceberg!



Printed By Universities' Design & Print

ISSN 1463-029X