BREWERY HISTORY

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THE FOSTER LAGER BEER BREWERY

The Foster's Lager Beer Brewery was established by two brothers, William F. and Ralph R. Foster, in Rokeby Street, Collingwood, a suburb of Melbourne. Coming from New York they brought with them two other brothers, E. and M. Sieber, German-Americans, the former having studied brewing in Cologne. They began brewing in November 1888 and released their first beer to the public on 1 February 1889. Despite investing over £50,000 the Foster brothers were undercapitalised and sold out just 10 months later to a syndicate which established the Foster Brewing Company Proprietary Limited. The following article describes a visit to the brewery in early 1890.

On Tuesday afternoon our representative called upon the manager at the premises of the Foster Lager Beer Company, and under his courteous and kind guidance was allowed an inspection of the whole works, which are situated in Rokeby-street close to Victoria-street, Collingwood. At the time of the visit the hands were all plying their various divisions of the trade; the machinery was in full swing, and the place altogether was like a hive, yet each person attended to his own department and the extensive works were strikingly orderly and methodical throughout.

Mr. E. Siber is the brewer and manager and comes to us well qualified for the post he holds, having served in his own country for a considerable number of years at the trade, and being well grounded in the particular and special line of lager beer making. His brother, Mr. M. Siber, also a practical man, is engaged with the firm, and it was in his hands that our reporter found himself after leaving the office and entering the works. He was first taken to the topmost story of the northern building, where the malt and hops are received prior to the treatment which finally produces the liquor as seen in the bottles familiar to the public. On this flat there are two large reservoirs for water, capable of holding respectively sixteen and eighteen hundred gallons, so that in case of emergency, when the Yan Yean fails, the works shall be supplied with that most necessary article. It is the intention to bore a well for water to be used for the engine room, and for washing and cooling purposes. The hops preferred by the firm are the Bohemian, but a small quantity of the Colonial article was also in stock. The brewer depends mainly upon this plant for his success: a sample of hops to be good should be of a bright greenish yellow, inclining more to yellow than green, and when rubbed in the hand leaves a powerful aroma, and a soft peculiar feeling not unlike that following the application of oil; these qualities were plainly those of the foreign sample. Barley comes next, and in this room the malt was being crushed and conveyed by means of elevators to its next stage. It is very often stated that water plays a very important part in the manufacture of what is to the working man an almost universal staple beverage - beer, and of course the prime consideration of wholesomeness and purity is in a measure dependent upon it. Different localities are urged as possessing water with the virtue for giving a good flavor and quality to the drink, but we do not hear that the different soil in which the barley is grown has an influence upon the quality of the beer, though as a matter of fact, in wine growing some districts are famous for the production of a better grape and wine than others. An authority on brewing says that, in reference to the effect of water, "he cannot subscribe to the opinion already stated, for it is impossible to suppose that any slight difference that analyses will discover in the quality of carbonates or sulphur which may be dissolved in tile water, could pos-

sibly affect the flavour or quality of the beer." Analyses of the water in districts where good beer is made, show that whatever else is contained the principal and best ingredients are evidently carbonate and sulphate of lime. The Yan Yean water is very suitable save that it lacks in lime; it is clear and in other respects is good.

Tile floor of this room has been laid down with hot asphalt, and cleanliness and ventilation are prominent features, in fact, this may be said of the establishment throughout.

The various processes through which the raw material is conducted were shewn. Mashing is the process in which the malt and water are mixed together for the purpose of extracting the principle of the malt, to make the beer, and for this a mash tank is used, capable holding over 2000 gallons. From this the liquor is drawn by means of four taps, and as it flows, the wort as it is called, is a bright clear amber colour; it is afterwards boiled in another tank with hops where it undergoes another mash, and after that two more, the temperature of each one increasing until the fourth is at 170 deg. F. An important part of this work is the filtering process which is done by means of a finely perforated plate at the bottom of the iron tank. After finding its way through pipes into the brewing kettle, a massive copper utensil with a double bottom into which the steam is introduced, it is run into a strainer which rests within a large square tank, the strainer is lifted up out of the tank by means of chains, and the liquor is pumped into the cooling department, which is on the top of the south building. The boiling and mashing flats are kept separate from the cooling and fermenting flats, a rule which appears to be followed in all breweries. Before going into the latter a large quantity of shavings were observed in a room, and in reply to a question the information was given that they were beechwood shavings, used for fining or clearing, instead of isinglass. To this latter substance is due that very sparkling brilliancy which so attracts the eye in a good glass of beer. Isinlglass is obtained from the sturgeon found in the Danube and rivers of Muscovey. An inferior sort is prepared from cod and ling fish, or indeed from any other fish and from the skins of soles. It is a gelatine substance, but there are objections to its use which arise from a possible transformation due to a chemical action between the saccharine and organic matter - lactic acid sometimes resulting from the contact of animal with vegetable substances. An advantage in using the beechwood is that it may be used over and over again and leaves no trace in the beer.

The machinery is worked by a pair of 45 horse power 209 lb. pressure boilers, manufactured by Babcock and Wilcox, the same as used in the tram company's engine rooms. Adjoining the engine room is another wherein the ice making machinery is at work.

The cooler is a flat, dish-like tank, about 15 inches deep and 48 feet long by 12 feet. The beer, after being force up to the top flat of the south building, (the buildings are divided by a right-of-way) is allowed to stand for some time, after which it passes from that cooler to another apparatus for cooling, consisting of a number of tubes, thirty in number, charged with ice water. These are laid horizontally one above the other, and the beer trickles over them and runs off thoroughly cold into a pan. then it is carried by means of pipes into the fermenting chamber. The use of refrigerators is not general in breweries, it is considered that a too free, indiscriminate use of them may do more harm than good, and the more simple they are the better. In the premises under notice the system has been perfected under the direction of a practical man and everything is regulated with regard to the requirements. The temperature in the chamber was 40 degrees and a pretty and unusual sight was that caused by the many pipes which cross the room being covered with a thick coating of ice. A stay of three weeks in the fermenting room is necessary for the condition of the lager, at the end of which time it is placed in the storage room, there to remain for three months, and before it is placed in the hands of the dealers, five months in all elapse, a period in which the greatest attention has to be paid to it. The 2000 gallon fermenting tuns are ranged along the two sides of a long, narrow room, a staging being fixed upon which the brewer and his men may stand to bestow the care which especially at this period is so necessary. Fermentation is a delicate process, and the good quality of the beer depends upon a regular and successful fermentation. Nor should the tuns be in any way connected with the earth, owing to the effect of chemical action which would spoil the beer. In each of the tubs a coil of copper tubing is laid, through which cold water is run while the operation is going on. The yeast used in lager beer making differs from that used in ordinary brewing, and in its working settles at the bottom of the tub, an effect opposite to that of beer making. This is what is known as low fermentation, a very much

slower course than that adopted in the manufacture of colonial beer which is called upper fermentation. The lager yeast requires a low temperature which is essential in order to make the beer keep, the difference between it and the colonial beer being that the alcohol serves that purpose in the latter. It is well known that the more alcohol there is in wines and spirits the longer they will keep, and a chief point in the German drink is the small amount of alcohol and consequently the comparative freedom from the unpleasant effects so inseparable from an indulgence in the other.

Another cool chamber is the storage cellar, where overcoats could be worn, one would think, without contributing very much to reduce the wintry sensation felt, an experience so extremely opposite to that suffered by persons in the open air only a few yards away who probably were walking Victoria-street under the rays of a fierce summer sun blissfully unconscious of the existence so near them of such a place, while our reporter was speculating on the length of time he could, at the utmost, spend there, and the liability of an early attack of rheumatism that his sojourn would expose him to. In this cellar there are twelve stacks or pyramids of eight casks each, making a total of ninety-six casks with a holding capacity of in some eight hundred and others one thousand gallons. If required, 150,000 gallons could be stored in this room. These casks are repitched once a year and each month one of the twelve piles is removed to the scouring room. The casks are of oak and are subjected to a process of coating with pitch before being used. This is considered necessary as oak staves, especially when new contain a quantity of gallic acid, a substance found in gall nuts and in astringent vegetables, and also tannin, which are detrimental to flavour and likely to impart a smack not pleasant to the palate of a lager drinker. The purpose of the inside coating of pitch is to neutralize this tendency. Every drop of beer before it is placed in these casks is passed through a process of filtration, a very strange-looking machine, manufactured by Heinrich Stockheim, being used for filtering. The temperature in this cellar is always kept at 32°, and when it is remembered how much regard is paid to the principle of keeping lager cool, it will be seen how necessary it is for publicans and others to see that their stock is kept in a cool place. Next to this room is one in which the bottling is done, and after the bottles have been filled they are carried on crates to a room where the Pasteurising process is undergone. This, named after the French scientist, is a means employed to kill the germ that may be in the beer, and prevent a second fermentation, and is carried on in rooms heated by steam to 134 deg. F. There are two such rooms in the establishment, one having a holding capacity of thirty-five gross of bottles and in the other twenty gross may be packed. Then follows another process of cooling, and the drink is ready for export and consumption when it has passed from the hands of the eight boys who do the wiring, and the girls who affix the labels and capsules, to the packers. The girls are found to be neater and cleaner at their work than the boys, though they may not be so expeditious.

Altogether there are fifty or sixty hands employed by the firm. A number are employed at the bottle cleaning branch; steam brushing for inside is resorted to, and the most scrupulous and exact care is exercised so that the bottles may be perfectly clean. The first treatment they undergo is to lie in large tubs filled with almost boiling water for twelve hours where any substance they may contain is thoroughly soaked, and rendered easy to be freed from them.

In the yard there are stowed in extensive bins, some thousands of gross of bottles; each bin holding 120 gross of quart bottles, and 180 pints.

The area of land upon which the premises are built is one acre, and provision has been made for extension whenever the demands of the trade may require it.

A five-stalled convenient stable stands at one end of the ground, and at the other the coopers' workshop, where, after doing service at the late exhibition, was seen the huge 2000 gallon vat, exhibited by the firm and remembered, doubtless, by visitors to the show, where a first prize was gained by the firm for their beer The monster is to be tightened up and put to use.

The place is well fitted with conveniences for labour saving and economy. If hot water is required, a steam pipe has only to be turned into, the bucket of cold water and the want is soon supplied without trouble or loss of time.

Lager Beer drinking in this country is as yet only in its infancy; the drinking habits of a people are formed and tastes acquired from the prevailing custom, and, accord-

ing to associations. Colonial beer takes the strongest hold in the tastes and desires of the public, the drinking public of our colonies, notwithstanding our wine growing capabilities. But lager beer has so much in its favour, that placed in fair competition with the other beverage, it should command at the hands of the working man just as great a sale as the other. It is more nourishing because malt enters to a larger degree in its manufacture, and sugar to a less extent; in fact it may be said there is no sugar, and there is consequently less alcohol, the proportion being lager, four per cent, and colonial beer, fourteen per cent of alcohol. Where rowdyism and drowsiness follow the one, brightness, freshness, and good temper succeed the imbibition of the other. In the colonies where the custom of "shouting" has such a hold, a very important consideration should lie in the fact that there is far less probability of drunkenness attached to the drinking of lager beer than to the other.

A fortune is in the hands of the proprietors of this business, but to make the beverage become a thoroughly popular one, that is, one that the working man will call for as he does for his "she oak," they should place it as much within his reach as the other, that is so far as the price is concerned. That done, it is safe to say there will not be so much: drunkenness as at present stains our land, and a boon will be granted to the community, for there is not the prejudice to meet in this colony that there was when the Emperor Julian referred to that substitute for wine, which the Germans discovered by fermenting grain, and which caused his displeasure to be expressed in the following:

"Who? whence this, Bacchius? for by Bacchus' self,
The son of Jove, I know not this strange elf.
------Those wretched Kelts, I fear,
For want of grapes made thee of ears of corn.
Beer, thou mayst be from barley; or, that failing,
We'll call thee ale, for thou will keep us ailing."

The analytical report of Mr. Blackett, conclusively shows that there is nothing at all injurious in the composition of the beer, and as a further recommendation the medical faculty order their convalescent patients to take it. While our reporter was present, a gentleman called, saying that he wanted two dozen bottles of Foster's lager beer, (the least quantity a brewer can sell) for a sick person, in Carlton, who had been advised to take it by her medical adviser. As it was against the company's rule, to supply retail, the order could not be executed, but the messenger was informed where he might obtain the quantity.

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