

THE HINDMARSH BREWERY

Returning to town from Port Adelaide by train, one passes through the suburb of Hindmarsh, which can also be reached by tram from the Messrs. F. J. and F. S. Botting carry on the business of brewers, trading as Messrs. Haussen and Co. of the Hindmarsh Brewery. Attached to the brewery is a malt-house, the whole of the brewing and malting being superintended by Mr. T. Thwaites, who has filled the position of brewer and maltster for the last eighteen years. This gentleman is related a firm brewers of the same name in Blackburn, England, possibly known to many of our readers. The barley malted is principally Victorian, but when any really good samples of South Australian are to be had, they are secured by this firm. Imported English malts, from the well-known firms of Fison, Jones, and Smith, are also used. The hops used are Bavarian, Tasmanian, and with the Colonial Sugar Refining Company's brewing crystals. The brewery and adjoining buildings are brick built, and the perfect order in which everything, to the yards and buggy shed, is kept by Mr. Thwaites, is very noticeable. The iron mash tun is on the ground floor, and is fitted with an iron false bottom, cased with felting: the wort is run off by number of pipes. The outlets to which are distributed over the bottom of the tun so that the liquor is drawn from different parts at the same time, and conveyed through the taps to the underback. For mixing a colonial-made Maitland pattern masher is used. On the same floor is a large steam through a sparger fitted at the bottom. From the underback the liquor is thence pumped by a gun-metal double-acting pump into the copper, which is on the second floor, and is a fine piece of work by Messrs. Pontifex and Wood, of London, being capable of boiling 37 hogsheads, the usual quantity put through at one brewing. The boiling is done by steam in seven drawn copper coils, and the boiler has an outer casing of wooden battens, which prevents a loss of heat through radiation. As the copper is surrounded by heavy bands, under certain conditions of the wind the person working the steam regulator would be likely to be unpleasantly enveloped in the escaping steam from the boiler, and to obviate this Mr. Thwaites has a duplicate arrangement, so that the regulating can be done on the side from which the wind is blowing. In three hours the 37 hogheads have passed over a Baudelot refrigerator into one of two kauri pine fermenting squares, which are equal to fermenting 40 hogsheads each. To return to the refrigerator. This is served by a never-failing supply of water drawn from a well 40 feet deep. This water is used only for cooling purposes, and is felt to be a great advantage, as it is icy cool even in the summer. After being drawn from the well it is stored in a round iron tank, 11 feet diameter by 6 feet in depth, and which will hold 3500 gallons; from there it drops by gravitation on to the refrigerator. For brewing, the town supply is used. For washing the refrigerator, a small wing pump draws from the cask-washing boiler (which will be mentioned hereafter) a supply of water, and sprays it over the pipes. The gyle room, which has been improved by Mr. Thwaites, is now very light, cool, and lofty the walls being plastered and smoothed off nothing can adhere to them, and they are therefore easily kept clean. In the centre of the room, which is 20 feet by 16 feet by 18 feet high, is an exhaust fan, which is used in the warm weather, and is kept revolving by means of water pressure; a small jet of water playing on the turbine causes it to revolve at a high rate of speed. This, of course is only necessary in the absence of any wind. The gyle tuns are fitted with copper attemperators, but these are not used in the winter months, when, with the advantages of a well-planned gyle room, they are not found necessary. The refrigerator room has a novel contrivance for reducing the temperature also, in the shape of a screen door, on which water is kept playing when the weather is hot, so that their passing through is reduced some degrees. From the fermenting tuns the gyles are taken down to the underground cellars by rubber hose direct into the cleansing hogsheads, of which 180 are placed over kauri timber troughs. The centre of the floors, or walk, of the cellars are laid with jarrah very hard timber of west Australian, which is found to be impervious to the destructive white ant - the remainder of the cellar being laid with bricks and cement. From the cellar the beer is raised by a hydraulic lift to the ground. The whole

of the cellarage is very cool, being 14 feet below ground level, and approached by two flights of steps, whilst numerous drives extend out the yard and premises. The light is derived from shafts let into the ground. For cask-washing, &c, the well water is boiled in a boiler set in bricks, and heated by direct fire with a copper dome and an outlet pipe connected with the drop drainage system, which is installed throughout the brewery. The malt on delivery is put into a hopper on the ground floor, thence it is elevated to the first, where is a screen which grades and takes out the combs, the malt passing then through the mill into a hopper, which commands the grist cases over the mash tun. To the top of the elevator is fixed a Blackman air propeller, which blows off the dust from the malt through an outlet pipe in the roof. Two fine Cornish boilers by Roby, of Lincoln, England, which are worked alternately, supply the steam for driving, a Tangye No.4 engine for forcing water into the hydraulic cylinder for working the lifts: and for the pumps, main engine, and other purposes, the boilers are fitted with three Galloway tubes, expansion rings, Salter's spring safety valve, and domes, The main engine, by the Union Engineering Company, Adelaide, is a duplicate 16-horse nominal horizontal; the exhaust steam from the cylinders is utilized by passing it through a super-heater placed on the boilers, and heating the water used in filling the boilers. The malting of the firm run parallel to the brewery and bottling premises, and in these they can steep 35 bags at a time, the annual output being about 6000 bushels of malt, which is used in the brewery. The growing floors will accommodate three steeples, the grain falling from the steep above on to the couch. On the first floor are two bins for storing 3000 bushels each. The kiln floor is of iron tiles, charcoal and Brisbane coke being used for heating same. The firm at the time of our visit was just about to fix up a new Van Gelder's grader and separator. The bottling department, like all the other branches, is very complete, and Mr. Thwaites has erected an ingenious contrivance for conveying the washed – empty bottles from a shed at the far end of the yard to the bottling room, in shape of an overhead cable tram, which holds about four dozen bottles, and being on a gradient is worked with a minimum amount of labour. The beer for bottling is drawn off into a back, and hand-pumped up into the carbonating cylinders. The plant consists of a large double-cylinder (Barnett and Foster) beer-carbonating machine, each of the copper cylinders being coated with silver to prevent verdigris, and an Excelsior bottling rack by the same firm. All the bottled ales and stouts are pasteurised, and the bottling premises are connected with the cellars by electric bells and speaking-tube.