## A New Industry

## Cheese-making at Cave Hill

New industries are ever welcome in any locality, and it is with much pleasure that we have to record the opening in our midst of an establishment for the manufacture of cheese. As is well known, Mr David Mitchell, the owner of Cave Hill lime quarries and enthusiastic promoter of dairying operation on the same property, recently added to our local industries that of butter-making on a large scale, and of the primest quality butter, the first shipment of which received the greatest price yet realised in the London market.

Mr Mitchell's latest industrial addition has taken the form of a cheese factory, on the newest and best approved principles, and it may be truthfully said that whatever that gentleman takes in hand he does thoroughly, half measures not being at all in his line. Being somewhat curious to know something about the operations of butter and cheese manufacture, as well as for the information of our readers as our own, a representative of the Express paid a visit a few days ago, to Cave Hill, meeting with a cordial reception from Mr C. Mitchell, the general manager of the Hill establishment.

The formal opening took place on Friday the 3rd inst., in the presence of several gentlemen interested in the industry, among whom may be mentioned Mr Brownindge (the manufacturer of vats, presses, and drying tables, with which the factory is fitted out), Mr Medows (representative from the firm of H. Trengrouse and Co., provision agents, London), Mr David Syme (of the "Age" newspaper), and Mr C. McKinnon (cheese expert for the Victorian Government). It is fresh in recollection of our readers that several months ago Mr Mitchell determined on the opening of a butter factory, which was duly carried into effect, the opening ceremonials being celebrated on the 1st of October 1892, since which date the manufacture of butter has been pursued with considerable success, over 40 tons having been made in about four months. The first consignment was shipped for the London market by the R.M.S. Cuzco and realised the highest market prices. It is almost needless to say that butter of a quality which can ensure such prices may always be calculated upon to find ready sale, and consequently the Cave Hill brand butter is eagerly looked for.

The supply of butter, however, like some other things, naturally falls off at certain seasons of the year, and the producer finds that for a time exporting is not so profitable. At any rate Mr Mitchell is not the man to be content with those which are inferior, and that fact will furnish a reply to the oft-repeated inquiry why that gentleman should turn his attention to cheese-making. On the occasion of our visit to Cave Hill everything was found in first-class order, and through the urbanity of Mr Mitchell, jun., who gladly acted as cicerone, kindly showing the various portions and departments, as well as explaining "the why and the wherefore" of the several operations.

Such of our readers as feel interested in the matter can now have the benefit resulting the visit. Before proceeding it may be remarked that the system adopted is that of Mr McKinnon's whose name is mentioned above, and is declared by Mr Mitchell as the very best, at the present time, in the use by cheese-makers.

The theory and practice of cheese-making, as explained by Mr Mitchell, is pretty much as follows:- It is of the utmost importance that milk used should be pure in quality, and the greatest care must necessarily be exercised by the person who is charged with receiving the milk. The first operation which the milk undergoes after acceptance is to heat it to 86 degrees fahr., then to 5 ozs of milk one tablespoonful of rennet is added, the two being stirred together for five seconds, and then allowed to settle, its thickening, which generally takes place in from 11 to 17 seconds, must be carefully watched for.

The milk is then 'ripe" and ready for the putting in of color and rennet, 100 gallons of milk requiring 2ozs of color and 4 ozs of rennet (if the latter be good), This is regarded as sufficient for the Australian colonies, but for the London markets 1oz of color only should be used, a lighter or straw color being preferred there. Having added the color, stir well for five minutes, so as to mix thoroughly. Its thickening, which should occur in about 12 minutes after the rennet has been added, must be kept watch for. The proper way of finding the right time to cut the curd is to allow 2 1/2 minutes for every minute which the thickening has taken. Say for instance - Rennet in at 9 o'clock, stop stirring at five minutes past 9, come thick at 12 minutes past nine, come in 12 minutes; cut in 30 minutes (12 x 21/2), cut at 18 minutes to 10 or 30 minutes from the time of coming. By following that rule the old fashioned test of trying the curd with the finger is dispensed with. In cutting the curd care must be exercised not to break or bruise it all. The curd should be first cut with the horizontal knife lengthwise, after which the perpendicular knife may be use lengthways, that is lengthwise and crosswise. The hand may then be used to free the side of the vat before admitting hot water and steam into it, which is done with the wide tooth rake, may be used to avoid injuring the curd. Stir slowly at first, increasing the speed as the curd becomes firmer, and regulate the heat so as to bring it up to 100 degrees Fahr in 40 minutes.

On this being done let the water go from underneath the vat, which allows the curd to settle; then cover the vat to prevent the cold air from chilling it. In about an hour or an hour and a half's time there ought to be acidity enough in the curd to allow free escape of whey, keep covered and turn again in 15 or 20 minutes.

Acidity must be again ascertained as before directed, in order to it being passed through the curd cutter, which should be in an hour and a half at most. After being cut, the curd is again turned or stirred to avoid matting. It must then be cooled to 72deg. Fahr., and salted at the rate of 2lbs to the 100lbs weight of curd. About 10 minutes may be allowed for the salt to dissolve, and then the curd is ready for the press. The processing must not be too severe at first, or butter will be pressed out, the result being a streaky or mottled cheese. Allow 20 hours in the press, then removed to the curing room which must be kept at an even temperature of 66 degrees, turning the cheese everyday for two months. Cheese thus made will, in three months time, be less apt to generate gas that those made by the acid process.

Our representative thanked Mr Mitchell for furnishing the above information and then departed.

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