

travelling dairies would have a greater tendency than itinerant instructors in convincing farmers of the benefits of the factory system, then by all means the former is worthy of support. What we want is more factories. I am not aware of Canada ever having employed peripatetic dairies, yet we find that over 99 per cent. of her cheese is manufactured in co-operative factories. The magnitude of Canada's cheese-production may be imagined when it is known that she supplies Great Britain with about one-third of her imports of that commodity. Chiefly because less than 3 per cent. of Canadian butter is manufactured in factories, she can only furnish to Great Britain less than 2 per cent. of all the butter she imports; and Great Britain imports in value about two and a half times more butter than cheese.

There seems yet to be a divided opinion expressed throughout the colony in reference to the grading of dairy-products at the port of departure. The advocates of such, in order to enforce their case, cite the system of grading in Ireland. During the year information bearing on this point has been procured from authentic sources. The opinion of my correspondents seems to be that the length of our voyage would make grading in the colony of little value, and in many cases the reverse of beneficial. There certainly is no analogy in the two cases. The Cork butter will retain its class when only subjected to a few days' test in transit, but, as in our case, a three months' test is quite a different thing. Butter or cheese might, and I venture to say would, be branded as first here, and when it reached Home would open out a bad second, or *vice versa*. What is wanted in our case is a strict branding enactment.

I would ask your consideration in dealing with the transit of the produce by rail, and provision for cool storage at the principal ports of shipment. A large quantity of good butter and cheese is every season considerably depreciated in value by its accumulation in hot stores, and by being subjected to high temperatures on wharves, sheds, and coastal steamers. The reduction of railway-freights to the lowest level, the providing of cool-trucks, the running of night trains where the quantity of produce will warrant such, and the providing of cool storage at the principal ports of departure, is the only cure for the evils above mentioned. I am of opinion that a sufficient quantity of butter and cheese will be forthcoming to warrant the running of a weekly night train from Taranaki during the ensuing season. If this be done many impediments with which the industry in this section has had to contend against will be cleared, and an impetus given to the trade.

In future it is intended to issue through this department, at irregular intervals, bulletins containing information for those associated with dairy husbandry. These will be mailed to dairy-factory proprietors for distribution among their milk-suppliers. Their purpose will be to assist in the diffusion of information concerning the treatment and care of milk for factory purposes, and in the spread of useful information bearing upon dairying in general.

JOHN SAWERS, Dairy Instructor.

MR. SORENSSEN'S REPORT.

My attention has been for the most part confined to the North Island, and to the butter-factories therein; but on my appointment I visited several districts in the South Island, and inspected the Waiareka Cheese-factory, Mosgiel Butter-factory and its branch creamery at Outram, the New Zealand Dairy Company's premises in Dunedin, and the Edendale Butter-factory. I also called at Mr. Saxelby's farm, at Roslyn Bush, Southland, where Stilton cheese is made, but was not invited to examine the dairy or the cheese. At twelve other places was I refused admittance—viz., Taratahi Cheese-factory (Wairarapa), and at Henry Reynolds and Co.'s factories in the Waikato District. From Edendale I went on to Invercargill, and had a long conversation with the Hon. J. G. Ward and his manager about the creamery which he proposes to build at the Bluff, adjoining his freezing-works. Although, from experience in Sweden, where the idea of collecting the cream instead of the whole milk was first adopted, I am not altogether in favour of the creamery system, where the endeavour is to produce the very finest quality of butter, yet, situated as Mr. Ward is, with an unlimited supply of ice, which could be supplied to the farmers in hot weather for the purpose of cooling the cream before sending it off, and with the capital necessary to work the undertaking on a very large scale, I can almost believe that the uniformity of quality thus attainable for an enormous bulk of produce would make compensation for the slight sacrifice in quality which the creamery system must and does entail. In any scheme of the kind, however, I would urgently recommend that the suppliers be given Lawrence coolers gratis; otherwise endless difficulties with the cream will arise. I may here mention that it was Mr. Ward's intention not to have central creameries for the common use of farmers in each district, but that each farmer should separate his own milk by the aid of a hand- or horse-power separator.

Before describing my efforts amongst the North Island factories, I would like to say a word about the Edendale and Mosgiel Butter-factories. Of the two (although comparisons are odious) I prefer the equipment of the former; but possibly it may be owing to prejudice on my part, for at Edendale the churns and butter-worker are of Danish construction, to which I am exceedingly partial. The reason is, that the Danish vertical churn has the following advantages over the ordinary box-churn as used in New Zealand: (1) The Danish (or Holstein) churn churns in less time without causing any undue increase in temperature of the cream; (2) owing to its conical construction, there is less danger of overworking the butter; (3) the action of the beater, though rapid, is less violent and less injurious to the butter when it has "come" than the motion of the box-churn; (4) there is no vent-hole in the Danish churn of uncleanable construction; (5) the state of the cream can be seen at any moment without stopping the churn, nor is the manager dependent upon sound; (6) a thermometer can be inserted in the Danish churn, showing the temperature of the cream, without having to stop the churn; (7) last, but not least, it is far more easily cleaned than a box-churn; indeed, I will venture to state that I have not yet seen the box-churn which can be properly cleaned and aired. The Danish-made butter-worker I prefer to the construction in use at Mosgiel and many other factories, because the action of the former has more