

same scientific precision, extreme precautions, and minute attention to details as Mr. Davidson saw during his visit will have to be the rule in our own factories; but obviously the Government can do very little to bring this about, unless they will first do what the Danish Government did, and permeate the country with dairy-schools, and bring the best technical teaching to the farmer's door. I hope I am not going outside my province in saying that it does not signify now what the Sheep Inspectors or the Agent-General may find out. They can find out nothing so certain as that our people do not yet know how to turn out butter for export any more than the Danes did only a few years ago, and will never know how unless they will pay to be taught as the Danes had to pay. The pre-eminence of Denmark as the "model State in dairy-farming" was earned by the excellence of the technical teaching freely given to the country-folk; and if the industry is to reach the same success in New Zealand it can only be by making the same sacrifices, and devoting money year after year to the same methodical and sustained instruction in both school and cottage. Now, this is just what the New Zealand colonists have not yet come to think it is worth their while to do, although the natural advantages of their country for dairying are so much greater than any that Denmark possessed, and although the fruits of proper dairy-teaching would be even sooner seen in the same prosperity as has come to the Danes. It would only be a very modest step in advance to help Mr. Davidson's company in bringing out an expert; but the work of such a man might one day persuade the colonists to go much further; and if you decide to engage one I would strenuously advise his being sent for a year or two at least to Edendale, in order to give the best chance of Danish methods being successfully established there, and of other dairies being encouraged to do the same.

I have, &c.,

The Hon. the Minister of Lands, Wellington.

F. D. BELL.

REPORT ON DANISH BUTTER-MAKING BY MR. W. S. DAVIDSON, GENERAL MANAGER, NEW ZEALAND AND AUSTRALIAN LAND COMPANY, EDINBURGH.

ON the evening of the 8th May I left London, and reached Copenhagen early on Saturday morning, 10th instant.

On making inquiries through friends regarding the possibility of engaging a working butter-maker, I was amused to hear that Professor Fjord, who is a scientific authority on all Danish dairying, was strongly opposed to allowing the art of butter-making to be abstracted from Denmark through the employment of their experts. Indeed, articles have already been written in the Danish newspapers warning people that New Zealand is the most dangerous competitor Denmark is to have in the future, and advocating the withholding of all assistance to that colony by retaining the knowledge of butter-making as much as possible within their own country. To those who supported these views my answer was that, as New Zealand was admittedly unsurpassed in the world as a dairying country, their best plan was for a number of their dairy-farmers and butter-makers to emigrate to that colony, and so take advantage of all the good things we can offer them. I should much like to see a colony of Danish farmers in the vicinity of our Edendale Factory.

My first introduction to the method of handling milk in Denmark was through the kindness of Mr. George Busk, who accompanied me in a visit to the works and dairy of the Copenhagen Milk Supply Company, which he personally instituted, and worked at a loss for some nine years, after which the enormous advantages it offered were appreciated by the public, and the company is now a most successful one. It is unique in being by far the most perfect dairy system in the world for supplying a large town with pure, unadulterated, and healthy milk.

It would take too long to give a detailed account of the system, but it is, shortly, as follows: All the dairies supplying milk are required to come under the control of the Supply Company, and inspectors and veterinary surgeons are employed to constantly visit the farms and insist on cleanliness, and to examine into the health of the cattle, and to watch that the animals are properly fed with the fodder stipulated for. When the milk reaches the large collecting dairy in Copenhagen the temperature of each can is taken, and any exceeding a certain degree are refused. Samples are taken of each lot of milk, and these are tested daily by experts for strength, and a certain number of them are chemically analysed. There are between three thousand and four thousand cows attached to the company, and the daily examination of their milk fully employs two experts. All the milk is filtered through sponges or fine gravel, and some 300lb. of black filth is taken daily from the supply. In 1889 there were 12,500,000lb. of milk purchased and distributed by the company, and out of this nearly 50 tons of dirt must have been filtered. If this amount of filth can be abstracted from milk sent from probably the cleanest dairy-farms in the world we may imagine the state of matters where no supervision exists. The Milk Supply Company distribute the milk in forty carts, and use specially-constructed cans, which are locked in the conveyances, and are thus secured against any adulteration on the part of the drivers. Special milk from selected cows is sold in sealed bottles for the use of infants. All these precautions are taken to prevent the milk from becoming the medium of communicating infectious diseases, such as diphtheria, typhoid fever, and scarlet fever. If any of the farmers or their employes are suffering from any infectious disease they are compelled to declare it, and the milk supplied by them, although paid for, is not delivered to the company's customers. During illness the employes receive full wages and medical attendance; so there is no inducement to conceal disease. In the distributing dairy in Copenhagen some 180 hands are employed, and the cleanliness is the most perfect possible, even to the supplying of clean blouses daily to work in.

I have given this short account of this really wonderful undertaking with a view to showing to what perfection the handling of milk has been brought in Denmark, and in order to impress upon you once for all that no product requires more care and scientific control.

The Copenhagen Supply Company have a good dairy attached to their works, in which they make butter for a town supply, principally from surplus milk, and I spent a morning in watching the process.