

care and attention is not given to it; whereas in the factory the men in charge devote their whole time and attention to obtaining the best results, so that a greater uniformity of quality is secured.

578. Have you considered the system of bringing the dairy-produce to the chief ports of the colony for shipment?—With reference to bringing the produce to the chief ports of the colony, I wish to bring under the notice of the Committee an important departure from the ordinary method which has been made in Australia with very good success. In Auckland also I think they use this system—that is, the system of separating the milk from the cream up country, the districts forwarding the cream to a centre for each part of the country, and having the churning done in the port of shipment, so that the butter may be carried straight to the cool-chamber of the steamer.

579. That means the establishment of what are called creameries in the districts?—Yes; I think that is the proper system, because the cream can be safely transmitted by night-trains without much injury, whereas butter is always liable to be injured in transit before it reaches the cool-chamber of the steamer. There is one other matter which I should mention, and which has received very little attention—that is, extracting the moisture from the butter.

580. How do you think that should be effected?—By centrifugal force; there is a patented machine for the purpose, invented by one of the best dairymen in the world.

581. How is it applied?—The butter, while still in a granulated state, is placed in a canvas bag in quantities of about 16lb. at a time. The bag is then placed in a cylinder revolving by machinery at the rate of 7,000 revolutions a minute. The whole of the moisture is in this way thrown out through the wires of the drum in which the canvas bag is held. The name of this machine is the *Delaiteuse Butter-worker*. Having brought such information as I possess before the Committee, I wish further to inform them that butter sent Home in a cool-chamber, say, at a temperature of from 35° to 37°, provided it is good when it leaves here, will keep for a week or ten days after it is taken from the cool-chamber at Home.

582. Do you know that the rule is to have a much higher temperature in the cool-chamber of the steamers?—No; I tried to find out yesterday what the rule is, but I was not able to get what it is.

583. We have evidence to show that the temperature of the cool-chamber on board the steamers ranges from 40° to 50°?—I think about 37° is about what is required, or from 37° to 40°.

584. You consider, then, that the temperature should not exceed 40°?—Yes. If it is good when going in at this end butter will keep sufficiently long to be retailed at Home.

585. Have you considered the effect of butter being kept in store?—That is where most of the mischief is done. I know of butter collected by storekeepers being sold in the local market which after being opened became rancid in a few days. As a remedy against the production of a bad or inferior butter, I would recommend to the Government the immediate appointment of dairy instructors. I may mention, if the Committee should not be already aware of the fact, that in England travelling dairy instructors go round the country. The same is very extensively done in Canada, in Australia, and on the Continent of Europe.

586. Is it your opinion that these instructors should also be Inspectors?—No, not Inspectors. Inspectors would be obnoxious; they would make a host of enemies within a week: they must not be Inspectors. But I am now going on to suggest that every keg of butter should be tested before it leaves the colony.

587. *Mr. Dodson.*] Would not that involve inspection?—Yes, but I meant Inspectors of dairies. The kind of person I meant should be an instructor, and he should be careful not to offend, for every woman is most touchy on the subject of her dairy.

588. *The Chairman.*] Would you recommend that agricultural and pastoral societies should give prizes for butter-making?—Yes; that they should institute a series of butter-making competitions, as is done in England.

589. With regard to inspection and classification of butter, have you anything to say as to that?—Yes; I think the butter should be classified here.

590. And you also think there should be some inspection and classification under the control of the Government?—Yes, I think so.

591. If there had been inspection, with regard to the parcel of butter you have told us about, would it be worth while sending it Home? Ought it be sent Home at all? It would have gone Home unbranded. In that case it would have deceived no one. Buyers would know that New Zealand butter going Home unbranded was not up to the mark.

592. *Mr. Hamlin.*] With reference to creameries, do you wish us to understand that all butter-factories should be at the ports of shipment?—If butter could go straight into the steamer from the place where it is made—for instance, from the reclamation here—so much the better. If the factory is at a distance there is a chance of the butter being injured in transit; nine-tenths of the butter made is spoilt in transit from the factory to the ship.

593. But suppose the creameries to be forty or fifty miles from the port of shipment, and if the factory were also at a distance, would the butter sent from the factory straight to the cool-chamber of the vessel sustain any injury?—Not if the system of night-trains were adopted. If night-trains ran they could pick up butter made by the way while travelling during the night. The butter would not sustain much injury. But there are great complaints of butter being left exposed during the day.

594. Could not the ordinary trains be utilised by providing a cool-van?—No; I have seen butter spoilt while coming down to the port of shipment in cool-vans in the day-time. The sun has a singular effect upon butter. It will turn the best butter cheesy in a few hours. The night-train is the only safe plan. The cool-van, of course, would be an improvement upon existing mode of transit; but the night-train is the proper thing if it can be managed. There is one point which I should like to lay before the Committee. There is £15,000,000 sent out of England every year to buy butter; £4,000,000 of that goes to Denmark. I think £1,000,000 of it ought to come to New Zealand—that is, for butter and cheese alone. There is a point which I wish to urge in respect to