

say that the plans for the offices are not yet finished, but that is to be one of the features of the building.

235. *Mr. Mackenzie.*] You evidently prefer the butter kept in the refrigerator to that kept in a cool-chamber?—We keep it frozen because the result has proved that butter carries perfectly well frozen if it is well made.

236. Do you think it would be safer to send it Home frozen?—I think so, if there is no bad result in the way of it not keeping.

237. Do you think that the temperature of the cool-chamber is kept sufficiently regular?—As far as I know it is. The instructions are that it should be kept regular; the engineer of the ship keeps a log of the temperature, which is checked by the captain and the mate every four or six hours.

238. That shows the temperature is kept fairly regular?—Yes.

239. What is the difference between the highest and lowest?—I should not think it was more than 10°. I have never seen the logs myself, but I am informed that it is very even. Written instructions are given for this purpose. The captain is also instructed to be very particular in this matter. He is instructed to give particular attention to everything connected with the carrying of dairy-produce, and to do everything possible, short of cutting the steam off, to facilitate the successful carriage of the butter, as it is the company's interest—the interest of the colony; in fact, the interest of us all—to promote the prosperity of this trade.

240. You say that the cool-chamber will hold 100 tons: would that be sufficient for the demand likely to be made for such accommodation?—In some ships there are two or three cool-chambers.

241. It has been pointed out that one firm chartered the whole of the cool space, and afterwards charged special rates to settlers who required space?—That certainly is not a practice here; we endeavour to divide the space among shippers as well as we can. I think it happened last year in this way: Owing to the good season in New South Wales last year there was a great deal more butter to ship to London, and some of the meat-shippers sold their space for dairy-produce.

242. Do you think companies would always allow the space to be open to all?—The practice is to send a circular round to all known shippers asking how much space they require. We then allot the space as evenly as we can.

243. *Mr. Walker.*] Is the space inquired for in excess of that actually required?—During the season before last large engagements had been made. The market in Australia went up; many shippers failed to ship, and we had to fill the space with meat instead.

244. As a rule, you can always fill your cool-chamber?—Now that we are getting cargo-steamers there will be plenty of space.

245. *Mr. Mackenzie.*] Do you think that your people would be willing to sort a few pounds of that ships' butter you speak of?—I think they would be quite prepared to do so; they are willing to do what they can. It will be simply asking the steward to put a sample by. If the Committee is still sitting when the "Tongariro" arrives I will send you up a sample.

246. We know the refrigerator-butter will keep a certain time after being taken out of the refrigerator, but we have no data as to how long it will keep?—I will send you a sample.

247. *The Chairman.*] Have you considered the classification of dairy-produce? Do you think that would be of service?—I think it would, but I have not considered it. The old plan used to be buying from the different farmers and mixing all together.

248. *Mr. Walker.*] Are you acquainted with the Irish system?—No. I have seen different qualities of Irish butter, but I do not know anything of the system.

249. *The Chairman.*] Is the air used for the cool-chamber the exhaust air from the freezing-chamber?—No; the cooling-chamber is at the end of the ship, and the air is conducted along a different course. It comes from the same refrigerator, but does not go through the freezing-chamber. The exhaust pump is at the other side.

250. The cool-chamber is in direct communication with the refrigerator?—Yes.

251. Is there any difference in the charge?—No; it is the same. If the butter goes into the freezing-chamber we must have it frozen before it comes into the ship, as the heat thrown off is likely to damage the meat. In the cool-chamber we carry cheese as well as butter. That requires the greatest care: you must not freeze it.

252. The temperature is not below 40°?—I think 40° would be enough.

253. *Mr. Walker.*] But 45° is your average?—Yes, as near as can be. They keep the temperature very even.

Mr. M. MURPHY, F.L.S., Secretary to the Canterbury Agricultural and Pastoral Association, examined.

254. *The Chairman.*] You have taken a considerable interest for some time in the dairy industry?—Yes; I have made a study of it for some years in this country. I am an old dairy-farmer myself. I was engaged in dairy-farming twenty years ago in the Old Country.

255. I should be glad if you would give the Committee the result of your experience?—I have already sent you a report; I thought that would prepare the groundwork of the subject. Embodied in that is almost everything that I have to say, with the exception of one or two matters which I omitted to mention.

256. I have it here; it is a very valuable paper. I shall be glad to hear anything further which you have to say?—I shall of course be glad to answer any questions that the members of the Committee may please to put to me. The whole thing hinges on the proper making of the butter. The difference between our butter and the English butter is mainly the result of imperfect manufacture. But New Zealand ought to produce better butter than is produced in England, for the reason that the cows here are for the most part fed on grass. That is their proper and natural food.