

occurs occasionally; but that would hardly effect the case, because the small boats can be outside for a few days. I do not think the coast traffic along that line from town to town would be anything. I have never known stocks so low at one port that they could afford to bring them from the other by land.

243. You said there was considerable traffic between Kumara and Hokitika?—Yes.

244. You said that seven-horse wagons could carry seven tons?—Yes; and I know that very frequently they do. I have seen instances occur in which goods have had to be carried away, and have ascertained in that way that they have carried seven tons with seven horses.

245. They must be splendid horses?—They are splendid teams. I think on an average they have to carry four tons, and as they are seven-ton wagons the weight would not be so much on the horses comparatively as a single dray.

246. Have you any means of ascertaining pretty nearly the amount of freight going from Hokitika, and the number of passengers by coach?—It could be ascertained in a short time; but I could not give evidence myself that would be of any value just now. I should think the best means of getting at that would be to get the ordinary consumption of the population. In addition to that we have to add the Greenstone population, which is considerable, and the up-country population, and if you take the census returns you can ascertain what amount of goods they should consume, bearing in mind that miners are larger consumers than an agricultural population.

247. *Mr. Seddon.*] The population has been increasing lately?—Yes.

248. *Mr. McLean.*] Do you say there are four coaches running each way?—Yes; there have been always.

249. Are you an engineer?—Yes; I was Provincial Engineer of Canterbury for some time.

250. Have you been over the track this deviation would go over from Goldsborough to Kumara?—I know every part of it, I may say.

251. What sort of country would it be to make a railway through that portion of it?—I see no difficulty. I have not seen this plan before. It does not come from where I would have taken it exactly. I should have taken it along the creek.

252. Well, you say it would have been an easy thing to go towards Hokitika, as it would be mostly down hill?—Yes.

253. Have you seen that plan before?—No.

254. By that map have you not to keep up the same incline about the same distance as you have to get down?—Taking these distances, you have to get up six miles, and have to get down eight miles and a half. The Kumara side being only six miles, you have a shorter grade than you would have the other side; but for economical reasons the engineers thought it would be desirable to have one piece steeper than the others. It could probably be done in one grade, but it would cost more money on account of heavier cuttings, &c. It is 1 in 50 for a mile and a half, and that is not an extreme grade.

255. *Mr. Seddon.*] This line from Whitcombe to Sandy Stewart's Hill is pretty level, is it not?—It is a gradual rise. The difficulty originally was supposed to be from Kumara to Goldsborough; but the Kumara Borough Council pointed out that they could go round these hills.

256. *Mr. McLean.*] Taking the line from Hokitika to Greymouth, if you say it is a waste of public money, how was it started? Was there much pressure put on the Government?—I am not aware of it.

257. I mean at the time the contracts were let for the railway?—We were always told this country would be opened up by branches.

258. Suppose now, for want of money, we got stuck up at the end of these sections, would the others be any good to work?—It is doubtful.

259. Would it pay anything at this end where there is no tramway?—I do not think it would. They would never bring goods to the railway there. When that line was laid out this country was not known; and it is difficult to examine bush country of that nature well.

260. How long would it take to get a proper survey of the deviation—one that would satisfy you as a professional man?—I think six months. The actual survey would not be so long; but what you must take into consideration is fixing the grades, and examining the country over and over again. I would say six months.

261. Could it not be done in less than that?—Three months would do the actual survey.

262. Sufficient to say whether it would be advisable to adopt that route?—That I would consider could be done in a month, because you could confine yourself to where there was a difficulty—namely, that little bit between Goldsborough and Stafford Town.

263. What would be the effect of working it round that way where there is a grade of 1 in 50?—I should say that was a matter for the opinion of engineers, who may probably differ. My own opinion is that a grade of 1 in 50 for that distance is no objection, or very trifling.

264. Do you know what steep grades there are in Canterbury?—Yes; I came down the line last week on my way here. I know the country very well, and know the fall of the River Waimakariri is 40 feet to the mile, and in some places the fall of the country is greater.

265. If you go to Blueskin Hill you will find it very steep?—Yes.

266. *Mr. Seddon.*] This is supposed to be the main trunk line between Otago and Nelson. The minerals, to get to the East Coast, would not come round this way at all, would they?—No.

267. The probable traffic would be timber and passengers?—Yes.

268. And the timber cut in the loop would come down hill to Hokitika?—Yes.

269. By one side to Hokitika and by the other side to Greymouth?—Yes. It is fairly level country except going down the Waimea Creek, and there it would require a detailed survey to say what the curves would be; but I am supposing that they would not require more than 5-chain curves anywhere. It would require some walls there; but there is material on the ground. At the present time the Chinamen are turning the creeks with stone walls, quite good enough for the railway.

270. *Hon. Mr. Gisborne.*] Does not the coach run on Sunday between Hokitika and Greymouth?—Yes; they are crowded on Sundays.