

impossible to erect a wooden building sufficiently strong to take the weight required?—That is quite correct; in fact, in Wellington City I cannot point to more than about twelve ferro-concrete dwellinghouses, all the concrete work being in the business portion.

23. So that if these stores had to be constructed in wood they would spread over a large area, which would mean increased expense in the handling of merchandise?—That is so. But I would like to point out that in this city the building regulations provide that in certain areas you cannot use wood at all.

24. You are aware that certain authorities show clearly that notwithstanding the increase of substitutes for building purposes the quantity of timber used also shows an increase?—Yes. From our inquiry when memorializing the Government on the matter we found that in America, the home of ferro-concrete, although that composition has come into use very largely, still the consumption of timber has risen to a very great extent. It points to the fact that we need not expect much relief from ferro-concrete as a substitute for timber.

25. Do you not consider it would be better to provide amply for what is known to be a suitable building-timber rather than to attempt to rely on a substitute which may afford only a problematical relief?—Decidedly so, especially as far as this Dominion is concerned, because here timber will always be sought after as a building-material.

26. Certain questions were asked you relating to the cost of planting here and in other countries where labour and land are cheaper. Notwithstanding the cheapness of labour in other countries, is it not the fact that if we require timber from there we still have to pay a high price for the timber produced under what are supposed to be more favourable conditions?—That is so.

27. Is there any guarantee that New Zealand will get timber from those other places any cheaper on account of the favourable conditions supposed to be operating there?—There is no guarantee. In regard to Oregon pine, here we pay £1 1s. per hundred feet for it, but in Melbourne for the same sizes the price is only 16s. 6d. I cannot understand why there should be such a difference.

28. Perhaps it is due to certain methods of trade that are not practised here?—I do not know if the matter comes within the scope of this Commission, but if the merchants give evidence they might be asked about the matter.

29. *Mr. Murdoch.*] Regarding the milling of our timber, supposing the bushes were cleared out more thoroughly than at present, and more timber being consequently turned out, could a reasonably paying market be found for it?—I think so. That timber could not be much worse than we are getting now in many cases.

30. You think the millers are clearing the bushes out pretty well at present?—Yes.

31. Do you get much timber from the west coast of the South Island?—A good bit. I was on the west coast recently, and was informed that the timber grown there was sought after, as it was so much easier to work.

32. *Mr. Lethbridge.*] Did your committee ascertain information as to the best classes of timber suitable for New Zealand requirements?—No, because we only met in November last, and then found this Commission was going to be set up almost immediately. We thought it would possibly have better facilities for obtaining the information, so we deferred collecting it.

33. *The Chairman.*] In reply to Mr. Clarke you mentioned that your federation had gone into the question of increasing consumption of timber in America. Do you not think that a great deal of the increased consumption is due to the wood-pulping industry?—Possibly so. But it seems to me that it does not signify whether it is used for wood-pulping or for building purposes, as the timber has to be provided all the same, and it accentuates the necessity of making provision accordingly.

34. If the increase is due to the large use of timber in wood-pulping, and the same industry arose here, we would require to plant timber suitable for the purpose?—That would be so.

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HARRY BORRER KIRK, M.A., sworn and examined. (No. 74.)

1. *The Chairman.*] I understand that you are Professor of Biology at Victoria College?—Yes.

2. Have you had any experience in connection with the microscopic examination of woods?—Yes, somewhat limited in scope, but exact as far as it went. What I sought was to determine the histological character of a number of New Zealand timbers, and I determined seven of them, but I never published the result.

3. Do you think if such an examination were made of all our New Zealand timbers it would serve a useful purpose?—It is difficult to say if it would serve an economic purpose, but it is quite likely that it would be of great scientific value. You know that the uconifers yield specific resins, and we get different compounds from different trees. That was not my work, but I thought there might be some histological constant that would go with the timber products, and so I carried on the investigation in conjunction with Professor Easterfield, and as far as I went I failed to find the constant. That is to say, trees that were most alike histologically yielded products that were quite different; while trees that yielded resins very much alike in connection with the small group I have mentioned showed different microscopic characters. Professor Easterfield did the chemical work, and I worked out the histological characters. Although I did not carry on the work far enough to be sure there was nothing in it, I carried it far enough to show that there was no immediate encouragement to be expected, and under pressure of other work I abandoned it for the time being.

4. The reason I ask you this question is not altogether from a scientific point of view, but from the practical standpoint. I will give an illustration: the Australian colonies admit our white-pine free of duty. Some timber was exported from one of our southern districts, but when it arrived in Australia the Customs authorities were not satisfied that it was white-pine,