

70. *Dr. A. K. Newman.*] Dolomite is necessary for the making of steel?—Yes, by the basic process I have referred to. It is used in Australia upon phosphoric iron, also elsewhere.

71. What quantity of dolomite would be used for a ton of steel?—I could not say exactly at the moment, but could let the Committee know later on. (Witness subsequently stated that at Lithgow Ironworks, New South Wales, 1 ton of dolomite was used per ton of steel produced.)

72. Supposing there were ironworks at Parapara making steel, if this stuff had to be brought from a distance would it add much to the cost of the steel?—Yes; it is quite a material item.

73. If dolomite were obtained in the vicinity of the works it would materially reduce the cost of production?—Yes, it would materially reduce the cost of steel-manufacture, and it would also create an important industry in the Dominion; it would probably result in an export of dolomite to Australia and perhaps to India.

74. Was Sir James Hector's discovery of dolomite in the Parapara district?—I think Mr. Morgan locates it somewhere in the vicinity of the old Wallsend Colliery, near Collingwood.

75. *Mr. Veitch.*] Will you send the Committee a calculation of the quantity and cost per ton used in the manufacture of steel?—Yes.

76. *Dr. A. K. Newman.*] What can you tell us about phosphates for manures? What are the prospects of discovering phosphatic rocks in New Zealand?—The only evidence I can give on phosphates is second-hand.

*The Chairman.* We will have the Agricultural Chemist before us.

77. *Dr. A. K. Newman.*] I wanted to know if there is any chance of our developing an industry in phosphatic rocks in New Zealand?—There is a small quantity at Milburn and Clarendon, in the Otago District. It is marketable, but the output is declining. Particulars in regard to that are given in the last annual report of the Mines Department.

78. What are the prospects of developing a large industry in scheelite? It has been exported. Can you say whether there is a very large amount of scheelite in New Zealand?—It is impossible to state even approximately the amount of scheelite *in situ*. In 1918 the production of scheelite had declined, notwithstanding the fact that the British Government had increased the price over the pre-war rate of about £1 10s. per unit of tungstic acid—that is, 1 per cent.—to the present price of £3 8s. per unit of tungstic acid. There has been a considerable decline in the output of scheelite in New Zealand since the war began. There are a considerable number of men prospecting for scheelite in New Zealand, but important discoveries have not been made during the last year or two. The output of scheelite in 1917 was 161 tons, whereas in 1916 it was 266 tons.

79. Is that owing to the shortage of scheelite or owing to other causes?—I would say that it is owing to the shortage of known supplies.

80. This country contains excellent marble?—I would say it contains fair marble compared with the Italian.

81. I do not suppose it is equal to the best statuary marble in Italy; but is there a prospect of our doing an export trade in marble?—I could not say. There is an enormous quantity of marble here in the Riwaka district, Nelson. For the information of the Committee I may say that I have here samples of shale rock. It is a mudstone containing carbonaceous matter. [Specimen produced.]

82. *Mr. Veitch.*] In Wanganui I have seen large quantities of a substance like that—close to the town?—Mudstone resembling this is one of the commonest rocks in New Zealand, but it must contain sufficient carbonaceous matter to be oil-shale.

83. *Mr. Hudson.*] With regard to molybdenite, do you think that it is possible that that may become a commercial product in New Zealand?—It is of great value for hardening steel, but the quantities discovered so far in New Zealand have been too minute to work. I have seen some *in situ* in the ranges at the back of Karamea, but in too small quantities to be considered of commercial value.

84. You could not offer any inducement or encouragement for the production of molybdenite?—Nobody in New Zealand has shown a supply that would be profitable in quantity. In the Waihi Extended Gold-mine it was claimed that it had been found, but on examination it was proved to occur only as traces.

E. J. GUINNESS, Chief Clerk, Stores Branch, Railway Department, examined. (No. 13.)

With regard to the encouragement of local industry, it is our settled policy to do so, and over a number of years we have gone to a good deal of trouble to ascertain what materials and manufactures this country can supply us with. In 1913 we built up a special schedule to give local industry an opportunity to supply our requirements. We advertised the fact that we wanted local suppliers to come to us, and since then we have been using many locally made goods. I may say that paint, which has already been mentioned before the Committee, was not included in the schedule, as it was not sufficiently high grade to satisfy requirements. It is not possible to test a paint in a month. It requires twelve months, and it would be better to have years. We calculate on repainting our buildings every five or six years, and sometimes seven years. We are continually testing paints. Some are under test at present. Next June the schedule is to be rebuilt, and the matter of locally manufactured paints will then be considered. It suits us to get our paint locally.

1. *To the Chairman.*] I know Jackson and Co.'s paint. We have bought a little of it. We have bought ochres from them, but not other paints. The reason we did not buy was this: Early in 1914 we entered into contracts for the supply of paints, and the contracts were current when the war commenced. The contractors arranged, however, to carry on the contracts, and they are being carried on at the present time. The arrangement was entirely favourable to the Department. I have heard of the Permanent Paint Company, Christchurch. We are testing their products now. It is just a new company. It will be some time before we know the result