

51. What would be the position at Huntly if hydro-electric works were started?—If the hydro-electric works sold power cheaper than that which could be produced at the brown-coal distillation works there would be no outside market for electrical energy from the distillation works.

52. *Mr. Veitch.*] Could not the mines use electrical power?—A fair amount, but not a great deal.

53. *Mr. Craigie.*] Do you not think that on account of the mines being scattered all over New Zealand it would be impossible to shift the stuff to a centre?—Although the mines are scattered the two centres of brown coal could be placed at Stirling or Milton for the Otago coalfields, and at Huntly for the Waikato Coalfield.

54. In the meantime it is an experiment, and it might be wise for New Zealand to wait and see if it is a success?—Yes, and for New Zealand to investigate.

55. *Mr. Sidey.*] What course do you suggest this country should take in connection with the matter?—As to laboratory research work.

56. You do not suggest that the State should offer a bonus?—No. There should be laboratory research first to see if distillation from slack coal is a warrantable industry to offer a bonus for.

57. Do you say that the State should undertake that work?—Yes. Who else will undertake laboratory research on an extensive scale?

58. With regard to the brown coals about Dunedin—the ordinary lignite and Green Island and Walton Park—are they likely to be profitably worked in that way?—The brown coals in the neighbourhood of Dunedin produced a better average of crude oil than those in Southland and from the Waikato collieries.

59. *The Chairman.*] I suppose it is almost impossible to get an idea of the capital cost of the works required at this stage?—Quite impossible.

60. *Mr. Hudson.*] What use could the crude oil be put to?—For the manufacture and distillation of motor-spirits, illuminating and lubricating oils, paraffin, sulphate of ammonia, and calcium carbide.

61. *The Chairman.*] We will be glad to hear about the other matters now?—The only other subject is a minor matter in connection with the search for magnesite or dolomite. Dolomite is used in the basic process for the manufacture of steel. In Australia it is imported from Middlesborough, England, at a cost of £5 a ton, c.i.f. If such a deposit were discovered in New Zealand it would materially reduce the cost of steel-production. It is believed to occur in the Collingwood district, and has been reported upon by Sir James Hector, but the exact locality is unknown. I merely suggest that the Geological Survey might be directed towards the search for a deposit of dolomite, otherwise known as magnesian limestone. A discovery of this mineral would assist in the successful manufacture of steel by the reduction of cost.

62. *Mr. Veitch.*] Is there a market outside?—Yes; it can be exported extensively to Australia if a good quality is discovered. At the present time it is used at the small steelworks which operate upon scrap steel which we have in the Dominion.

63. *The Chairman.*] You say it was discovered by Sir James Hector: is the place of the discovery known?—The actual spot is unknown, but it is in the Collingwood district. The only record we have is an analysis by the late Mr. Skey, Dominion Analyst; and the fact is recorded that Sir James Hector found a small deposit in the Collingwood district many years ago. He discovered it at a time when there was no interest whatever here in the steel industry either in this country or in Australia.

64. Do you suggest that the Government should offer a bonus for its discovery in payable quantities?—I do not know that it is for me to make such a suggestion, but I may say that at the time Sir James Hector made this discovery the basic process of steel-manufacture which requires the use of dolomite had not been invented by Gilchrist and Thomas, so Sir James Hector had really no motive to devote much time to it. Now it has become a very practical question.

65. *Mr. Veitch.*] Suppose the Government intended to try and develop the industry, on what lines should it be carried out?—By geological investigation in the locality where it is supposed that the deposits occur. Mr. Morgan, Director of the Geological Survey Department, has a knowledge of it. I have here a letter from him on the subject.

66. *Mr. Hudson.*] Has any effort been made amongst the old miners in the Collingwood district to ascertain if they can help in any way?—I doubt very much whether any one in that district knows what dolomite is, or what it is required for. I believe that I personally was the first to draw attention to it—at the time of the visit of a parliamentary Committee some years ago. Messrs. Morton, Ferguson, and Miles visited Parapara at the request of the Government, and made a report upon the iron deposits and prospects; and in connection with the question of the manufacture of steel in New Zealand, which is an important matter, I made some investigations in connection with dolomite. Mr. John Bassett, a resident then of those parts, did some prospecting near Parapara, and he got something which was a near approach to dolomite, but not quite suitable for a basic-furnace lining.

67. Was he able to locate it?—Not Sir James Hector's supply. I have the analyses here of the specimens which were obtained by Sir James Hector and Mr. Bassett. The latter obtained a serpentine magnesite which nearly contains the requisite percentage or proportions of lime and magnesia which are required in connection with the furnace-lining. It is a subject well worth further investigation.

68. *Mr. Sidey.*] What is your opinion as to the best method of research to adopt?—I think the Geological Survey Department should send some one to investigate. Mr. Morgan believes that he can find the place where Sir James Hector got the dolomite.

69. You suggest that the Department should send an officer to prospect?—Yes, a geologist. I feel confident that Mr. Morgan will report on the same lines as I have done.