

64. *Mr. Luke.*] Is Parapara deep mining or is it got by cutting into the hill?—It is a good thick skin over the top of the hill.

65. *Mr. Sidey.*] Do you know whether any of those who have obtained leases have expended money in developing the property?—Yes, a great deal, but not all in the way of mining. Drives were put in on one lease, the bush was felled, a wharf constructed, and other considerable improvements effected, but nothing has been done lately.

66. Have you found what depth the iron goes before it begins to peter out—how thick is the deposit?—It varies up to 250 ft. It is a good thick cover. As I have said, the Government is endeavouring to arrange for a metallurgist to visit New Zealand and report on this deposit and on the Taranaki ironsand. I would advise that his report be first obtained.

67. *The Chairman.*] Has that arrangement been made?—The High Commissioner has been written to on the subject.

FRANK REED, Inspecting Engineer of Mines, examined. (No. 10.)

1. *The Chairman.*] The Committee is making some inquiries in regard to the deposits of iron-ore at Parapara and in regard to ironsand and other kindred matters, and we would like to get some idea of the position as it appears to you. Perhaps you could tell us something about the Parapara deposit first?—During the last thirteen years I have had considerable experience in connection with the Mines Department regarding the Parapara iron-ore, and I accompanied the Committee which visited Parapara a few years ago, and gave evidence before that Committee.

2. *Mr. Luke.*] What is the nature of the deposit of the iron-ore there?—It occurs on the surface at Parapara. It is a sedimentary deposit of limonite, and it is very extensive. It was estimated by Dr. Bell at over 60,000,000 tons; that there are 50,000,000 tons *in situ*, I believe.

3. What is the depth of the deposit?—It has not been proved. The total depth has never been tested.

4. Seeing that it is practically a surface work and the depth is not supposed to be great it would not be an expensive undertaking to mine it?—No. I should say it would be possibly the cheapest form of iron-mining in existence. It will only require quarrying from a very high face, and it is close to the sea-board.

5. At Lake Superior they practically shoot the ores down into the bins?—Yes.

6. About the harbour, can you give us any idea of the facilities of the harbour for working it?—It is in Golden Bay, and may be said to be almost at the water's edge. Golden Bay is shallow, and it would mean the construction of a wharf or jetty of considerable length to get to water sufficiently deep for shipping.

7. Do you think it is a place where the work at the wharf could be carried on in almost any weather?—They could work Golden Bay practically at all time. The cost of coke would be one of the greatest drawbacks.

8. Is the ore very refractory?—It contains less than 50 per cent. of metallic iron, therefore it would be classed as a high-class second-grade ore. It is what they call a phosphoric ore. It contains 0.15 per cent. of phosphorus, which makes it a phosphoric ore—that is, not a Bessemer ore.

9. Have you have any experience of the iron in Hoskins's works in New South Wales?—No. I have knowledge of what Hoskins's works produce, but I have never used any of their iron or steel.

10. Hoskins's iron you could use at any foundry with a very small amount of scrap for general work. You have no knowledge as to whether this ore approximates that?—Upon analysis the ore at Parapara would be about equal to that which Hoskins uses. He obtains it from several different mines, but the quality at Parapara is as good as some Hoskins has used.

11. It would approximate very much to their steel?—Yes. On the other hand, Hoskins can work at a very much lower cost, and he can get coke at 17s. and 19s. a ton, whereas here it would cost possibly £2 a ton at the blast furnaces.

12. If the coking were done at Greymouth and they took the ore down to Greymouth, would they be in as good a position as they are in New South Wales?—No. First of all, the cost of coke at Greymouth and Westport is £1 10s., which is 40 per cent. more than Hoskins pays for it. Likewise, there is in addition the cost of transportation to Parapara. The transport of ore containing more than 50 per cent. of valueless matter to Greymouth would exceed in cost the transport of coke to Parapara.

13. Is the higher cost of coal at Greymouth on account of the longer haulage or the class of coal?—At Greymouth the coal of the Paparoa and Liverpool Collieries is very suitable for coking; but the production of coke in New Zealand is much less in quantity than in New South Wales, and the cost is high accordingly, but with a large production of coke on the West Coast no doubt the cost would be reduced.

14. In your opinion as an engineer, do you think it offers an inducement on the return of normal conditions to carry out the undertaking as a commercial undertaking?—Not at the present time.

15. I mean, after getting over the disabilities of the war?—For several reasons it would not be profitable for many years to work the iron deposits in New Zealand, in my opinion.

16. What was the inducement offered in the case of the Ethelburga Syndicate? Did the company think that the Dominion would guarantee the interest on their money?—They required a very large guarantee by the Government.

17. *The Chairman.*] They made a profit, anyhow?—Yes.

18. *Mr. Luke.*] You think that was a scheme that was not undertaken whole-heartedly as a commercial undertaking, or was it made with the idea of exploiting the country?—I think it was the latter.