

Iron.—The only places within the area where iron-ore has been found are Dun Mountain, Riwaka, Baton River, and Reefton. But just outside the area, at Mount Peel, and further north, at Parapara, there are immense deposits of hematite, which ultimately will be of great value. Again, south of the area, in the Paringa district, there are three or four places in which iron-ores occur. Iron-sand has been found near Hokitika, and in the Motueka, Wairau, and Buller Valleys. Except in the case of the hematite deposits, which have been surveyed, we have no definite information with reference to the iron-ores in the country accommodated by the proposed railways.

Copper.—Copper has been found at the Dun Mountains, Roding River, and other places in Nelson, and again near Reefton, and on the Hokitika and Wanganui Rivers. Copper-mines have been in operation for some time at Roding River, and smelting-works have recently been built. There is every prospect of the industry being a success.

Antimony.—Antimony is worked on a somewhat extensive scale outside the area affected by the railways in Endeavour Inlet, and considerable deposits of the ore have been found within the area near Reefton, Brunnerton, and Barrytown.

Lead.—Lead has been found at Wangapeka, Roding River, Cannibal Gorge, Reefton, Mount Rangitoto, and in the Grey Valley. Workable lodes are believed to exist.

Zinc and Tin.—Zinc-ores have been found at Reefton and Mount Rangitoto, and tin at Reefton, Kanieri, and the Browning River, all in small quantities.

Building Stone.—A hard sandstone suitable for building is found in the Waimakariri Gorge, on the East and West Coast Railway, and again, associated with limestone, in the Grey Valley. The Buller Valley contains a great variety of good building-stone, from granite down to soft sand- and lime-stone.

As already stated, there is a considerable deposit of soft limestone at Castlehill, on the East and West Coast Railway, the distance from Christchurch being about 64 miles. It is of the same class as the Oamaru stone, but somewhat more compact and less porous. It contains 50 per cent. of carbonate of lime and 30 per cent. of silica. There would, I have no doubt, be a considerable market for the stone in Christchurch; but there will be considerable difficulty in getting it to the railway. It lies seven miles off the line, up the Broken River, and the intervening ground is very rough for either a road or railway; an easier route can, however, be got by going further round.

There is a great variety of excellent building-stone on Fox's River, both sand- and lime-stones. I have never seen finer anywhere. At present they are far from any of the proposed lines, but ultimately they will be utilized.

Marble.—Marbles are found within the area affected by the railways at Mount Arthur, Riwaka Range, and Maruia. Many of them are fine-grained and of good colour. Unfortunately, some of the best are difficult to get at. The deposit on the Maruia is very large: there are two varieties, one blue-veined and the other pure white. The rock seems to be moderately solid, but I cannot say what size of blocks are obtainable; and the same remarks apply to all the other marble deposits: their quality cannot be judged without quarrying into them.

Mineral Springs.—There are six or seven hot springs known on the West Coast, situated on the Maruia, Wanganui, and Waiho Rivers. I do not think the properties of these springs have been fully investigated; but the last-named is already resorted to by invalids. There are several cold mineral springs near Lake Ianthe and at other places on the West Coast.

FUTURE PROSPECTS.

The main object of this report is to give a description of the proposed railways and the resources of the country they traverse. That has now been done; but it is necessary to consider further how far the railways will promote the development of these resources, and how much these resources will contribute to the success of the railways.

EAST AND WEST COAST RAILWAY.

Traffic Estimates.—Various traffic-estimates have from time to time been made for the East and West Coast Railway. In 1879 the Westland Railway League estimated the revenue at £168,910, and the working expenses at £126,683. Apparently this was considered too high even by others who were equally interested, for an estimate made by the Canterbury Railway League in 1882 gave the revenue at £134,375. In 1882 Mr. O'Connor estimated the revenue at £139,650, and the working expenses at £97,020. The balance—£42,630—gave a return of $2\frac{1}{2}$ per cent. on £1,700,000, the cost of the whole line from Rolleston to Brunnerton as then estimated. In 1883 Mr. Maxwell, on quantities furnished by the East and West Coast Railway Commission, calculated the revenue at £120,000; but he showed no profit whatever, the working expenses being estimated to absorb the whole of the revenue. In a letter to the Commissioners Mr. Maxwell says this is accounted for by the nature of the traffic—that coal, agricultural produce, and live stock, which will constitute the bulk of the traffic on this line, are carried on the New Zealand Railways at unremunerative rates. He, however, expected that the line would pay with increasing traffic, and that when the revenue reached £240,000 the profit would be £75,000. The Commissioners do not expressly endorse these views of the General Manager, but in effect they do so; for their report does not give any estimate of the actual return on the capital—it simply says that full interest cannot be hoped for in less than ten years.

From the above it seems that the whole question of the railway paying is narrowed down to the cost of working. Under ordinary circumstances a revenue of £120,000 would leave £40,000 clear profit: this is equal to nearly $2\frac{3}{4}$ per cent. on the cost of the line. The railway authorities say that in this case there is nothing left for profit. As I have had no practical experience in the working of the railways I will not venture an opinion on the subject, but will leave the matter at this point, and simply indicate the way in which I think traffic will develop.