restricted to two or three miles, and from either side of this pass it is an almost steady incline to the terminal points Hokitika and Christchurch, quite unlike the ups and downs on the present Christchurch Road,—vide Hoho and Blue Spur Terraces, Arahura to Teremakau water-

shed, Waimakiriri cuttings, Cragie Burn, Porter's Pass, &c.

One more point, and that in reference to railway communication between Westland and Canterbury, I desire to draw your attention to. I have had an opportunity of glancing at the report and examining the plans of line vid Mathias Pass. The principal difficulty on that route was the descent from Mathias Pass Tunnel to the mouth of Cannon Creek. To effect this, a stationary engine was declared to be absolutely necessary. Now that I have travelled over the ground, I do not hesitate in affirming that a stationary engine is not necessary; that the railway can be taken down from mouth of tunnel to Mathias River-bed in a similar way to that in which I propose to take the stock-road down. I, of course, do not pretend to grasp the whole question of the merits or demerits of this route in all its bearings. I had neither opportunity nor leisure to consider it fully, and there may be very powerful reasons, apart from this question of stationary engine at mouth of Mathias Pass Tunnel, which may make it desirable that the idea of constructing a line along that route should be abandoned; but I do say that if the fact of a stationary engine being required has been given as the reason for condemning the Mathias Pass line (and this I am given to understand is the case), then the decision arrived at is wrong. Grading it at 1 in 50 will bring the line from Mathias Pass Tunnel to Mathias River-flat, in 16 miles, to almost abreast the limestone knoll at point M, by following around the large creek south of L.

I do not think the Government, for some time to come, will be in a position financially to undertake a work of that sort, but I considered it my duty, in case this matter should be taken into consideration with the view of giving it immediate practical effect, to draw your attention to the fallacy of the assumption that the Mathias Pass route could not be worked without a stationary engine.

G. Mueller, Chief Surveyor.

By Authority: George Didsbury, Government Printer, Wellington.-1881.