

Another reason for its rejection was the absence of any outlet in the upper part of the river to connect with the valleys of the Lewis, Boyle, or Doubtful, lying South and in the direction the line was intended to take. In short, no other means of forming an outlet in the required direction existed but that of tunnelling through a mass of hills the extent of which was altogether too great for a moment's contemplation.

However, since the time of the first examination of this route, further explorations have been undertaken along a portion of it, and suggestions made that will be referred to in connection with the "main trunk line" and its extension northwards.

*Line No. 2.*—This line, which leaves the preceding one at the point near the village of Ahaura, passes along the banks of the river of that name the whole way to the saddle over the main range of hills known as the "Amuri Pass;" leaving the Pass on the east side of the range, it traverses the valleys of the Doubtful, Boyle, and Waiau Rivers, thence over the Waiau and Hurunui Plains. The line then crosses the Hurunui River near the site of the present bridge and township, and over the Waikari Plains to the Weka Pass, thence to the Waipara Plains, and, after crossing that river, joins the terminus of the North Canterbury line at Amberley.

The first part of this line, which passes along the banks of the Ahaura River, is but little better than the Grey, until a place called the "Haupiri Flats" is reached. Here the line enters a more favourable country; but the route has been objected to by reason of the length of the tunnel through the hills at the Amuri Pass, which would not be less than one and a half miles and probably longer, as the top of the saddle itself is at least a mile across. Portions of this route eastward from the saddle have been, since the first examination was made, so incorporated with other schemes (*see* sketch map) as to render any further remarks upon this route, as a separate and distinct one, at this place unnecessary.

*Line No. 3.*—This line may be considered as being common to No. 2 as far as the junction of the Tutaekuri with the Ahaura River, when, instead of continuing along this river, and passing over the saddle of the Amuri Pass, it follows the upward course of the Tutaekuri River, leaving it at a point about three and a half miles up the valley. From this point it follows the course of a branch which flows from the Hope Saddle, and, passing over the Main Range, at this place descends through the valleys of the Hope, Boyle, and Waiau Rivers, to its junction with the main trunk line, near the homestead of the St. Leonard's Run.

This line was examined with the object of comparing the Hope Saddle with that at the Amuri Pass, both of which cross the Main Range. The result of this examination led to the discovery of the Hope Saddle being the more favourable of the two. This being the case, a survey of a portion of this line was made commencing at Brunnerton and extending over the Saddle to the junction of the Boyle and Hope Rivers, and which will be found as shown as such upon the sketch map.

From Brunnerton to the junction of Lines Nos. 3 and 4 (*see* sketch map) I consider to be very favourable for a line of railway from this point to their respective junctions with the main trunk line. The remainder of these two competing lines, Nos. 3 and 4, will form the subject of a comparison further on.

*Line No. 4.*—This line commences at the junction of the Kiwi with that of the Hope River, traversing the valley of the former to its source, and from thence, over some high ground, to the north bank of Lake Sumner, and passing along it, as shown upon the sketch map, until the terrace is reached near the point where the Hurunui emerges from the lake; thence over the terrace which forms the north bank of the Hurunui, which it crosses at a point near to its junction with the south branch of the Hurunui; thence, after crossing the south branch of the Hurunui, it follows the course of the river along its south bank until the Waikari Plains are reached, and where this line is proposed to form a junction with the main trunk line.

This line may be considered of a sufficiently-distinctive character as to have a separate number attached to it, although it is short, and common to the preceding ones for a long distance. However, its importance is such that more frequent reference will have to be made to it than that of any of the others when the "comparative" merits of the lines are under consideration.

*Line No. 5.*—This line starts from Greymouth, and, instead of proceeding in the direction of Brunnerton, it takes a southerly course coastwise, and passing along the Greymouth and Hokitika Railway Reserve as far as the Teremakau River.

An alternative line, as shown upon the sketch map, along the first portion of this route, leaves the line at a point about six miles from Greymouth, and, passing through the villages of Marsden, Cockabulla, and Clifton, and skirting the southern part of Lake Brunner, joins the main line, on the northern bank of the Teremakau River, at a point about twenty miles from its mouth; the line then traverses the north bank of this river the whole way up to the saddle on the main range, and known as the "Hurunui" or "Teremakau" Pass; on leaving the saddle, it passes along the southern bank of the Hurunui River as far as Lake Sumner; thence over open and gently-undulating ground, and passing along the south bank of Lake Taylor, it joins Line No. 4, near the junction of the Hurunui River and its south branch.

This route was examined to ascertain the practicability of a line of railway over the "Hurunui" or "Teremakau" Pass, situate on the main range, when it was found that a tunnel at this saddle could not be constructed less than two and a half miles in length. This fact, coupled with the exceedingly-rugged formation of the ground on the west side of the Pass, led to its rejection, for on either side of the Teremakau River, and most notably at the junction of the Otira River, where, for a distance of about a mile, the line would have to be benched out of the solid rock, which would be nearly equal, in point of cost, to tunnelling.

There are several other reasons for condemning this route, and, without recording them at this place, I think sufficient has already been said for you to perceive the cause of its rejection.

*Line No. 6.*—This is a line shown upon the sketch map from off No. 2 intercoastal line, but, in reality, it was intended to connect with Line No. 5, main trunk line, at the head of the Marina Plains, and by that means avoid the tunnel at the Hope Saddle; and so anxious and hopeful was the