

tates the employment of a large number of men, establishes an export trade, and so connects Jackson's Bay at once with the rest of the colonies.

It is necessary and proper, that in the first place the Government should provide work for the settlers as proposed, but the sooner the change is effected from Government to private employer the better. Now the prospect of effecting this change at an early date appears to be greatest in connection with the establishment of saw-mills on the special settlement block, and I consider that the requirements of saw-mills should be met as far as possible, and that a tramway as above be constructed instead of a road. The proportion in haulage between road and wooden tramway is as one to ten, and indeed, with but an ordinary road to cart the timber to port on, I question very much whether saw-mills on the settlement could compete with saw-mills established near Hokitika or Greymouth.

The question of expense cannot be fully gone into, owing to the survey of line of road not being completed. The correct estimate of the works is, however, not likely to vary much from the following figures :—

Wooden tramway	...	...	...	...	...	£750 per mile.
15-ft. dray road	...	...	...	...	...	£1,000 "
Tramway with 15-lb. iron rail	...	...	...	...	...	£1,700 "

The iron tramway, though the most expensive by far in construction, will be the most suitable and the cheapest in the end. The cost of the line from the port to the Arawata River varies very much at different localities; the first mile from port to flat land, will come to double the expense of any of the succeeding miles. This, however, has been taken into consideration in the estimate, and the cost at per mile noted is an average of the total cost of construction. At the port, a jetty will have to be run out into deep water; the surroundings are favourable for construction, but not being in possession of data sufficient to guide me in forming an estimate now, I shall report upon it, as also upon the bridge across the Arawata River at some future time.

In conclusion, I beg to refer to the favourable position of this settlement as regards connection, or facilities for connection with the East Coast provinces, Otago and Canterbury, by way of Haast River Pass. This pass is the lowest pass known; its altitude is only 1,716 feet, while all the others range from 3,000 to 4,000 feet in height. The saddle between Haast River on West Coast, and Makarora River on the east side of dividing range, is distant only thirty-two miles from the special settlement, and twenty miles from Wanaka Lake, in Otago Province. An Otago party is now surveying this pass with the view of fixing upon a line of railway by which to connect the East and West Coasts of the Middle Island.

I have, &c.,

GERHARD MULLER,

Chief Surveyor.

His Honor the Superintendent, Province of Westland.

Enclosure 3 in No. 20.

The CHIEF HARBOUR MASTER to His Honor the SUPERINTENDENT, Westland.

SIR,—

Harbour Department, Westland, Hokitika, 8th December, 1874.

In accordance with your request that I should furnish some particulars respecting the anchorages of Jackson's Bay, and also report upon the various rivers situated in the Jackson's Bay district, I have the honor to report as follows :—

The anchorages in Jackson's Bay are perfectly safe for shipping, and consist of inner and outer anchorage on the west and south-west sides of the bay, with a depth of from 10 fathoms, reducing as the vessel proceeds southwards to 4 fathoms, over a stiff mud bottom. The bay is exposed to gales from the north-east and north, but the sea never comes home with any force; and I am of opinion that the cause of this is, that during heavy northerly gales a larger body of water is carried or forced into the bay on the east side, which runs round the bottom of the bay to the south-west and west, passes out with some force round Jackson's Head, and is finally blended with the current setting south-west outside the Head. At these times a heavy tide-rip or overfall extends from Jackson's Head to the south-east, nearly as far as the Arawata River, whilst inside the break the water is comparatively smooth.

I would recommend any small vessel visiting Jackson's Bay to go well into the south-west part of the bay and anchor in 4 fathoms, and if her stay was long, moor with both anchors to keep from fouling her anchors. I have found Trotman's patent anchors keep clear of fouling for a period of fourteen days at one time. Larger vessels should anchor in about from 10 to 12 fathoms, as directed in "Stokes' New Zealand." Vessels coming from the southward should keep outside of a small half-tide rock, called the "Haboaka Rock," immediately off the pitch of the Head, and which is always discernible by the swell of the ocean breaking on it at high water. Although there is a clear passage between it and the detached reef off the Head, it should not be attempted by strangers. The whole of the bay is clear of dangers as far north as Mussel Point, situated about two miles south of the entrance to the Okuru River, off which point an extensive reef stretches four miles to seaward, and which is but little known. The western portion of the reef is covered at spring tides, but from that to the main shore the reef extends eastward and in broken patches, some of which show themselves above the sea at low-water spring tides, and are very dangerous, and, until carefully surveyed, ought to be avoided. The northernmost known danger is nearly as far north as the entrance of the Okura River. From the north-west side of the Mussel Reef there is a clear passage of about three miles in a north-easterly direction to "Open Bay Islands" of "Stokes' New Zealand Pilot," with a depth of from 16 to 18 fathoms on a sandy and shingly bottom. This passage was carefully examined during the "St. Kilda's" visit in 1868, and no danger found between the reef and the island. Around and near to the islands the bottom is very rocky, but good holding-ground is found for small vessels under the south-east corner of the island during northerly and north-easterly gales, but a careful watch must be kept for a sudden shift to south-west. In that case a good shelter can be found at the north-east end. A reef