

respecting a great extent of the country between Mattawa and Fort Garry. It had scarcely been penetrated more than a few miles back of the River Ottawa and the Lakes Huron and Superior, except on the canoe routes which lead to the outlying posts of the Hudson Bay Company. Along the chain of Lakes extending from Fort William to Manitoba, however, its character was better understood.

"What was really known of this country, particularly that long stretch between the Ottawa and the northern bend of Lake Superior, indicated that it was not favorable for Railway construction. Along the coast of of Lake Superior, the ground was reported most impracticable and forbidding.

"It was deemed advisable therefore in projecting a chain of surveys, to make the attempt of piercing through the interior at a considerable distance back from the Lake, in the hope of finding ground free from those serious obstacles which presented themselves on or near the coast.

"It was at the same time considered important to make the attempt of finding a practicable line which would touch the navigable waters of Lake Superior, at the nearest point to Fort Garry, viz:—At Nepigon, or Thunder Bay.

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"A branch survey was authorized from the Nipissing District to Sault Ste. Marie, to connect with lines projected south of Lake Superior, and with steam boat navigation to Nepigon, or Thunder Bay.

"To obtain as much information as possible within the year, an expedition was also sent northerly to James' Bay.

"The last named expedition ascended to the head waters of the river Ottawa, and Northerly by the river Abbitibbe to Moose Factory, returning by Moose River and Michipicoten River to Lake Superior.

FORT GARRY TO THE ROCKY MOUNTAINS.

"The country west of Fort Garry, consisting, for the most part, of open prairies, and being characterized, even up to the base of the Rocky Mountains, by physical and engineering features, remarkable for their simplicity; a continuous instrumental survey was not for the present deemed necessary.

"A careful examination of all the information obtainable, showed, however, that, as a general rule, the rivers of the plains west of Fort Garry, flow in deeply eroded beds of great width, suggestive of Bridging on a gigantic scale.

"It was found, chiefly from the reports of the Palliser expedition, that the great troughs or valleys through which the streams flow, range over a wide extent of country, from 150 to 300 feet and even 400 feet in depth under the level plateau on each side; these great river troughs are at the same time reported, not unfrequently to be about a mile and a mile and three quarters in width.

"It appeared, therefore, of the utmost importance to examine further into this subject with the view of finding a route for the railway through the central plains as direct as possible, avoiding as far as practicable, the obstacles referred to, or overcoming them at the least difficult points.

"A double expedition was organized to proceed by different routes, between Fort Fort Garry and the two most eligible passes

through the Rocky Mountains, viz: The Howse Pass and the Yellow Head Pass.

THE ROCKY MOUNTAINS TO THE PACIFIC.

"Within the Province of British Columbia other most serious obstacles to Railway construction in any desired direction presented themselves, and the selection not only of one of these Passes, but also of a Terminal point on the Pacific Coast, seemed to depend on the success which might attend any attempt to discover the most practicable line for a railway across the interior of the Province.

"The survey in the British Columbia was divided into Districts, one between Howse Pass and Shuswap Lake, a second between Shuswap Lake and the Straits of Georgia by the Lower Fraser River, a third between Yellow Head Pass and the Upper Fraser River through the Cariboo country.

GENERAL ORGANIZATION OF STAFF.

"The total number of Engineers, Surveyors, Levellers and assistants employed, together with axemen, boatmen, packers, &c., would not be far short of eight hundred.

"The first detachment left by the River Ottawa for the interior on the 10th of June. Those for the region north of Lake Superior left Collingwood on the 20th June. In British Columbia, a portion of the staff left Victoria for the Mountains on the 20th of July.

PROGRESS OF THE SURVEY.

"It has been found impossible to maintain regular communication with many of the parties engaged on the survey during the winter, but judging from the Progress Reports last received, the undersigned feels confident in stating that the surveys projected in June last between Mattawa on the Ottawa and Nepigon Bay on Lake Superior are now, with one exception, completed, and that only two breaks in the survey exist between Nepigon Bay and Fort Garry.

"No serious engineering difficulty has been met with in passing from the Valley of the Ottawa to the country north of Lake Superior; it is impossible, however, to speak favorably of the country embracing over one hundred miles easterly from the River Nepigon. This section is excessively rough and mountainous, and the survey made through it, did not result in finding a practicable line for the Railway.

"West, from Nepigon River to Fort Garry, although two Divisions of the Survey are incomplete, enough is now known of the country to warrant the belief that it will admit of a practicable line with favourable grades for the greater part of the distance.

"Explorations are now being made with the view of ascertaining how far it may be practicable to avoid the very serious difficulties referred to (on Divisions G and H,) by running the Railway Line further in the interior; it has already been found that the rocky and broken country, which presents itself on the shore of Lake Superior, changes very much at a distance of 50 or 60 miles to the north, and from what has been learned it is thought that a perfectly practicable Line will be discovered by the north side of Lake Nepigon. Definite information on this point cannot be received before navigation opens between Collingwood and Lake Superior, when the parties engaged on the explo-