

of rock cuttings & embankments to be widened, with entirely new road-bed in places, & when it is remembered that the line was first built with a view to economy in construction, & equalization of quantities in cuttings & embankment, it is obvious that in making these changes a large surplus of excavation must be met with, & this material will be utilized towards grading the road-bed for prospective double track. The deviation at mileage 154 involves an expenditure of \$6,000, & will take out a double reverse curve, of which the total curvature is 16° 06', substituting a tangent, without any appreciable change in the existing gradient (47 ft. per mile) & reducing the length of line by 15 ft. The second change is between mileage 159 & 161, involving an expenditure of \$30,000. This has been under construction since Aug., & the following gives an idea of the improvement to be accomplished. This alteration necessitates crossing the present track at 5 different points. The length of track is reduced 50 ft. The number of curves taken out is 6. The total degree of curvature removed is 114°, & there is substituted a tangent of 1¼ miles, with 2 light curves of 11,460 ft. radius, with a total angle of 3° 50', & 1 curve 5,730 ft. radius, with a total angle of 7° 45', while the gradient is uniform for the whole distance (43 ft. per mile) the same as existing with the original alignment. The Co. has at work 150 men & 12 teams, & it is expected that this work will be completed by Nov. 30. Owing to the interference with traffic on the present track it was thought desirable to do the whole work under the Co.'s road-master, instead of letting it by contract.

Fort William.—In order to accommodate the vastly increased traffic, between 3 & 4 miles of additional track have been laid in the yard this year, raising the capacity of the yard tracks to 16 miles. (Sep., pg. 267.)

The round house to replace the one burned last spring will be entirely stone. It will have 18 stalls. For the present the old round house will be used as an auxiliary. (May, pg. 139.)

Fort William to Winnipeg.—The work of extending the sidings to 4,000 ft., thus doubling their length & making them available for part of the second track which will soon have to be built, is about completed. (Aug., pg. 233.)

Rat Portage.—The basement of the station building has been completed, & work is being pushed on the superstructure. The old station is to be moved down the track near to the Central School building & will be devoted to the use of the local operating officers.

Work is also proceeding on the 20-stall round house. (Sep., pg. 267.)

Bonnett Lake Branch.—In Aug. Manager Whyte, of the Western lines, stated that it had been found that the first line run by the surveyors was unsuitable for the railway. It was, therefore, necessary to revise it, a work that can be better done in winter than at the present season; consequently the line would be revised next winter, & everything got in readiness for the construction of the road next spring. Mr. Whyte added that if the production of the Bonnett Lake Co.'s yards came up to the standard of the samples the success of the enterprise was assured, & the brick, if up to the specimen quality, would probably be used in the construction of the C.P.R. hotel at Winnipeg. In the middle of Sep. it was announced in Winnipeg that A. C. Smith had been given a contract for grading the branch. (June, pg. 172.)

Winnipeg Terminals.—It is not likely that much, if any, work will be done on the station & hotel buildings this year, but there is little doubt work will be started early next spring. It is said the building will be 320 by 208 ft., & 6 stories high, with towers, & that it will contain not less than 350 bedrooms. A report that the Co. was buying land near the post office for an hotel site has been contradicted. A combined station & hotel will be erected on & near the site of the present station. (Sep., pg. 267.)

An addition of 10 stalls is being made to the east end round house. Some other improvements to the shops, etc., have received consideration, but will not be proceeded with at present.

The Snowflake Branch, which starts from the first siding on the Pembina Mountain Branch, 118 miles southwest of Winnipeg, is about completed to its terminus at Snowflake, & will be open for traffic this fall. (Sep., pg. 267.)

Deloraine to Waskada.—The grading of this branch has been completed. Track will be laid at once, & it is to be ready for traffic this fall. (Sep., pg. 267.)

North Star Mine Branch.—In reference to the conflicting reports about this British Columbia branch, mentioned in our last issue, we are officially informed that construction is being proceeded with. (Sep., pg. 267.)

Revelstoke Shops.—It is said the capacity of these shops is to be considerably increased. All the work for the main line between Laggan & Kamloops, & for the Kootenay branches, is now handled at Revelstoke.

Vancouver Terminals.—The handsome new station has been completed & is now in use. The various officials have moved into the office portions of the building.

New Westminster.—The exterior of the station is about finished, & work is going on in the interior. (June, pg. 172.)

Columbia & Kootenay Branch.—It is said an appropriation of \$30,000, in addition to the \$50,000 made early in the year, has been provided for the further improvement of this branch, & that Tierney & Co. will receive another contract to go on with the work. Next spring the filling in of the wooden trestles will probably be gone on with. (July, pg. 208.)

Arrowhead & Kootenay Lake Branch.—On Sept. 24 grading was reported as nearly finished between Lardo & Trout Lake, & track-laying was expected to be started very soon. It was also stated that trains would be running to Duncan City by Nov., & that construction would be continued all winter. It is said that in addition to the country traversed being rich in minerals, the agricultural lands are of considerable value. (Sep., pg. 267.)

Columbia & Western Ry.—On Sep. 26 President Shaughnessy said:—"The grading of the road into Midway has been completed, & there remains only some 25 miles of iron to be laid before we shall have our trains running into Midway. The work on the big tunnel 30 miles west of Robson, where we have pierced for 3,000 ft. the side of the mountain, is not quite completed, but the state of the work there will not prevent the running of trains from Robson to Midway this autumn. In addition to the main line, we have constructed some 30 miles of sidings along the line into mining camps, where the development has been sufficient to warrant us in going to that expense. This road is by all means the most expensive the C.P.R. has ever constructed. The country throughout the entire distance is exceedingly difficult, & the engineering difficulties very great. The entire line has cost the Co. in the neighborhood of \$40,000 a mile, or a total expenditure of nearly \$4,000,000 for 100 miles of line." (Sep., pg. 267.)

H. B. Smith, C.E., of Victoria, recently inspected the line from West Robson to Grand Forks for the B.C. Government. He says he found the line in excellent condition. Regular train service has been established between West Robson & Grand Forks.

It is stated that the C.P.R. engineers are running a line south of that previously run between Midway & Rock Creek. Leaving Rock Creek about a mile above its junction

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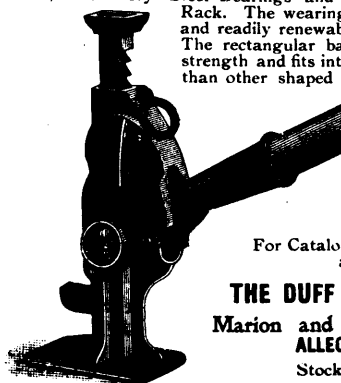
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