

route proposed to be followed is from Ottawa to Richmond, thence via Merrickville and North Augusta to Brockville, Ont., about 58 miles. Surveys have been made, and construction is likely to be started in the spring. (June, pg. 195.)

Ottawa Electric Ry. Co.—A sub-committee of the city council which was recently investigating the city's relations with the company, reported that there were three miles of line laid with 40-lb. rails, instead of 56-lb. rails called for in the charter.

Ottawa Northern and Western Ry.—We were recently advised that favorable progress had been made with grading on the extension from Gracefield to Maniwaki, Que., and that it was expected to have it completed this fall. Most of the rock excavation to the north of the Blue Sea Lake, 15 miles north of Gracefield, has been taken out. The tracklaying and ballasting will not be proceeded with until spring. (Aug., pg. 267.)

Picton and Wellington Electric Ry.—The township council of Hallowell, Prince Edward county, Ont., has granted a franchise for the construction of an electric railway from Picton to Wellington, to M. R. Allison, of Picton, and others.

The Preston and Berlin Ry. starts from the Galt, Preston and Hespeler Electric Ry. near the easterly limits of Preston, Ont., and runs westerly through the town, crossing the river Speed below the dam at King st., there forming a second junction with the G., P. and H.E. Ry.; continuing westerly the line runs through Freeport and Centreville to Cameron st., Berlin, where connection is made with the Berlin and Waterloo Electric Ry., the total distance being 8.95 miles. To provide for rapid passenger and freight service the route adopted was the most direct obtainable in such a hilly country, and with exception of a short distance along Railway st., Preston, and King st., Berlin, is on acquired right-of-way. The sharpest curves—573 and 716 ft. radii—occur at a junction where all trains stop; on other parts of the main line the curvature varies from 800 to 2,865 ft. radii. The ruling gradient is 2%, which was found unavoidable in the reach to the high lands west of Preston, and approaches to the depression of the Grand River valley. The construction of the road-bed is of first-class character, and every means employed to make it safe, up-to-date and serviceable for quick passenger traffic between terminals. Apart from a timber trestle at Preston, and a small timber structure near Berlin, all streams and water-courses are provided with cement culvert pipes crossing under the embankments. At Freeport the Grand River is bridged by four steel trussed spans of 140 ft. each supported by concrete abutments and piers, the latter having stone masonry cut-waters. The track generally is of new steel rails, 39 ft. average length, weighing 67 lbs. per yard, laid on cedar ties. The track will be thoroughly ballasted with gravel from cuttings and adjacent gravel ridges. The location of power-house and electrical equipment of the line is deferred to next spring, and also construction of a section of railway from the eastern terminus to the river Speed. The contractors for the foundations and building of abutments and piers, earthwork, culverts, timber work, tracklaying and completion of the railway, were A. A. McDonald & Co. The contractors have experienced much difficulty in completing the work owing to the scarcity of teams and labor. We were advised Oct. 20 that the track was laid and ready for ballasting from Preston to Freeport, which will be pushed ahead meantime, and that the grading to Berlin was expected to be completed by Nov. 1. T. E. Hillman, Hamilton, is engineer in charge. (Aug., pg. 267.)

Prince Edward Island Ry.—The grading for the straightening of the railway at Blue-shank has been completed, but it is unlikely that the rails will be laid until next year. T. Campbell, Charlottetown, was the contractor.

Steel rails are being laid on the Souris branch from Morell to Midgell, 4 miles.

Grading on the first section of 11½ miles on the Murray Harbor branch has been practically completed, and tracklaying is in progress. In connection with the bridge over the Hillsborough river, we were advised Oct. 18, that the pile piers, numbers 0, 1, 2, 3, 4, and 5 are completed, and no. 9 pneumatic caisson is sunk, and the concrete and masonry completed, while the piers 10 and 11 are finished, and, with one exception, the other pneumatic caissons were expected to be launched by the beginning of Nov. All the piling and cribs for the protection of the earth embankment approaches are also finished, so that substantial progress has been made during the season. If the weather continues good it is expected that the sinking of all the caissons will be completed this fall. (Feb. pg. 53.)

A new passenger and freight station is in course of erection at Georgetown. It has a total frontage to the track of 87 ft., 63 ft. representing the offices and passenger accommodation, and 24 ft. the freight and baggage room, and a depth of 25 ft. for the station building, and 42 ft. for the freight and baggage room. The passenger station contains a freight office 10 ft. by 16 ft. 6 in.; a ticket office 12 ft. 6 in. by 16 ft. 6 in.; general waiting room, 22 ft. by 24 ft.; ladies' waiting room, 12 ft. by 12 ft.; lamp room, lavatories, etc. Over the ladies' waiting room is a tower in which is one room. The building is of frame, the wall shingling being colored green, and the roof shingling bright red.

The station building at Mount Stewart is being altered and enlarged. The old freight room is being converted into a ladies' waiting-room and a baggage room, and a new freight room 55 ft. by 21 ft. 6 in. is being built.

At Morell station an addition 40 ft. by 21 ft. is under construction as a freight shed, and the old freight shed is being converted into a baggage room.

Nothing definite has been decided as to the erection of a new station at Charlottetown, for which \$30,000 was voted at the last session of the Dominion Parliament. (Aug., pg. 267.)

Quebec and New Brunswick Ry.—Grading is in progress on the first section of this line between Connor's and Tolun's Flat, N.B., 3 miles, and it is said track will be laid this fall. The remaining 15 miles to the Quebec boundary are being located, and grading is likely to be gone on with this fall. C. LeB. Miles, C.E., has charge of the surveys. (Aug., pg. 267.)

Quebec Bridge.—The report of E. A. Hoare, Chief Engineer, dated Aug. 23, presented at the recent annual meeting, showed that since the last annual report the abutment on the north bank, the anchorage pier, and main pier on the north side of the channel had been completed, with the exception of a small quantity of concrete for anchorage of the north approach span; the corresponding abutment on the south bank was expected to be completed by the end of Sept., and the south anchorage pier lacked only two courses to completion. The most important part of the work, the pier in the river on the north side of the channel, would take more time to complete than at first contemplated, owing to the extra depth to which the foundations would have to be carried. The operations connected with the sinking are carefully conducted, and progress under the circumstances is good. The cutting edge of the caisson is 44 ft. below low water, and some

38 ft. below the river bed. The masonry in all of the structures is of a very substantial and suitable character. The north approach span of the superstructure was being erected, and it was expected that this as well as one on the south side would be completed this season. Each span is 214 ft. in length, and their total weight is 2,540,000 lbs. The directors said they were much gratified in giving credit to the contractor, M. P. Davis, for the high standard of the work executed so far, which is generally considered in engineering circles as the best organized and most skillfully conducted that has ever been performed in works of that magnitude. The whole group of massive piers and abutments will, it is expected, be completed within a few weeks, and then the Co. will be justly proud of possessing such a high specimen of modern workmanship, representing an expenditure of over \$1,000,000, an investment which will be greatly beneficial to the financial standing of the Co.

Since the date of the report the contractor has continued sinking to find a suitable rock bottom, and on Oct. 1, a depth of 84 ft. below the river bed had been reached. It was expected that an additional 15 ft. would have to be excavated before a solid foundation was reached. The cause of the trouble was that shifting sand was struck at one side of the caisson bed, and it was decided not to run any risks, but to sink deeper so as to have a suitable foundation for the caisson to rest on. Collingwood Schriber, Deputy Minister of Railways, paid a visit to the works in connection with the trouble to confer with the Co.'s engineers. He says that while there will be some delay and an increased cost there need be no serious alteration in the plans as finally adopted. (June, pg. 196.)

Quebec Ry., Light and Power Co.—A project is under consideration with a view of having a line constructed on Champlain st., and signatures are being obtained to a petition asking the city council to request the Co. to make the extension. (June, pg. 196.)

Quebec Southern Ry.—We have been officially informed that the bridge over the St. Francois du Lac, on the extension of the line from Sorel to Chaudiere, Que., has been completed. It is between 800 and 900 ft. in length and has seven spans. There is a fill of about 900 ft. at the west end, and a short fill at the east end which it is expected to complete this fall. It is reported that a contract has been signed for the completion of the extension to Chaudiere, but H. A. Hodge, the President, has not disclosed the name of the contractor. (June, pg. 197.)

Beld Newfoundland Co.—A new station is being built in the western end of St. John's, Nfld., to replace the present temporary building in the east end of the city.

Restigouche and Western Ry.—It is said work will shortly be resumed on clearing up the right of way and putting the track, already laid, in order. The line was projected from the I.C.R. at Campbellton, N.B., to St. Leonards, 110 miles, where connection could be made with the C.P.R., and the Bangor and Aroostook Ry. Track was laid on 10 miles from Campbellton, and a Dominion subsidy of \$32,000, paid in respect thereof, in the financial year 1898-99, and a further 10 miles graded, when operations ceased. Financial arrangements have, it is said, been completed for the carrying on of the work, and T. Malcolm is arranging for re-starting work. D. W. Burpee is Assistant Engineer in charge of construction.

Sandwich, Windsor and Amherstburg Electric Ry.—The townships of Sandwich west and Anderson have voted against the by-laws bonusing the line, and the Co. is endeavouring to obtain the \$5,000 it desires from Amherstburg, which has already voted