

been made for new rolling stock, powerful modern locomotives have been built, freight cars of 30 tons capacity have replaced the old 12 & 15 ton cars, & the passenger service has been improved by new coaches, parlor cars, 2 new dining cars of the latest design, & 4 cafe parlor cars, introduced for the first time into Canada.

The Niagara steel arch bridge was completed & formerly opened for traffic in Sept., 1897. The arch, which is the longest in existence, is 550 ft. in length, & the bridge, including approaches, has a total length of 1,100 ft. It replaced the old original suspension bridge, which was built in 1855. The new bridge is double-tracked & designed to carry on each track a load of 2 locomotives with 4 pairs of drivers each, & carrying 40,000 lbs. on each pair, followed by trains weighing 3,500 lbs. per running foot, also a load of 3,000 lbs. per foot on the lower roadway, over six times the capacity of the old suspension bridge.

The Victoria Jubilee bridge, replacing the old tubular bridge which was completed & opened for traffic by the Prince of Wales in 1860, is composed of 24 spans, averaging 245 ft. each, making a total length of about 1½ miles. It is a double-track structure with driveways & footwalks on each side. This bridge was constructed in 8 months' actual working time, as there were some delays due to severe weather. Railway traffic over the bridge was conducted as usual & without interruption during its reconstruction, & the total delay to trains during the entire period of 8 months was equal to but 22 hours, the longest single delay being about 2 hours. The old bridge weighed 9,044 tons, while the new structure weighs over 22,000. The width of the old bridge was 16 ft. The new one is 66 ft. 8 in. wide. The height of the old bridge was 18 ft.; the new, over all, is from 40 to 60 ft. high. It is designed to carry a total load of 11,000 lbs. per lineal foot, while the old bridge would carry but 2,500. The cost of reconstruction of the new bridge was about \$2,000,000. The new bridge with its additional capacity of double track & roadways on each side was conceived by Mr. Hays & was considered by him necessary to properly develop the possibilities of the railway & meet the demands of increasing traffic.

The international bridge connecting Fort Erie, Ont., with Buffalo, N.Y., is really two structures: one across the Niagara River proper, 1,967 ft. long; the other across Black Rock Harbor, 517 ft. long, with a draw bridge 214 ft. long. This bridge is being reconstructed, & it is expected will be completed with the close of the year. It will cost in the neighborhood of \$300,000. The new bridge is designed to carry the heaviest weight required by the use of modern rolling stock & loads, being considerably more than double the capacity of the old bridge. Many improvements have been made in smaller bridges all over the system, aggregating a total expenditure of upwards of \$750,000, comprising the entire renewal of every bridge on the line from Montreal to Portland, including the bridges across the Ottawa River at Ste. Anne's & Vaudreuil, across the Riviere Rouge west of Port Union, & on lines west of Toronto, across the Grand River at Paris, across the Thames at London, & across Sixteen Mile Creek east of Hamilton—all of these latter being double track structures.

In order to accomplish the present passenger and freight service it has been found necessary to rearrange & improve the yards & buildings at many important points, such as York, Sarnia, Port Huron, Niagara Falls, Fort Erie & others. At Sarnia & Port Huron there have been constructed entirely new engine houses of 30 stalls capacity, comprising modern coal chutes, sand houses, &c. Much has been done in the way of rearranging

switching yards, coaling & water facilities at Toronto, Belleville, Montreal, London, Hamilton, Island Pond, Portland & all the larger terminals.

A marked improvement has been made in replacing old wooden station buildings with handsome new brick & stone or frame structures, arranged to meet the increasing requirements of growing towns. Among these may be mentioned the new buildings at Berlin, Guelph, Galt, Merriton, Vaudreuil, Ste. Anne's, Lachine, St. Henri, St. Lambert, St. Hyacinthe, Arthabaska, etc. A new general office building is under construction in the heart of Montreal, on a valuable piece of land donated by the city for that purpose. It will be a handsome building, 5 stories high, of Quebec gray granite up to the first floor, & then of Indiana gray lime stone. It will occupy an entire city block, 200 x 135 ft., will provide double the present office space, & will be one of the finest buildings in America devoted to the exclusive office purposes of one railway company. The expenditure will be \$500,000. There have also been erected at the Co.'s works, Point St. Charles, Montreal, handsome offices for the use of the motive power department. Arrangements have been made with syndicates under which elevators have been constructed at Midland & Goderich, & one is now under construction at Meaford, for the handling of large quantities of grain, & at the latter point is involved the deviation of the railway from its present location to a position on the harbor in the town.

In connection with the administration of the railway one of the most important changes that has been made under Mr. Hays' management has been the introduction of the standard rules approved & adopted by the American Railway Association for the running of trains. These rules, relating to signals, etc., are in use upon the greater part of the 190,000 miles of railways in the U.S., & the importance of uniformity will be at once apparent. In order to provide for the safety of its employes the Co. has spent \$1,100,000 in equipping cars & engines with automatic air brakes & couplers. An idea of the magnitude of the concern will be gathered from the statement that the Co. employs about 24,000 people, & pays out annually in salaries & wages from \$10,500,000 to \$11,000,000. Although Mr. Hays is a strict disciplinarian, insisting upon close attention to business & total abstinence while on duty, yet his uniform courtesy wins him the respect & hearty co-operation of officers & employes.

The result of the policy which we have outlined has been a vast improvement in the securities of the Co. & its credit. The stock securities have an enhanced value of \$80,000,000 as compared with the market prices of 1895 & the early part of 1896. This improvement is due to the increased payment of dividends to the English holders, amounting to \$3,762,434 for the four years from Jan. 1, 1896, to Dec. 31, 1899. A deficiency in interest on perpetual debenture stock which existed on Dec. 31, 1895, has been earned & paid by the Co. since that date. The total amount thus represented is \$4,856,000. This is only \$2,814,025 less than the net dividends earned in the 10 years preceding the time when Mr. Hays took charge of the road.

Among the financial successes of the present management has been the incorporation in the G.T.R. system of the Central Vermont Ry. This road is the chief artery of commerce of the State of Vermont, with an important line extending through Massachusetts & Connecticut to Long Island Sound, having a total length of 570 miles, & affording an outlet for the system direct to New York & Boston. Under the recent reorganization of the C.V. Co. the G.T.R. was awarded more than two-thirds of the stock, as well as a large proportion of the \$12,000,000 of bonds issued, in settlement of its claims against that

property. The leasing of a portion of the G.T.R. system to the C.P.R. between Toronto & Hamilton, to the Wabash R.R. between St. Clair & Niagara Rivers, & to the I.C.R. east of Montreal were good strokes of policy & in the best interests of Canada, affording the same competition as would have been brought about by unnecessary duplication of lines.

There was a time, as most of our readers will remember, when the service of the G.T.R. was uniformly bad, when the delays in the running of trains were subjects for angry derision, & when the curses of shareholders were heard by every Canadian who visited England. For the change which has taken place the present General Manager is entitled to a very large share of credit, & there is good reason for congratulating not only those who are financially interested in the road, but the travelling & shipping public & the country at large, for the national credit abroad has certainly been improved by the betterment in the position of so large & important a concern.—Toronto Globe.

Among the Express Companies.

In accordance with an agreement arrived at by all the companies interested the entire city of Chicago, within its corporate limits, is to be considered as a common point, open to all companies under the existing rules pertaining to common points.

The Dominion Express Co. has warned its agents of two recent successful attempts at defrauding merchants in towns adjoining Toronto. The scheme is to buy goods & have them shipped to a certain point C.O.D., & then go to that point & steal them.

Some time ago a box containing \$500 worth of gold dust was stolen from the Dominion Ex. Co.'s office at Spence's Bridge, B.C. Inspector McKenzie, of the C.P.R. detective department, was given charge of the case, & he arrested three Indians on suspicion, they having some gold in their possession. They denied all knowledge of the crime. During the trial before the Police Magistrate which followed, station agent Webber at Spence's Bridge confessed that he had taken the dust, & could place the Co. in possession of it. He was committed for trial at the fall assizes at Kamloops.

The Dominion Ex. Co. put a new tariff in force July 25th, under which the rates between Toronto & Montreal & points as far west as Moosejaw have been reduced 25 & 50c. per cwt. The rate only applies as far east, however, as Sudbury. Formerly the charge from Montreal was 25c. higher than Toronto, but it has now been made the same. A special rate has also been put in force to Crow's Nest points west of McLeod, to Kootenay Landing, B.C., the reduction ranging from 75c. to \$1.75 per cwt., according to distance. The rate to Creston from Toronto, formerly \$12.25, is now \$11.25; from Toronto to Fernie, formerly \$12.25, is now \$10.50. The reduction to Crow's Nest points will doubtless mean an increase in business.

The Dominion Ex. Co.'s last general circular contains the following:—"The Supreme Judicial Court of Massachusetts rendered a decision upholding the Fifty Dollar Clause, which has sufficient bearing on the receipts issued by this Co. to be of interest to all employes of the Co., the particulars of which are therefore given herewith: A box was delivered to a driver for the Adams Ex. Co. in Boston. A card tacked to the box gave the address in New York to which the shipper wished it sent. There were no marks to indicate the value or contents of the shipment. The driver gave a receipt to the shipper's clerk in which no value was stated, but which was stamped, 'Value asked & not given.' The shipment was sent 'Collect.' The box was never de-