

ated by the Grand Trunk Railway Company, were amalgamated with it and became actual parts of the system.

G. T. R. LINES IN UNITED STATES.

Of the total mileage of the Grand Trunk Railway System, namely, 4,783 miles, 993 miles are in the States of Michigan, Indiana and Illinois. Part of this mileage accrued to it with the amalgamation of the Great Western, that company having had control of the Detroit, Grand Haven and Milwaukee Ry., extending from Detroit, Mich., to Grand Haven, Mich., as well as of a line of car ferry steamers which carried the trains of freight cars across Lake Michigan between the latter point and Milwaukee, Wisconsin. In 1877 the Grand Trunk purchased the stock of the Michigan Air Line, which then extended from Lenox to Romeo, a distance of only 14 miles, and under a contract extended it to Jackson, Mich., in 1884. The whole of this branch is under lease to the Grand Trunk.

The principal line of the Grand Trunk in the western states is that corporation known as the Grand Trunk Western Railway, extending from Port Huron, Mich., to Chicago, Ill., a distance of 334 miles. This line has an interesting history. Previous to the acquisition by lease of certain existing roads and the construction of new ones, which lines were eventually used to form the Chicago and Grand Trunk Railway (the immediate predecessor in name of the Grand Trunk Western) the Grand Trunk's main connection to Chicago was by way of the Michigan Central Road from Detroit. It is safe to say that if the mentioned railroad had not been controlled by the Vanderbilt interests, the Chicago and Grand Trunk Railway would never have been built. The Grand Trunk was quite satisfied with the Michigan Central as its Chicago connection when it was an independent company, but after the Vanderbilt interests acquired control of it the Grand Trunk was kept in a state of disastrous competition in these western states, with low rates, and had actually no security of access to Chicago. It was therefore obliged to devise an entirely independent line.

In the year 1879 the section of the Grand Trunk from Point Levi to Riviere du Loup, 124½ miles, was sold to the Government of Canada, with reservation of running rights between Chaudiere and Point Levi, for the sum of \$1,500,000 in order to make it part of the Intercolonial Railway and thus give the latter access to Quebec.

As traffic developed throughout Canada the delays and inconvenience to the travelling public as well as to shippers of freight in the more congested parts of the system in Canada, necessitated doubling the track on these portions, and a great outlay was involved in this connection. At the present time, out of an aggregate of 4,783 miles in the system, 1065 miles are double-tracked, and with the exception of the St. Clair tunnel and about five miles in the State of Indiana there is a continuous stretch of double track from St. Rosalie, Que., to Chicago, Ill., a distance of 886 miles.

The Grand Trunk possesses on its system four structures known the world over, and has a direct interest in another of equal fame. The first and most important event in the history of the Grand Trunk after it was placed on a firm footing by the Amalgamation Act was the construction of the Victoria Tubular Bridge across the St. Lawrence at Montreal, authorized by Act of Parliament in 1853. The bridge was effected during the year 1854 to 1859 inclusive.

It was, however, only a single track structure. Thirty-seven years after its completion traffic conditions and the consequent demands for heavier and more powerful rolling stock made a renewal necessary, and it was replaced in 1897-98 with double track, modern through steel trusses. The cost of the original bridge was almost \$7,000,000 and that of the reconstruction about \$1,900,000. The original masonry piers and abutments were so substantially built and with such liberal dimensions that they required no additions or alterations to the foundations, and comparatively little extra work in order to adapt them to the new conditions.

THE FORT ERIE BRIDGE.

Another great structure built in the interests of the Grand Trunk was the International Bridge between Fort Erie, Ont., and Buffalo, N.Y. This bridge crosses the Niagara River and is the only one with piers in that stream. It was commenced early in 1870 and opened for traffic in November, 1873.

The cost of the structure was upwards of \$2,000,000. In order to meet increased weights of rolling stock the superstructure was replaced in 1901 by one of a more substantial character at a cost of about \$300,000. Another replacement and re-arrangement, complete in its characteristics, of the portion of the bridge across the Black Rock Harbor or Erie Canal,

took place in 1910-11, by reason of the United States Government requiring an increased width of channel. This was done at a cost of about \$405,000.

One of the most important structures on the Grand Trunk system is the St. Clair tunnel. This tunnel, the first large subaqueous one in America, was constructed under the St. Clair river between Sarnia, Ont., and Port Huron, Mich., in 1883-89-90. It was opened for traffic in September, 1891. The original cost of the tunnel was \$1,460,000, and that of the electrification, including the main tracks in the terminal yards at each end, \$543,000.

ACQUISITION OF CANADA ATLANTIC.

With the acquisition of the Canada Atlantic the Grand Trunk became possessor of another large bridge across the St. Lawrence River, at Coteau, Que. This bridge was originally built in 1889 by the Canada Atlantic Company, at a cost of \$1,264,000, but the superstructure was replaced in 1910 by the Grand Trunk Company with a type of steel trusses of much greater capacity than the original. The cost of this replacement was \$510,000.

As nothing intensifies a truth so much as setting it in the shadow of its opposite, facilities in transportation furnished by the Grand Trunk in the early days, good as they were for the time, may well be contrasted with those enjoyed by travellers and shippers of to-day. Rails have gone through every conceivable change in shape, weight, length, material, joint and process of manufacture from the small and apparently crude rule of thumb design in iron to the scientific proportioned heavy shape of the modern standards in steel.

Freight cars and trains are now of largely increased capacity and these in turn required the use of more powerful locomotives, which consequently involved the renewal from time to time with improved design and on a stronger basis, of the bridge structures.

Sleeping cars of any kind were unknown in Canada until the sixties and it was not until 1870 that the Pullman Company began to operate sleeping cars on the Grand Trunk. Short coaches with small four-wheeled trucks, hand system of braking, pin and link couplings, uncomfortable seating and upholstery, crude systems of heating and various other now objectionable features have given to commodious day coaches with every conceivable appointment in construction and convenience tending to the comfort of passengers. These general statements of facts connected with some of the features of the early days by no means belittle the knowledge of the great promoters and constructors of the Grand Trunk. As compared with men of to-day, they had lesser advantages for scientific training and fewer opportunities of working from precedent, yet it is a fact that much of what is in practice on the modern road was known in principle to these men. It will easily be realized that the Grand Trunk became early the backbone and frame work of the country, the arterial communication between the Atlantic and the West. Its system has been the greatest contributor to the development of Canada and the enormous amount of through traffic carried over its line from the Western States to the Eastern has proved an additional benefit to such development, by reason of increased train service through Canada, with all that means for the public benefit.

LARGE THROUGH TRAFFIC.

This large amount of through traffic has been the means of the enlargement of divisional point facilities in Canada as well as of additional work shops, increase in administration staff, clerical help, artisans, train crews, track forces, etc. It has also fostered trade by the purchase of materials locally for the enterprise where such could be done advantageously throughout the country. The total capital employed in the construction of the Grand Trunk Railway by British investors has been provided at a very low cost to the company and to its straightforward and honorable dealings since its inception, through the many adverse conditions encountered is largely due its ability to carry out its obligations to the public. The management had ever not only the comfort and convenience of its patrons in mind with all that that involved in cost, but it held on tenaciously through many times of stress in the hopes of earning a good return for those who had invested in it and had faith in its ultimate success.

The people of Canada should be aware that they have had the full benefit of a comprehensive as well as a through line of communication in the Grand Trunk, without any cost to them, with the exception of a grant of \$500,000 towards the reconstruction of the Victoria Bridge, \$350,000 to the construction of the St. Clair Tunnel and a loan of three million pounds made in the early days, that is, in 1853, which loan was for the object of putting the road in an advantageous condition and rendering partial assistance to

the line towards Portland, a line so essential to Canada in the winter months when the navigation of the St. Lawrence was closed by ice. But the railway company has left nothing undone in regard to shipping facilities in the harbor of Montreal during the season of navigation. One of the greatest elevators in Canada has been erected there by the company and the trackage arrangements in connection therewith are all conducive to the convenience of handling the shipments.

STEADFASTNESS OF SHAREHOLDERS.

It is a tribute to the shareholders and bondholders who stood by the undertaking in the early stages to say that they continued to put more and more of their money into it. For sixty-six years without intermission the company has paid its bond interest and fixed charges but only a small return has been made to the British shareholders on the money invested by them, money which has been of immense benefit in the upbuilding of Canada.

From all that the company has done in the past and is doing now towards the advance of the country to nationhood it is only fair and reasonable that returns commensurate with the original outlay and the present high cost of materials and labor should now be received and that when rates are established by those who have authority to do so they should be in keeping with every element entering into original cost and present cost of operation and maintenance.

In this article the history of the Grand Trunk has been briefly given. It must not be forgotten that the "old armchair" is still making history. It is generally recognized that never in the course of its history has the Grand Trunk ever enjoyed a more practical and efficient management than at the present time.

The greatest traffic that has ever passed over its system is now being handled and ample evidence exists to prove that the task is being carried out in a more expeditious and efficient manner than on similar American trunk lines running to the seaboard.

Commenting on the negotiations with Japan over the question of contracts for American steel plates, the "Syren and Shipping," London, says:—"The reason given is that Japan wishes to release old vessels for the service of the Allies, and the United States—which is handling the bargain—refuses to accept vessels of more than ten years of age. The whole business is rather a mystery on this side. The vessels are Allies want for the Transatlantic service must have a certain speed for safety's sake, and we fancy we are right in saying that Japan has not got 400,000 tons of that speed of more than ten years of age. Slow vessels are only food for submarines. Japan has made a huge fortune out of the war, and she may fairly be expected to meet the Allies' wishes and necessities, the more so as the stoppage of shipbuilding supplies, which the announcement from Tokyo portends, will mean a cessation of work in her yards."

ANCHOR-LINE
DONALDSON LINE
PASSENGER SERVICE

BETWEEN
PORTLAND, ME. and GLASGOW

Apply to Local Agents or the Robert Reford Co., Limited, General Agents, 20 Hospital Street, and 23-25 St. Sacramento Street, Montreal.

CUNARD LINE
PASSENGER SERVICE

BETWEEN
HALIFAX and BRISTOL

Money Remittances made by Mail or Cable.
Apply to Local Agents or The Robert Reford Co., Limited, General Agents, 20 Hospital Street, and 23-25 St. Sacramento Street, Montreal.

DOMINION
COAL COMPANY
Limited

DOMINION and SPRINGHILL BITUMINOUS STEAM and GAS COALS

GENERAL SALES OFFICE
118 ST. JAMES ST. MONTREAL