GRAND TRUNK RAILWAY.

CAPTAIN TYLER'S REPORT.

(*From Herepath's Journal.*)

THE first part of Captain Tyler's most voluminous, but also most able and valuable report (in which Mr. Eborall, who accompanied him, entirely concurs) will be found in another column Long as it is we intend to publish every line of it in the Journal, but can only give the first portion this week.

We rise from a perusal of this honest and able report with the conviction that all our notions of the Grand Trunk are right—that it is a property, and with good management, a little further assistance, and some comparatively small completing works executed, it will be a very valuable property at a future time.

We will pass in brief review over most of the leading points of Captain Tyler's report

Captain Tyler dwells upon the circumstance of the water competition against the Grand Trunk.

Speaking of the high rate of working expenses. Captain Tyler says the per centage "may, however, be reduced in the future." This is just what we want to know "The comparative cost of maintenance ought to be considerably less when the permanent way and rolling stock are in better condition." "The charges for way and works, and discount on currency, are at present exceptional on the Grand Trunk Railway. The former will be reduced in a few years, under good management, to a figure nearer to the English standard, and the latter may be expected to disappear altogether." Captain Tyler finds that the maintenance and renewals of way and works of the Grand Trunk Company averaged in 1866 11½d. per train mile, against 5½d. for railways in the United Kingdom. He estimates that when the line is in good order 6½d. will be enough, saving an enormous sum. Hear what he says: "Under these circumstances it is not taking a too sanguine view of the future to state that a proportionate saving ought to be thus effected before many years have passed, of £115,000 a year upon the expenditure out of revenue for way and works for the last three years; and this is one hopeful feature of the undertaking" £115,000 a year to be saved in this department of working, is equal to the interest on the whole of the 1st Preference Bonds.

We are glad to see Captain Tyler knocks on the head the costly steel rail crotchet, and disposes of much of the bosh about the climate. He tells them to get good iron and a good road, and then the "life" of the way will be long enough. These are just the views which Mr. E. J. Herepath held at the meeting before the last. As to the use of iron and the 'life' of a good rail in Canada he says: "But I have, after careful investigation and inquiry, become convinced that iron rails of appropriate form, of suitable and reasonably good quality, and of sufficient hardness in the heads. may be made to last on most parts of the main line for 15 years, and on the average of the Grand Trunk railway for very much more. There are, in fact, rails now on the track which have carried a heavy traffic for periods varying from 10 up to even 20 years, in spite of disadvantages." Moreover, he states that on the Montreal and Lachine line there are rails which have been in use 20 years, and will last five years longer. 'The real question to be solved (he says most truly) as far as new rails are concerned, is how to obtain suitable material from the manufacturers"

"The climate of Canada—severe as it is for four or five months every year—has been made to bear more than its share of blame for the failure of rails that would not have been durable in any climate."

Captain Tyler tells us that "the magnificent bridge over the St. Lawrence, at Montreal, is in good order. The greater number of the other bridges are of iron and masonry or brickwork."

Also that the Grand Trunk railway is "better sleepered than many of the railways in this country." "But the Grand Trunk railway was not well ballasted originally;" that the original rails for the most part were "not of good quality, and their joints were badly fastened by light chairs," &c.

Heavy engine renewals have since 1862 been done at the cost of revenue, and as to the cars—"the stock generally appears to be in a much better condition than five years ago."

From the use of peat fuel Captain Tyler expects a saving of £40,000 a year, "or more, as the traffic increases"

As to the traffic, he points out that the prospects of large increase, under favorable circumstances, are extremely good.

He deprecates the expense of laying down a third rail on 200 miles from Fort Erie to Sarnia, and gives strong reasons for believing that it would bring no more traffic, but he says make the short Detroit and Port Huron a broad guage line. We are quite convinced that his reasons for encountering this small expense are sound and good.

He insists strongly upon the importance of constructing with the least possible delay the International Bridge at Buffalo. We quite think with him. We have always said this would be most valuable to the Company.

He is for a complete amalgamation with the Great Western, and seems to doubt whether the two Companies will work well together under the present agreement.

"The prospects, therefore, of the two Companies working harmoniously together under this agreement are not so good as they might be; and, indeed, the present is not a time when the Grand Trunk Company can expect to make terms commensurate with its intrinsic value and future prospects. The Grand Trunk Company is now in its worst, the Great Western in its best, position. Their relative conditions and circumstances will be completely altered when the bridge over the Niagara River at Buffalo, and the connections contemplated with the Erie railway, as well as with the New York Central railway, have been formed; when additional rolling stock has been provided; and when all the various improvements recommended in this report have been carried out. The Grand Trunk and Buffalo and Lake Huron joint line will then be in a position to benefit by a large proportion of the increasing traffic which now flows over the Great Western system by way of the Niagara Suspension Bridge, between the Western and Eastern States The rising fortunes of the one and the falling fortunes of the other will then facilitate the adoption of terms advantageous to both parties, and in fact the completion of the above works will inevitably lead, sooner or later, to an entire fusion of interests. Such a fusion would save commissions to hundreds of rival agents for the sale of through passenger tickets—would cause the agencies for the solicitation of freight in different parts of the United States to be united—would enable the two Companies to compete jointly on more favorable terms with the American routes—would lead to a reduction in the double service of competing trains through Upper Canada, and of the duplicate staff which is now kept up at the various stations within sight of one another—would add to the convenience of the public by the formation of joint stations—would lead generally to more remunerative rates—would be the means of diverting the heavy traffic which now passes directly from the Great Western to the American lines, for Boston and the New England States, from these lines, and of forwarding it over a longer mileage of the joint Canadian systems to their mutual advantage—would economise the use of their joint rolling stock, by saving transhipment between cars on the same guage—would lead, by joint management to a reduction of general charges—and would cause a cessation of the labour and expense which must otherwise, it is to be feared, continually be devoted to the object of enabling the one or the other Company to obtain further relative advantages. It would appear therefore, that while an unreserved fusion of interests would be of enormous advantage to both systems, the Grand Trunk Company are not yet in a position to seek, nor the Great Western Company in a mood to accede to such an arrangement. Combination will ultimately become far more necessary of the two to the Great Western Company, because almost all its traffic and its whole system will be subject to competition by the Grand Trunk Company, whereas one-fifth only of the Grand Trunk system would be involved in the sacrifice which such competition would temporarily demand. The present agreement falls very far short of what is required for the avoidance—which would be most desirable—of such competition. It does not deal with the question of "foreign" traffic which will come more prominently forward after the completion of the Buffalo bridge, and which is for the time the principal source of prosperity to the Great Western Company; and its advantage to the Grand Trunk Company will depend upon the spirit in which it is carried out by the Great Western Company."

In conclusion, Captain Tyler observes:

"The greater works on the line are of a substantial character, and one of them in particular is far too magnificent for its commercial resources; but it has suffered from defects of original construction as regards its permanent way and minor works. A considerable proportion of its mileage is actually worked at a loss, and the receipts on the greater part of it are earned only by a constant struggle against numerous competitors. After the various creditors and the Bond and Shareholders had submitted inevitably, but at so much sacrifice, to the compromises of 1862, it appeared to be in a fair way towards yielding some returns to them, But the calculations which were then made have been upset, partly by the immediate effects and the after effects of the American war, and by the supply of unsuitable iron for the permanent way, but partly also by the abrogation of the Reciprocity Treaty, by the occurrence of Fenian raids, and by the difficulty that was at one time experienced in obtaining a settlement with the Canadian Government. The cost of renewals has been a constant drain upon its resources High prices of labour and materials, to a less extent in Canada, to a greater extent on the American sections, and heavy duties in America, have combined with low rates and fares, received partly in an uncertain and depreciated currency, to eat into the profits; and it will be easily understood that a slight rise in rates acting simultaneously with a slight fall in prices would make a vast difference in those profits The Managing Director and officers in Canada, while ably and honestly doing their best for the concern, have been much hampered in their operations by these and other adverse circumstances. They have had the up-hill task not only of maintaining but of raising, as far as they could, the rolling stock as well as the permanent way, from a condition of extreme depression That has been partially accomplished, and I have indicated not only the cost of, but also the necessity for, its completion. In the existing condition of the property, two courses present themselves for adoption. It must be allowed to go on either without or with a fresh expenditure of capital. If no further capital be expended, its improvement will, to say the least, be a gradual process; a large proportion, if not the whole, of its revenue will, for a series of years, be swallowed up in the cost of maintenance, the payment of fixed charges, and the supply of necessary means and appliances; and the prospects of cash dividends to the preference Bond and Stock holders will be very remote If capital can be raised, and if it be expended on the various objects which I have indicated in detail, a more speedy return to the proprietors may with good reason be anticipated. The latter policy is that which it is obviously most desirable to pursue, but no further expenditure should be incurred except such as will lead to commensurate economy in working and maintenance, or which will be commercially profitable, or which is necessary to safety.

"Acting on this principle, I may sum up the amounts which will require to be raised and expended on capital account as follows:

(1) Bridge over Niagara River at Buffalo, with connections on both sides of the river, to be commenced as soon as possible	£250,000
(2.) Expense, consequent on, and incurred in, widening guage on Detroit and Port Huron Railway—to be carried out at once—broad guage engines being supplied from other parts of the system.	20,000
(3) Additional steam ferry boats at Sarnia, with wharfage, berths, &c., to be ready on completion of the Buffalo bridge	25,000
(4.) 30 engines (including 25 now under construction), 10 passenger cars, 300 freight cars,—required in the course of next year...	125,000
(5) Buildings for engines,—much required...	15 000
(6) Completion of ballasting,—say in 2 years, if possible	60,000
(7.) Trimming, draining, and turfing slopes of cuttings	10,000
(8) Improvements for three years in stations, sidings, extra weights of rails and fishplating	60,000
(9) Completion of system of signals	6,000
(10) Arrangements for changing trucks of cars at Buffalo and Detroit, to obviate inconvenience of guage and an expenditure of £175,000 for third rail between Sarnia and Fort Erie,—say	5,000
Total	£576,000

Of this amount, about £230,000 for rolling stock, for widening the guage of the Detroit and Port Huron Railway, for 'improvements' in way and works, for the cuttings, for ballasting and signals, for engine buildings, for arrangements changing trucks of cars at Detroit, for purchasing land on both sides of the Niagara River, and for the commencement of the Buffalo bridge, will be required as soon as it can be provided. In addition to the above £576,000, a further expenditure must be contemplated of:

30 engines, 10 passenger cars, 300 freight cars, perhaps for 1868-'9, but at all events to be ready before the Buffalo Bridge is complete	£125,000
Buildings for engines by the same time	15,000
Further 'improvements' in way and works...	30,000
Further for cuttings	10,000
Permanent passenger station, and extra freight accommodation at Toronto	5,000
General offices, freight warehouse, and passenger station at Bonaventure Street, Montreal	25,000
Altogether	£210,000

Of these last mentioned works the freight accommodation for extra traffic at Montreal and Toronto are the most pressing. The above two accounts form a total of £786 000; and it may be considered roughly that £500,000 of this sum would be spent for the Grand Trunk, and £286,000 for the purposes of the Buffalo and Lake Huron Railway. But inasmuch as greatly increasing traffic, such as may be expected from the above developments, always requires increasing expenditure, and as the Intercolonial Railway may now be expected to be rapidly proceeded with, a further sum of £114,000 would be a moderate amount to be added for contingencies extending over the next six or eight years. And a total expenditure of £900,000 should therefore be anticipated, to do justice to the property and to Canada. The question then arises, how is this money to be raised? * * * *

The country and the company would be alike benefitted if £900,000 were expended, principally in Canada, during the next six years It would be more profitable, as well as more satisfactory to both if this railway, which will ultimately carry traffic on an unbroken guage from Halifax to Chicago, were placed in a perfect condition, and were to become, as would then be the case, a favourite route for American as well as Canadian passengers and produce between the east and the west. Having regard to all these circumstances, the Government and people of Canada may now fairly be asked for such reasonable assistance as will suffice to improve the credit of the company, and to enable them to raise funds for the purposes above enumerated. There are various ways in which assistance might be rendered with mutual advantage, but it would be premature to discuss them here in detail. It is sufficient for the present to have demonstrated the reasonable nature, as well as the desirability of the proposal.

We take the following interesting scrap of intelligence from one of our New York exchanges. It will probably gladden the heart of many a Western petroleum holder:—

A few days since a number of scientific gentlemen and others, interested in the subject of economising the present cost of generating steam for mechanical purposes, were invited to the Messrs. Chickerings' factory to witness the operations and results of the use of liquid fuel for generating steam, as recently applied under two of the boilers of that establishment. The fires produced the most wonderful results. It was found that, after an operation of two weeks, the consumption of coal during that time was from 2,500 to 3 000 pounds per day less by the use of Col. Foote's invention; that the actual saving in an economical point of view was equal to from thirty-five to forty per cent.; and that more steam was generated in a given time than ever before, and no difficulty, as heretofore, was experienced in maintaining the requisite amount of steam. It was observed that, while no change of boiler or furnace or machinery is required, no extra skill or labor in managing it, and freeness from accident or fire, and that it does not get out of order, are among the advantages of this process. The character of the flame produced was of a uniform color, intense and voluminous often reaching forty feet in length. The combustion was complete. Good judges said they had never before seen such a "fearful fire" under a boiler, In view of these important facts, it may now be said that the use of liquid fuel does all that is claimed for it.