

to be of advantage to the Great Western. The small proportion of 7 per cent. in the case of the Detroit and Milwaukee has no doubt arrested the attention of some of the Shareholders who are present. But that figure is explained by the comparatively very small proportion of through traffic brought by that line. One material element in the agreement is that it will have a tendency very much to reduce expenses. Our Michigan Central friends recommended us at once to abolish the office of general manager. They said to us, "We want no general manager; we have an officer called the general superintendent, who is the acting man under ourselves and the board, and who goes directly to work in everything that has to be done relating to the running of the trains; he is an officer who manages his department personally under the Directors, and we very strongly recommend you to adopt the same system." After a discussion with those gentlemen with regard to this matter, considering that the time has arrived for a change, we determined at once to appoint such an officer as they recommend us to appoint, and we were very fortunate in having at our disposition the assistant-superintendent of the Michigan Central, Mr. W. K. Muir. The gentleman came back to our service, with the recommendation of long experience. He was in 1853 and for some years on our own line; he was afterwards appointed to the Detroit and Milwaukee line, and for the last four years, he had been the superintending officer of the Michigan Central for the traffic department. Therefore, he came to us first with a high character, and in the next place with a perfect knowledge of the three lines, and how they may be worked together; and Mr. Joy, than whom no better judge exists, said that although his board would part with him with reluctance, yet that, under the circumstances, if our board thought fit to appoint Mr. Muir, it would make such arrangements that he could at once take in hand the business of the Great Western of Canada, and the change, which took place on the 1st of January this year, might be at once carried out with his assistance. We, at once made an arrangement with him to take from the 1st of January, the control of the Great Western traffic and the general arrangements for the working of the line, or, to use the American term in such cases, "operating the road." The salary which we agreed to give him is £1,000 a-year. Of course, as we abolished the office of general manager, Mr. Swinyard tendered his resignation, and we thought it desirable to accept that resignation. We made an arrangement with Mr. Swinyard, whose engagement in our service extended up to August next, under which which he will receive a sum equivalent to his salary till the end of August and his travelling expenses for returning home. I believe that that arrangement is satisfactory to all parties. We have now entered upon a new era with regard to the management of the Company, and with regard to the system of working with the Michigan Central which I have described. I may add that before we left America we conferred with Mr. Muir, who is perfectly acquainted with the staff of the Great Western, and the result is that there have been reductions in the number of the staff, and wholesome modifications in the system of conducting business which will result in a present saving of from \$30,000 to \$40,000 a-year. I beg now to move—"That the terms of a traffic agreement between the Great Western of Canada, the Michigan Central, and the Detroit and Milwaukee, now submitted, be and the same are hereby approved and adopted." The motion was carried unanimously.

The Chairman continued—the local traffic of the line, instead of progressing, has actually retrograded. I find that the local traffic earnings in the year ending July 1866 were \$2,046,639, and in the corresponding period of 1869 it was \$1,892,018. We considered that a very unhealthy state of things, and one that required careful inquiry and consideration. It may be to some extent explained by the fact that in 1869 the trade and

commerce of Canada were not as buoyant as they were in 1866; or the abolition of the Reciprocity Treaty may have affected it; or whatever may be the cause, we thought it right that the matter should be carefully inquired into. Now, as our Toronto and Sarnia branches are on the broad gauge, and some of the stations of our main line have no sidings for the narrow gauge, we thought it very desirable to order that sidings should be placed at the necessary stations connected with the whole line; and I believe the result of that will be that we shall have a considerable accession of traffic which goes through our territory in connection with the American lines, while Mr. McMaster is of opinion that this increased facility for communication without change of track will lead to a great increase of the local traffic on the branch lines, or that part of our system which most requires an increase. We instructed our solicitor to apply for an amended bill in the present session of Parliament, so that the effect may be that we shall have power to do what I have mentioned if we consider it desirable. It does not necessarily involve much expense, because it would merely be a change of rails from the 5ft. 6in. to the 4ft. 8in. gauge: while the result of the change would be to put our branch lines into immediate connections with the through route and with the American lines. We also take power in our bill as follows:—The Directors, qualification to be raised from ten to forty shares, the members of the board to go out of office by thirds each year, notice to be given of Shareholders becoming candidates for election to the board, proxies to be lodged forty-eight hours before a general meeting, and for some other necessary matters relating to the government of the Company's affairs. As the law now stands, a Proprietor must have held shares one month in order to be able to vote; so that he might receive the dividend and yet be unable to take any part in the proceedings at which it was declared. In order to remove this anomaly we have inserted a clause entitling every one to vote who may be on the register of the Company at the time of the closing of the books, fourteen days before the meeting.

STEEL AND IRON RAILS.

The Railroad Commissioners of Massachusetts have recently submitted to the Legislature a report of their investigations in regard to the use of steel rails upon the roads of the United States. The Commissioners addressed a series of questions to the officers of all the railroads in the country as to the result of their experiments with steel rails. Answers of some kind were returned from twenty-six companies who had experimented with such rails to some extent. The substance is that the durability of steel rails over iron is at once demonstrated, while their liability to break is as fully demonstrated. Out of 354 miles of solid steel rail reported laid by different roads, 501 rails have broken. Some of the roads report defects, and punching or straightening as the probable cause of breakage, while others report that they break from no perceptible cause—break in summer as well as in winter, and in the middle as well as at or near the ends. The conclusion from the perusal of this report is that as a wearing substance steel is far superior to iron, but that it does not remove the liability to breakage and accident that is sought by a superseding of iron. The Booth Duplex Safety Rail appears to be just what is wanted in this emergency, as it combines in an admirable degree the best qualities of iron and steel. This rail is made of iron, and on its head is superimposed a tread piece of Bessemer steel, not welded to the iron, but from one-half inch to five-eighths of an inch in thickness, furnishing a wearing surface that will last from fifteen to thirty years, as can be readily computed from rails now in use for three years where seventy-five trains per day pass over them. Several miles of this rail are now in use, and not

a rail has yet broken or become defective from use. The rail being composed of two separate parts, should either break no separation will ensue, as is the case with any single rail.

The tread piece of steel can be at any time renewed at half the cost of re-rolling railroad iron. The iron portion can be re-rolled and the ends of the steel tempered, with perfect results in every case. Seven hundred rails were so tempered eighteen months ago, and have been in severe use every day since, passing all the eastern traffic of the New York Central Railroad, and not a rail has proved in the least defective, while the durability of the points so tempered is up to the average of the remaining portions of the rail. Solid steel rails cannot be so tempered. The small amount of carbon in Bessemer steel will not allow so large a piece of steel to be cooled quickly enough to take any temper whatever, while it is readily applied to the lighter cap of steel for the Booth rail, the cap being secured to the iron after the tempering is done. The Booth rail is now in severe use on the New York Central Railroad in three different places, and several other of the American Railroads, and in all these places with perfect success. The process of manufacture of this rail applies the steel in a cold state, banding the steel around the head, fully tests every part of it, while any defect in either portion is conjoined with a good and sound piece, so that a break in one will not permit of a separation, thereby a safe passage is secured.

RAILWAY TRAFFIC RETURNS

FOR THE MONTH OF FEBRUARY, 1870.

RAILWAYS.							
	Passengers.	Mails and Sundries.	Freight.	Total 1869.	Total 1868.	Miles 1869.	Miles 1868.
Great Western	86,653	\$ 3,506	379,097	905,156	966,098	3211	3511
Grand Trunk	115,573	22,000	545,376	483,849	412,374	1,377	1,377
London and Port Stanley	780	53	103	1,786	1,908	244	244
Welland	684	680	945	2,309	2,002	35	35
Norfolk	9,057	1,833	39,029	50,510	38,030	97	97
Midland of Canada	2,225	272	3,001	6,906	7,309	56	56
Cobourg, Peterboro' and Marjora (C)	1,008	136	6,124	8,228	6,713	80	80
Brockville and Ottawa	4,486	826	3,447	8,769	6,917	54	54
St. Lawrence and Ottawa							
Carleton and Greyville							
Stanstead, Shefford, and Chambly							
St. Lawrence and Industry (C)							
New Brunswick and Canada							
European and North American	3,413	672	6,926	11,053	10,755	108	108
Eastern Extension (C)							
Western Extension							
Nova Scotia	5,001	550	6,947	12,397	12,392	145	145
Windsor and Annapolis							
Total	229,858	31,667	623,471	859,007	763,297	2,324	2,324

GREAT WESTERN RAILWAY.—Traffic for week ending March 18, 1870.

Passengers	21,071 44
Freight and Live Stock	46,737 93
Mails and Sundries	2,247 59
Total Receipts for week	\$70,056 96
Corresponding week, 1869	79,750 36
Decrease	\$ 9,693 40