

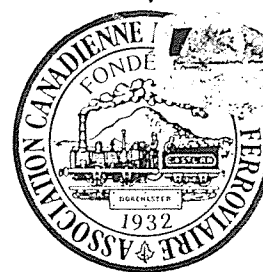
GREAT WESTERN
RAILWAY OF
CANADA,
LOCOMOTIVE
HISTORY.

C.H. RIFF

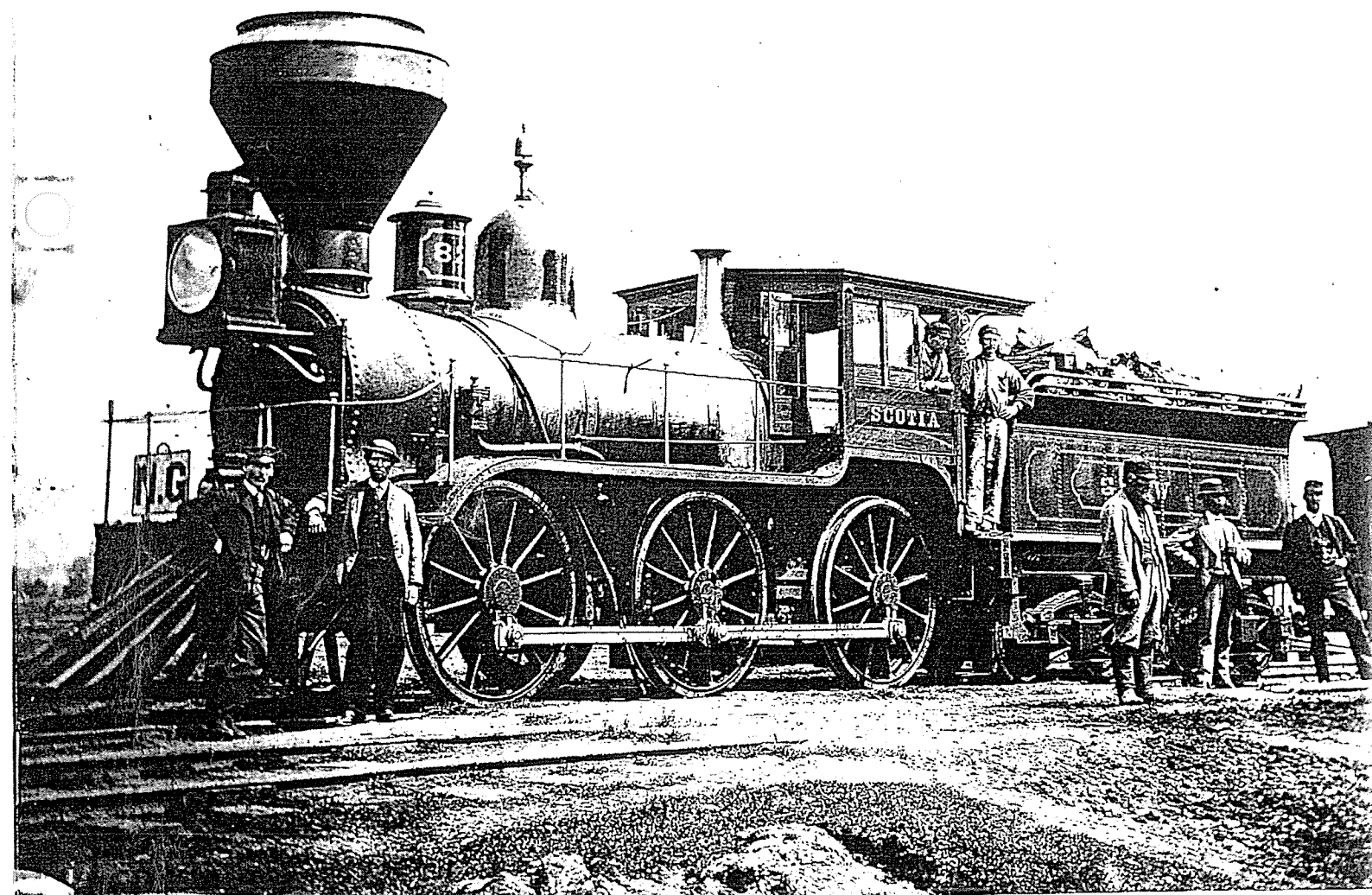
Canadian Rail

THE MAGAZINE OF CANADA'S RAILWAY HISTORY

No. 459



JULY - AUGUST 1997



THE BROAD GAUGE AND THE GREAT WESTERN

PUBLISHED BI-MONTHLY BY THE CANADIAN RAILROAD HISTORICAL ASSOCIATION

PUBLIE TOUS LES DEUX MOIS PAR L'ASSOCIATION CANADIENNE D'HISTOIRE FERROVIAIRE



CANADIAN RAIL

ISSN 0008-4875



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FRONT COVER: Locomotive No. 82, "Scotia" of the Great Western Railway was originally numbered 90 and was built in the GWR's shops in Hamilton in 1861. It was retired at the time of the change of gauge. The "NG" plate on the front indicates that the photo was taken during the transition period (1867-1873), and that the train hauled by No. 82 contained narrow (4 ft. 8 1/2 in.) gauge cars.

BELOW: This map, from the Official Guide, May 1874, shows the great importance of the GWR as a bridge line between points in the U.S.A..

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Canadian Rail is continually in need of news, stories, historical data, photos, maps and other material. Please send all contributions to the editor: Fred F. Angus, 3021 Trafalgar Ave. Montreal, P.Q. H3Y 1H3. No payment can be made for contributions, but the contributor will be given credit for material submitted. Material will be returned to the contributor if requested. Remember "Knowledge is of little value unless it is shared with others".

EDITOR: Fred F. Angus

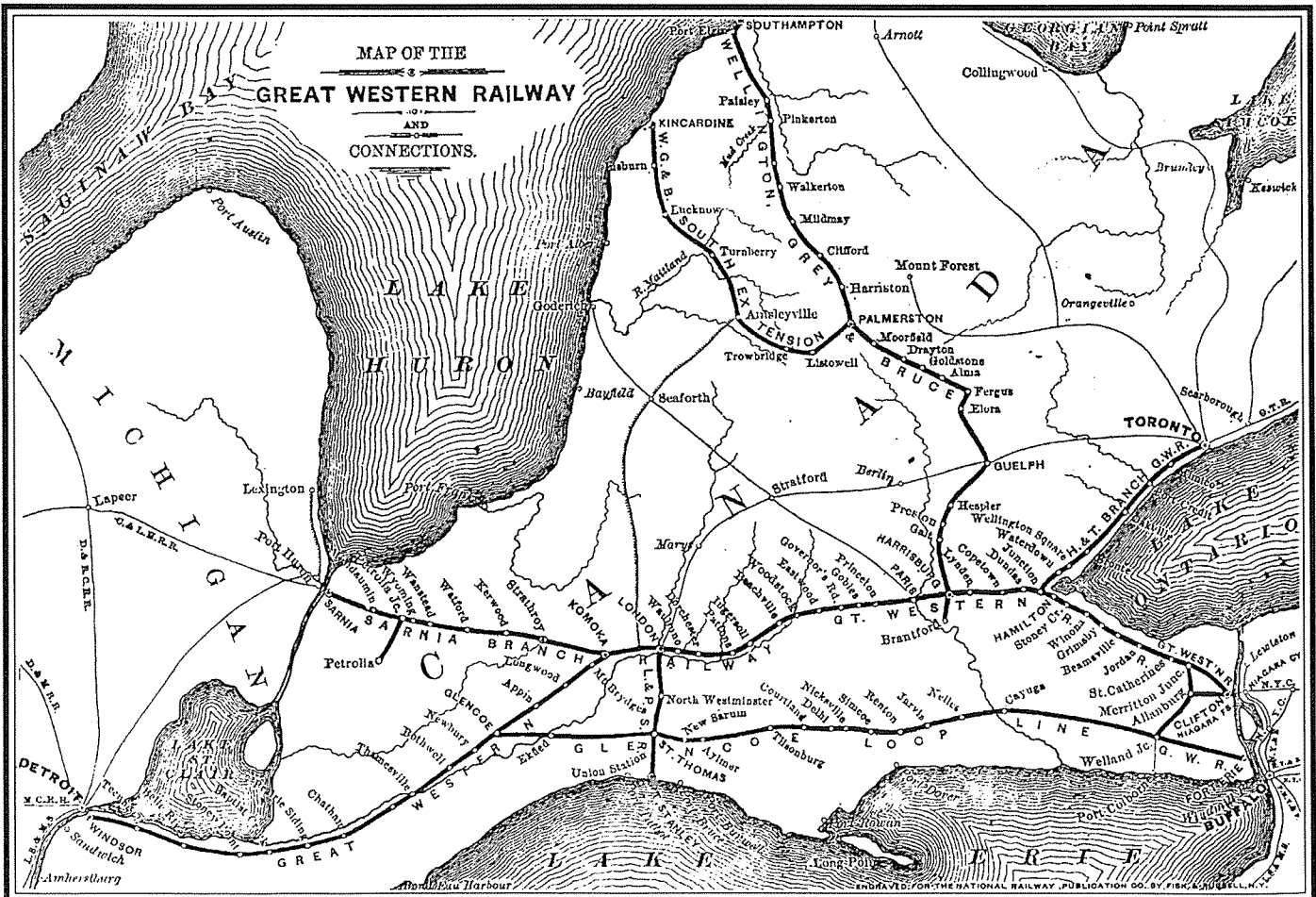
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DISTRIBUTION: Gerard Frechette

LAYOUT: Fred F. Angus

PRINTING: Procel Printing



The Broad Gauge and the Great Western Railway

By W.M. Spriggs

This article, by the late W.M. Spriggs, appeared in Bulletin No. 2 of the CRHA in August, 1937. It was the very first historical article to appear in any CRHA publication, since Bulletin No. 1 dealt entirely with current events. Mr. Spriggs was one of the original nine persons who joined the CRHA the day of its founding, March 12, 1932. He had membership number 5.

As part of our commemoration of the sixtieth anniversary of the first CRHA publication, we reprint this article in full. In addition we include a number of photographs to illustrate it. These photos were collected by Mr. Spriggs and John Loye at the time but could not be included in the bulletin because it was produced on a mimeograph machine which could not reproduce photographs. After sixty years we are rectifying the omission!

In this article there are some notes contained in square brackets and signed "Ed.". These have been added by the present (1997) editor, and are not part of the original article. Some additional material has also been added, notably maps, as well as material relating to the adoption of the 5 ft. 6 in. gauge. It was felt that this is appropriate since this is the 150th anniversary of the adoption of that gauge.

To begin with it may not be amiss to refer to the possible reasons why the G.W.R., together with other leading railways of Canada, used the track gauge of five feet six inches.

Some sources state that the use of the 5 ft. 6 in. gauge was caused by an attempt on the part of the legislatures of Upper and Lower Canada to render more difficult an invasion of Canada by the United States, but on the other hand it is stated that when the two railways, namely the St. Lawrence & Atlantic (Canadian) [Not the present St. L. & A. Ed.] and the Atlantic & St. Lawrence (American) were being promoted to build the line between Montreal and Portland Maine, the Portland supporters of the scheme were so anxious that their city should have a monopoly of transportation between Montreal and the Atlantic, that they urged the 5 ft. 6 in. gauge to prevent Boston from sharing in the business. Boston at that time was already served by lines of 4 ft. 8 1/2 in. gauge.

Personally I agree with the opinion expressed by Mr. Loye in his interesting articles on the Grand Trunk Railway in Bulletins Nos. 18 and 25 of the Railroad and Locomotive Historical Society [June, 1929 and May, 1931 respectively. Ed.], in which he intimates that from particulars on record the views of the British military element carried considerable weight with the government, and their idea evidently was that a break of gauge would materially hinder any attempt at the invasion of Canada by the United States. He says, "The British authorities adopted the 5 ft. 6 in. as the Canadian gauge because it was a well defined medium between the prevailing gauges in the United States at the time of the issuance of the Charter of the St. Lawrence & Atlantic Railway in 1845. The American gauges were the 4 ft. 8 1/2 in., touching eastern Canada's frontier, and also coming into Detroit, and the 6 ft. of the Erie coming into Buffalo". This idea of invasion which to us seems so unfounded was not so at that time, as the international feeling was none too good. After all, in 1845 the War of 1812 had only been over for thirty years; it was still within living memory. Ironically, however, the fact that the United States portion of the line was laid by the Americans to the same 5 ft. 6 in. gauge did away entirely with the protective possibilities of that gauge to Canada.

It seems probable that this question of a new gauge being brought into prominent notice may have been the cause of the appointment of the Committee in 1845 by a Royal Commission to enquire into what would be the most suitable gauge for Canadian railways.

It may be noted that this year 1845 was the same year in which the Charter was granted to the St. Lawrence & Atlantic Ry., the commencement of work was in 1846, and although the junction

with the American section, the Atlantic & St. Lawrence Ry., at Island Pond Vt. did not take place until 18 June 1853, the two railways were in working order for some distance inland from their terminal points about 1848, in which year the important bridge over the Richelieu River at Beloeil was completed, and a number of locomotives were delivered to both railways [The St. L. & A. reached St. Hyacinthe late in December, 1848. Ed.].

Apparently it took this Committee six years, from 1845 to 1851, to do anything, and in the latter year a large number of professional men, engineers and others, were called up before the Committee to state their views and opinions.

Takabury, in his "Atlas of the Dominion of Canada", 1877, quoting from the "Railways of Canada" by J.M. and E. Trout, in referring to the Committee appointed by the Royal Commission of 1845, to report on the most suitable gauge for the railways of Canada, says:- "*Many of the persons examined before the assembly committee in 1851 were not in a position to form the best opinion as to the relative values of different gauges. Mr. Harris, President of the Great Western Railway, must be presumed to have given the question some consideration and he gave his opinion in favour of the narrow gauge* [In this context, the term "narrow gauge" refers to 4 ft. 8 1/2 in. Ed.], *which the Great Western Ry. had then adopted. He said that all their calculations, plans and specifications were then based on a four feet eight and a half inch track, and he gave the following as his reasons for its adoption. First: Its established character. Second: The saving of money in the superstructure, ties and rails requiring extra strength for the broader gauge. Third: Saving of expense in running machinery for all time to come. Fourth: To form an easy and economical junction with the railroads of Michigan and New York from which the Company expects to receive very large additions to the traffic on their road, a considerable portion of which is expected to follow a Grand Trunk Line* [This was two years before the GTR Co. was incorporated. Ed.] *through the Province to Montreal. He added, "I consider the adoption of a broader gauge than 4 ft. 8 1/2 in. would prove injurious to the interests of the Great Western Ry. Co., as well as to the Main Trunk Line* [Soon to be the GTR. Ed.] *as far as Montreal because I feel that every inducement possible will require to be made to secure the principal part of the travel from Chicago etc., through Canada, in preference to the various channels now being opened on the south side of Lake Erie; and I feel convinced that any gauge that will not admit of the baggage cars of the roads joining the Great Western Ry. on either side being carried across it, will deprive Canada of the greater part of said travel"*.

THE CHIEF ENGINEER REPORTS TO THE DIRECTORS OF THE ST. L&A ABOUT THE GAUGE

This report, dated 1847, exactly a century and a half ago, sheds some light on the question of the adoption of the broad gauge. It was prepared by A.C. Morton, Chief Engineer of the St. Lawrence & Atlantic. This particular copy was presented by the author to Mr. A.N. Morin, President of the St. L&A. It was found by your editor in a second hand book store about 1962.

On the first page of the report it states that an act (10th and 11th Victoria, Cap. 65) provided : *That the Gauge upon which the said rail [sic] shall be constructed, and which shall be used in the said railway, shall be four feet eight and one half inches, unless, within six calendar months, the Governor of this Province in Council, shall, by Order in Council, determine upon any different Gauge, and that, upon communication to the said company of any Order in Council, establishing any different Gauge, the Gauge so established shall be the one used in the said road as if the same had been established by this Act.*

It is obvious from the report that Mr. Morton was a strong advocate of the broad gauge. After 68 pages of discussion, including much reference to the recent "Battle of the Gauges" in England, Mr. Morton makes his summary. In view of the historic importance of this, we quote it in full:

These considerations fairly carried out, with reference solely to the question of capacity as affected by the Gauge, would lead us to the adoption of a Gauge wider perhaps than 5 1/2 feet, but we have taken this limit in consideration of the question of expense, as applied to the branch lines, as well as the long main lines which are to be constructed, coupled with the opinions entertained by the respectable Engineers above quoted and my own, that 5 1/2 feet will give every desirable advantage.

There appears to me no room to doubt this, and my sense of duty and regard to the interest of the Stockholders, constrains me to urge you to use all honorable means to secure to your road the advantages of the 5 1/2 feet Gauge.

In recommending a Wider Gauge than the prevailing one, I would not be understood as desiring to erect any barriers, or interpose any obstacles to the accomplishment of the objects sought by the promoters of rival lines. For they, in fact, open communications to good markets for the people of Canada, and they will of course be benefited not only by these

*The Author A. C. Morton
with Mr. Morin's Compliments*

REPORT

ON

THE GAUGE

FOR THE

ST. LAWRENCE AND ATLANTIC RAIL ROAD,

By A. C. MORTON, Esquire,

CHIEF ENGINEER

MONTREAL:

PRINTED AT THE CANADA GAZETTE OFFICE,

1847.

avenues, but by the competition likely to arise as rival lines are increased.

But what I would recommend is simply that you give to your own lines all the superiority over your rivals which the experience of England and America has shown to exist in a broader Gauge, and leave to the enterprisze [sic] of our neighbours to overcome these advantages as they best can.

I have the honour to be,

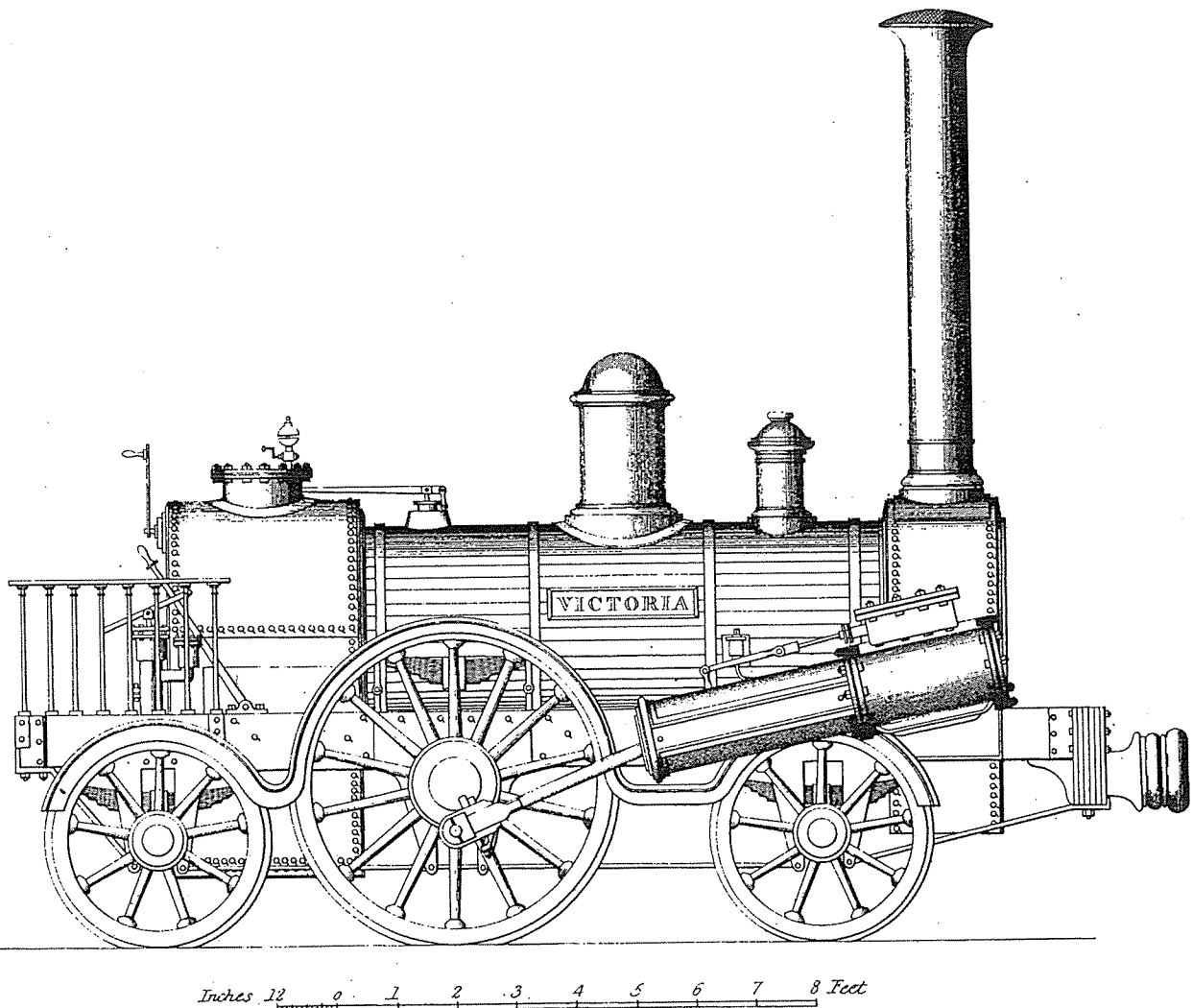
Sir,

Your Obedient Servant,

A.C. MORTON

Chief Engineer.

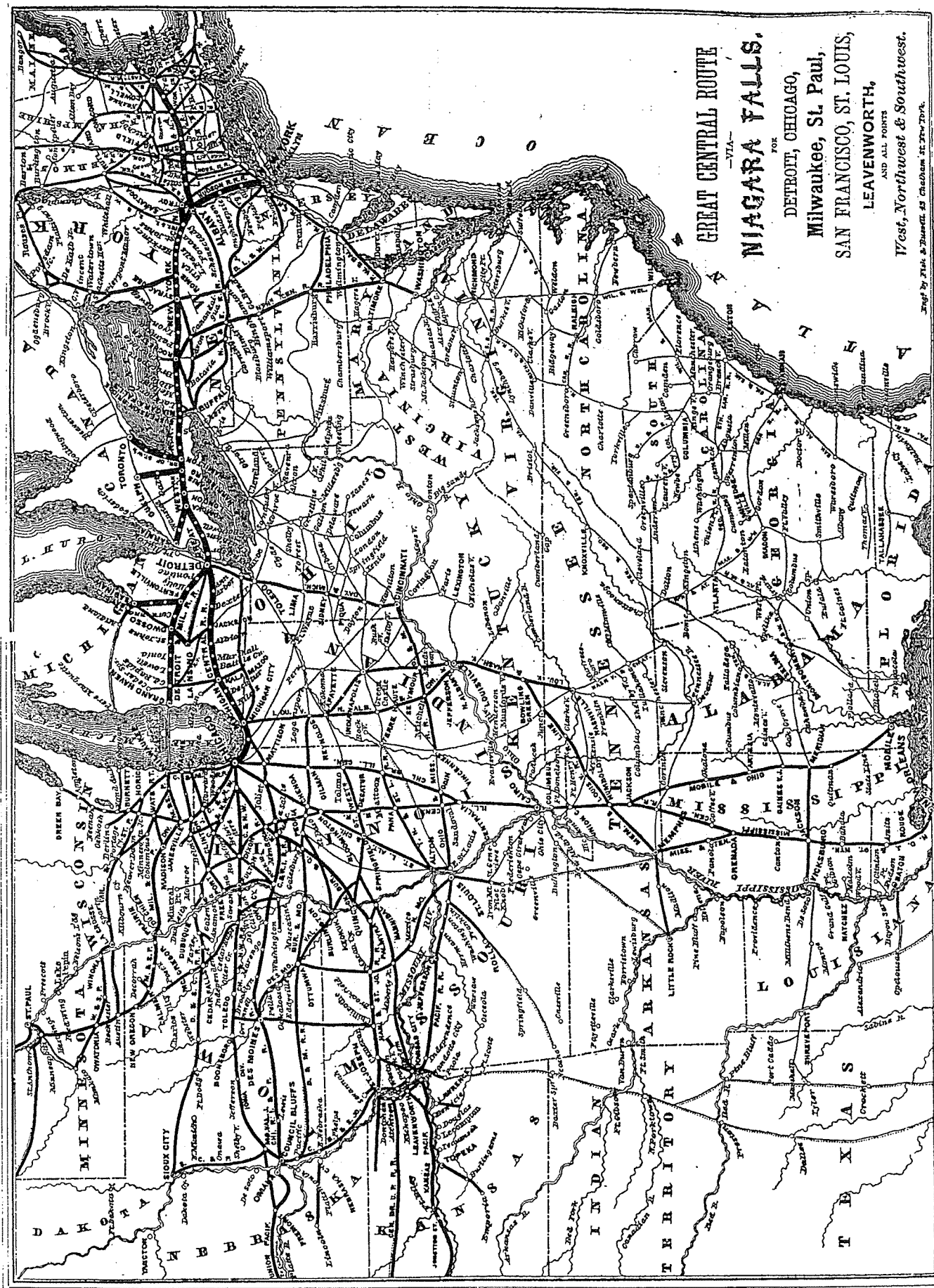
WAS THIS LIKE THE LOCOMOTIVE THAT INTRODUCED THE BROAD GAUGE TO CANADA?

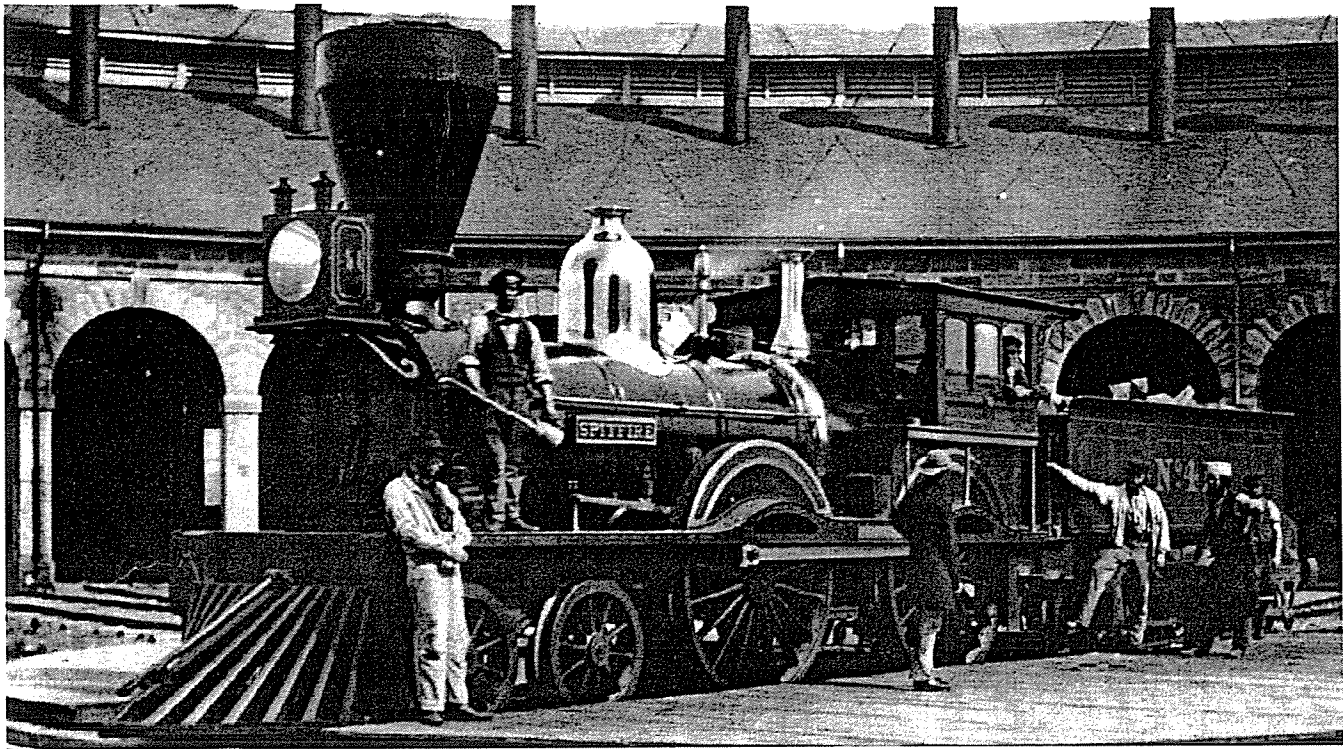


Various reasons have been given for the adoption of the 5 ft. 6 in. gauge in Canada. On close examination, most of these reasons explain why the 4 ft. 8 1/2 in. gauge was not adopted, but they do not say where the 5 ft. 6 in. gauge came from. It is quite possible that the answer may be found in Scotland. In 1839 a Scottish railway called the Arbroath and Forfar was opened for service. It had been built to a gauge of 5 ft. 6 in. According to the book "The Railways of Great Britain and Ireland", by Francis Whishaw, printed in London in 1840: "Mr. Grainger [the Engineer of the A&F] has adopted on this line, as well as on the Dundee and Arbroath Railway, which joins it near the Arbroath harbour, a gauge of 5 feet 6 inches. He states as his reason, that he considers the English gauge too narrow, and the Great Western gauge too wide; he has, therefore, taken something like a mean, which would enable him to allow sufficient space for the proper construction of the locomotive engines, and also afford more useful space in the carriages." Whishaw also included a detailed scale drawing of the locomotive "Victoria" of the A&F. This drawing is reproduced above.

By 1846, with connection to other British lines a real possibility, the A&F realized that adopting the 5 ft. 6 in. gauge was a mistake, and they converted their gauge to standard. The old locomotives were thereupon sold. Just about this time, in far away Canada, the St. Lawrence & Atlantic was about to be built. The directors of the St. L&A learned of the availability of these Scottish engines, and bought two of them in 1847. These are said to have been the "Princess" and "Britannia", built by Stirling in 1838, which were renamed "St. Hyacinthe" and "Beloeil". It appears that they were of 2-2-2 wheel arrangement, like "Victoria" above, and were converted to 4-2-2 upon arrival in Canada. Since these, the first locomotives on the St. L&A, were 5 ft. 6 in. gauge, it seemed logical to build the first track to fit. The corresponding line in Maine, the Atlantic & St. Lawrence, naturally adopted the same gauge and, in due course, it became the official standard for Canada and parts of Maine. Although the old A&F locomotives were scrapped about 1854, the influence they had was felt, for better or for worse (mostly for worse), until the gauge was finally changed after 1870. One short line, the Carillon & Grenville, retained the broad gauge until it was abandoned in 1910.

Ed.





The "Spitfire" was originally numbered 41, and later became No. 32. It was built by Fairbairn of Manchester England. It went into service on the GWR in May, 1855. The Fairbairn engines were not re-gauged, and "Spitfire" was scrapped about 1871.

There is something prophetic in some of these reasons. The Great Western Ry., which was practically compelled by the legislature to adopt a 5 ft. 6 in. gauge, was obliged to reduce it by means of a third rail to enable American cars to pass over their line. The section of the Main Trunk Line east of Montreal had been commenced with a broad gauge and that circumstance may have had some influence in determining the decision of the Committee.

And so with all the evidence before them, and all the circumstances to be considered, the Railway Committee, on the 31st July 1851 decided in favour of the five and a half feet gauge."

Of course a great deal more evidence both for and against the 5 ft. 6 in. gauge was brought before the Committee than what I have quoted, but it seems to me that the balance of opinion was in favour of the 4 ft. 8 1/2 in. gauge.

In spite of the fact that two railways between Canada and the United States, the 5 ft. 6 in. gauge between Montreal and Portland, and the 4 ft. 8 1/2 in. line between Montreal and New York state were in full operation [The Champlain and St. Lawrence extension to Rouses Point was completed in 1851, while the Montreal & New York and the Plattsburgh & Montreal would meet at the border in 1852. Ed.], and that either of these routes, on which there was no break of gauge, would have been available for invasion purposes, I still believe that the fear of invasion loomed large to the military authorities, and this, together with the fact as mentioned above that not only on the railway to Portland but on the

Main Trunk Line east of Montreal the 5 ft. 6 in. gauge was already established, led the Committee to decide in favour of the 5 ft. 6 in. gauge, even in the face of the obvious drawbacks of change of gauge during transportation.

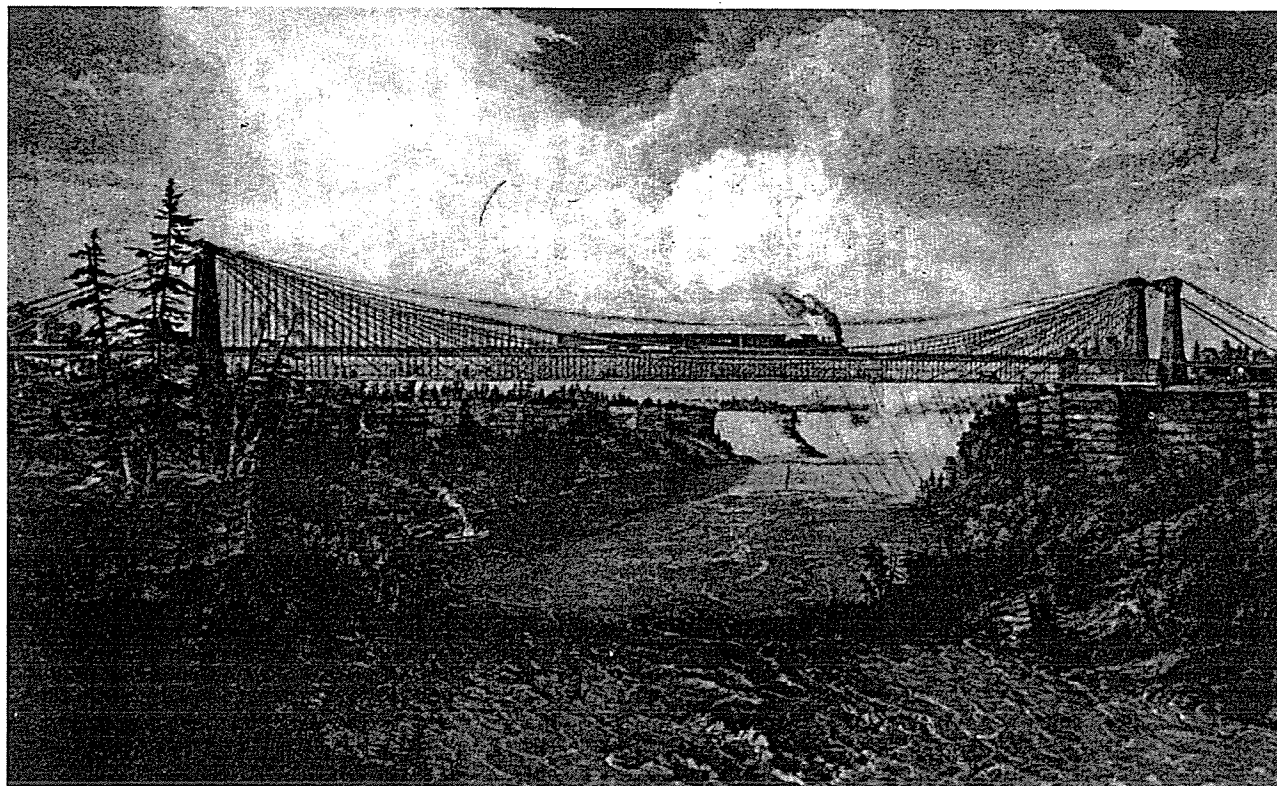
Whether the foregoing opinion is correct or not may be open to question [It still is. Ed.], but the Government made its decision in 1851 that the National railway gauge of Canada should be 5 ft. 6 in., much to the annoyance of the directors of the Great Western Ry., who had evidently made all their plans for a railway of the 4 ft. 8 1/2 in. gauge.

Although this law did not affect some of the earliest railways in Canada, such as the Champlain & St. Lawrence, the Montreal & Lachine, the Lanoraie & Industrie, and the coal railways of Nova Scotia [The 1851 act exempted railways less than 100 miles long, and Nova Scotia was not yet a part of Canada. Ed.], all of which were 4 ft. 8 1/2 in. gauge, it may be noted that after the law was passed a great many lines were laid to the 5 ft. 6 in. gauge in Nova Scotia, New Brunswick, Quebec and Ontario, and some of the smaller ones had to be subsequently assisted financially by the Dominion Government when it repealed the 1851 law, which it did in 1870.

The Great Western Railway, owing to its geographical position, was from the first very dependent on through traffic from and to different points in the United States. In fact the railway practically formed a link in the east and west traffic of that country.

OPPOSITE PAGE: This map appeared in conjunction with the Great Western timetable in the Official Guide for September, 1870. This was during the gauge conversion. In this map, the GWR is depicted as a major link in rail transportation between east and west. Places as far distant as Kansas, Nebraska, and even Texas, are linked with New York and New England via the GWR. Of note is the Union Pacific line west of Omaha marked "To California". On May 10, 1869 the golden spike had been driven at Promontory, Utah Territory, so by 1870 even the riches of the Golden State would flow via the Great Western! No wonder the company considered the standardization of gauge so important.

The Great Suspension Bridge at Niagara Falls



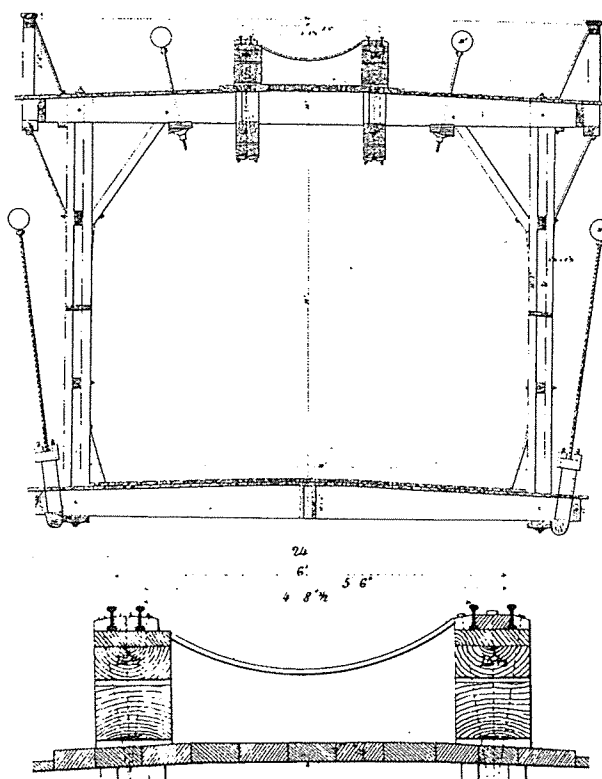
The most important link between the Great Western and the railways of the United States was the suspension bridge at Niagara Falls. Built to the design of John Roebling, this bridge was constructed between 1852 and 1855, and was opened for service on March 18, 1855. It cost the comparatively small sum of \$400,000 which, even for 1855, was a bargain; the Victoria Bridge at Montreal cost \$7,000,000. The span between towers (centre to centre) was 821 feet 4 inches, and the track was 245 feet above the middle stage of the river. As can be seen from the cross section (right) the superstructure of the bridge formed a girder, with the track on top and the road underneath. This stiffened and strengthened the whole structure. In the words of Mr. Roebling:

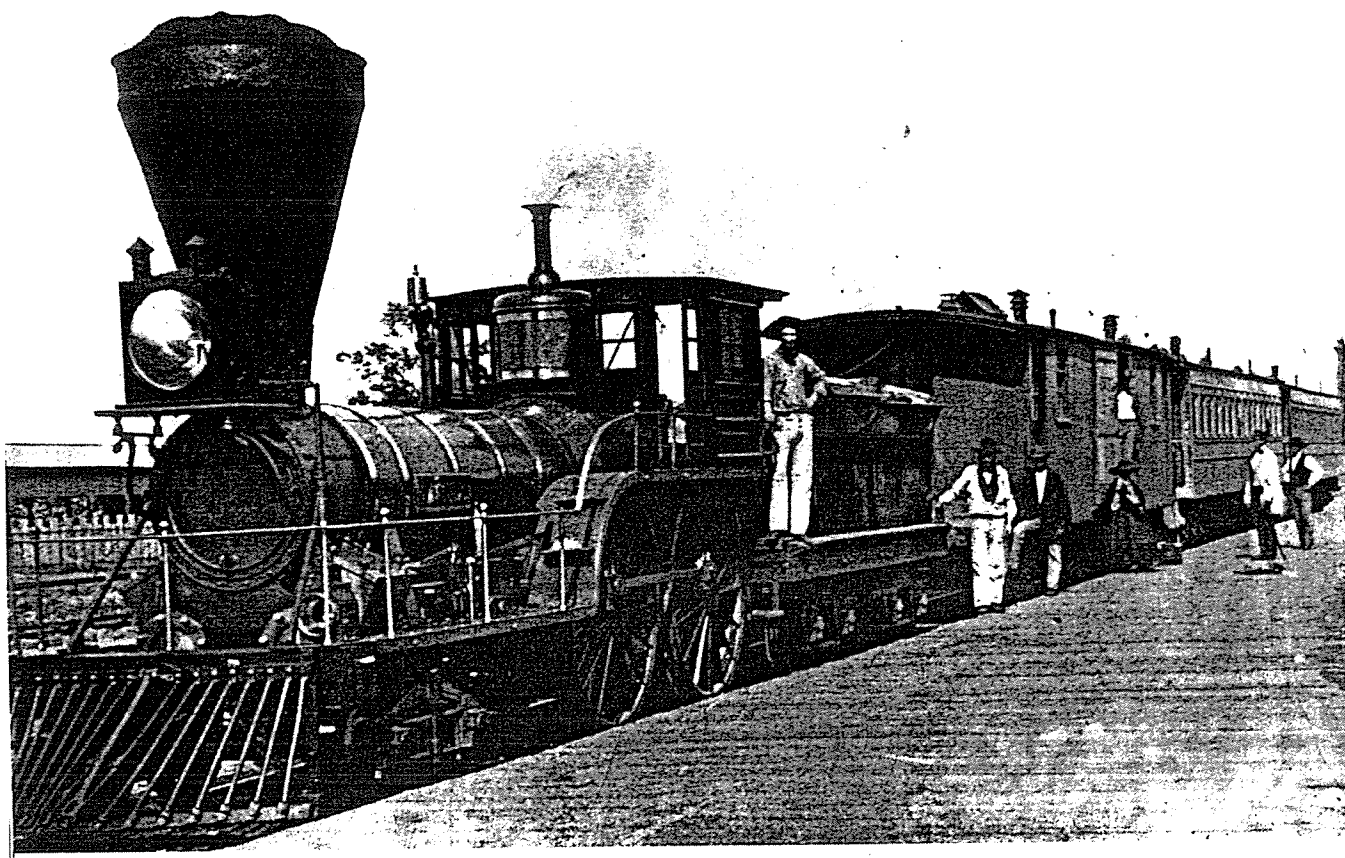
"The efficiency of these girders became evident at the first trial. On 8th of March [1855] I made the first trial trip with an American built engine of 23 tons weight, with four drivers placed but a short distance apart. The general depression in the centre was 0.3 feet. Another American engine of 22 tons weight produced nearly the same effect.... Without girders the trusses would not long resist the action of trains".

Most notable from the cross section is the triple gauge track on the bridge. The two inner rails were laid to a gauge of 4 ft. 8 1/2 in., while the two outer rails were spaced 6 ft., the gauge used by the Erie Railroad. Between one outer rail and the opposite inner one, the gauge was 5 ft. 6 in. to accommodate the trains of the Great Western.

The Niagara suspension bridge served until 1896 when it was replaced by an arch bridge which is still in use.

Cross Section of Superstructure
N. R. R. S. B.





Great Western No. 15, "Essex", built by Lowell in 1853 and delivered to the GWR in January, 1854. This c.1859 view shows the train coming off the Niagara suspension bridge, that vital link in the rail network. In 1862 "Essex" was renumbered 11. Because of its inside cylinders, it was never re-gauged but was scrapped about 1868.

Now none of the United States railways directly connected with the GWR were of the 5 ft. 6 in. gauge, most of them being of the 4 ft. 8 1/2 in. gauge which was already at that time becoming the standard. An exception, however, was the Erie Ry. which was directly connected with the GWR at Niagara Bridge, but as this line and its connections was laid to a gauge of six feet, the break of gauge difficulty was equally bad, if not worse.

As can be imagined, the transfer of all goods from the American gauge trains to the 5 ft. 6 in. GWR trains at Niagara Bridge, and the retransfer from GWR to American trains again at Windsor or Detroit was an endless source of confusion, breakage, delay and dissatisfaction to everyone concerned, and the United States lines at last took up the question of an alternative route through United States territory on the 4 ft. 8 1/2 in. gauge to avoid this trouble.

The fear of losing this valuable American business drove the directors of the GWR to petition the Canadian government for permission to change the gauge, and in the meantime they gradually mixed the gauge or, in other words, laid down on most of their tracks a third rail to accommodate the 4 ft. 8 1/2 in. gauge cars of the United States railways, so that they could pass from one point to another in the United States over the GWR without change.

It is interesting to note the gradual way in which this change of gauge took place on the Great Western Railway, and it was rather unique [sic] in this respect compared to the numerous changes of gauge which have taken place in various parts of the world. In most instances, once the work of change was put in hand, it was carried through as quickly as possible, the operation, after considerable time spent in preparation, was only a matter of a few days, some-

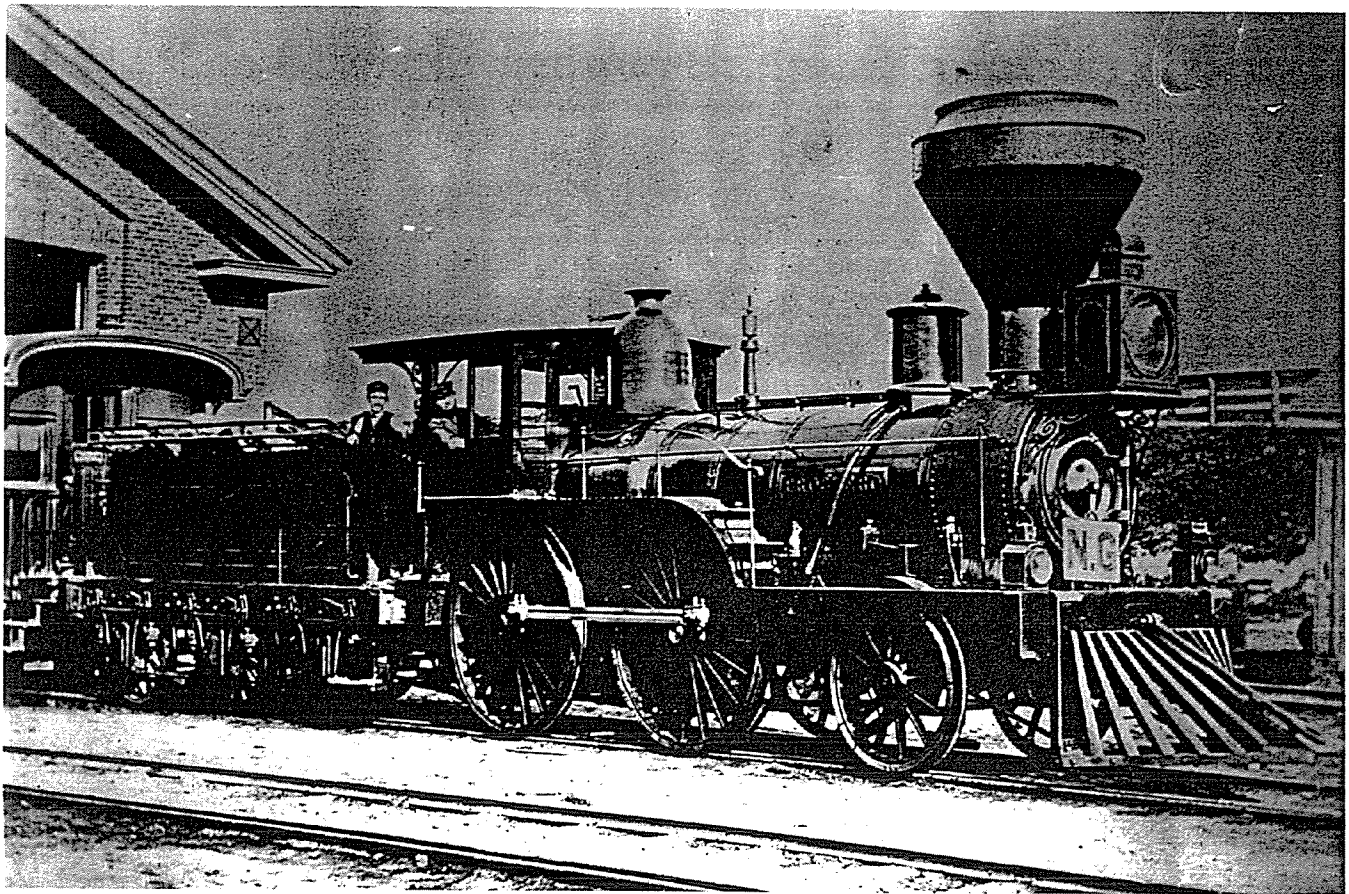
times only hours, whereas on the GWR it was a matter of years. The Great Western Railway of England had a somewhat similar experience with regard to mixing the gauge on a large part of their road, but when the change of gauge came [1892] they had to close a large part of their main line, which the GWR of Canada did not have to do, the only part of the line actually closed was the branch line between Hamilton and Toronto which was closed for eight hours, as shall be mentioned later on.

The following are notes extracted from the half-yearly reports of the Great Western Railway.

The Great Western Railway of Canada was opened on 18 Nov. 1853 with a rail [sic] gauge of 5 ft. 6 in., in accordance with the law passed by the Canadian parliament in 1851.

Nearly eleven years later, at a meeting of the Company held on 24 Feb. 1864, the President, Mr. Thomas Dakin, in referring to the delay and loss incurred owing to the break of gauge between the American railroads and the GWR, recommended that the GWR should at once lay an intermediate or third rail of 4 ft. 8 1/2 in. to accommodate American cars, which would then run over the GWR without change. Cost estimated to be \$700,000. Two years later, on 26 March 1866, the President refers to the narrow gauge track about to be laid down on the main line, and in August of that year Mr. G.L. Reid, the Company's engineer, reports that 50 miles of N.G. rails are laid.

The President, on 28 March 1867, says that the N.G. track is completed between Suspension Bridge and Windsor, that it came into operation on January 1 last, and that the new car ferry boat, which will take 14 or 16 cars, also ran on that date. Further mixed gauge sidings were badly wanted.



GWR No. 84, "Prospero" was built by Stephenson in England and arrived on the GWR in October, 1856. By the time this photo was taken it had been renumbered 52. Both it, and the "Niagara" opposite, display the "NG" plate indicating a mixed-gauge train. After the gauge change "Prospero" was sold to the Midland Railway of Canada.

Mr. Robinson, the Company's mechanical superintendent, reports at the same time that 198 N.G. cars of all kinds are now in use out of a total of 1511, and that 2 of the new Palace Sleeping Cars, built by the Pullman Company, are at work, and others are in hand.

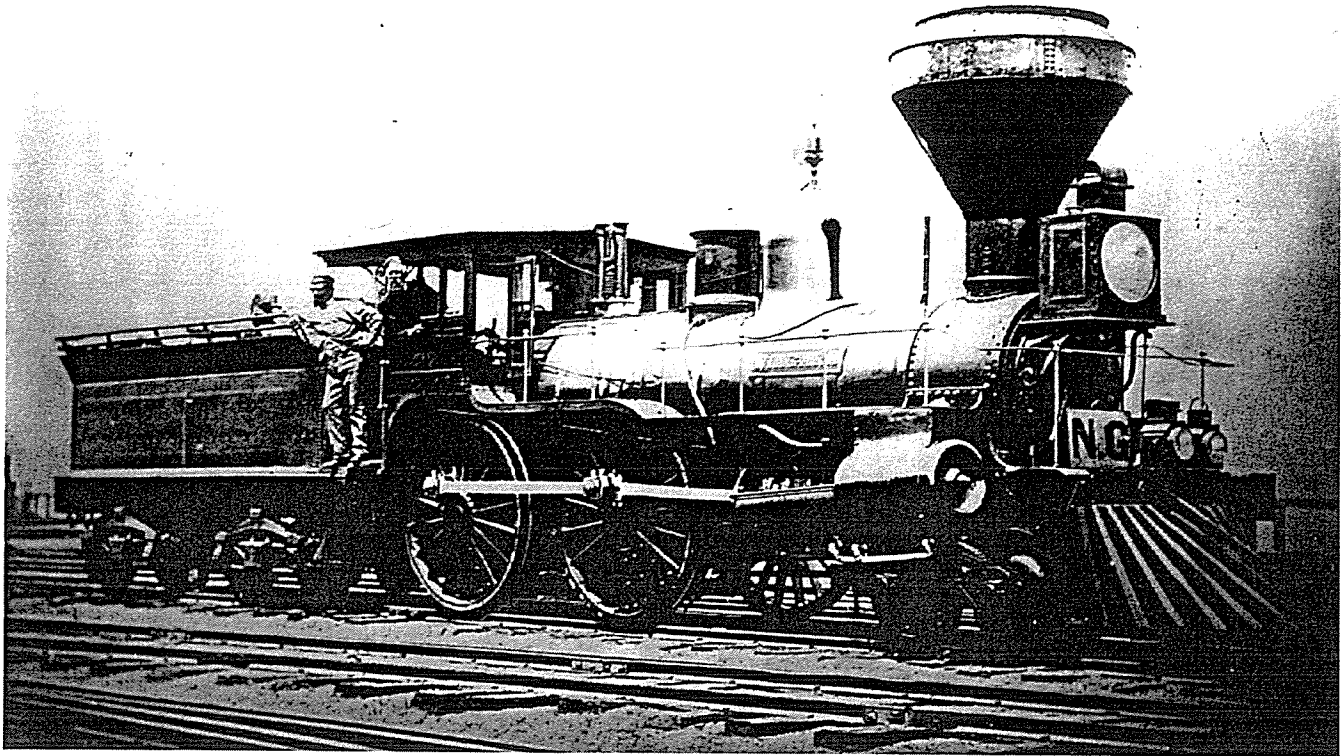
From now on the work of converting the cars from broad to narrow gauge went steadily, though the locomotives did not seem to be taken in hand until the spring of 1870. The President, on 28 Sept. 1870, says that the traffic has been handled by broad gauge locomotives, but the system of working on a mixed gauge system has been found to be unsatisfactory and expensive. Preparations are now, therefore, being made to take up the outside rail - Parliament having sanctioned the change of gauge - and it is proposed to purchase some narrow gauge locomotives. It is also proposed to retain the broad gauge only so long as it is necessary to obtain sufficient N.G. locomotives.

The Pacific Railroad in the United States [Completed by the joining of the Union Pacific and Central Pacific railroads at Promontory Summit, Utah on May 10, 1869. Ed.] is spoken of on 13 Oct. 1869 as an important source of through traffic for the GWR now that the narrow gauge is available, but more mixed sidings are wanted, and the use of Bessemer steel rails was just commencing in November.

Mr. Robinson says that on 23 Aug. 1870 that the first two narrow gauge freight engines are already at work and that more are in hand. Some B.G. engines are being sold, some broken up, and

one small one converted into a N.G. shunting tank engine. Mr. Reid reports on 28 Feb. 1871 that the third rail had now been removed from 100 miles of the main line and from station sidings between Windsor and Komoka, and also that in December last the track of the Toronto branch, 38 miles, was successfully changed from broad to standard gauge by an organized force of trackmen under Mr. Weatherthorn with an interruption to traffic of only eight hours.

On the same date the Locomotive Superintendent explains that the alteration of the gauge being put in hand more rapidly than anticipated has left him with a shortage of N.G. engines. The Company is buying a large number of these locomotives, both freight and passenger, from the Rhode Island Locomotive Works and is converting GWR B.G. engines to narrow gauge at the Company's works as rapidly as the facilities will allow. But this conversion of the locomotives was attended with difficulties for Mr. Robinson remarks: "Many of the engines which were considered worth reconstruction with new boilers on their present gauge are now found unsuitable to convert to N.G., while others, notably of the Norris class, originally considered not worth reconstruction, are the most practical to convert to N.G." For these reasons it is now intended to reconstruct the six Norris engines, numbers 17 to 22 inclusive, with new boilers and cylinders, make them N.G., and select good tenders for them from other engines, which, on account of age and difficulty of conversion, will be broken up. Five Slaughter engines, Nos. 65, 66, 68, 69, 72, and the Fairbairn engine, No. 32, all being too old and worn out to be worth conversion to N.G., are being broken up.



The "Niagara" was the second locomotive of that name to run on the GWR. It replaced the original Lowell engine of 1853 which had been numbered 4, renumbered 27, and wrecked about 1862. This new "Niagara" was also numbered 27, and was built in the GWR's own shops at Hamilton, going into service in January, 1863. It did not survive the gauge change and was scrapped in 1873.

Notes by W.M.S.: According to the 1862 list, the six Norris engines were, No. 17 "Venus", No. 18 "Vesta", No. 19 "Minerva", No. 20 "Jupiter", No. 21 "Mercury", No. 22 "Mars". The five Slaughter engines were, No. 65 "Python", No. 66 "Lion", No. 68 "Tiger", No. 69 "Tigress", No. 72 "Vulcan". The Fairbairn engine was No. 32 "Spitfire".

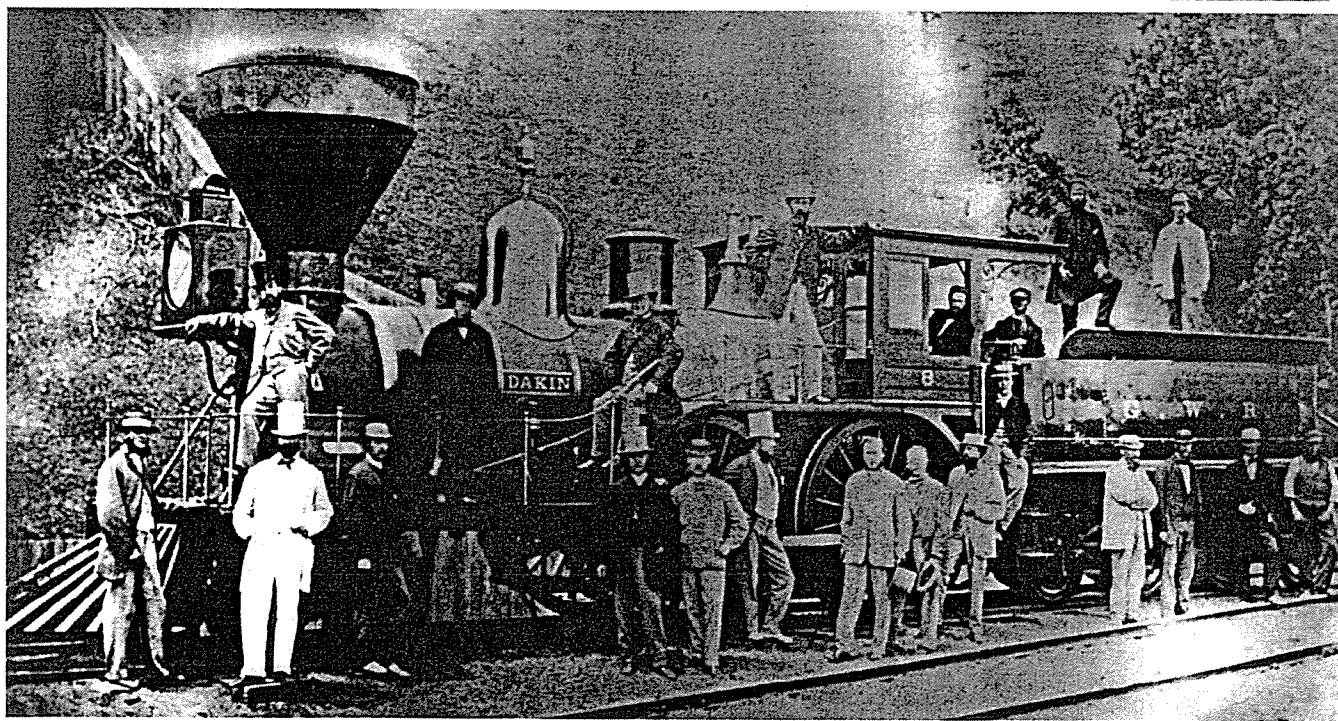
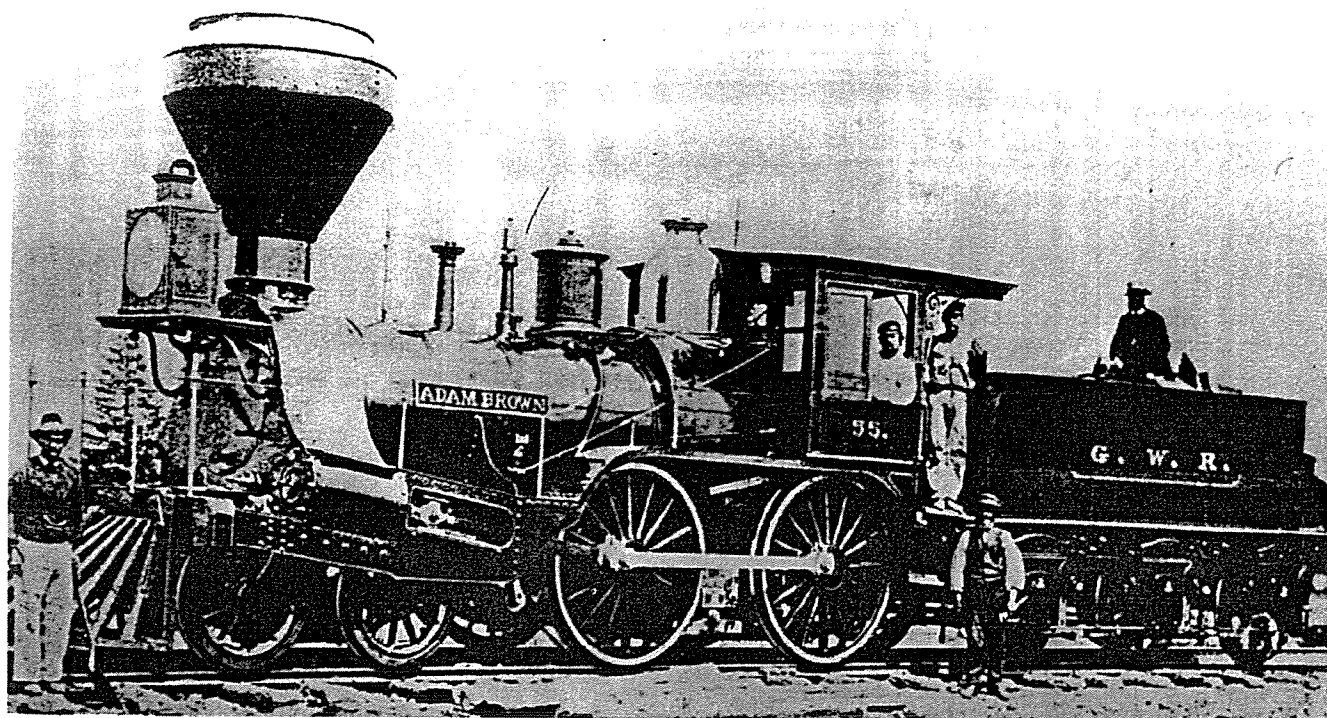
The report continues:- "The engine stock has been increased by five new N.G. freight engines built in the Company's shops. The remaining portion of the engine stock has been somewhat altered during the half year both in point of numbers and gauge. In addition, the two shunting engines (Nos. 91 and 93) are listed as sold and one shunting engine (No. 92) as having been converted to N.G. In last half year's report the following alterations and temporary additions have been made:- One freight engine, No. 54 ("Titan" from Birkenhead) and one passenger engine, No. 5 ("Windsor" from Schenectady) have been sold. Four shunting engines, No. 86 "Ontario", No. 88 "Superior", No. 89 "Michigan", No. 90 "St. Lawrence", from the Globe Works in Boston, have been converted to N.G. One shunting engine, No. 87 "Erie", is in hand being converted. Thirteen new N.G. passenger engines and nineteen freight engines have been purchased from the Rhode Island Locomotive Works and also one shunting engine from Baldwin's. The stock of engines at present is as follows:- 77 B.G., 43 N.G., 13 being converted, total 133".

In consequence of this temporary shortage of locomotives, the Directors were obliged to change their plans somewhat and to retain the mixed gauge between Hamilton and London so that narrow gauge trains could be operated by broad gauge locomotives. The Directors' report in April 1872 states that by 31 January the whole of the Company's car stock had been converted to the new

standard gauge, but that the broad gauge is still being kept between London and Hamilton on which to run the remaining broad gauge locomotives. Mr. Robinson, on 28 Feb. 1873, reports that only 24 B.G. engines now remain out of a total of 177. The report of 26 March shows that the supply of locomotives is still insufficient and that the outer rail between Hamilton and London must be continued for the present. The new steel rails are giving great satisfaction both in use and in decreased expenditure. The Directors, in their report of 16 October, announce that at last this outer rail was removed at the end of June, that the system is now entirely of standard gauge, and that at the close of the previous year only 30 miles of iron rails remained on the main line. It is mentioned in the same report that freight trains of 27 cars are now run on the main line whereas 24 cars were formerly the maximum, and then extra engine help was often required. By 1874 the Westinghouse Atmospheric Brake was beginning to be installed.

To conclude I may again refer to the process through which the Great Western Railway went during the period of the change of gauge. - First, the laying down of the narrow gauge rail primarily to accommodate the American cars, at that time there being no narrow gauge stock on the GWR. N.G. rail, Niagara to Windsor, was in operation by January 1, 1867. Second, the gradual conversion of the GWR cars, both passenger and freight; the first GWR N.G. cars were running by the spring of 1867. Third, the conversion of the locomotives. The first N.G. engine, a shunter, was not running until the spring of 1870.

[The Great Western Railway ended its independent existence when it was sold to the Grand Trunk in 1882, and was absorbed into that system. Most of the former GWR lines are still in use as part of Canadian National Railways. Ed.]



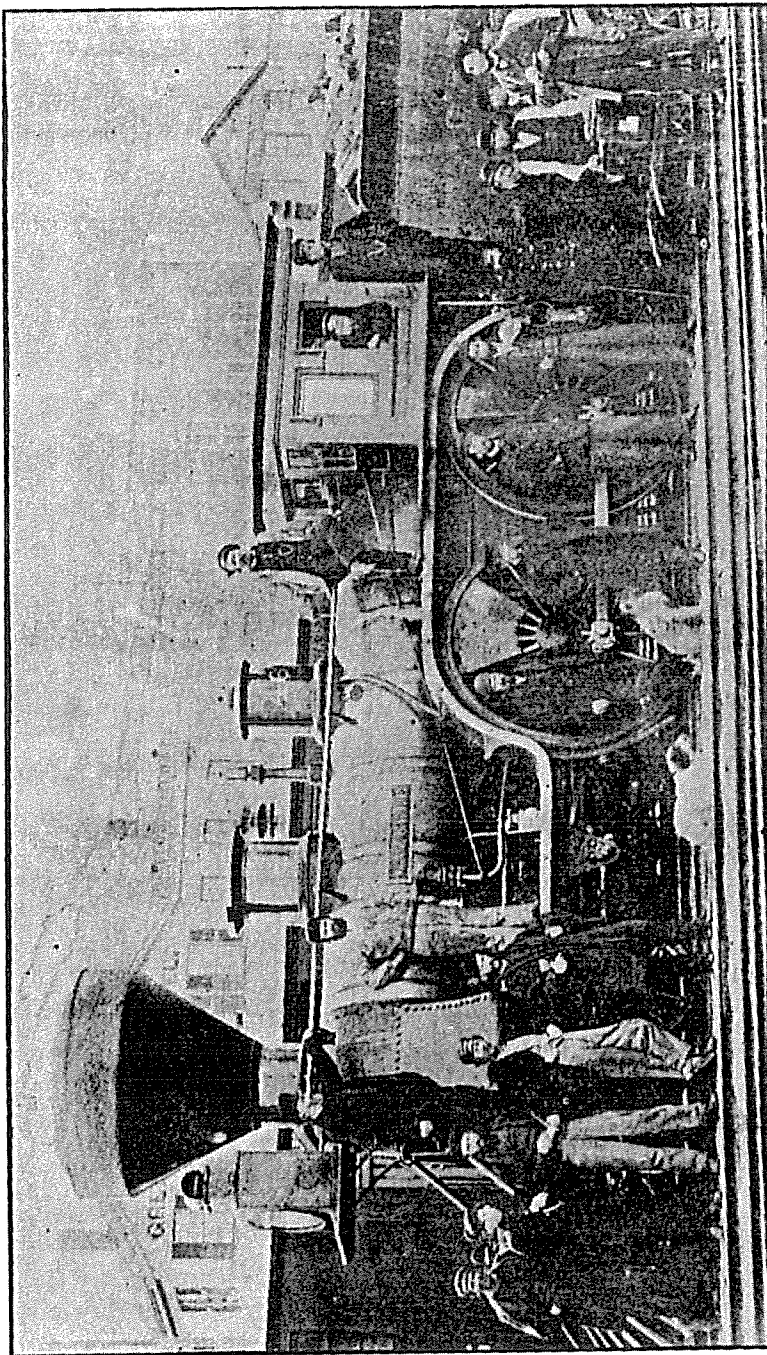
OPPOSITE: This beautiful example of the engraver's art is a bond for 100 pounds Canadian currency (\$400) issued by the County of Oxford in 1853 to raise money for the County to buy Great Western stock, and so ensure that the railway would serve that county.

TOP: The "Adam Brown" was originally No. 76, "Minos" built at Birkenhead in 1855. By 1870, when this photo was taken, it had been renamed, and also renumbered 55. It was later sold to the Wellington Grey & Bruce. This locomotive was featured on a Canadian stamp, one of a series depicting historic locomotives.

ABOVE: Another renamed engine, "Dakin" was originally "Woodstock", No. 14, built by Schenectady in 1853. In the 1862 renumbering it became No. 8, and was later renamed "Dakin" after the GTR president. It also did not survive the conversion to standard gauge.

NEXT TWO PAGES: In 1858 and 1859 Mr. Samuel Keefer produced two reports on Canadian railways. This was by order of the Royal Commission on railways set up in the aftermath of the Desjardins Canal disaster on the GWR in March, 1857. Among other items, the Keefer Reports contained complete locomotive rosters of all railways in Canada. On these two pages we reprint the roster for the Great Western as of December 31, 1858, showing builder, date, dimensions, miles run, etc. The Keefer reports are more complete than many later publications.

The question has been frequently asked by visitors to Sandwich, "How is it that Windsor is now so much larger than Sandwich while Sandwich has remained nearly the same in size and population for the past fifty years?" The question is easily answered. History tells



ONE OF THE FIRST ENGINES

Used by the Great Western Railway when the road was first opened for traffic to Windsor in 1854.

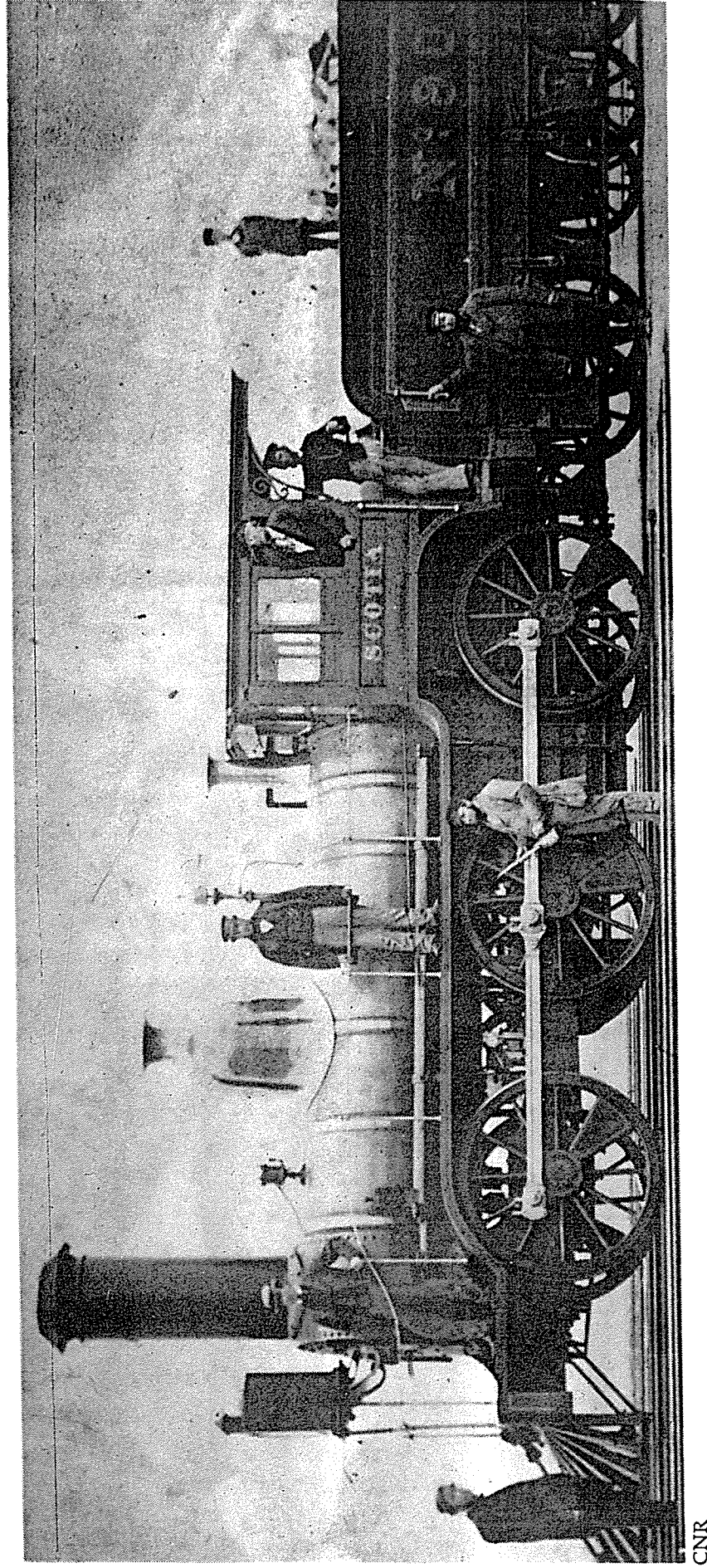
This interesting photo, owned by Joseph Hall, engineer of the waterworks, was taken some time between 1862 and 1866, these two dates being defined by violent deaths. It was in 1862 that John Hall, Sr., brother of Engineer Hall, was killed at Bothwell. He ran the "Gazelle," the engine in the picture. The other date, 1866, was the year Mr. Montchur, who appears in the group, was burned to death in the fire at the foot of Brush street, when the ferry "Windsor" was destroyed.

Leaning out of the cab window is the late Joseph Noble, father of Ex-Ald. Thomas Noble. Standing on the cab steps is George Jacques, the fireman. Sitting on the railing is Sam Blanning. Standing near the front is John Hammond, the fitter, while the gentleman with his arms on the engine railing is William Rosevere, the foreman.

The first train run into Windsor after the road was built was on January 31, 1854, and the engineer's name was Jordan.

In the background is shown the old Great Western hotel, where the Iroquois hotel now stands.

us that in 1846 Windsor only had a population of 300 and that the place did not amount to anything until the Great Western Railway was built in 1853. As the result of Windsor being made the terminus of that road (instead of Sandwich as originally intended), that place

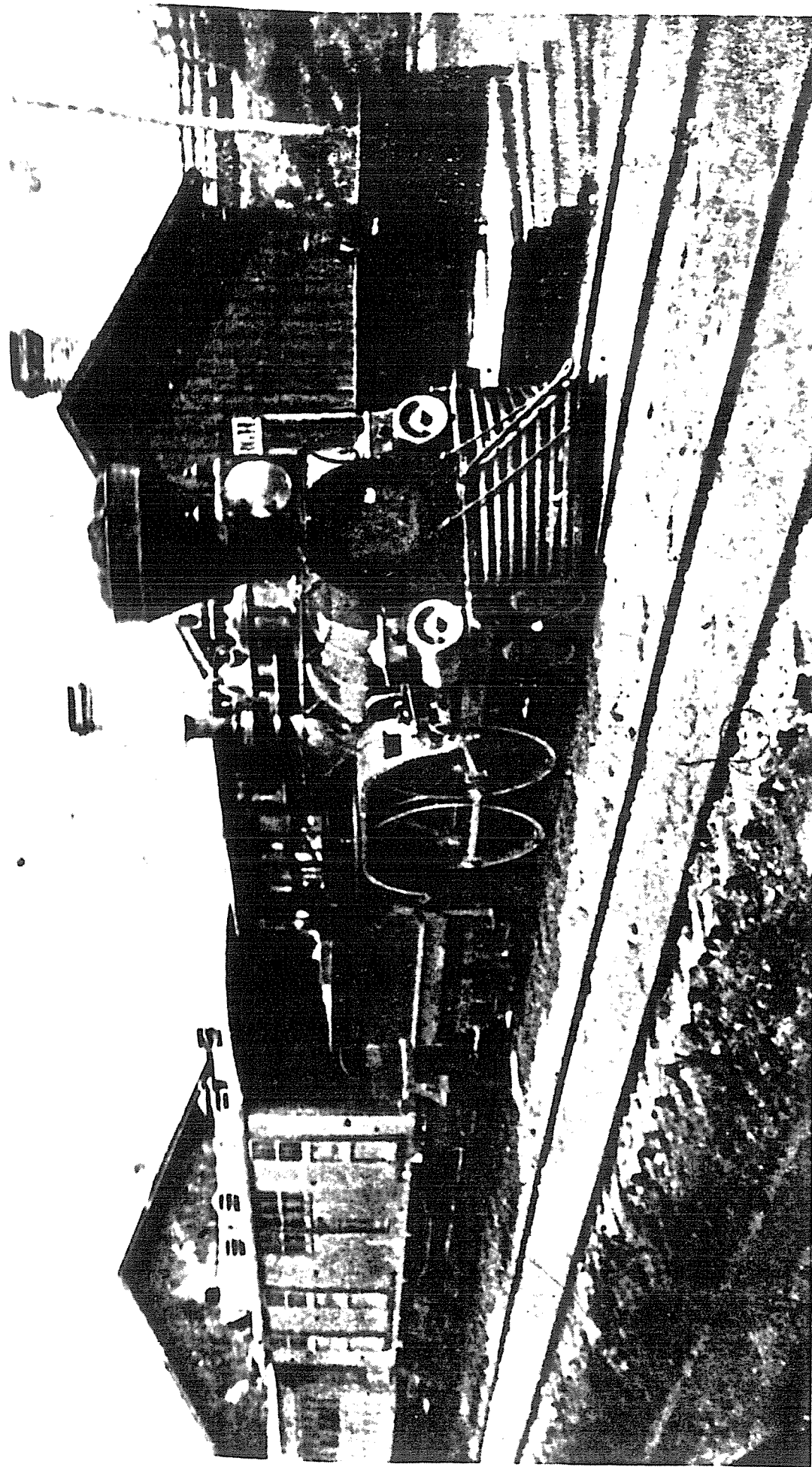


CNR

Oxford toppled, and, the train plunged sixty feet down into the icy water. Fifty-nine people either drowned or were burned to death as they fell against the heating stoves in the two passenger cars. For some time after the bridge was repaired and reopened for traffic, passengers were allowed to detrain and cross on foot if they so desired.

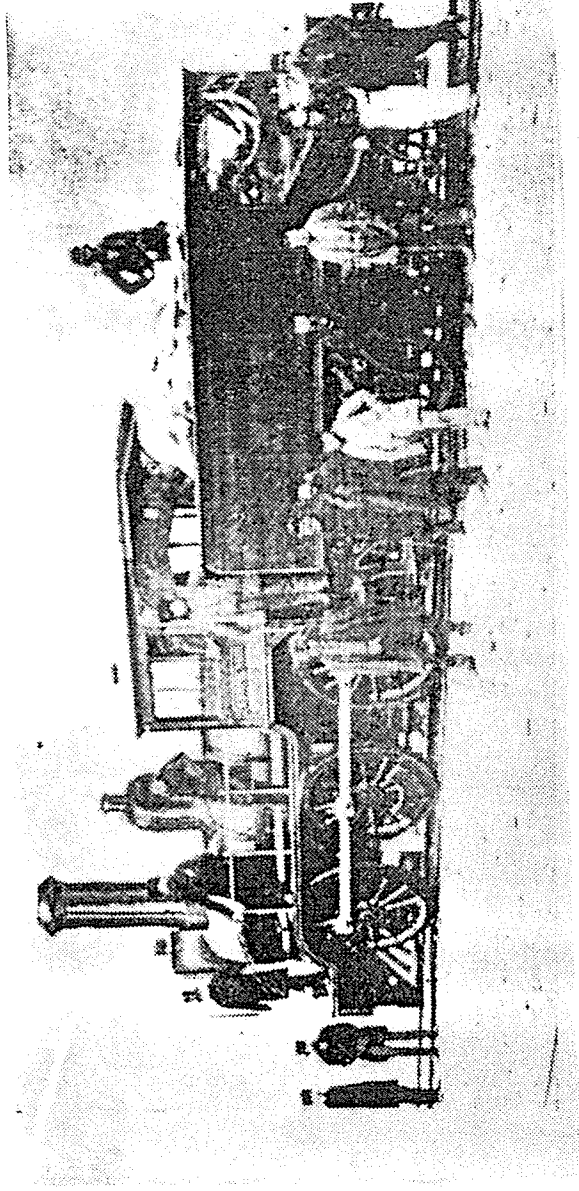
Great Western Railway Scotia, the first engine in Canada with a steel boiler. Built by the Great Western Railway in 1861

The first passenger locomotives of the Great Western came from



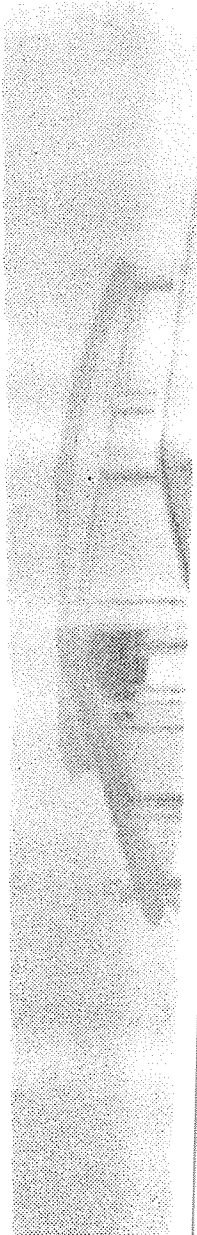
New Hamburg(h) Station c1862. Burned on July 7, 1903. Photo: Waterloo Historical Society.

...ER LONDON was the
...as in the summer of 1854.
...quets and speeches heralding
...y." At one time more trains
...any other city in Canada.



2a

...nged to the Great Western Railway. The number on the
...to be quite a modern piece of equipment for its time. The
...milton. The railway was later amalgamated with the
...rated London.")



11 0-6-OF 16x24" 60" Slaughter 1855-6
 62 (66) Lion, 63 (67) Lioness, 64 (68) Tiger, 65 (69) Tigress,
 66 (70) Leopard, 67 (71) Panther, 68 (72) Vulcan, 69 (73) Etna,
 70 (74) Stromboli, 71 (75) Styx, 72 (76) Castor, 73 (77) Pollux.

9 2-4-OPorF 16x24" Birkenhead 1856
 74 (29) Mazeppa, 75 (30) Medusa, 76 (31) Medea.

6 2-4-OP 16x24" 72" Fairbairn 1856-7
 77 (38) Gem, 78 (39) Ruby, 79 (40) Emerald, 80 (41) Sapphire,
 81 (42) Diadem, 82 (43) Diamond.

8 2-4-OP 16x24" 72" Stephenson 1856
 83 (50) Ariel, 84 (51) Oberon, 85 (52) Prospero.

12 F 1856
 86 (78) Erebus, 87 (79) Cyclops, 88 (80) Ixion.

10 0-6-OF 16x22" ? 60" Gunn 1857
 89 (56) Achilles, 90 (57) Bacchus

13 0-6-OF 16x24 60" G.W.R. 1860-2
 67 (81) George Stephenson¹⁰, 90 (82) Scotia, 91 (83) Erin,
 92 (84) Sarnia, 93 (85) Saxon.

None 4-4-OF 17x24" 60" Kingston 1868
 (95,217)¹¹ unnamed, (96,218) Unnamed, (97,219) Unnamed, (98,220)
 Unnamed, (99,221) Unnamed.

Notes:

1. This classification appears in the Official List of 1869.
2. P - Passenger, F - Freight, S - Shunting.
3. Locomotives "Niagara", "London", and "Samson" replaced in 1862.
4. Original number.
5. Number as it appears on Official Lists of 1862 and/or 1869.
6. Rebuilt by G.W.R. during the period, 1861-6.
7. Removed from service in 1867. "Hercules" became locomotive fire engine.
8. Removed from service in 1869.
9. "Oxford" was involved in the Desjardins Canal Accident, March 12, 1857. It was probably scrapped.
10. What locomotive, first of the coalburners, this replaced in 1860 is uncertain. It may have been No.67, "Panther," but this appears in the 1862 List.
11. These locomotives were renumbered soon after purchase.

BOTH PAGES: This roster is reprinted exactly as it appeared in CRHA Bulletin No. 2, August 1937. The list was compiled by Mr. Spriggs from various sources, notably the periodic reports of the railway itself in the late 1860s and early 1870s. It makes interesting comparison with the Keefer roster found on pages 98 and 99. Since this list is an exact reprint of one compiled sixty years ago, there may be some newly-discovered information which would affect the accuracy of the rosters. However today, 125 years after the gauge change, it is not possible to get all the information on all the locomotives of the Great Western.

Locomotive List, I.

Broadgauge Locomotives of the Great Western Railway of Canada,
Compiled by W.M. Spriggs

<u>Class</u> ¹	<u>Type</u> ²	<u>Cylinders</u>	<u>Dia.</u>	<u>Drivers</u>	<u>Builder</u>	<u>Date</u>
1 ⁴ (24) ⁵	None ³ 4-4-OP	16x22"	72"	Lowell	1853	
	Canada ⁶ , 2 (27) Niagara, 5 (28) London, 6 (25) Hamilton ⁶ .					
4	4-4-OPF			G.W.R.	1862-3	
(28)	London, (27) Niagara, (26) Samson, (94) ?					
3	None 4-4-OP	16x22or24"	72"	Schenectady	1853	
	(23) Hercules ⁶ , 4 (26) Samson.					
14	4-4-OS	15x20or22"	56or60"	Globe	1853-4	
7 (86)	Ontario, 8 (87) Erie, 9 (88) Superior, 10 (89) Michigan,					
11 (90)	St. Lawrence, 12 (91) St. Clair, 13 (92) Huron, 14 (93) Simcoe.					
15	None ⁷ 4-4-OP	14x22"	66"	Lowell	1853	
(11)	Essex, 16 (12) Kent, 17 (13) Elgin, 18 (14) Norfolk,					
19	(15) Brant, 20 (16) Wentworth.					
2	4-4-OF	16x24"	60or66"	G.W.R.	1867-8	
(11)	Sir Thomas Dakin, (12) Sir Thomas Faulconer, (13) Sir William Weir, (14) Brackstone Baker, (15) Brant, (16) Wentworth.					
3	4-4-OP	16x24"	72"	Norris	1853	
21	(17) Venus, 22 (18) Vesta, -23 (19) Minerva, 24 (20) Jupiter,					
25	(21) Mercury, 26 (22) Mars.					
27	None ⁸ 4-4-OP	16x22"	72"	Amoskeag	1853-4	
(44)	Reindeer, 28 (45) Elk, 29 (46) Gazelle, 30 (47) Stag,					
31	(48) Antelope, 32 (49) Greyhound.					
7	4-4-OP	16x22"	69"	G.W.R.	1868-9	
(44)	Reindeer, (45) Elk, (46) Gazelle, (47) Stag, (48) Antelope,					
(49)	Greyhound.					
1	4-4-OP	15x22"	66"	Schenectady	1853-4	
33	(None) ⁹ Oxford, 34 (1) Middlesex, 35 (2) Lightning, 36 (3) Detroit					
37	(4) Lincoln, 38 (5) Windsor, 39 (6) Chatham, 40 (7) Paris,					
41	(8) Woodstock, 42 (9) Welland, 43 (10) St. Catherines, 44 (None) ?.					
11	0-6-OF	16x24"	60"	Slaughter	1854	
45	(58) Atlas, 46 (59) Pluto, 47 (60) Milo, 48 (61) Elephant,					
49	(62) Rhinoceros, 50 (63) Buffalo, 51 (64) Bison, 52 (65) Python.					
6	2-4-OP	16x24"	72"	Fairbairn	1855	
53	(32) Spitfire, 54 (33) Firebrand, 55 (34) Fireking, 56 (35) Firefly,					
	57 (36) Hecate, 58 (37) Hecla.					
5	2-4-OPorF	16x24"	66"	Birkenhead	1855	
59	(53) Ajax, 60 (54) Titan, 61 (55) Minos.					

RETURNS OF LOCOMOTIVE ENGINES, AND OTHER ROLING STOCK,

OWNED BY RAILWAY COMPANIES IN CANADA, ON THE 31st DECEMBER, 1858.

Number, description and condition of Locomotive Engines owned by the Great Western Railway Company, of Canada, on the 31st December, 1858, and miles run by the same up to that date.

ENGINES.	No.	NAME.	Connections.		Driving Wheels.		Cylinders.		Flues.			Weight of Engine.	Water capacity of Tender.	Weight of Tender with Wood and Water.	Total weight of Engine and Tender, with Wood and Water.	WHERE BUILT, OR BUILDERS NAME.	When first put in use.	Miles run during the year 1858.	Total Miles run since first put on road.	GENERAL CONDITION AND REMARKS.
			Number.	Diameter.	Inch.	Stroke.	Number.	Length.	Inside Diameter.	Tons.	Galls.	Tons.	Tons.	Tons.	Tons.					
1	Hercules	Outside.	4	6	16	22	180	11 $\frac{1}{2}$	11 $\frac{1}{2}$	---	1567	---	---	---	---	Lowell	July, '53	26244	108115	In good order.
2	Samson	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	June	26493	99167	do
3	Canada	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	Feb. '54	24606	96445	do
4	Niagara	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	June, '53	18666	102223	do
5	Hamilton	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	Oct. '53	26443	91612	In shop repairing.
6	London	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	21908	64929	do
7	Middlesex	Inside.	4	5 $\frac{1}{2}$	15	22	139	11 $\frac{1}{2}$	11 $\frac{1}{2}$	---	1571	---	---	---	---	Schenectady	"	23106	87161	In good order.
8	Lightning	do	4	5 $\frac{1}{2}$	14	22	139	11 $\frac{1}{2}$	11 $\frac{1}{2}$	---	"	---	---	---	---	do	"	15688	122187	do
9	Detroit	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	15064	101817	do
10	Lincoln	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	20136	137272	do
11	Windsor	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	21108	85301	do
12	Chatham	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	22817	124341	do
13	Paris	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	Dec. '53	15156	121618	Under repairs.
14	Woodstock	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	22605	111973	do
15	Essex	do	"	"	"	"	"	"	"	---	1521	---	---	---	---	Lowell	Jan'y '54	17398	109135	In good order.
16	Kent	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	27098	97347	Under repairs.
17	Elgin	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	19347	89214	Requiring repairs.
18	Norfolk	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	16521	86142	Under repairs.
19	Brant	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	13978	63117	In good order.
20	Wentworth	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	19944	105456	Requiring repairs.
21	Ontario	do	"	4 $\frac{1}{2}$	13	20	94	8' 9"	11 $\frac{3}{8}$	---	807	---	---	---	---	Souther, Boston	Sept. '53	28812	105081	In good order.
22	Erie	Outside.	4	"	"	"	"	"	"	---	"	---	---	---	---	do	"	28272	126836	Requiring repairs.
23	St. Clair	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	Oct. '53	31749	160641	In good order.
24	Huron	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	26302	86234	Requiring repairs.
25	Superior	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	31976	111700	In good order.
26	St. Lawrence	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	Nov. '53	22592	124221	do
27	Reindeer	Inside.	4	6	16	21	170	10' 10"	11 $\frac{3}{8}$	---	1742	---	---	---	---	Amoskug Works	Feb. '54	27646	91144	Under repairs.
28	Elk	do	4	6	16	21	170	10' 10"	11 $\frac{3}{8}$	---	1742	---	---	---	---	do	"	11946	121708	In good order.
29	Gazelle	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	March, '54	9288	78816	do
30	Slag	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	"	21489	124502	do
31	Antelope	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	May, '54	24134	118434	do
32	Greyhound	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	April, '54	27180	112932	do
33	Michigan	do	"	"	"	"	"	"	"	---	"	---	---	---	---	do	Feb. '54	76	69019	Sta'y eng. gra. elevat'r
34	Simcoe	Outside.	4	4 $\frac{1}{2}$	13	20	94	8' 9"	11 $\frac{3}{8}$	---	807	---	---	---	---	Souther, Boston	"	28378	101759	In good order.

THE HAMILTON EVENING TIMES

Special A

CRUDE OIL FOR LOCOMOTIVES.—This morning our reporter paid a visit to the Great Western Railway shops in order to witness a trial of Mr. Charles Ribighini's method of utilizing crude petroleum as fuel for railway locomotives. The trial, however, had been postponed until two o'clock, but the plan of the patent was carefully explained to our representative. Mr. Charles Ribighini, as his name indicates, is an Italian. He has, however, for many years, resided on this Continent, and has identified himself with the oil interests of both Pennsylvania and Canada. In Ontario he has become a large owner of wells, and at Peoria is proprietor of no less than twenty, which, for certain reasons hereafter noted, are not pumped to their full capacity. They, however, produce some 5,000 or 6,000 barrels a month. Mr. Ribighini is, therefore, an authority on oil matters, and, representing the capital he does, is regarded as one of the wealthiest oil men in the country. From him we hear repeated the statement that the Canadian oil is of a heavier quality than that of Pennsylvania, and more difficult and expensive to refine. The wells in that State produce some 23,000 barrels of petroleum per day, and the result is that the supply is greater than the demand, even when export is taken into consideration. In Ontario there is also an overplus of oil over the demand, and Mr. Ribighini being an active person, set himself to think how a greater demand could be created. He knew that a number of experiments had been made to adapt the consumption of crude, and even refined, petroleum for the purposes of raising steam in locomotive engines, but he also knew that these had been failures. It was well proven that crude oil, or tar (refuse in refining oil), could be used with great economy over other fuel for stationary engines, but the problem of making them answer equally well for locomotives had not been solved so satisfactorily. Mr. R. believed this could be done, and having thought the subject over, invented a system that bids fair not only to be thoroughly successful, but generally adopted. One of the heaviest expenses a railway company has to meet is that of fuel. Wood is becoming scarcer as each year flies over our heads, and the expense of preparing and handling it is nearly equal to its first cost. Coal is becoming very expensive, and besides being that, is also very difficult to handle, when loss in weight is sure also to follow. Crude oil is plentiful, but the wells at present being pumped would not supply the demand were all the railways to use it and no other else. Mr. Ribighini met this by saying that the area in Ontario for producing petroleum is immense and not yet fully known, and this new call upon the oil men would cause hundreds of oil wells to be sunk and give the trade a great life and importance. Mr. Ribighini's apparatus for using the oil is wonderfully simple, and a locomotive can be converted in a few hours. Those who

DOMINION DAY IN WATERDOWN.—We are requested to state that Dominion Day will be especially celebrated at Waterdown this year by the public in general. The programme includes games, horse racing, music and dancing, closing with a grand military ball in the evening. The novelty of a horse walking race will be introduced. A splendid New York band has been engaged and a full day of sure to attend is the scene of

An inquiry horse's mouth The horse of fingers the was fully as

To-day, 18 of a son. In this city ANDERSON O

In this of the bride's eldest daughter WINNIFRITH

ANGLO-AMERICAN.

June 17, 1873.

Josh Inch and wife, Plymouth; Victor Jamieson, Windsor; James Bradshaw, Toronto; H. N. Case, Sarnia; D. Thomson, Indiana; J. M. Hood, Galt; Robt. Patterson, Galt; Thos. Messenger, Caledonia; T. B. Henry, Beamsville; Victor Good, Boston; J. Galloway, city; A. O. Buck and wife, Caledonia; Mrs. Brennan, Harrisburgh; Miss Brennan, do; J. Crediford, Montreal; Thos. Robertson, Dundas; V. A. Robertson, do; J. Meyer, Buffalo; D. M. Blackwood, Thunder Bay; Mrs. Robt. Thompson, Beverley; Mrs. Mary Christie, Beverly; L. T. Mewburn, Goderich; William Mills, Middleton; Dr. Husland, Galt; T. E. Ewen, Belleville; John Osborn, London; William McArthur, Port Elgin; John Shanon, Almonte; P. Brodie, Peterboro; John Betts and wife, city.

Financial.

STINSON'S BANK.

Established 1847.)

HAMILTON, June 18, 1873.

Greenbacks and New York Exchange buying from 85 to 86; Selling at 86 1/2 to 87. Gold opened in New York at 116 1/2; closed at —. Sterling Exchange, 9 1/2 to —. Investments and sales of Canadian Debentures and Bank Stocks effected.

The high premium on gold at the present time affords Canadian capitalists a favourable opportunity to invest in American securities. The following on hand and for sale:—

5-20 United States Bonds	pay investors..	6 per cent.
7-30 Northern Pacific	1000 Bonds	" " 9 "
Detroit & Milwaukee	Bonds	" " 9 "
Pullman Palace Car	Stock	" " 10 "
Detroit Car Loan	Stock	" " 12 "

STINSON'S BANK.

STOCK MARKET.—Reported by Hugh C. BAKER, 6 James Street North, Hamilton.

PHOSPHOROUS,

Callaya or Peruvian, Bark Compound Elixir of Phosphates. These valuable remedies cleanse the blood, Phosphorus, an excitant of nutrition; Iron, Callaya or Peruvian Bark, the and fever, and all conditions of general debility. Phosphorus known that act immediately on the digestion and assimilation, the formation of pure blood—ever discovered is so remedial for constitutions run down with have heretofore resisted all ordment. Sold by all druggists.

Howard Association, F

A N INSTITUTION

A high reputation for professional skill. Acting Surgeon M. D. Essays for Young Men.

Address HOWARD ASSOCIATION 107-2m No. 2 South N

DR. J. BELL

Specific and T

THE Great Eng

for Nervous Debility, TERNAL EMISSIONS, Weakness, Palpitation of the Heart, The effect of over-indulgence and tobacco, &c. Dr. J. BELL the only effectual ones for are never known to fail. Hundreds in this country. In Hamilton, testifies to his certain and rapid in action their efficacy. No sufferer nature from the frightful The Specific Pills are sold box, and the Tonic Pills at 50 sent by mail, postage pre-paid from observation, on receipt and 50c. for the Tonic Pills, J. BELL

Sold by all Wholesale and Pamphlets sent post-free Hamilton, Feb. 19, 1873.

ANOTHER CASE OF I

BRIDGEWATER, N. S.

Mr. JAMES I. FELLOWS

in Windsor on a visit

fell in with an old frier

and finding him looki

bust, was led to enqui

the great change, for

two years previous he

He informed me that

Syrup of Hypophosph

perfect cure. He per

Syrup for Bronchitis,

ferred much during a

chased one dozen of t

used only three bottl

now better than it has

requiring the balance

to different parties, a

ral demand for it from

fully yours, J. W. N.

is the person who was

in 1866, by Fellows'

Hypophosphites, who

some time ago.

Subscribe.
Don Thompson and combination play at the Hall to-night. The star Miss Annie Hindle to-night. She is said to be something extraordinary.

It is thought the price of lumber will soon be higher than ever before known, owing to the quantity required for the latest style of parasol handles.

It is stated that a movement is on foot in London to establish a journal in the interests of the Roman Catholic Church, for circulation throughout the diocese of London. "Rathowen," not long since purchased by Dr. Woodruff of London, has again succumbed on the weak leg. This second mishap insures his retirement from the turf.

There was such a demand for Bastien's crack row-boats on Monday last that, whenever a party returned in one, there was a regular rush from the waiting crowd to secure it.

The name of the unfortunate man, in the employ of Messrs. D. McInnes, Bro.'s & Co., is David Bone. It is said his right wrist was broken, and that generally he is badly hurt.

The noon hour to-day was only about fifty minutes long. The bell sounded twelve fully seven minutes late, and one o'clock at three minutes thereto. Has old Time an attack of the spasms?

The famous London auctioneer, whose advertisement stated that the only drawbacks on a certain country place which he had for sale were the "noise of the nightingale, and the litter of the rose leaves," was the right sort of man for his profession.

Col. Sergt. Omand represents Hamilton at Wimbledon. When Ensign Adam resigned the position he had won, an excellent marksman from this city was recommended, and he has been selected. This is Sergt. Omand's third visit. He leaves for the east to-day.

The coolest request of the season was made at Rock Bay, last Monday evening, upon the occasion of three young men beaching their boat on the sand. A young man asked the use of it until he could row two female friends of his to Bastien's, as they were afraid to return in the yachts. He said he would be sure to bring the boat back to Rock Bay, although he was mighty tired.

A Western paper itemises briefly thus: "Mrs. John Bagg, of Omaha, has left Mr. John Bagg, taking the money bags, and leaving John to hold the little empty bags." Wingfield has it in this fashion:

Mrs. John Bagg, of Omaha,
From Mr. John Bagg ran away.
She took the bags that held the money
And left the empty Bagg to Johnny.

Potatoe bugs are on the increase, and if they keep on as they are doing now, the crop of the valuable esculent will be decidedly limited. They appear to have a special hankering after tomatoe plants like-wise. Numerous remedies have been suggested. Paris-green, carbolic acid, and what not, but the best and in fact the only sure cure is fire. Catch all you can twice a day and put them in the stove.

THE CONCERT LAST EVENING.—We were sorry to see a comparatively small audience at Mechanics' Hall last evening, at the musical entertainment given by the Veselius sisters, in aid of the Mission Fund of the Y. Though the reserved seats were

Coal is becoming very expensive, and besides being that, is also very difficult to handle, when loss in weight is sure also to follow. Crude oil is plentiful, but the wells at present being pumped would not supply the demand were all the railways to use it and nothing else. Mr. Ribighini met this by saying that the area in Ontario for producing petroleum is immense and not yet fully known, and this new call upon the oil men would cause hundreds of oil wells to be sunk and give the trade great life and importance. Mr. Ribighini's apparatus for using the oil is wonderfully simple, and a locomotive can be fitted up for it in a few hours. Those who have seen coal tar in use in furnaces will have a tolerable idea, but not exactly correct. The G. W. R. officials, who are ever ready to meet the views of inventors where their ideas have worth stamped upon them, allowed Mr. Ribighini to experiment and permitted him to use the broad-gauge locomotive "St. Catharines," lying in the yard. A small tank was placed in the tender, from which a hose pipe runs to within about a foot of the stoke hole in the boiler, there the pipe divides in the shape of a T into two one-half inch pipes which, at a distance of probably two feet apart, and a few inches above the platform of the cab, enter the boiler. At the point of entrance two holes, about two and a half inches in diameter, are cut through the front of the fire hole. These are larger than the smaller pipe in order to allow a draught of cold air from without to the heat within, so that the apparatus there may be kept cool. From the drum on the boiler a pipe conducts steam to the loco. cab, where branching into two smaller ones the hot vapor descends to the floor and into a short pipe which surrounds (with a space between) the smaller pipe through which the oil is projected into the fire hole; so that it enters that place by the pressure or suction of the steam, which being directed through it in jets, so as to cut it, separates the gasses in the combustible. The plan is: that a fire is started in the box and kept up until some steam is generated in the boiler, when the oil is turned on, and by reason of the action of the steam playing around and upon the flaming petroleum, the entire heat is directed into the flues, so that the heat is all utilized. The time required to raise steam is much shorter than of old. Besides, the quantity of oil or steam can be easily regulated with a tap or shut off in an instant when required, thus allowing perfect control of the heating of the engine. The St. Catharines was tried yesterday, and ran well, the only difficulty being to keep steam down: this has been remedied, and this afternoon the engine will be tried in presence of the Mechanical Superintendent, the Locomotive Superintendent and other officials. Mr. Ribighini was assisted in his plans by the excellent advice of Mr. John McKee, and Mr. John Anderson, his foreman at Petrolia, where one 80 horse engine runs six wells, with a consumption of about 18 barrels of crude oil a day (\$30 in value as a commodity), while, when wood was used, 12 cords of the best dry were necessary, which cost \$3 per cord, besides a large expense for cutting, piling and hauling. We will refer to this matter again to-morrow.

SALTREE SCHOOL MATTERS.—The Muni-

Greenbacks and new ones
85 to 84; Selling at 86; to 87.
Gold opened in New York at 116; close
Sterling Exchange, 9; to —
Investments and sales of Canadian Debe
Bank Stocks effected.

The high premium on gold at the present time favors Canadian capitalists a favourable opportunity in American securities. The following and for sale:—

5-20 United States Bonds pay investors...
7-80 Northern Pacific Pfd Bonds " "
Detroit & Milwaukee Bonds " "
Pullman Palace Car Stock " "
Detroit Car Loan Stock " "

STINSON

STOCK MARKET—Reported by Huel
Stock Broker, 5 James street North
Ont. (2 P. M., June 18, 1873).

STOCKS.	Amt of Shares.	Divid rate.	Sell per \$
Bank of Montreal.....	\$200	16	177
Bank of Toronto.....	100	12	195
Ontario Bank.....	40	8	105
Merchants' Bank.....	100	8	111
Bank of Commerce.....	50	8	111
Bank of Hamilton.....	100	8	95
Royal Canadian Bank...	40	8	95
Bank of B. N. America...	250	10	10
Dominion Bank.....	50	8	10
Molson's Bank.....	50	8	B.
Exchange Bank.....	100	8	10
Metropolitan Bank.....	100	8	10
Quebec Bank.....	100	8	10
Mechanics' Bank.....	50	6	81
City Bank.....	100	6	9
Canada Perm't Build. So.	100	10	11
West. Canada " " " "	50	10	12
Union " " " "	50	10	11
Huron & Erie " " " "	50	10	11
Provincial " " " "	100	8	10
Imperial " " " "	50	8	10
Farin. & Mo. " " " "	25	8	10
Building & Loan Society.	25	8	10
Hamilton Prov. & Loan So.	100	8	10
Canada Landed Credit Co.	25	8	10
Montreal Telegraph Co.	40	10	1
Dominion Telegraph Co.	50	5	1
Canada Life Assurance Co.	50	8	1
Graphic Printing Co.....	100		
Detroit Car Loan Co.....	25	12	
3 A. Silver Mining Co.....	36		
Cornish Silver Mining Co	50		

HAMILTON MARK

WEDNES

GRAIN MARKET.

White Wheat (Dunlop and Soules)...	
Treadwell.....	
Winter Red.....	
Spring.....	
Barley.....	
Peas.....	
Oats.....	

FLOUR MARKET.

Superfine extra, per bbl.....	
Extra.....	
Superfine No. 1.....	
Do. No. 2.....	
Fine.....	
Common, per cwt.....	
Oatmeal " " brl.....	
Bran " " ton.....	
Shorts, fine do.....	
" coarse do.....	

DAIRY, VEGETABLE AND FRUIT MARKET.

Butter, in prints, fresh, per lb.....	
" rolls, " " "	
" tub " " "	
Cheese.....	
Eggs, per doz.....	
Honey.....	
Apples, per bag.....	
do. dried.....	
Potatoes, per bag.....	
Carrots per peck.....	
Turnips, per bush.....	
Onions.....	
do. for seed.....	
Beans per bush.....	

4 Niagara	(I) 4-4-0 16x22 72"	1853 Lowell #114
5 Hamilton	(I) 4-4-0 16x22 72"	1853 Lowell #113
6 London	(I) 4-4-0 16x22 72"	

These six engines are a bit of a mystery; Keefer describes them as outside connected but it is practically certain that they were inside connected; on the road they were known as the "Large Schenectady" class although nos. 3 to 6 were built by the Lowell Machine Shops. Keefer states that nos. 1 and 2 were Lowells also but the Lowell records indicate that that was not so. Mr. Spriggs believes that the "Hercules" and "Samson" were built at Schenectady but unfortunately the Schenectady records for that period are not complete. A likely explanation is that all six engines were ordered from the Schenectady Works and the first two were built there but, owing to the pressure of other work, the building of the remaining four was turned over to the Lowell Machine Shops on a sub-contract.

7 Middlesex	(I) 4-4-0 15x22 66"	1853 Schenectady #24
8 Lightning	(I) 4-4-0 14x22 66"	1853 Schenectady #54
9 Detroit	(I) 4-4-0 14x22 66"	1853 Schenectady #55
10 Lincoln	(I) 4-4-0 14x22 66"	1853 Schenectady #58
11 Windsor	(I) 4-4-0 14x22 66"	1853 Schenectady #59
12 Chatham	(I) 4-4-0 14x22 66"	1853 Schenectady #90
13 Paris	(I) 4-4-0 14x22 66"	1853 Schenectady #91
14 Woodstock	(I) 4-4-0 14x22 66"	1853 Schenectady #82
15 Essex	(I) 4-4-0 14x22 66"	1853 Lowell #123
16 Kent	(I) 4-4-0 14x22 66"	1853 Lowell #124
17 Elgin	(I) 4-4-0 14x22 66"	1853 Lowell #125
18 Norfolk	(I) 4-4-0 14x22 66"	1853 Lowell #126
19 Brant	(I) 4-4-0 14x22 66"	1853 Lowell #127
20 Wentworth	(I) 4-4-0 14x22 66"	1853 Lowell #128
21 Ontario	(O) 0-4-0 13x20 54"	1853 Souther
22 Erie	(O) 0-4-0 13x20 54"	1853 Souther
23 St. Clair	(O) 0-4-0 13x20 54"	1853 Souther
24 Huron	(O) 0-4-0 13x20 54"	1853 Souther
25 Superior	(O) 0-4-0 13x20 54"	1853 Souther
26 St. Lawrence	(O) 0-4-0 13x20 54"	

These Souther engines were better known under other names and as an entirely different type. When they were altered to standard gauge in 1870 they were changed from 0-4-0 tender engines to 0-4-4 tank engines. The "Huron" as the "Gilson Homan" was probably the best known.

27 Reindeer	(I) 4-4-0 16x21 72"	1853 Amoskeag #128
28 Elk	(I) 4-4-0 16x21 72"	1853 Amoskeag #129
29 Gazelle	(I) 4-4-0 16x21 72"	1853 Amoskeag #130
30 Stag	(I) 4-4-0 16x21 72"	1853 Amoskeag #131
31 Antelope	(I) 4-4-0 16x21 72"	1854 Amoskeag #132
32 Greyhound	(I) 4-4-0 16x21 72"	1854 Amoskeag #133
33 Michigan	(O) 0-4-0 13x20 54"	1854 Souther
34 Simcoe	(O) 0-4-0 13x20 54"	1854 Souther
35 Venus	(O) 4-4-0 15x22 72"	1853 Norris
36 Vesta	(O) 4-4-0 15x22 72"	1853 Norris
37 Minerva	(O) 4-4-0 15x22 72"	1853 Norris
38 Jupiter	(O) 4-4-0 15x22 72"	1853 Norris
39 Mercury	(O) 4-4-0 15x22 72"	1853 Norris
40 Mars	(I) 4-4-0 16x21 72"	1855 Fairbairn
41 Spitfire	(I) 4-4-0 16x21 72"	1855 Fairbairn
42 Firebrand	(I) 4-4-0 16x21 72"	1855 Fairbairn
43 Fire King	(I) 4-4-0 16x21 72"	

44 Firefly	(I) 4-4-0 16x21 72"	1855 Fairbairn
45 Hecate	(I) 4-4-0 16x21 72"	1855 Fairbairn
46 Hecla	(I) 4-4-0 16x21 72"	1855 Fairbairn

The Fairbairn engines originally were 2-4-0 type but were changed to 4-4-0 type in 1859 and 1860.

47 Atlas	(I) 0-6-0 16x24 60"	1854 Slaughter
48 Pluto	(I) 0-6-0 16x24 60"	1854 Slaughter
49 Milo	(I) 0-6-0 16x24 60"	1854 Slaughter
50 Elephant	(I) 0-6-0 16x24 60"	1854 Slaughter
51 Rhinoceros	(I) 0-6-0 16x24 60"	1854 Slaughter
52 Buffalo	(I) 0-6-0 16x24 60"	1854 Slaughter
53 Bison	(I) 0-6-0 16x24 60"	1854 Slaughter
54 Python	(I) 0-6-0 16x24 60"	1854 Slaughter
55 Welland	(I) 4-4-0 14x22 66"	1854 Schenectady
56 St. Catherines	(I) 4-4-0 14x22 66"	1854 Schenectady
57 Lion	(I) 0-6-0 16x24 60"	1855 Slaughter
58 Lioness	(I) 0-6-0 16x24 60"	1855 Slaughter
59 Tiger	(I) 0-6-0 16x24 60"	1855 Slaughter
60 Tigress	(I) 0-6-0 16x24 60"	1856 Slaughter
61 Leopard	(I) 0-6-0 16x24 60"	1856 Slaughter
62 Panther	(I) 0-6-0 16x24 60"	1856 Slaughter
63 Vulcan	(I) 0-6-0 16x24 60"	1856 Slaughter
64 Etna	(I) 0-6-0 16x24 60"	1856 Slaughter
65 Stromboli	(I) 0-6-0 16x24 60"	1856 Slaughter
66 Styx	(I) 0-6-0 16x24 60"	1856 Slaughter
67 Gem	(I) 4-4-0 16x21 72"	1856 Fairbairn
68 Ruby	(I) 4-4-0 16x21 72"	1856 Fairbairn
69 Emerald	(I) 4-4-0 16x21 72"	1856 Fairbairn
70 Sapphire	(I) 4-4-0 16x21 72"	1856 Fairbairn

These Fairbairn engines also were originally 2-4-0 type and changed to 4-4-0 Type in 1859 and 1860.

71 Mazeppa	(O) 4-4-0 15x20 72"	1856 Jones
72 Medea	(O) 4-4-0 15x20 72"	1856 Jones
73 Medusa	(O) 4-4-0 15x20 72"	1856 Jones

Bulletin 51 states that engines 71 to 73 were Birkenheads built by Peto, Brassey, Betts and Jackson and an official list of 1869 also indicates that they were Birkenheads. The Keefer list is the only one showing the name Jones; presumably the firm of Jones and Potts of Liverpool. Probably they were built by Jones and Potts for and from plans of Peto, Brassey, Betts and Jackson, whose works were then busily engaged in building locomotives for the Grand Trunk Railway and fabricating the iron for the Victoria Bridge.

74 Ajax	(O) 4-4-0 16x20 60"	1855 Birkenhead
75 Titan	(O) 4-4-0 16x20 60"	1855 Birkenhead
76 Minos	(O) 4-4-0 16x20 60"	1855 Birkenhead

Probably the Jones and Birkenhead engines originally were 2-4-0 type.

77 Castor	(I) 0-6-0 16x24 60"	1856 Slaughter
78 Pollux	(I) 0-6-0 16x24 60"	1856 Slaughter
79 Erebus	(I) 0-6-0 16x22 60"	1856 Stephenson
80 Cyclops	(I) 0-6-0 16x22 60"	1856 Stephenson
81 Ixion	(I) 0-6-0 16x22 60"	1856 Stephenson
82 Ariel	(I) 2-4-0 15x22 72"	1856 Stephenson #989
83 Oberon	(I) 2-4-0 15x22 72"	1856 Stephenson #990
84 Prospero	(I) 2-4-0 15x22 72"	1856 Stephenson #991

The wheel arrangement of the three Stephenson passenger engines was never changed from 2-4-0.

85 Diadem	(I) 4-4-0 16x21 72"	1857 Fairbairn
86 Diamond	(I) 4-4-0 16x21 72"	1857 Fairbairn

Also originally 2-4-0 type.

87 Achilles	(I) 0-6-0 16x22 60"	1857 Gunn #4
88 Bacchus	(I) 0-6-0 16x22 60"	1857 Gunn #5

Keefer's list shows that these engines were 2-4-0 type which must have been a typographical error; it is practically certain that they were 0-6-0 type.

89 George Stephenson	(I) 0-6-0 16x24 60"	1860 Great Western #1
90 Scotia	(I) 0-6-0 16x24 60"	1860 Great Western #2
91 Erin	(I) 0-6-0 16x24 60"	1860 Great Western #3

The "Scotia" and "Erin" did not go into service until January and February 1861 but evidently they were so near completion on December 31st 1860 that Keefer included them in his list.

Locomotives Scrapped Prior to 1860:

Oxford	(I) 4-4-0 14x22 66"	1853 Schenectady #23
Chippewa	(I) 4-4-0 14x22 66"	1854 Schenectady #99

The "Oxford" was destroyed on March 12th 1857 in the Desjardins Canal bridge disaster and the "Chippewa" in some unknown accident.

In addition to the regular road engines there were some small and interesting contractor's dinkies. Zerah Colburn, in his "Locomotive Engineering," edition of 1871, states on page 84, "The spreading of the firebox to a width greater than that of the gauge of the line, by placing the firebox entirely behind the wheels, has been carried out by the author in a number of 6 ton tank engines which were designed and made, early in 1852, for a contractor's line of 3 feet 3 inch gauge, that of the permanent way (the Great Western Railway of Canada) being 5 feet 6 inches." These engines were built in the New Jersey Locomotive Works. What final disposition was made of them is not known but they did not remain in Canada.

Other rolling stock:

First class passenger cars,	12 wheels	25
First class	8 wheels	58
Second class	8	44
Baggage	12	10
Baggage	8	10
Box cars	8	860
Box cars	4	100
Vans	8	33
Platform	8	250
Gravel	4	120
Timber	16	6
Timber	4	6
Hand cars		50

GRAND TRUNK RAILWAY OF CANADA—(5'6"—C.N.R.)

St. Lawrence and Atlantic Railroad chartered in 1845; Quebec and Richmond Railway chartered in 1850; Grand Trunk Railway chartered in 1852; in 1853 the amalgamation of the Grand Trunk Railway of Canada East, Toronto and Guelph Railway, St. Lawrence and Atlantic Railroad, Quebec and Richmond Railway, Grand Junction Railway and Grand Trunk Railway of Canada, and lease of Atlantic and St. Lawrence Railroad, under the name Grand Trunk Railway of Canada.

Longueuil	St. Hyacinthe	Aug. 1847	30 miles
St. Hyacinthe	Sherbrooke	Aug. 1852	66
Sherbrooke	Province Line	Jul. 1853	30
Richmond	Point Levi	Nov. 27th 1854	96
Montreal	Brockville	Nov. 19th 1855	125
Chaudiere Jct.	Montmagny	Dec. 23rd 1855	41
Toronto	Guelph	Jul. 1856	50
Toronto	Oshawa	Aug. 1856	33
Brockville	Oshawa	Oct. 27th 1856	175
Guelph	Stratford	Nov. 17th 1856	39
Stratford	London	Sep. 27th 1858	31
St. Marys	Sarnia	Nov. 21st 1859	70
Victoria Bridge and approaches		Dec. 16th 1859	6
Montmagny	St. Pascal	Dec. 31st 1859	53
St. Pascal	Riviere du Loup	Nov. 10th 1860	25
Kingston Jct.	Kingston	Nov. 10th 1860	2

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Locomotives:

A roster of Grand Trunk locomotives was included in the Company's annual report for 1859 and similar lists as of 1860 appeared in several government reports but in every case the engines were listed by road numbers and the names were not shown. The 1859 list appeared in Bulletin 25. Builders' records usually show the names but not the road numbers. The following list is the first one to be published in which an effort has been made to assign names and builders' numbers to the road numbers. That it contains errors there can be no doubt and it certainly is incomplete as many names are no longer known but it represents the best possible list available now.

It will be noted that a considerable number of Amoskeag engines were received in 1856 and 1857 after the Amoskeag Company had stopped making locomotives.

Pictures of nos. 26, 50, 69 and 209 will be found in Bulletins 18 and 25.

The early Birkenhead engines were of two types, 2-2-2 for passenger service and 2-4-0 for freight service but in their original form they were very unsatisfactory and all but three of them were changed to 4-4-0 type. Nos. 23, 45 and 70 were changed to 4-2-2 type.

Three Grand Trunk locomotives disappeared prior to 1860; two of them were no. 5 "Britannia" and no. 6 "Princess, 2-2-2 type engines built in 1847 by Kinmond of Dundee, Scotland, for the St. Lawrence and Atlantic Railroad. In 1853 they were reported to be completely worn out and not worth repairing.

In 1856 no. 14, a Canadian Kinmond, ran off the track and was lost in the swamp near where the Turcot roundhouse now stands.

In addition to the regular road locomotives, the Portland Company built three for Wood, Black & Co., and these might have been used for a time on the construction of the St. Lawrence and Atlantic Railroad:

Jenny Lind	4-4-0	15x20	66"	1850	Portland #18
Consuelo	4-4-0	13x20	60"	1852	Portland #31
William Jackson	4-4-0	15x22	60"	1854	Portland #62
1 A. N. Morin	(I)	4-4-0	15x22	60"	23½ tons 1848 Portland #3
2 Montreal	(I)	4-4-0	15x22	66"	23¼ tons 1850 Portland #15
3 Sherbrooke	(I)	4-4-0	16x22	66"	23¼ tons 1850 Portland #17
4 St. Lawrence	(I)	4-4-0	15x20	66"	23¼ tons 1851 Portland #25
5	(O)	2-2-2	15x20	72"	23¼ tons 1855 Birkenhead
6	(O)	2-2-2	15x20	72"	23¼ tons 1855 Birkenhead
7 Magog	(I)	4-4-0	16x24	60"	23½ tons 1852 Hinkley #380
8 St. Francis	(I)	4-4-0	16x24	60"	23½ tons 1852 Hinkley #384
9 Richelieu	(I)	4-4-0	15x22	66"	24 tons 1851 Portland #26
10	(I)	4-4-0	14x21	60"	22¼ tons 1854 Kinmond #6
11 Coaticook	(I)	4-4-0	16x24	54"	25¼ tons 1852 Amoskeag #62
12 Nulhegan	(I)	4-4-0	16x24	54"	25¼ tons 1852 Amoskeag #63
13 Manchester	(I)	4-4-0	16x20	66"	25¼ tons 1852 Amoskeag #64
14	(O)	4-4-0	16x22	60"	25½ tons 1858 Portland #94
15 St. Hyacinthe	(I)	4-4-0	16x24	54"	25½ tons 1853 Amoskeag #65
16 Upton	(I)	4-4-0	16x20	66"	25½ tons 1853 Amoskeag #66
17	(I)	4-4-0	16x24	66"	26 tons 1853 Kinmond #1
18 Acton	(I)	4-4-0	16x24	54"	25 tons 1853 Amoskeag #67
19 Prince Albert	(I)	4-4-0	16x20	66"	25 tons 1853 Amoskeag #68
20	(I)	4-4-0	15x24	60"	26½ tons 1853 Kinmond #2
21	(I)	4-4-0	16x20	66"	24½ tons 1854 Hinkley #496
22	(I)	4-4-0	16x20	66"	24½ tons 1854 Hinkley #497
23	(O)	2-2-2	15x20	72"	23½ tons 1855 Birkenhead
24	(I)	4-4-0	17x20	60"	24¾ tons 1854 Hinkley #498
25	(I)	4-4-0	15x21	66"	28 tons 1854 Kinmond #7
26	(O)	4-4-0	14x22	66"	21 tons 1854 Portland #58
27	(O)	4-4-0	14x20	60"	21 tons 1854 Amoskeag #134
28	(O)	4-4-0	14x20	60"	21 tons 1854 Amoskeag #135
29	(O)	4-4-0	16x24	60"	26½ tons 1854 Kinmond #4
30	(O)	4-4-0	16x24	66"	26 tons 1854 Kinmond #5
31	(O)	4-4-0	16x24	60"	26½ tons 1854 Kinmond #3
32	(O)	4-4-0	16x24	60"	27½ tons 1854 Amoskeag #137
33	(O)	4-4-0	16x24	60"	27½ tons 1854 Amoskeag #136
34	(O)	4-4-0	16x22	66"	26 tons 1854 Good #6
35	(I)	4-4-0	17x20	72"	26½ tons 1854 New Jersey
36	(I)	4-4-0	17x20	72"	26½ tons 1854 New Jersey
37	(O)	4-4-0	16x20	60"	25¼ tons 1854 Amoskeag #170
38	(O)	4-4-0	16x20	60"	25¼ tons 1854 Amoskeag #171
39	(O)	4-4-0	16x20	60"	25¼ tons 1855 Amoskeag #172
40	(O)	4-4-0	16x20	60"	25¼ tons 1855 Amoskeag #173
41 Lady Elgin	(O)	2-2-2	15x20	72"	25¼ tons 1854 Birkenhead
42	(O)	2-2-2	15x20	72"	25¼ tons 1855 Birkenhead
43	(O)	2-2-2	15x20	72"	25¼ tons 1855 Birkenhead
44	(O)	2-2-2	15x20	72"	25¼ tons 1855 Birkenhead
45	(O)	2-2-2	15x20	72"	23½ tons 1855 Birkenhead
46	(O)	2-4-0	16x20	60"	25½ tons 1855 Birkenhead
47	(O)	2-4-0	16x20	60"	25½ tons 1855 Birkenhead
48	(O)	2-4-0	16x20	60"	25½ tons 1855 Birkenhead
49	(O)	2-4-0	16x20	60"	25½ tons 1855 Birkenhead

50	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
51	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
52	(O)	2-4-0	16x20	60"	25¼ tons 1856 Birkenhead
53	(I)	4-4-0	17x20	60"	25¼ tons 1854 Hinkley #499
54	(O)	4-4-0	15x24	60"	23½ tons 1855 Portland #73
55	(O)	4-4-0	15x24	60"	23½ tons 1856 Portland #74
56	(I)	4-4-0	16x20	60"	24¾ tons 1856 Portland #76
57	(O)	4-4-0	16x20	60"	25½ tons 1858 Birkenhead
58	(O)	4-4-0	16x20	60"	25½ tons 1858 Birkenhead
59	(O)	4-4-0	16x20	60"	25½ tons 1858 Birkenhead
60	(O)	4-4-0	16x20	60"	25½ tons 1858 Birkenhead
61	(O)	4-4-0	16x20	60"	25½ tons 1858 Birkenhead
62	(O)	4-4-0	16x20	60"	25½ tons 1858 Birkenhead
63	(O)	4-4-0	16x20	60"	25½ tons 1858 Birkenhead
64	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
65	(O)	2-2-2	15x20	72"	25¼ tons 1855 Birkenhead
66	(O)	2-2-2	15x20	72"	25¼ tons 1856 Birkenhead
67	(O)	2-2-2	15x20	72"	25¼ tons 1855 Birkenhead
68	(I)	4-4-0	16x20	66"	24½ tons 1856 Portland #77
69	(O)	2-2-2	15x20	72"	25¼ tons 1855 Birkenhead
70	(O)	2-2-2	15x20	72"	25¼ tons 1856 Birkenhead
71	(O)	4-4-0	15x21	66"	28 tons 1856 Kinmond #10
72	(I)	4-4-0	16x20	60"	24¾ tons 1856 Portland #83
73	(I)	4-4-0	16x20	60"	24¾ tons 1856 Portland #84
74	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
75	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
76	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
77	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
78	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
79	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
80	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
81	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
82	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
83	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
84	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
85	(O)	2-4-0	16x20	60"	25½ tons 1856 Birkenhead
86	(O)	4-4-0	15x21	66"	28 tons 1856 Kinmond #11
87	(O)	4-4-0	15x21	66"	28 tons 1856 Kinmond #12
88	(I)	4-4-0	15x20	66"	24 tons 1856 Kingston #1
89	(I)	4-4-0	15x20	66"	24 tons 1856 Kingston #2
90	(I)	4-4-0	15x20	66"	24 tons 1856 Kingston #3
91	(I)	4-4-0	15x20	66"	24 tons 1856 Kingston #4
92	(I)	4-4-0	15x20	66"	24 tons 1856 Kingston #5
93	(I)	4-4-0	15x20	66"	24 tons 1857 Kingston #6
94	(O)	4-4-0	15x20	72"	25¼ tons 1856 Manchester #7
95	(O)	4-4-0	15x20	72"	25¼ tons 1856 Manchester #8
96	(O)	4-4-0	15x20	72"	25¼ tons 1856 Manchester #9
97	(O)	4-4-0	15x20	72"	25¼ tons 1856 Manchester #10
98	(O)	4-4-0	15x20	72"	25¼ tons 1856 Manchester #11
99	(O)	4-4-0	15x20	72"	25¼ tons 1856 Manchester #12
100	(O)	4-4-0	15x20	72"	25¼ tons 1856 Manchester #13
101 Montreal	(I)	4-4-0	15x22	60"	23½ tons 1848 Portland #2
102 Machigonne	(I)	4-4-0	15x22	60"	23½ tons 1848 Portland #5
103 Oxford	(I)	4-4-0	15x22	60"	22¾ tons 1849 Portland #6
104 Wm. F. Preble	(I)	4-4-0	15x20	66"	24¾ tons 1849 Portland #8
105 Waterville	(I)	4-4-0	15x20	66"	22¼ tons 1849 Portland #13
106 Coos	(I)	4-4-0	15x20	66"	22½ tons 1850 Portland #14
107 Felton	(I)	4-4-0	15x22	60"	22½ tons 1851 Portland #19
108 Railway King	(I)	4-4-0	17x22	60"	24¼ tons 1851 Portland #20

109	Casco	(I)	4-4-0	14x20	60"	22¼	tons	1851	Portland #28
110	Forest City	(I)	4-4-0	15x20	66"	22¼	tons	1852	Portland #29
111	Danville	(I)	4-4-0	13x20	60"	20	tons	1852	Portland #30
112	Falmouth	(I)	4-4-0	14x22	56"	22½	tons	1852	Portland #32
113	Daniel Webster	(I)	4-4-0	15x20	60"	22¼	tons	1852	Portland #36
114	Cumberland	(I)	4-4-0	16x22	60"	24¼	tons	1853	Portland #40
115	Nulhegan, Re. Mich.	(I)	4-4-0	14x22	66"	21½	tons	1853	Portland #42
116	Paris	(I)	4-4-0	15x22	60"	23½	tons	1853	Portland #43
117	Norway	(I)	4-4-0	16x22	60"	24¼	tons	1853	Portland #41
118	Yarmouth	(I)	4-4-0	15x22	60"	24	tons	1853	Portland #45
119	Amonoosuc	(I)	4-4-0	15x22	60"	24	tons	1853	Portland #46
120	Gloucester	(I)	4-4-0	15x22	66"	23½	tons	1853	Portland #44
121	Vermont	(O)	4-4-0	16x22	60"	24¼	tons	1853	Portland #48
122	Gorham	(I)	4-4-0	14x22	72"	22	tons	1853	Portland #49
123	J. S. Little	(I)	4-4-0	15x22	72"	23½	tons	1853	Portland #56
124	United States	(O)	4-4-0	15x24	60"	23¾	tons	1854	Hinkley #504
125	Canada	(O)	4-4-0	15x24	60"	23¾	tons	1854	Hinkley #505
126	Berlin	(I)	4-4-0	15x20	66"	22¼	tons	1854	Portland #57
127	Shelbourne	(I)	4-4-0	16x20	63"	25½	tons	1857	Portland #85
128	Oxford	(I)	4-4-0	15x22	63"	22¾	tons	1854	Portland #50
129	Bethel	(I)	4-4-0	15x22	63"	22¾	tons	1854	Portland #61
130	St. John Smith	(I)	4-4-0	14x22	72"	22	tons	1854	Portland #59
131	Stratford	(I)	4-4-0	14x22	72"	22	tons	1854	Portland #60
132	Wm. Jackson	(I)	4-4-0	14x20	66"	21	tons	1854	Portland #62
133		(I)	4-4-0	17x20	60"	24¾	tons	1854	Hinkley #527
134		(I)	4-4-0	17x20	66"	24¾	tons	1854	Hinkley #528
135	C. E. Barret	(I)	4-4-0	16x20	66"	25¾	tons	1857	Portland #86
136	J. M. Wood	(O)	4-4-0	16x20	66"	24¾	tons	1854	Portland #67
137	Massawippi	(I)	4-4-0	16x24	60"	28¾	tons	1852	Portland #35
138		(O)	4-4-0	16x20	60"	26	tons	1854	Good #7
139	Yamaska	(I)	4-4-0	15x22	60"	24	tons	1851	Portland #27
140	Queen	(I)	4-4-0	16x22	60"	24	tons	1852	Portland #34
141		(O)	4-4-0	16x20	60"	26	tons	1856	Good #15
142		(I)	4-4-0	17x20	66"	27	tons	1858	Good #18
143		(O)	4-4-0	16x20	60"	26	tons	1857	Good #16
144	Minot	(O)	4-4-0	16x22	60"	29¾	tons	1859	Portland #103
145		(O)	2-4-0	16x20	60"	25½	tons	1856	Birkenhead
146		(O)	2-4-0	16x20	60"	25½	tons	1856	Birkenhead
147		(O)	4-4-0	16x20	60"	25	tons	1856	Manchester #31
148		(O)	4-4-0	16x20	60"	25	tons	1856	Manchester #32
149		(O)	4-4-0	16x20	60"	25	tons	1856	Manchester #33
150		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
151		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
152		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
153		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
154		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
155		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
156		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
157		(O)	4-4-0	16x20	60"	25	tons	1857	Amoskeag
158		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
159		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
160		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
161		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
162		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
163		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
164		(O)	4-4-0	16x20	60"	25	tons	1856	Amoskeag
165	Pownal	(I)	4-4-0	16x20	60"	25½	tons	1857	nd #87
166	J. B. Brown	(I)	4-4-0	16x20	66"	25½	tons	1857	Portland #88
167		(O)	4-4-0	16x22	60"	29¾	tons	1858	Portland #95

168	Ham	(I)	4-4-0	15x21	66"	29¾	tons	1857	Gunn #1
169	Shem	(I)	4-4-0	15x21	66"	29¾	tons	1857	Gunn #2
170	Japhet	(I)	4-4-0	15x21	66"	29¾	tons	1857	Gunn #3
171		(I)	4-4-0	16x22	56"	24	tons	1857	Kingston #7
172		(I)	4-4-0	16x22	56"	24	tons	1857	Kingston #8
173		(I)	4-4-0	16x20	66"	24	tons	1857	Kingston #13
174		(I)	4-4-0	16x20	66"	24	tons	1857	Kingston #14
175		(O)	4-4-0	16x24	60"	28¼	tons	1857	Amoskeag
176		(O)	4-4-0	16x24	60"	28¼	tons	1858	Amoskeag
177		(O)	4-4-0	16x24	60"	28¼	tons	1858	Amoskeag
178		(O)	4-4-0	16x24	60"	28¼	tons	1858	Amoskeag
179		(O)	4-4-0	16x24	60"	28¼	tons	1858	Amoskeag
180		(O)	4-4-0	16x24	60"	28¼	tons	1858	Amoskeag
181		(O)	4-4-0	16x24	60"	28¼	tons	1859	Amoskeag
182		(O)	4-4-0	16x24	60"	28¼	tons	1859	Amoskeag
183		(O)	4-4-0	16x24	60"	28¼	tons	1859	Amoskeag
184		(I)	4-4-0	16x22	60"	24	tons	1859	Kingston #21
185		(I)	4-4-0	16x22	60"	24	tons	1859	Kingston #22
186		(O)	4-4-0	16x20	60"	26	tons	1859	Good
187		(O)	4-4-0	16x20	60"	25½	tons	1857	Birkenhead
188		(O)	4-4-0	16x20	60"	25½	tons	1857	Birkenhead
189		(O)	4-4-0	16x20	60"	25½	tons	1857	Birkenhead
190		(O)	4-4-0	16x20	60"	25½	tons	1857	Birkenhead
191		(O)	4-4-0	16x20	60"	26¾	tons	1857	Birkenhead
192		(O)	4-4-0	16x20	60"	26¾	tons	1857	Birkenhead
193		(O)	4-4-0	16x20	60"	26¾	tons	1857	Birkenhead
194		(O)	4-4-0	16x20	60"	26¾	tons	1857	Birkenhead
195		(I)	4-4-0	15x21	66"	29¾	tons	1857	Gunn #6
196		(I)	4-4-0	15x21	66"	29¾	tons	1857	Gunn #7
197		(I)	4-4-0	15½x21	66"	29¾	tons	1858	Gunn #8
198		(I)	4-4-0	15½x21	66"	29¾	tons	1858	Gunn #9
199		(I)	4-4-0	15½x21	66"	29¾	tons	1858	Gunn #10
200		(I)	4-4-0	15½x21	66"	29¾	tons	1858	Gunn #11
201		(I)	4-4-0	15½x21	66"	29¾	tons	1858	Gunn #12
202		(I)	4-4-0	15½x21	66"	29¾	tons	1858	Gunn #14
203	Prince	(I)	4-4-0	16x22	56"	24	tons	1857	Kingston #15
204	Florence Nightingale	(I)	4-4-0	16x22	56"	24	tons	1858	Kingston #16
205	Havelock	(I)	4-4-0	16x24	60"	24	tons	1859	Kingston #17
206	James Morton	(I)	4-4-0	16x24	60"	24	tons	1859	Kingston #18
207	James McMaster	(I)	4-4-0	16x20	66"	24	tons	1859	Kingston #19
208	Benson	(I)	4-4-0	16x20	66"	24	tons	1859	Kingston #20
209	Trevithick	(O)	4-4-0	16x24	60"	29	tons	1859	Grand Trunk Ry. #1000
210	Presumpscott	(O)	4-4-0	16x22	60"	25½	tons	1860	Portland #106
211		(O)	4-4-0	16x22	60"	25½	tons	1860	Portland #107
212		(I)	4-4-0	15x20	66"	29¾	tons	1860	Gunn #16

Other Rolling Stock:

First class passenger cars,	8 wheels	92
Second class	, 8	49
Composite	, 8	2
Baggage	, 8	58
Box cars	, 8	1625
Cattle	, 8	51
Platform	, 8	1068
Vans	, 8	34
Gravel	, 8	107
Gravel	, 4	26
Snow ploughs		34

CARILLON AND GRENVILLE RAILWAY—(5'6"—C.N.R.)

Incorporated in 1853 as the Montreal and Bytown Railway and name changed to Carillon and Grenville Railway in 1859. This railway survived as a broad gauge line until 1914.

Carillon Grenville Oct. 25th 1854 12.75 miles

Locomotives:

- 1 Ottawa (I) 4-4-0 15x24 66" 27 tons 1854 Kinmond, Montreal
- 2 Grenville (I) 4-4-0 12x18 57" 17 tons 1859 D. C. Gunn, Hamilton

A picture of the "Grenville" was printed in Bulletins 22 and 25 but in both cases it was incorrectly described as the "Carillon" built by Kinmond. Actually the "Carillon" was a Birkenhead engine bought from the Grand Trunk many years later.

Other Rolling Stock:

First class passenger cars,	8 wheels	2
Second class	8	3
Baggage	8	2
Platform	8	3
Hand car	8	1

ST. LAWRENCE AND INDUSTRIE VILLAGE RAILROAD (4'8½"—C.P.R.)

Incorporated July 28th 1847
Lanoraie Industrie (Joliette) May 1st 1850 12 miles

Locomotives:

- 1 Dorchester (I) 4-2-0 10x16 48" 8 tons 1836 Stephenson #126
Bought from the Champlain and St. Lawrence Railroad in 1849.
- 2 Jason C. Pierce (O) 4-4-0 10¾x20 46½" 12 tons 1837 Norris
Bought from the Champlain and St. Lawrence Railroad in 1850.

In the fall of 1860 the locomotive "Montreal" of the Champlain and St. Lawrence Railroad was bought but, as apparently it was not delivered until the following year, it does not appear in this list.

Other Rolling Stock:

First class passenger cars,	4 wheels	1
Second class	4	3
Baggage	4	2
Box	4	1
Platform	8	12
Gravel	4	3
Hand cars		

PORT HOPE, LINDSAY AND BEAVERTON RAILWAY (5'6"—C.N.R.)

Peterborough and Port Hope Railway incorporated December 26th 1846; name changed to Port Hope, Lindsay and Beaverton Railway in 1854.

Port Hope	Lindsay	Dec. 30th 1857	43.
Millbrook	Peterborough	Aug. 18th 1858	13.5
			56.5 miles

Locomotives:

- 1 Hope (O) 4-6-0 16x22 54" 28 tons 1856 Amoskeag
- 2 Lindsay (O) 4-6-0 16x22 54" 28 tons 1856 Amoskeag
- 3 Clifton (I) 4-4-0 15x20 60" 22 tons 4-1858 Manchester
- 4 Havelock (I) 4-4-0 16x22 60" 26 tons 6-1858 Kingston #10

PETERBOROUGH BRANCH

- 1 Queen (I) 4-4-0 16x22 60" 28 tons 1857 Kingston #9

The Peterborough Branch, from Millbrook to Peterborough, was built and operated by Tate and Fowler, the contractors, and was not turned over to the railway company until 1866, at which time the "Queen" became No. 5.

Other Rolling Stock:

First class passenger cars,	8 wheels	4
Baggage cars	8	3
Box cars	8	21
Platform cars	8	58
Gravel cars	4	25
Hand cars		11

WELLAND RAILWAY—(5'6"—C.N.R.)

Port Dalhousie and Thorold Railway incorporated 1853; name changed to Welland Railway in 1857.

Port Dalhousie Port Colborne June 27th 1859 25 miles

According to the Biography of Hon. W. H. Merritt, M. P., page 422, the Welland Railway was completed on October 8th 1858. The later date may indicate the official opening of the road for regular service.

Locomotives:

- 1 Grantham 4-4-0 12x19 55" 13 tons 1856 Schenectady #154
- 2 Chippewa 4-4-0 14½x20 60" 16 tons 1858 Hinkley
- 3 Ontario 4-4-0 16x22 60" 24 tons 1858 Hinkley #657
- 4 Erie 4-4-0 15½x24 66" 26 tons 1859 D. C. Gunn

In 1860 the "Erie" was renamed "Amazon."

Other Rolling Stock:

First class passenger cars,	8 wheels	2
Baggage cars	8	1
Box cars	8	75
Platform cars	8	11
Grain cars	4	50
Hand cars		6

NORTHERN RAILWAY OF CANADA—(5' C.N.R.)

Incorporated August 29th 1849 as the Toronto, Simcoe and Lake Huron Union Railroad; changed in 1850 to Ontario, Simcoe and Huron Union Railroad; construction started October 15th 1851; changed in 1858 to Northern Railway of Canada.

Toronto	Aurora	May 16th 1853	29.7
Aurora	Bradford	June 13th 1853	11.5
Bradford	Allandale	Oct. 11th 1853	21.5
Lefroy	Belle Ewart	May 2nd 1854	0.7
Allandale	Collingwood	June 2nd 1855	31.4
Allandale	Barrie	June 10th 1859	1.3
			96.1 miles

Locomotives:

1 Lady Elgin	(I)	4-4-0	14x20	60"	24¾ tons	1852	Portland #33
2 Toronto	(O)	4-4-0	16x22	54"	29¾ tons	1853	Good #1
3 Josephine	(I)	4-4-0	17x20	72"	29½ tons	1853	New Jersey
4 Huron	(I)	4-4-0	17x20	60"	28¾ tons	1853	New Jersey
5 Ontario	(I)	4-4-0	17x20	60"	28¾ tons	1853	New Jersey
6 Simcoe	(O)	4-4-0	16x22	54"	32¼ tons	1853	Good
7 Collingwood	(I)	4-4-0	17x20	60"	28½ tons	1853	New Jersey
8 Seymour	(I)	4-4-0	17x20	60"	28¾ tons	1853	New Jersey
9 Hercules	(I)	0-6-0	18x20	54"	33¼ tons	1854	Good
10 Sampson	(I)	0-6-0	18x20	54"	33¼ tons	1854	Good

In 1857 the Hercules and Sampson were altered to 4-6-0 type.

11	(O)	4-4-0	16x20	60"	29¾ tons	1855	Good
12	(I)	4-4-0	17x20	66"	31½ tons	1855	Good
13 George Beatty	(I)	0-6-0	18x20	54"	29¾ tons	1855	Good

In 1857 No. 13 was rebuilt:

14	(I)	4-4-0	18x20	66"	30¾ tons	1855	New Jersey
15	(I)	4-4-0	17x20	60"	29½ tons	1855	New Jersey
16 J. C. Morrison	(I)	4-4-0	17x20	66"	30¾ tons	1855	Good
17 Cumberland	(I)	0-6-0	18x20	54"	29¾ tons	1855	Good

In 1857 No. 17 was rebuilt:
4-4-0 18x20 66"

Pictures of the "Lady Elgin," the "Toronto" and the "Josephine" will be found in Bulletin 25.

The Josephine was one of the most famous of Canadian locomotives and Cyrus Hockett, her driver, was the popular hero of the day as the song "Dandy Cye of the Josephine" attests:

"I dressed myself from top to toe,
And out from Toronto I did go;
My hair all combed so slick and fine
I looked as prim as the Josephine.
My superintendent told me, oh!
I'se the best looking driver in the country, oh!
I looked in the glass and found it so,
Just as Brundel had told me, Oh!"

The cars included 13 first class coaches, 7 second class and 6 baggage cars, all with eight wheels; 108 box cars, 158 platform cars, 7 vans, 1 refrigerator car—the first one in Canada, 16 spar cars to carry pine masts and spars some of which were over 100 feet long. There were also 6 hand cars.

BUFFALO AND LAKE HURON RAILWAY—(5'6"—C.N.R.)

Incorporated in 1852 as the Buffalo, Brantford and Goderich Railway; construction started 1853; name changed to Buffalo and Lake Huron Railway in 1856.

Fort Erie	Paris	Nov. 1st 1856	83.
Paris	Stratford	Dec. 22nd 1856	33.
Stratford	Goderich	June 28th 1858	45.
From temporary terminus to station at East Street, Goderich		May 16th 1860	1.27
			162.27

Locomotives:

1 Goderich	(O)	4-4-0	16x22	66"	23 tons	1856	Schenectady #52
2 Waterloo	(O)	4-4-0	16x22	72"	23 tons	1856	Schenectady #53
3 Caledonia	(O)	4-4-0	15x22	66"	23 tons	1856	Schenectady #67
4 Cayuga	(O)	4-4-0	15x22	66"	23 tons	1856	Schenectady #86
5 Dunville	(O)	4-4-0	15x22	66"	20 tons	1857	Springfield
6 Stratford	(O)	4-4-0	15x22	66"	20 tons	1858	Springfield
7 Victoria	(O)	4-4-0	15x22	66"	20 tons	1856	Springfield
8 Welland	(O)	4-4-0	15½x22	66"	23 tons	1857	Jas. Good
9 Huron	(O)	4-4-0	15x22	66"	23 tons	1854	Schenectady #87

The "Huron" was destroyed in a wreck in 1857.

10 Superior	(O)	4-4-0	16x22	72"	25¼ tons	1856	Springfield
11 Erie	(O)	4-4-0	16x22	60"	23¾ tons	1856	Springfield
12 Haseltine	(I)	4-4-0	16x22	66"	24¾ tons	1856	Schenectady #171
13 Powell	(I)	4-4-0	16x22	66"	24¾ tons	1856	Schenectady #172
14 Brant	(I)	4-4-0	16x22	66"	24¾ tons	1856	Schenectady #175
15 Buffalo	(I)	4-4-0	16x22	66"	24¾ tons	1856	Schenectady #176
16 Michigan	(I)	4-4-0	16x22	66"	24¾ tons	1857	Schenectady #182
17 Chicago	(I)	4-4-0	16x22	66"	24¾ tons	1857	Schenectady #183
18 Minnesota	(I)	4-4-0	16x22	60"	24¾ tons	1857	Schenectady #178
19 Milwaukee	(I)	4-4-0	16x22	60"	24¾ tons	1857	Schenectady #179
20 Illinois	(I)	4-4-0	16x22	66"	24¾ tons	1857	Schenectady #190
21 Wisconsin	(I)	4-4-0	16x22	66"	24¾ tons	1857	Schenectady #191
22 Iowa	(I)	4-4-0	16x22	66"	24¾ tons	1857	Schenectady #193
23 Saginaw	(I)	4-4-0	16x22	66"	24¾ tons	1857	Schenectady #196
24 Paris	(I)	4-4-0	16x22	66"	24¾ tons	1857	Schenectady #197
25 Oxford	(I)	4-4-0	16x22	60"	24¾ tons	1857	Schenectady #200
26 Perth	(I)	4-4-0	16x22	60"	24¾ tons	1858	Schenectady #202
27 Haldimand	(I)	4-4-0	16x22	66"	24¾ tons	1858	Schenectady #204
28 Boxer	(I)	0-4-0	15x20	56"	18¼ tons	1857	Hinkley
29 Growler	(I)	0-4-0	15x20	56"	18¼ tons	1857	Hinkley

The dates indicate in most cases when the engines were put to work.

Other Rolling Stock:

First class passenger cars.	8 wheels	18	Platform,	8 wheels	96
Second class	8	6	Gravel	8	24
Baggage	8	12	Gravel	4	74
Box	8	218	Hand cars		6

BUILDERS OF THE LOCOMOTIVES USED IN CANADA JULY 1836 TO DECEMBER 31st 1860

Great Britain

Robert Stephenson & Co.,	Newcastle	9
Timothy Hackworth	New Shildon	3
Kinmond, Hutton & Steel	Dundee	5
Peto, Brassey, Betts & Jackson	Birkenhead	53
W. Fairbairn & Co.	Manchester	12
Stothert, Slaughter & Co.	Bristol	20
Jones & Potts	Liverpool	3
R. B. Longridge	Bedlington	1
Rayne & Burn	Newcastle	2
R. Neilson & Co.	Glasgow	14
Unknown		2
		<hr/> 124

United States

Wm. Norris	Philadelphia, Pa.	9
M. W. Baldwin	Philadelphia, Pa.	2
Portland Co.	Portland, Me.	66
Taunton Loco. Works	Taunton, Mass.	5
Amoskeag Manufacturing Co.	Manchester, N. H.	53
Manchester Loco. Works	Manchester, N. H.	11
Lowell Machine Shops	Lowell, Mass.	10
Schenectady Loco. Works	Schenectady, N. Y.	38
John Souther, Globe Works	Boston, Mass.	8
New Jersey Loco. Works	Paterson, N. J.	9
Springfield Car & Engine Co.	Springfield, Mass.	6
H. Hinkley	Boston, Mass.	28
Matfield Manufacturing Co.	East Bridgewater, Mass.	1
Uncertain		1
		<hr/> 247

Province of Canada

James Good	Toronto, U. C.	19
Kinmond Bros.	Montreal, L. C.	12
Ontario Foundry	Kingston, U. C.	22
Dan. C. Gunn	Hamilton, U. C.	16
Grand Trunk Railway	Montreal, L. C.	1
Great Western Railway	Hamilton, U. C.	3
		<hr/> 73

Province of New Brunswick

Fleming & Humbert	Saint John, N. B.	5
		<hr/> 449

Total

GREAT WESTERN RAILWAY OF CANADA—(5'6"—C.N.R.)

Incorporated in 1834 as the London and Gore Railway.

Suspension Bridge	Hamilton	Nov. 10th 1853	43 miles
Hamilton	London	Dec. 21st 1853	76
London	Windsor	Jan. 27th 1854	110
Harrisburg	Galt	Aug. 21st 1854	12
Galt	Guelph	Sep. 28th 1857	15
Hamilton	Toronto	Dec. 3rd 1855	38
Komoka	Sarnia	Dec. 27th 1858	51
			<hr/> 345

The Preston-Berlin branch of the Galt and Guelph Railway was abandoned in October 1858, before that road was taken over by the Great Western. It was the first railway abandonment in Canada.

Locomotives:

Due to the loss of most of the early records, the locomotives of the Great Western Railway are the most difficult to trace. The Keefer list differs on many points from the information contained in Bulletin 51 but there are a number of known errors in the Keefer list while on the other hand Mr. Spriggs has made almost a life-time study of this road and his history of the road in Bulletin 51 must be considered authoritative. Keefer's dates in particular are inaccurate so Mr. Spriggs' dates are used in the following list. There are also some differences in the dimensions of cylinders and driving wheels but as these change frequently due to alterations it seems proper to give Keefer's dimensions in the following list for the purposes of comparison.

In Bulletin 51, Mr. Spriggs gave the road numbers of the 1862 series, which are known to be correct, and also the "actual or probable original numbers." It will be noted that the numbers given in the Keefer list do not correspond with either of the series given in Bulletin 51 although it would be natural to expect that the numbers in the Keefer list of 1860 would be the same as the original series of numbers compiled by Mr. Spriggs. This point has been given careful consideration; Mr. Spriggs states that his list of original numbers was based on imperfect records and even conjecture and was almost sure to be wrong but after all it is quite possible that his list of original numbers was correct or nearly so. There is internal evidence in the Keefer list which seems to indicate that it represents a hitherto unknown intermediate series of numbers. How else can we explain the fact that there are no gaps in the Keefer list although we know that two locomotives had already been scrapped?

Pictures of many of these early Great Western locomotives will be found in Bulletins 28 and 51.

1 Hercules	(1)	4-4-0	16x22	72"	1853	?
2 Samson	(1)	4-4-0	16x22	72"	1853	?
3 Canada	(1)	4-4-0	16x22	72"	1853	Lowell #107

GTR 158

February 26 1862

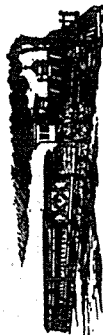
Northern Advance
Barrie

A few minutes before ten o'clock yesterday morning, one of the 2 locomotives, (No 158) belonging to the Grand Trunk exploded with great violence in the rear of the Ryburn near the Queen Street crossing of the Northern Ry. At the time the explosion took place - the shock of which was heard in the city - the engine was standing on the track, preparatory to taking down a train of freight cars to the Dow station. The engineers James O'Hara and the fireman Patrick Spiller were thrown into the air and fell heavily on the track, the former found lying between the cab of the engine and one of the driving wheels ... the engine was manufactured at Manchester N.H.

No. 73.

1867.

GREAT WESTERN RAILWAY



1867.

OF CANADA.

WORKING TIME-TABLE

AND

SPECIAL INSTRUCTIONS

FOR THE

EXCLUSIVE USE AND GUIDANCE OF EMPLOYEES.

TO COME INTO OPERATION AT 4.00 A. M.

ON

MONDAY, SEPT. 23rd, 1867.

Every Officer and Employee of the Company must make himself perfectly acquainted with this Time-Table.

PREVIOUS TIME-TABLE TO BE DESTROYED.

PRINTED BY THE GREAT WESTERN RAILWAY COMPANY, LONDON.

(2)

INSTRUCTIONS.—Going West.

† Passing but not stopping Stations, if corresponding Train has arrived.
‡ Flag Stations.—Stop when there are Passengers at, or for.

No. 1 MIXED is timed to pass following Trains bound East:—At MOUNT BRYDGES No. 2 Express; at THAMESVILLE No. 6 Express; at PRAIRIE SIDING No. 10 Mixed; at STONEY POINT No. 12 Freight and No. 14 Express. If late approaching WINDSOR, keep clear of all ordinary Trains.

No. 3 HAMILTON AND GUELPH MIXED is timed to pass following Trains bound East:—At COPTOWN No. 20 Freight. If late approaching HARRISBURG, its destination on Main Line, keep clear of all ordinary Trains.

No. 5 MORNING EXPRESS is timed to pass following Trains bound East:—At GRIMSBY No. 16 Cattle; at HAMILTON No. 20 Freight; at COPTOWN No. 4 Mixed; at HARRISBURG No. 2 Express; at WOODSTOCK No. 8 Freight; at DORCHESTER No. 6 Express; at NEWBURY No. 10 Mixed and No. 14 Express; at THAMESVILLE No. 12 Freight; at BELLE RIVER No. 16 Cattle. If late approaching WINDSOR, keep clear of No. 22 Mail, and all subsequent Trains of same class starting from that point.

No. 7 LOCAL FREIGHT is timed to pass following Trains bound East:—At DUNDAS No. 4 Mixed and No. 2 Express; at PARIS No. 8 Freight and No. 6 Express; at INGERSOLL No. 14 Express and No. 11 Express West. If late approaching LONDON keep clear of all ordinary Trains.

No. 9 THROUGH FREIGHT is timed to pass following Trains bound East:—At JORDAN No. 2 Express and No. 20 Freight; at HAMILTON No. 6 Express and No. 11 Express West; at DUNDAS No. 18 Mixed; at HARRISBURG No. 14 Express; at INGERSOLL No. 12 Freight; at LONDON No. 16 Cattle and No. 22 Mail; at LONGWOOD No. 20 Freight; at BOTHWELL No. 17 Express West; at PRAIRIE SIDING No. 2 Express; at TECUMSEH No. 6 Express. If late approaching WINDSOR, keep clear of all ordinary Trains starting from that point.

No. 11 DAY EXPRESS is timed to pass following Trains bound East:—At ST. CATHARINES No. 20 Freight; at HAMILTON No. 6 Express and No. 9 Freight West; at DUNDAS No. 8 Freight; at HARRISBURG No. 18 Mixed; at BEAGHVILLE No. 14 Express; at INGERSOLL No. 7 Freight West; at KOMOKA No. 12 Freight and No. 4 Samia Accommodation; at BOTHWELL No. 16 Cattle; at PRAIRIE SIDING No. 20 Freight and No. 22 Mail. If late approaching WINDSOR, keep clear of No. 2 Express and all subsequent Trains of same class starting from that point.

No. 13 THROUGH FREIGHT is timed to pass the following Trains bound East:—At ST. CATHARINES No. 6 Express; at HAMILTON No. 14 Express; at PRINCETON No. 12 Freight; at WOODSTOCK No. 17 Express West and No. 22 Mail; at INGERSOLL No. 16 Cattle; at LONDON No. 20 Freight; at THAMESVILLE No. 3 Express; at CHATHAM No. 21 Mail West; at PRAIRIE SIDING No. 6 Express; at BELLE RIVER No. 10 Mixed; at TECUMSEH No. 12 Freight. If late approaching WINDSOR, keep clear of all ordinary Trains starting from that point.

No. 15 MIXED is timed to pass following Trains bound East:—At DUNDAS No. 14 Express; at WOODSTOCK No. 12 Freight. If late approaching LONDON keep clear of all ordinary Trains.

No. 17 STEAMBOAT EXPRESS is timed to pass following Trains bound East:—At JORDAN No. 14 Express; at PARIS No. 12 Freight; at WOODSTOCK No. 13 Freight West; at INGERSOLL No. 23 Mail; at DORCHESTER No. 16 Cattle; at KOMOKA No. 20 Freight; at BOTHWELL No. 9 Freight West; at BELLE RIVER No. 2 Express. If late approaching WINDSOR, keep clear of No. 6 Express and all subsequent Trains of same class starting from that point.

No. 19 EMIGRANT is timed to pass following Trains bound East:—At THOROLD No. 14 Express; at COPTOWN No. 12 Freight; at HARRISBURG No. 22 Mail; at PRINCETON No. 16 Cattle; at WOODSTOCK No. 21 Mail West; at BEACHVILLE No. 20 Freight; at DORCHESTER No. 4 Mixed; at LONDON No. 2 Express; at GLENGOE No. 6 Express; at LEWISVILLE No. 10 Mixed; at CHATHAM No. 14 Express and No. 12 Freight; at TECUMSEH No. 16 Cattle. If late approaching WINDSOR, keep clear of all ordinary Trains starting from that point.

No. 21 NIGHT MAIL is timed to pass following Trains bound East:—At HAMILTON No. 12 Freight and No. 22 Mail; at PARIS No. 16 Cattle; at WOODSTOCK No. 19 Emigrant West; at INGERSOLL No. 20 Freight; at NEWBURY No. 2 Express; at CHATHAM No. 13 Freight West; at BAPTISTE CREEK No. 6 Express; at TECUMSEH No. 10 Mixed. If late approaching WINDSOR, keep clear of No. 14 Express, and all subsequent Trains of same class starting from that point.

Special attention is directed to the Alterations made in this Time Table.

Special attention is directed to the alterations made in this Time Table.

GOING EAST.

(5)

Daily, Sundays Excepted.

DISTANCE		STATIONS.		2	4	6	8	10	12	14	16	18	20+	22
From London	To Sarnia	From London	To Sarnia	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.
8	8	Windsor depart		4.00										
94	174	Belleville		4.35										
82	26	Stoney Point												
5	31	Bapt. Creek		5.05										
64	374	Prairie Sid'g		5.17										
8	45	Chatham		5.35										
9	54	Lewisville												
6	60	Thamesville		6.10										
74	68	Bothwell		6.25										
54	74	Newbury		6.35										
6	79	Glencoe		6.50										
42	84	Appin												
5	89	Longwood		7.12										
6	95	Mt. Brydges		7.25										
42	99	Komoka		7.35										
10	109	London		8.00										
94	119	Barnes		8.15										
34	123	Port's Side		8.35										
4	129	Ingersoll		8.55										
44	134	Beaconsfield		9.05										
5	138	Woodstock		9.15										
41	142	Eastwood		9.30										
24	145	Gov. Road		9.42										
24	147	Arnolds		9.55										
24	150	Princeton		10.00										
7	157	Paris		10.00										
94	166	Harrisburg		10.20										
34	170	Lynden		10.35										
44	174	Copetown		10.37										
54	179	Dundas		10.50										
44	184	Toronto Jun'n		11.05										
14	186	Hamilton		11.10										
6	191	Stoney Creek		11.20										
54	197	Ontario												
5	202	Grimsby		11.55										
44	206	Beamsville		12.13										
54	212	Jordan		12.25										
54	217	St. Catharines		12.30										
2	219	Thorold		12.30										
94	229	Susp. Bridge		12.55										
				1.00										

† No. 20 will have a passenger car attached between Hamilton and Suspension Bridge.

(6)

LONDON to SARNIA.

Daily, Sundays Excepted.

DISTANCE		STATIONS.		1	3
From London	To Sarnia	From London	To Sarnia	A. M.	P. M.
10	10	LONDON			
104	204	Komoka		6.40	4.00
6	204	Strathroy		7.15	4.40
74	324	Kerwood		8.30	5.20
84	414	Watford		8.55	5.45
34	454	Wanstead		9.25	6.10
34	454	Wyoming		9.55	6.37
464	514	Petrolia Junction		10.15	6.55
5	514	Mandaum		10.20	7.00
94	61	SARNIA		10.35	7.13

INSTRUCTIONS:

No. 1 ACCOMMODATION West, pass at KOMOKA No. 2 Express East on Main Line; at WATFORD No. 3 EXPRESS West, pass at KOMOKA No. 10 Mixed East on Main Line, at STRATHROY No. 4 Accommodation East.

SARNIA to LONDON.

Daily, Sundays Excepted.

DISTANCE		STATIONS.		2	4
From Sarnia	To London	From Sarnia	To London	A. M.	P. M.
94	94	SARNIA			
5	144	Mandaum		7.50	3.15
154	144	Petrolia Junction		8.15	3.45
34	194	Wyoming		8.28	4.02
84	274	Wanstead		8.33	4.07
74	344	Watford		8.48	4.18
6	404	Kerwood		9.20	4.40
104	51	Strathroy		9.40	5.02
10	61	Komoka		10.00	5.25
		LONDON		10.40	6.05

INSTRUCTIONS:

No. 2 EXPRESS East, pass at WATFORD No. 1 Accommodation West; at KOMOKA No. 6 Express East on Main Line; at STRATHROY No. 3 Express West; at KOMOKA No. 11 Express West on Main Line.

PETROLIA BRANCH.

Daily, Sundays Excepted.

DISTANCE		STATIONS.		1	3	5	7
From Petrolia	To Wyoming	From Petrolia	To Wyoming	A. M.	P. M.	A. M.	P. M.
44	44	PETROLIA					
44	44	Petrolia Junction		7.50	9.25	3.15	6.00
54	54	WYOMING		8.15	9.50	3.40	6.25

PETROLIA BRANCH.

Daily, Sundays Excepted.

DISTANCE		STATIONS.		2	4	6	8
From Petrolia	To Wyoming	From Petrolia	To Wyoming	A. M.	P. M.	A. M.	P. M.
44	44	WYOMING					
44	44	Petrolia Junction		8.40	10.30	4.15	7.10
54	54	PETROLIA		9.10	11.00	4.45	7.40

INSTRUCTIONS:

Sarnia Line Trains have right of road over Petrolia Branch Trains between Wyoming and Petrolia Junction, when going in either direction.

INSTRUCTIONS.—Going East.

† Passing but not stopping Stations, if corresponding Train has arrived.
‡ Flag Stations.—Stop when there are Passengers at, or for.

No. 2 MORNING EXPRESS is timed to pass following Trains bound West:—At BELLE RIVER No. 17 Express; at PRAIRIE SIDING No. 9 Freight; at THAMESVILLE No. 13 Freight; at NEWBURY No. 21 Mail; at MOUNT BRYDGES No. 1 Mixed; at KOMOKA No. 1 Sarnia Accommodation; at LONDON No. 19 Emigrant; at HARRISBURG No. 5 Express; at DUNDAS No. 7 Freight; at GRIMSBY No. 20 Freight East; at JORDAN No. 9 Freight. If late approaching SUSPENSION BRIDGE keep clear of No. 11 Express, and all subsequent Trains of same class starting from that point.

No. 4 MIXED is timed to pass following Trains bound West:—At DORCHESTER No. 19 Emigrant; at COPESTOWN No. 5 Express; at DUNDAS No. 7 Freight. If late approaching HAMILTON keep clear of all ordinary Trains.

No. 6 DETROIT EXPRESS is timed to pass following Trains bound West:—At TECUMSEH No. 9 Freight; at BAPTISTE CREEK No. 21 Mail; at PRAIRIE SIDING No. 13 Freight; at THAMESVILLE No. 1 Mixed; at GLENCOE No. 19 Emigrant; at KOMOKA No. 2 Sarnia Express East; at DORCHESTER No. 5 Express; at PARIS No. 7 Freight East; at HAMILTON No. 9 Freight and No. 11 Express; at ST. CATHARINES No. 13 Freight. If late approaching SUSPENSION BRIDGE, keep clear of No. 17 Express, and all subsequent Trains of same class starting from that point.

No. 8 LOCAL FREIGHT is timed to pass following Trains bound West:—At WOODSTOCK No. 5 Express; at PARIS No. 7 Freight and No. 6 Express East; at DUNDAS No. 11 Express. If late approaching HAMILTON keep clear of all ordinary Trains.

No. 10 MIXED is timed to pass following Trains bound West:—At TECUMSEH No. 21 Mail; at BELLE RIVER No. 13 Freight; at PRAIRIE SIDING No. 1 Mixed; at LEWISVILLE No. 19 Emigrant; at NEWBURY No. 5 Express and No. 14 Express East; at KOMOKA No. 3 Sarnia Express. If late approaching LONDON keep clear of all ordinary Trains.

No. 12 THROUGH FREIGHT is timed to pass following Trains bound West:—At TECUMSEH No. 13 Freight; at STONEY POINT No. 1 Mixed; at BAPTISTE CREEK No. 14 Express East; at CHATHAM No. 19 Emigrant; at THAMESVILLE No. 5 Express; at KOMOKA No. 11 Express; at INGRESOLL No. 13 Freight; at PRINCETON No. 15 Mixed; at WOODSTOCK No. 17 Freight; at PARIS No. 17 Express; at COPESTOWN No. 19 Emigrant; at HAMILTON No. 21 Mail and No. 22 Mail East. If late approaching SUSPENSION BRIDGE keep clear of all ordinary Trains starting from that point.

No. 14 DAY EXPRESS is timed to pass following Trains bound West:—At STONEY POINT No. 1 Mixed; at BAPTISTE CREEK No. 12 Freight East; at CHATHAM No. 19 Emigrant; at NEWBURY No. 5 Express and No. 10 Mixed East; at INGRESOLL No. 7 Freight; at BEACHVILLE No. 11 Express; at HARRISBURG No. 9 Freight; at DUNDAS No. 15 Mixed; at HAMILTON No. 13 Freight; at JORDAN No. 17 Express; at THOROLD No. 19 Emigrant. If late approaching SUSPENSION BRIDGE keep clear of No. 21 Mail and all subsequent Trains of same class starting from that point.

No. 16 CATTLE TRAIN is timed to pass the following Trains bound West:—At TECUMSEH No. 19 Emigrant; at BELLE RIVER No. 5 Express; at BOTHWELL No. 11 Express; at LONDON No. 9 Freight and No. 22 Mail East; at DORCHESTER No. 17 Express; at INGRESOLL No. 13 Freight; at PRINCETON No. 19 Emigrant; at PARIS No. 21 Mail; at GRIMSBY No. 5 Express. If late approaching SUSPENSION BRIDGE keep clear of all ordinary Trains starting from that point.

No. 18 GUELPH AND HAMILTON MIXED is timed to pass the following Trains bound West:—At HARRISBURG No. 11 Express; at DUNDAS No. 9 Freight. If late approaching HAMILTON keep clear of all ordinary Trains.

No. 20 THROUGH FREIGHT is timed to pass following Trains bound West:—At PRAIRIE SIDING No. 11 Express and No. 22 Mail East; at LONGWOOD No. 9 Freight; at KOMOKA No. 17 Express; at LONDON No. 13 Freight; at INGRESOLL No. 21 Mail; at BEACHVILLE No. 19 Emigrant; at COPESTOWN No. 3 Mixed; at ST. CATHARINES No. 2 Express East; at GRIMSBY No. 5 Express; at JORDAN No. 9 Freight; at ST. CATHARINES No. 11 Express. If late approaching SUSPENSION BRIDGE keep clear of all ordinary Trains starting from that point.

No. 22 NIGHT MAIL is timed to pass following Trains bound West:—At PRAIRIE SIDING No. 11 Express and No. 20 Freight East; at LONDON No. 9 Freight and No. 16 Cattle East; at INGRESOLL No. 17 Express; at WOODSTOCK No. 13 Freight; at HARRISBURG No. 19 Emigrant; at HAMILTON No. 21 Mail and No. 12 Freight East. If late approaching SUSPENSION BRIDGE keep clear of No. 5 Express, and all subsequent Trains of same class starting from that point.

Special attention is directed to the alterations made in this Time Table.

(4)

GOING WEST.

Daily, Sundays Excepted.

STATIONS.	1	3	5	7	9	11	13	15	17	19	21
Distance	1	3	5	7	9	11	13	15	17	19	21
Time	1	3	5	7	9	11	13	15	17	19	21
Freight	1	3	5	7	9	11	13	15	17	19	21
Passenger	1	3	5	7	9	11	13	15	17	19	21
Mail	1	3	5	7	9	11	13	15	17	19	21
Express	1	3	5	7	9	11	13	15	17	19	21
Local	1	3	5	7	9	11	13	15	17	19	21
Through	1	3	5	7	9	11	13	15	17	19	21
Freight	1	3	5	7	9	11	13	15	17	19	21
Passenger	1	3	5	7	9	11	13	15	17	19	21
Mail	1	3	5	7	9	11	13	15	17	19	21
Express	1	3	5	7	9	11	13	15	17	19	21
Local	1	3	5	7	9	11	13	15	17	19	21
Through	1	3	5	7	9	11	13	15	17	19	21
Freight	1	3	5	7	9	11	13	15	17	19	21
Passenger	1	3	5	7	9	11	13	15	17	19	21
Mail	1	3	5	7	9	11	13	15	17	19	21
Express	1	3	5	7	9	11	13	15	17	19	21
Local	1	3	5	7	9	11	13	15	17	19	21
Through	1	3	5	7	9	11	13	15	17	19	21
Freight	1	3	5	7	9	11	13	15	17	19	21
Passenger	1	3	5	7	9	11	13	15	17	19	21
Mail	1	3	5	7	9	11	13	15	17	19	21
Express	1	3	5	7	9	11	13	15	17	19	21
Local	1	3	5	7	9	11	13	15	17	19	21
Through	1	3	5	7	9	11	13	15	17	19	21
Freight	1	3	5	7	9	11	13	15	17	19	21
Passenger	1	3	5	7	9	11	13	15	17	19	21
Mail	1	3	5	7	9	11	13	15	17	19	21
Express	1	3	5	7	9	11	13	15	17	19	21
Local	1	3	5	7	9	11	13	15	17	19	21
Through	1	3	5	7	9	11	13	15	17	19	21
Freight	1	3	5	7	9	11	13	15	17	19	21
Passenger	1	3	5	7	9	11	13	15	17	19	21
Mail	1	3	5	7	9	11	13	15	17	19	21
Express	1	3	5	7	9	11	13	15	17	19	21
Local	1	3	5	7	9	11	13	15	17	19	21
Through	1	3	5	7	9	11	13	15	17	19	21
Freight	1	3	5	7	9	11	13	15	17	19	21
Passenger	1	3	5	7	9	11	13	15	17	19	21
Mail	1	3	5	7	9	11	13	15	17	19	21
Express	1	3	5	7	9	11	13	15	17	19	21
Local	1	3	5	7	9	11	13	15	17	19	21
Through	1	3	5	7	9	11	13	15	17	19	21
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Nov-Dec 1978

125 YEARS OF THE GREAT WESTERN

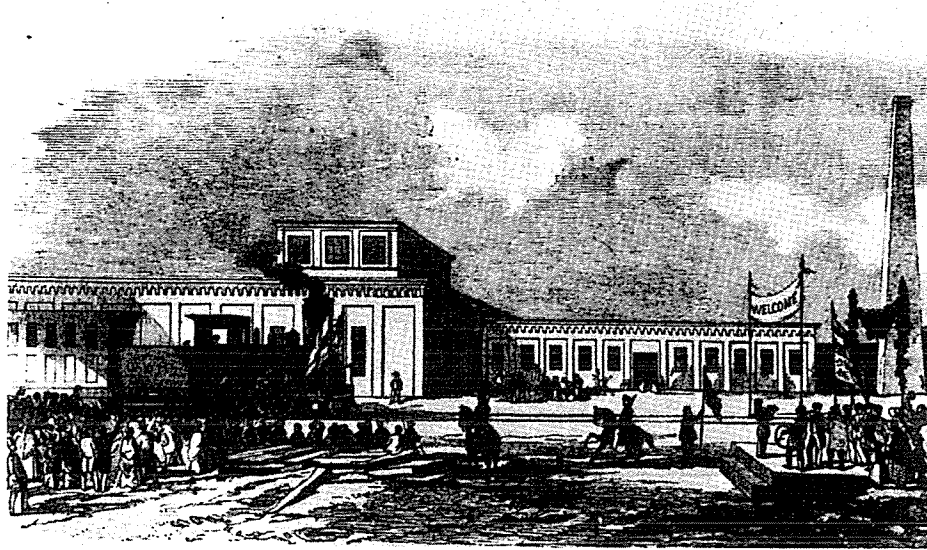
The 10th of November should focus the attention of railfans on the CNR line from Hamilton to Niagara Falls (Suspension Bridge) as 125 years ago on that date, the first regular train operated on the Great Western Railway, original owner of this stretch of track, between the named terminals. The operation of this train marked the beginning of a colourful history for the railway which probably did more than any other to open up and develop South Western Ontario.

It was recognized quite early in the 19th century that long distance railways (beyond the primitive portage roads) would prove a great boon in Upper and Lower Canada. Seven railway charters of considerable magnitude had been issued by 1841, but none of these had been acted upon up to that time, while railway construction was proceeding apace in the United States. One of these seven unfilled charters was granted in 1834 to the London and Gore Rail Road Company "for the purpose of constructing a single or double track wooden or iron railway from London to Burlington Bay; and also the navigable waters of the Thames and Lake Huron; and to employ thereon the force of steam or the power of animals, or any mechanical or other power". In 1836, a survey for the route was made from Hamilton to the Detroit River.

The original 1834 charter was renewed in 1845, and the name changed to the Great Western Railroad. The power to build was also extended. Still the promoters, who by this time included Sir Allan MacNab, Hamilton's leading citizen of the day, could not raise sufficient funds to begin construction of this important future link in the economy of Canada. By 1851, the only lengthy stretch of railroad in Canada was

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THE ILLUSTRATED LONDON NEWS

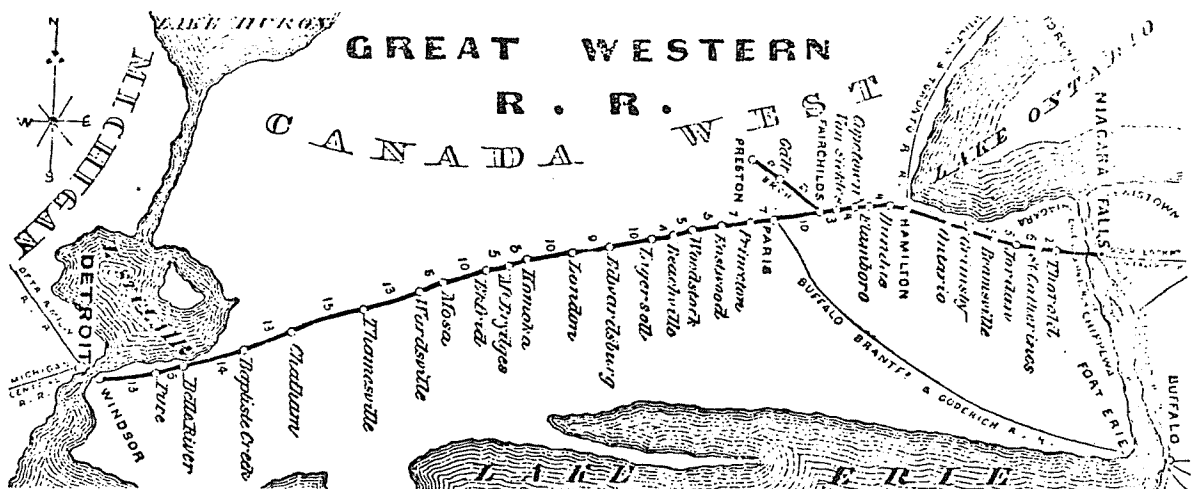


ABOVE: "OPENING OF THE CANADA GREAT WESTERN RAILWAY-LONDON STATION". SO says the drawing that appeared in the "Illustrated London News" of 21 January 1854. (CN Archives)

the unfinished St. Lawrence and Atlantic, which was built to give Montreal connection to an all year port at Portland Maine. Only 60 miles of track existed in Canada at this time, as compared to 9021 miles in the United States.

However a variety of political and economic factors combined to produce the railway building boom of the 1830's, the first of three such "booms" in Canadian history, spaced at approximately thirty year intervals. Several railway projects began in earnest at this time, given new

Map of the route of the G.W.R. before the line to Sarnia was built or the Grand Trunk Line that eventually took over the Great Western. Most of the line surveyed and built by the GWR is still in service as Canadian National. (CN Archives)



Complicating factors entered to disturb the early traffic pattern so well established by the railway. The Grand Trunk cut deeply into Great Western territory with its lines westward from Toronto to London and Sarnia. The attractions of an all Canadian route from the Lower Lakes to Montreal and Quebec was beginning to take its toll of the Great Western traffic. Then the Grand Trunk took control of the Buffalo and Lake Huron Railway, which cut a diagonal swath through the Great Western domain from Fort Erie to Godfrich. Although this line was never profitable, it did serve its effect as far as the Grand Trunk had intended.

From 1866, the Great Western was permitted to lay a third rail to standard gauge on its main line, and no break of bulk or truck interchange was thereafter necessary. The "Provincial" gauge (5' 6") was generally abandoned by Canadian railways in the early 1870's and the Great Western's outside rail was all removed by 1873.

However, more trouble loomed for the Great Western as rival lines were constructed. The Lake Shore and Michigan Southern line south of Lake Erie was formed by the consolidation of a number of early short lines and this took away much of the American traffic. On top of this was the incorporation in 1868 of the Erie and Niagara Extension Railway (renamed the Canada Southern in 1869.) This company had as its purpose the construction of a direct route between Fort Erie and Amherstburg, handling traffic between the two American frontiers.

Construction proceeded quickly on this new trunk line, and the excellence of the resulting piece of railway was a further blow to the position of the Great Western. The Canada Southern was laid out with very few curves and mild grades, and to this day remains perhaps one of the best stretches of railway line, physically, in Canada. The route was opened November 1873 and the Michigan Central Railroad soon acquired a

controlling interest in the Canada Southern (diverted to Windsor)-by 1883, the Canada Southern was completely swallowed up by American interests. The Great Western lost a great part of the through interchange traffic when the N.Y.C.-M.C. connection became the Canada Southern line.

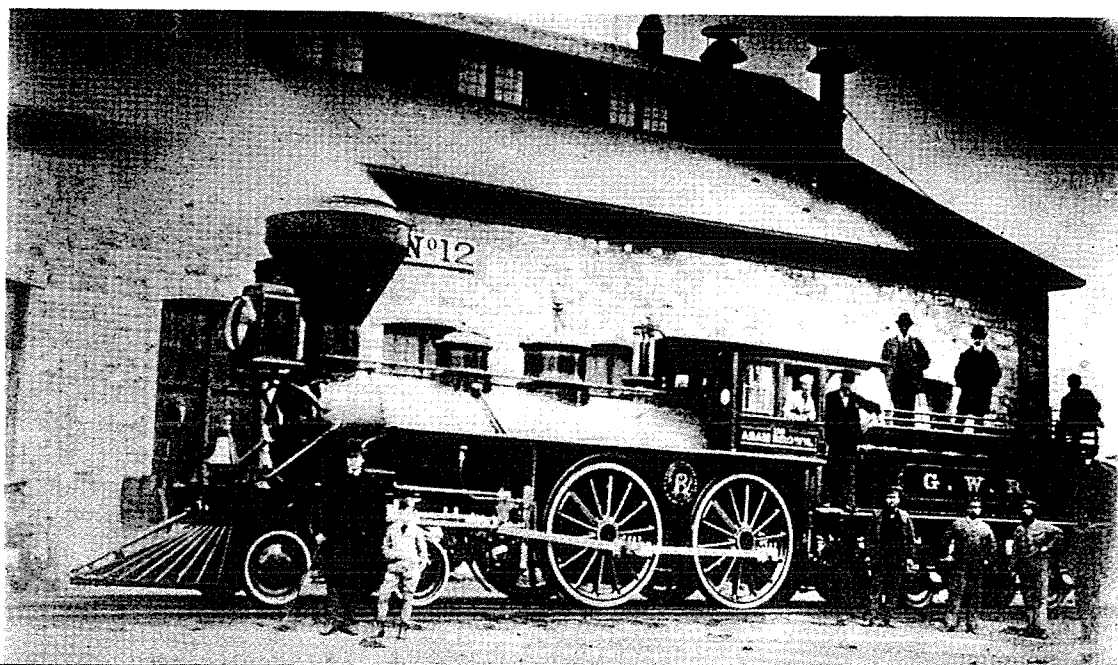
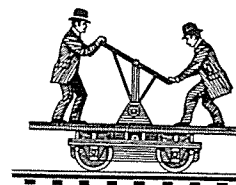
In an attempt to combat the new competition more efficiently, the Great Western constructed its "air line", a direct connection between Fort Erie and Glenoe, and one which generally paralleled the Canada Southern. This was effective to some extent, and in 1897, the Wabash Railway negotiated trackage rights over the air line to connect Detroit and Buffalo. The agreement is still in force although the trains are now those of the Norfolk and Western, which had absorbed the Wabash in the mid sixties. Except for a short cut off that was constructed from Allanburg to Niagara Falls, the Great Western did not engage in further construction. However, control was acquired through bond purchase of the Wellington Grey and Bruce Railway (Guelph-Southampton and Palmerston Kincardine), the London, Huron and Bruce Railway (London-Wingham) and the Brantford, Norfolk and Port Burwell Railway (Brantford-Tillsonburg). The London and Port Stanley Railway was leased in 1872 for a period of twenty years.

The competition between the Great Western and the Grand Trunk's rival lines in South western Ontario became so intense that both companies were suffering greatly. Then too, the Hamilton directors of the Great Western began to realize that through traffic for their road had better possibilities from the exploitation of an all Canadian route north of Lake Ontario via Toronto, than did any further hope of American traffic. The rival Canada Southern with its magnificent route had forever ended the Great Western chances of having a great share of this. Thus came about the bold decision which was manifested August 12, 1882, whereby the Great Western ceased to exist as a separate entity. The lines which had comprised the City of Hamilton's railway were completely taken into the Grand Trunk fold.

With the merger, the Great Western departments were taken over by Grand Trunk departments located in other cities. The offices went to Montreal, the locomotive shops in Hamilton were closed and the shops in Stratford, operated by the Grand Trunk were greatly enlarged. The machinery installed in the enlarged shop came from the Great Western shops in Hamilton. The car repair shops went to London. The local operating headquarters went to Toronto a more convenient location for the Ontario lines of the Grand Trunk.

Traffic on the Great Western lines did not suffer from the change in management. Rather, it increased as the Grand Trunk had less occasion to route its through freight via Stratford and Berlin (Kitchener) with the better route through Hamilton available. With the exception of the Lynden-Paris portion all of the Great Western's Toronto-Sarnia line now forms a vital link in the Canadian National main line. The Grand Trunk diverted the main line via Brantford in 1903 when it constructed a cutoff to the city from Lynden, on the old G.W.R. main line and used the Brantford-Paris segment of the old Buffalo and Lake Huron.

Tangible traces of the old Great Western are very few and far between today. The Toronto passenger station lasted through various subsequent uses until early on 17th May 1952 when it was destroyed in a spectacular fire. However many miles of Canadian National right of way remain as a testimonial to the Great Western locating and construction engineers.



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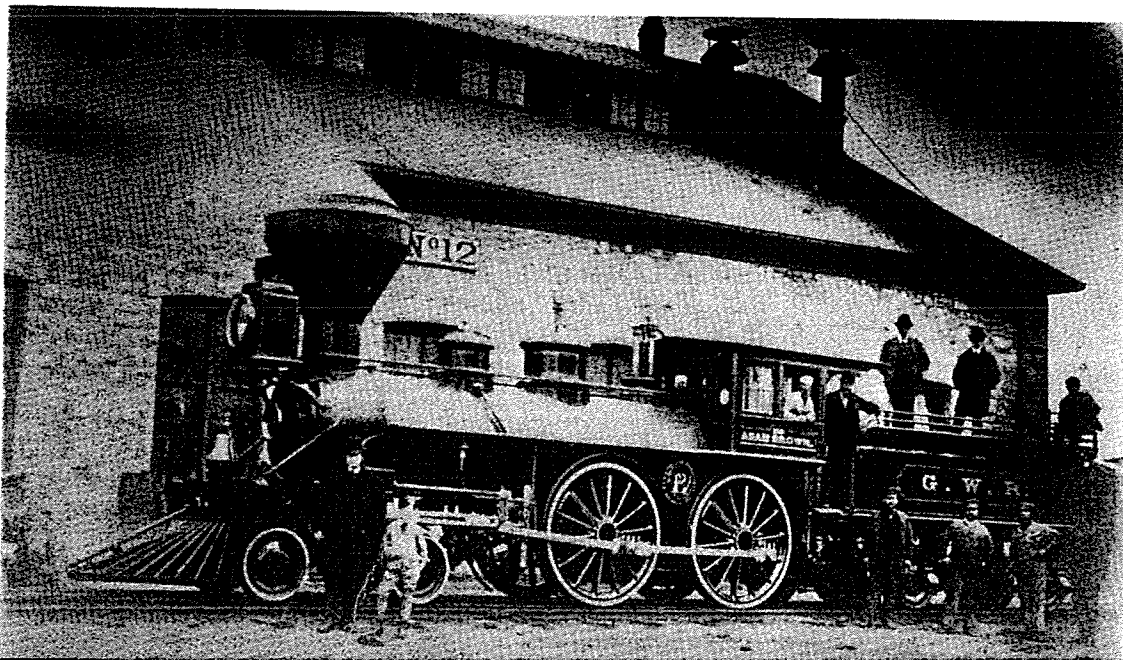
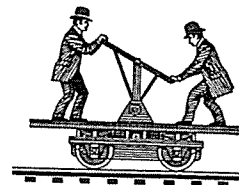
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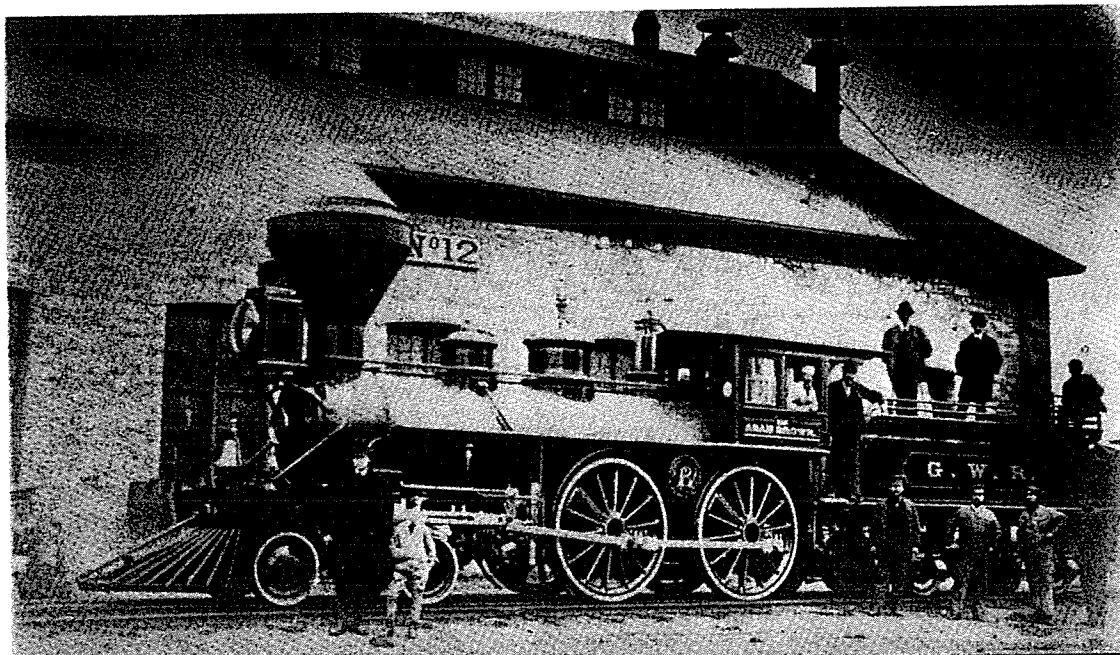
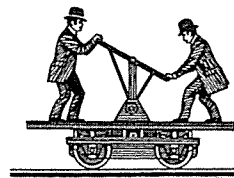
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When operations started though, so did the Great Western's troubles. The Chief Engineer had to tell the Board of Directors that aggregate costs had exceeded his original estimates by more than \$1,200,000. It was not known what type of rails would stand up to both Great Western traffic and Canadian weather, so four different weights of rail were installed in the 228 miles of main line.

To add to the troubles, landslides occurred on the Dundas mountain, in the Desjardins gorge, and elsewhere, blocking traffic for days at a time. Finally, there were two Boards of Directors, one in Canada and one in England and naturally, they did not agree.

Despite the hardships, the pioneer made good. By the end of 1854, 50 locomotives were on the company roster. In 1855 or so, the Great Western built its own shops for the manufacture and repair of cars and locomotives.

Somewhat earlier, a Hamiltonian by the name of Dan C. Gunn had built locomotives in his machine and boiler shop on Wentworth Street North but he closed his shops in the Depression of 1857. The Great Western had been a customer of Mr. Gunn.

The new G.W.R. shops fabricated the J1A, first locomotive with a steel boiler (previous engines had had iron boilers)

The Hamilton steel industry was born of those rails from England—the could not stand up to the cold Canadian winters and the extremities of climate. It is reported that as many as 20 rails a day would snap in cold weather. To re-roll the faulty rails, the Great Western completed in 1864, the first rolling mill in Ontario. The firm, Ontario Rolling Mills Company, was amalgamated years later with four other companies to form the Steel Company of Canada (Stelco), now Canada's biggest steel company.

A 68% increase in traffic was registered in the second year's operation of the railway—the industrialization of the City of Hamilton was given its start with the arrival of the Great Western which made possible the importing of Pennsylvania coal.

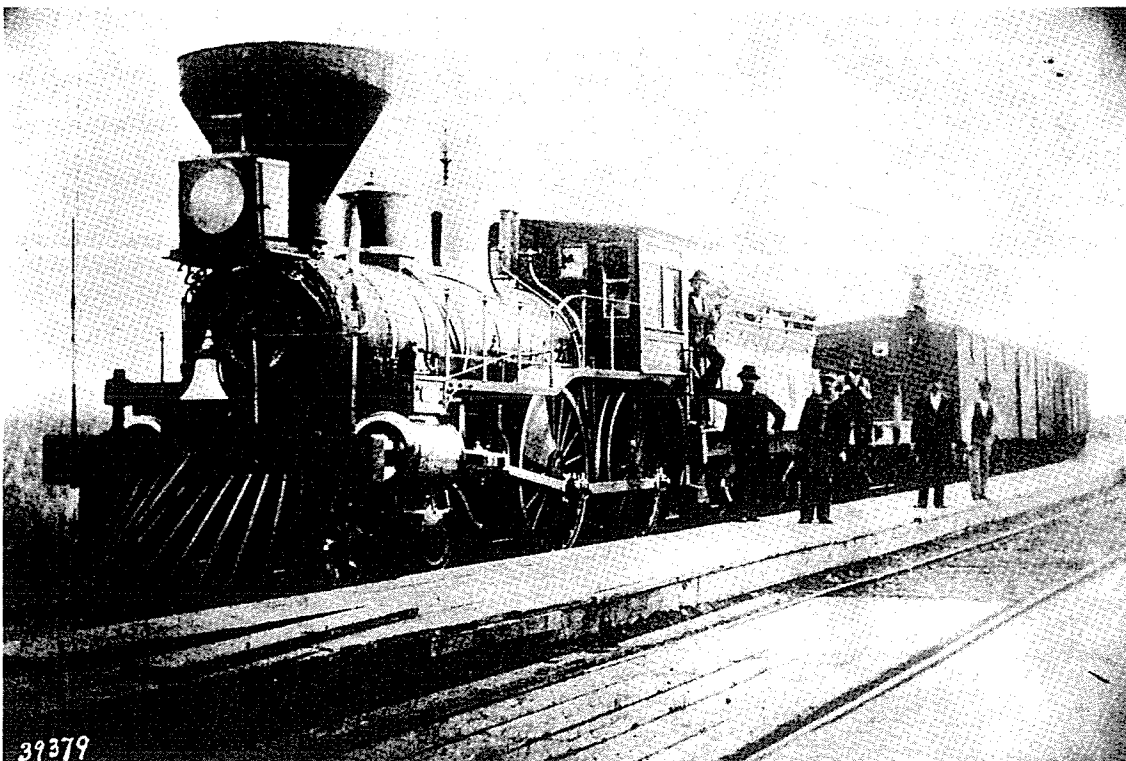
Although the Great Western desired primarily to make its bid for through traffic as a bridge route, the management began to think of attracting more local traffic by constructing a number of feeder lines. In 1855, the company secured control of an enterprise which had had a separate incorporation as the Hamilton and Toronto Railway, but had not yet completed its line for traffic. The Great Western, in taking over this line as a subsidiary, thought of it as a branch line. Originally, during the time that the railway east from Toronto was under the ownership of the Grand Trunk, this no doubt was true. But eventually, this 40 miles of track became as busy, if not more so than any other line in the country.

The line was actually opened to traffic in December and was accordingly merged with the G.W.R. to form a major feeder for the company. Also completed soon thereafter was a railway from Komoka to Sarnia. The railway now provided a short cut across the circuitous navigation route between Lake Huron and Lake Ontario.

The railway became a major industry for the City of Hamilton. In addition to possessing the company's local head office (aside from the British control), the principal car and locomotive repair shops and a rail rolling mill were located here. The principal shop building was erected in 1849 and became no small factor in the city's growing industrial economy and Hamilton's renown as a railway center grew apace. The shops began to build engines for the road and thereby reduced the dependence upon foreign sources for new motive power. A number of famous locomotives of the day were turned out for the systems own use in 1860 and 1861.

In another respect, the shops created a "first". Although it is a very little known fact, the world's first sleeping car was manufactured in the Great Western shops by Master Car Builder Samuel Sharpe in 1857. This was two years before the Pullman and Wagner concerns in the United States brought out their pioneer vehicles. Another Great Western innovation was the practice of sorting letters en-route in order to speed mail delivery.

AN early freight or construction train on the Great Western. Note the outside hand rail running the full length of the boiler as well as the bell mounted on the pilot. The track is the Provincial Wide Gauge of 5'6" (CNR)



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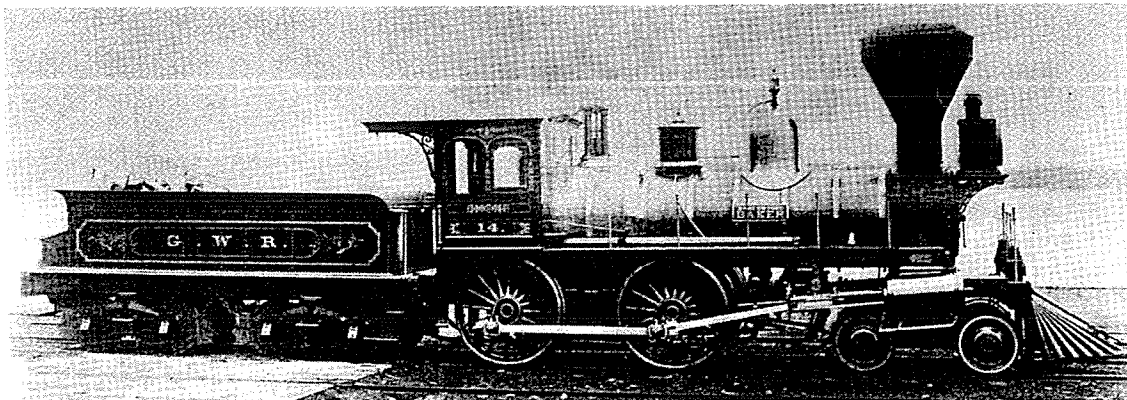
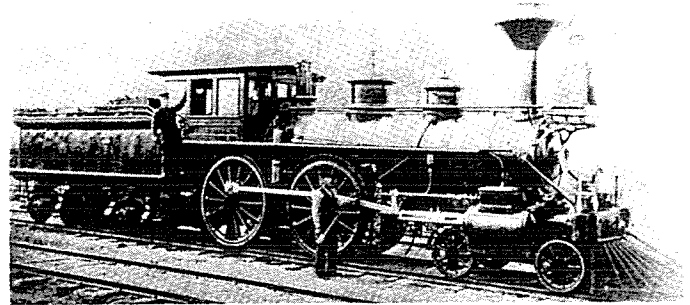
The Desjardines Canal also proved to be troublesome. In order that a railway swing bridge might be built, the course of the canal through Burlington Heights had to be changed. While this work was in progress and the canal blocked, the Great Western paid the town of Dundas an indemnity for the inconvenience it suffered. Nevertheless, by this date, the canal had largely outlived its usefulness. The half mile embracing the crossing of Cotte's Paradise and the canal was undoubtedly the most difficult stretch of construction on the railway and probably, the most difficult piece of railway construction in Southern Ontario.

The Great Western main line had to climb from Lake Ontario level (about 275 feet north of Coote's Paradise) to the Lake Erie level (one of 800 feet) in a few miles west from Dundas. This necessitated a long steady grade, one which has been an operating problem right to the present day and which can never be rectified. A long remembered sight were the pusher Mikados waiting at Bayview Junction to assist the next freight train up the Dundas "hill".

In making this ascent, the Great Western could not serve Dundas on the town's own level, but secured a right of way two hundred feet up the escarpment face. This proved to be the turning point in the struggle for supremacy between Hamilton and Dundas, which had been very real up to that time.

The Great Western was quite prosperous for the first few years, and the expected through American traffic arrived, but only because of the fact that an alternate route did not exist at this time—the necessity of changing freight car bodies to wide gauge trucks for the haul over the Great Western was onerous and expensive. Early traffic consisted primarily of agricultural produce from the recently opened Middle West and supplies for the growing towns of this region. The great Niagara Suspension Bridge was opened in May of 1855, greatly facilitating through traffic. The G.W.R. also transferred freight to ships for a time at Hamilton, for transport to Oswego, Cape Vincent and Ogdensburg in competition with the Grand Trunk.

BELOW: Typical of the mid 1800's a high wheeled 4-4-0 was probably found in passenger service more than freight. Although still ornate, it is not as elaborate as a few of the earlier locomotives. (UCRS)

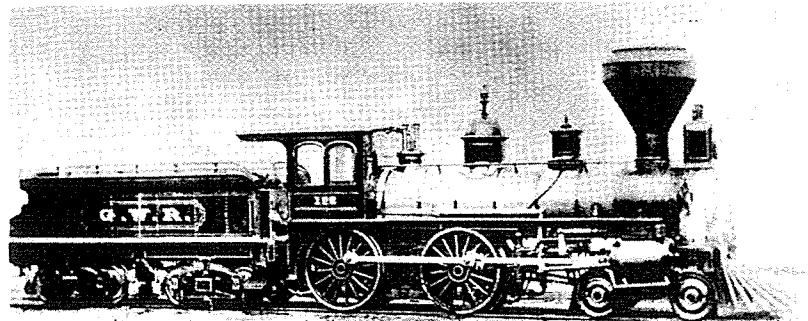


The G.W.R. ignored the town of Brantford in its westward passage, and this fact gave rise to a rather peculiar layout of rail lines in the vicinity in later years as Brantford grew. The most peculiar is the fact that a segment of the 1853 G.W.R. main line north of the town is now totally abandoned. The railway did construct a branch, also now abandoned, into Brantford some 18 years later. West of the Grand River crossing (at Paris), G.W. locating engineers had an easier time of it, and west of London, the table top countryside of the area made for long stretches of tangent.

The Hamilton to London opening was closely followed by the opening of the London-Windsor portion in January and the main line was complete.

Later in 1854, construction of a branch line, under the charter of the Galt and Guelph Railway from Harrisburg (east of Paris) northerly to Galt, and this line was extended to Guelph on the Grand Trunk Railway main line in 1857.

ABOVE: 4-4-0 number 14 shown in apparently a company photograph, most likely taken at Hamilton. Marked as a Standard Freight Locomotive, it has a very elaborate paint scheme and trim. (CNR) BELOW: Number 12(6) of the era between the top two locomotives. It has lost the elaborate trim of #14 but has not acquired the straighter and more severe lines of the mid to late 1860's. (UCRS)



only), but is the balance which has been charged on with the following:

Rails lost at sea in transit (duly covered by an amount recovered from the Underwriters to credit in the London books).....	£3,916 8 1
Short charged in respect of the use of the Revenue Account in 1872 and 1873.....	829 2 2
Ditto during half-year to 31st January, 1874, written off in Feb.	997 4 0
Amount written back from a set of new Lines in respect of high-roads of rails supplied in 1873, rails sent at cheap rate for the Glenora Line, in 1873, having been used on Revenue Account.....	4,516 8 0
	£9,258 18 6

These amounts in themselves, when properly transferred, would reduce the debt in respect of steel rails, and it appears to us that the account has also not been credited with the full value of the 1,955 tons referred to above as charged to revenue by the London Board, a deduction having been allowed in the price of these for the value of the iron rails taken up in their place, said to be 1,808 tons, at a value of say £10,000—an error which, if corrected, would increase the value of the surplus iron rails by the same sum. Allowing for these corrections, the steel rails may be stated to stand at a value of about £71,750, which on the tonnage of the account would be £22. 6s. 9d per ton, a large excess of value, arising apparently from a deficiency in the price put upon those charged out in the past. But owing to the absence of proper check upon the stock, and the want of care in recording the right quantities of those issued either for renewals or for new Lines, it is probable also that the stock will be found deficient. According to a statement received from the Assistant Chief Engineer, out of a total of 49,829 tons to be accounted for by his Department to the 28th February, 47,625 tons had been laid into the road, leaving 2,204 tons of rails and scrap either in stock or laid into temporary sidings. The Stock Account shows a balance of 2,642 tons at that date. A deficiency of 438 tons has, therefore, to be accounted for.

The stock of old iron rails is stated by the Engineer to be 6,000 tons, valued at £34,964 13 7 after making the correction referred to above, it will stand as 8,108 tons, valued to say..... £44,964 13 7

This stock is, we are informed, quite distinct from the balance remaining unsold of the old third rail taken up from between Hamilton and London, referred to hereafter and estimated at 6,154 tons. The rails lie at intervals all along the line, and many of them have been used in making sidings for customers and for ballast pits, and in the repairs of branches, without any account being kept of their disposal. During your Committee's stay in Canada, however, a rough return was obtained from each district foreman of the iron rails waiting disposal within his district, and these returns, if correct, would show that a stock in excess of that appearing in the books is in the Company's possession.

The selling price of these rails has been recently about £5. 10s. per ton, but in the present state of the market, all railways in Canada now requiring steel rails, very few sales can be effected at any price. Had the Company realised them when taken up, a price could then have been obtained for most of them varying from £8. to £8. Those used for new buildings have been charged out to capital during the last half year at £8. 10s., and previously at £10. 5s., thus unfairly reducing the debt in respect of old rails at the cost of capital.

With regard to the alteration made by the Directors in the accounts after their arrival from Canada, it is stated in their report that it was with surprise that they had found that a portion of the amount expended for relaying the line was carried over to the next half-year—a method of dealing with the account to which they could not consent. We were informed, however, in Canada, that this was a principle adopted from the first with accounts of each January half-year with a view of spreading the heavier expenditure incurred during that half-year over the twelve months.

Exclusive of the original loan of £250,000, now represented by Preference Shares in the Detroit and Milwaukee Line, and carried to the capital account of the Great Western Railway, that Company appears on the books as a debtor for the following sums:

Main line and original branches:	
Land and Rights of Way.....	£10,322 15 7
Construction of Sidings.....	111,148 11 1
Charge to Capital in respect of extra cost of steel rails.....	40,509 0 1
Additions and improvements to Stations, Offices, Sheds, Shors, and Wharves.....	40,995 0 0
New Car Shops and Tools at London.....	25,476 1 6
Doubling Track.....	242,841 19 4
	£471,598 17 1

Glenora Loop Line:	
Land and Works.....	575,623 18 0
Interest.....	47,937 5 8
	623,561 3 8
Allanburgh Branch—Land and Works.....	37,768 19 0
Detroit Bridge—Surveys, Wellington, Grey, and Bruce Railway Station Equipment, and Sundry Works.....	2,447 13 5
Rolling Stock.....	583,754 18 3
Ferry Steamer.....	65,134 5 1
Discount on issue of Preference and Debenture Stock.....	£156,810 11 2
Interest on same to date of payment.....	6,371 1
Commission to Brokers.....	2,308 19 0
Loss in Discount and Exchange of Bills drawn in Canada to meet Capital Expenditure.....	10,121 14 11
Stamps on Bonds.....	988 5 8
Difference on conversion of Preference Stock.....	2,567 12 14
	£180,715 2 0
Less Premium on Shares and Bonds issued.....	18,914 19 2
	161,773 1 0

Port Huron and Milwaukee Railroad Bad Debt transferred..... 8,219 3 7

Total Expenditure during eighteen months..... £1,950,065 8 9

It will be seen from the details in the Engineer's Reports that a large amount is charged in respect of small works stated to be additional. It is difficult to judge of the legitimacy of these charges to capital, but we would point out that no credit is given for the value of the buildings destroyed in making way for improvements. The practice of charging interest on the amount expended on branch lines or extensions during construction to capital has also been condemned in principle by the leading Railway Companies in this country as open to abuse. The amount of interest charged to the Capital Account of the Glenora Loop Line during the year ending 31st July last, increased the amount shown to be available for dividend from £4 6s 8d to £5 5s per cent.

The additions to the engines and car stock at the cost of capital during the eighteen months ending 31st January last, consisted of

100 Engines at a cost of.....	£277,614 3 9
1,977 Cars at a cost of.....	841,108 12 6

Total cost..... £1,118,722 16 5

It will be desirable however, to note the increase in the rolling stock since July, 1870, when it was decided to convert the stock from the broad to the narrow gauge. The following table shows the number of new engines and cars added to the stock at the cost of capital each half-year:

LOCOMOTIVES.		
Half-year to Jan. 1871.....	5	£18,847 7 4
" July 1871.....	18	30,498 14 2
" Jan. 1872.....	17	100,784 8 10
" July 1872.....	24	68,829 7 4
" Jan. 1873.....	39	108,070 10 2
" July 1873.....	118	£221,480 5 8
" Jan. 1874.....	99	814,172 10 6
Stock at July, 1870.....		
Present Stock, exclusive of sold broad-gauge Engines for sale.....	217	£308,602 15 0

CARS.		
Half-year to Jan. 1871.....	40	£4,610 6 2
" July 1871.....	100	15,257 9 7
" Jan. 1872.....	829	89,785 18 6
" July 1872.....	211	91,098 17 8
" Jan. 1873.....	567	97,845 12 0
" July 1873.....	870	131,708 10 2
" Jan. 1874.....	540	51,951 10 2
Stock at July, 1870.....		
Present Stock, exclusive of sold broad-gauge Cars for sale.....	2,171	£209,410 6 4

Balance.....	£71,845 12 1
Cost of conversion of gauge of engines.....	£12,230 6 10
Cost of conversion of gauge of cars.....	20,828 11 5
Hire of cars during conversion.....	7,009 14 6
Cost of conversion of construction of old third rail.....	10,820 5 7
Less proceeds of 7,000 tons old rails sold, wrongly credited this account.....	£5,077 17 10
Balance.....	£55,089 13 4

But, as it was intended to credit the Revenue portion of this account with, and charge to Capital, the difference between the amount realized by the sale of the broad gauge engines and what they might be supposed to be worth to the Company, the balance on the Revenue portion of the account will be decreased by whatever may be agreed upon as the loss arising upon their forced sale. Mr. Robinson, in a recent report, estimates the value to the company of 71 engines, either sold or on hand for sale, at £458,000, or £2,876, 14s. 2d., and, if this be admitted as a credit against the cost of the new ones £174,018 4s. 3d., we have a balance of £21,204, 10s. 1d. only, chargeable against revenue, a sum considerably within the original calculation adopted by the Auditors. But this recent estimate seems to put a higher value upon the engines than the original estimate of £70,600 as the value of the 68 first intended to be sold, and appears to us to need revision before it is adopted.

The charge against capital already swollen by the cost of hire of cars while the Company's stock was being converted, will be increased by such sum as may be agreed upon as the loss arising on the sale of the engines. The old outer rail, estimated in 1871, to realize £79,030, by sale of which it was intended to provide funds for this expenditure on Capital Account, has, as stated, above, already realized, by the sale, in 1871, of 7,000 tons, the sum of £48,077. 13s. 3d.; and the Engineer estimates that there are 3,154 tons, recently taken up, still on hand for sale. Before leaving the question of the Rolling Stock, it may be well to trace what has become of the 99 old broad gauge engines on hand in July, 1870:

61 have been sold, either as engines or scrap.	
6 have been broken up and replaced by narrow gauge at the cost of Revenue.	
17 have been converted to narrow gauge.	
5 are now in course of conversion.	
2 have been sold to the Cobourg, Peterborough, and Montreal Railway, but not being paid for, are retained.	
6 are now on hand for sale.	

The same stock is now represented by 105 engines, 6 of which, as stated in the Mechanical Superintendent's Report, published with the printed accounts to 31st January, are not included in his list, being treated as duplicate stock.

The Renewal Fund for Rolling Stock, which stood on the 31st January last at £47,341 11s 2d was made up as follows:

	Locomotives.	Cars.
Transferred from Revenue from July 1871 to Jan. 1874, including interest.....	£47,004 14 4	£18,209 7 9
Less absorbed in reduction of Revenue charges—		
Jan. 1873.....	2,938 3 11	
July 1873.....		9,934 6 0
	£44,066 9 6	£8,275 1 9

We entirely approve of the raising of these Reserves. When a railway is furnished, as the Great Western, with a large amount of new rolling stock, it is evident that at first there will be only a small amount of repairs needed; but, after a while, a large proportion of it will be needing renewal about the same time, the cost of which should have been provided for out of the revenue of those years during which the depreciation was going on. In the case of the Great Western, certain rates per mile have been taken as the average cost of wear and tear of engines and cars. These rates should be from time to time revised, to allow for variations in the prices of labour and materials.

£2,327 1s. 6d have been expended. They include expenditure on the main line not yet

certified as complete by the General Superintendent of the Great Western railway, and therefore we should think clearly repayable by the Wellington, Gray and Bruce. We have failed to ascertain the relation of the two Companies from the ledger accounts. The amount of "interchanged" traffic set aside for the equipment of bonds was, up to the 31st of January last, £13,708 15 10d, bonds of the par value of £10,100 having been purchased, and £5,129 15s 8d held as applicable to the purchase of others. The Company write off and charge to revenue 10 per cent against any fall in the value of these securities, which bear 7 per cent. interest and have 31 years to run. The total amount for the purchase of which the Great Western is possibly liable is no less than £418,000.

The Galt and Guelph Railway, 161 miles in length, uniting the Great Western Company's system at Galt with the Wellington, Gray and Bruce, is now held by the Great Western, they having seized the line when it made default in the payment of interest on bonds given as security for advances amounting to £75,938 17s 3d.

The results for the year ending 31st January are as follows:

Receipts.....	£15,989 2 8
Working expenses.....	£7,781 2 0
Leaving a balance of £8,208 0 8 towards the arrears of interest due.	

The London and Port Stanley line, running from London to Lake Erie, is worked by the Great Western, under an agreement dated 1st September, 1873, for 30 years at an annual rent of £39,000. This line, which was of old construction, required considerable expenditure to put it into working order; an expenditure which, under the agreement, was to be borne by the Great Western Railway, and was estimated at £100,000, or £20,547, and has already cost the sum of £18,004 15s 7d, which has been carried to a Suspense Account in the Balance Sheet.

The earnings and expenses of the line from September, 1873, to 31st January last, were:

Gross earnings.....	£24,215 7 0
Working expenses.....	£14,706 15 2
Rent.....	£3,841 15 5
Proportion of Suspense Account.....	£1,441 15 10
	£21,448 15 10

Balance transferred to Great Western Net Revenue account..... £2,371 11 5

The Suspense Account is now being reduced by yearly charges to Revenue of £5,000, being one-twentieth of the estimated cost of £100,000, but as the greater portion of the account consists of old iron rails charged out at a cost of £10 5s a ton, which are not likely to last the term of the lease, the present Revenue does not seem to us to bear a proper proportion of the renewals.

The Suspense Account has also been debited with £8,814 14s 7d, the cost of 19,850 Ordinary Shares of £1 each, issued in the Port Stanley Railway, intended to give a voting power in that Company. This, with the other items, should properly have been carried to a separate account, leaving the balance to the Renewal Account proper £14,403 14s 4d.

The agreement with the Welland Company, dated 20th December, 1873, provides for the lease for 21 years, at an annual rent of £1,800, of such portion of the Welland Railway as unites the Great Western Main Line, near Thorold, with the New Glenora Loop. The Great Western Railway were to put this line in working order, and to run down the third rail, required for its narrow gauge stock. The Welland Railway, in addition to the rent received, and 40 per cent. respectively of the local passenger and goods traffic.

The receipts and expenditure of this line are merged in the General Revenue Account and cannot be given separately. The expenditure in renewals, up to the 31st January, amounted to £18,189 17s 11d, of which £16,523 13s was expended during the six months. This expenditure stands to the debit of a Suspense Account, with the exception of £1,894 14s 7d, which is charged against Revenue during the year ending 31st January. As in the case of the Port Stanley lease, this expenditure does not seem to us to bear a proper proportion of the renewals.

Under an agreement with the Port Huron and Lake Huron Railway, made in 1873, the Great Western Railway are to provide the rolling stock for the line.

Abstract

16.

STATEMENT of Undutiable Parts of Locomotives on which Duty has been paid
Great Western Railway up to date. Amounts given are for material only,
do not include workmanship.

Date of Entry.	ENGINE.		Value in Currency.	Rate of Disco'nt	Value in Gold.	Rate of Duty, per cent.	Amount of Duty paid.	Value of Undutiable Parts.		Error of	Description.
	Description.	No.						U.S.C.	Gold.		
1870.			\$ cts	Per cent	\$ cts	15 & 5 on	\$ cts	\$ cts	\$ cts		
Aug. 31	Pass Iron Tubes	101	11150 00	18	9143 00	15		1433 13	1175 17		30 Pass Iron
do 31	do do ...	103	11150 00					1433 13	1218 17		30 do
do 31	do do ...	105	11150 00	15	18955 00	15	4425 00	1433 13	1218 17		4 do
Sept. 7	do do ...	107	11150 00					1433 13	1232 50		27 Fit Iron
do 7	do do ...	109	11150 00	14	29670 00	15	4673 00	1433 13	1232 50		7 Fit bra
do 7	do do ...	111	11150 00					1433 13	1232 50		6 do
do 9	Fit Iron Tubes...	102	11150 00	14	19178 00	15	3028 53	1407 37	1210 26		17 do
do 9	do do ...	104	11150 00					1407 37	1210 26		1 do
do 21	do do ...	106	11150 00	12	19624 00	15	3090 78	1407 37	1238 49		8 do
do 21	do do ...	108	11150 00					1407 37	1238 49		11 do
do 24	do do ...	110	11150 00	12	19624 00	15	3090 78	1407 37	1238 49		23 do
do 27	do do ...	112	11150 00					1407 37	1238 49		23 do
Oct. 3	do do ...	114	11150 00	12	19624 00	15	3090 78	1407 37	1238 49		28 do
do 3	do do ...	116	11150 00					1407 37	1238 49		30 do
do 6	do do ...	118	11150 00	12	9812 00	15	1545 39	1407 37	1238 49		72 do
do 7	do do ...	120	11150 00		9812 00			1407 37	1238 49		2 do
Dec. 9	Pass Iron Tubes	113	11180 00					1433 13	1289 82		29 Fit Bra
do 9	do do ...	115	11180 00					1433 13	1289 82		29 do
do 9	do do ...	117	11180 00					1433 13	1289 82		3 do
do 9	do do ...	119	11180 00	10	70434 00	15	11093 36	1433 13	1289 82		16 do
do 9	do do ...	121	11180 00					1433 13	1289 82		10 do
do 9	do do ...	123	11180 00					1433 13	1289 82		19 do
do 9	do do ...	125	11180 00					1433 13	1289 82		19 do
do 16	do do ...	122	11180 00	10	20124 00	15	3169 63	1407 37	1266 64		23 do
do 16	do do ...	134	11180 00					1407 37	1266 64		23 do
do 16	do do ...	136	11180 00	10	20124 00	15	3169 53	1407 37	1266 64		23 do
do 16	do do ...	138	11180 00					1407 37	1266 64		1 Pass B
do 22	do do ...	140	11180 00	10	10062 00	15	1584 76	1407 37	1266 64		5 do
do 21	do do ...	142	11180 00	10	20124 00	15	3169 53	1407 37	1266 64		12 do
do 21	do do ...	144	11180 00					1407 37	1266 64		14 do
do 23	do do ...	146	11180 00	10	20124 00	15	3169 53	1407 37	1266 64		18 do
do 23	do do ...	148	11180 00					1407 37	1266 64		26 do
Total Gold.....									40065 95		4 do
15 per cent. duty on \$40065 95...									6010 08		7 do
5 per cent. duty on \$6010 08...									30 05		11 do
									6040 13		18 do
1871.											18 do
April 9	Pass Iron Tubes	127	11150 00	9	20293 00	15	3043 95	1433 13	1304 15		29 do
do 9	do do ...	129	11150 00					1433 13	1304 15		5 do
May 4	do do ...	131	11150 00	10	20070 00	15	3010 50	1433 13	1289 82		5 do
do 4	do do ...	133	11150 00					1433 13	1289 82		12 do
do 19	Fit Iron Tubes...	150	11150 00	11	9923 50	15	1488 50	1407 37	1252 56		16 Fit F
do 19	do do ...	152	11150 00	11	9923 50			1407 37	1252 56		19 do
do 19	do do ...	154	11150 00	11	9923 50	15		1407 37	1252 56		21 do
do 19	do do ...	156	11150 00					1407 37	1252 56		24 do
do 19	do do ...	158	11150 00	11	29770 50	15		1407 37	1252 56		6 do
do 19	do do ...	160	11150 00					1407 37	1252 56		6 do
June 21	do do ...	162	11150 00	11	19847 00	15	2977 05	1407 37	1252 56		6 do
do 21	do do ...	164	11150 00					1407 37	1252 56		30 do
do 26	Pass Iron Tubes	135	11150 00	11	9923 50	15	1488 53	1433 13	1275 49		

been paid
erial only, an

STATEMENT of Undutiable Parts of Locomotives, on which Duty has been paid by Great Western Railway, &c.—Continued.

Date of Entry.	ENGINE.		Value in Currency.	Rate of Disc't.	Value in Gold.	Rate of Duty, per cent.	Amount of Duty paid	Value of Undutiable Parts.		Excess of Duty paid.
	Description.	No.						U.S.C.	Gold.	
			\$ cts.	Per cent.	\$ cts.		\$.cts.	\$ cts.	\$ cts.	
1871.										
Jan. 30	Pass Iron Tubes	137	11150 00	11	19847 00	15	2977 05	1433 13	1275 49	
do 30	do do ...	139	11150 00					1433 13	1275 49	
do 4	do do ...	141	11150 00	11	9923 50	15	1488 53	1433 13	1275 49	
July 27	Fit Iron Tubes...	168	11150 00	12	9240 00	15	1386 00	1407 37	1238 49	
Nov. 7	Fit brass flues...	170	11125 00	11	9901 25	15	1485 19	2467 59	2196 16	
do 6	do do ...	172	10625 00	11	9456 25	15	1418 44	2467 59	2196 16	
do 17	do do ...	174	10625 00	11	9456 25	15	1418 44	2467 59	2196 16	
Dec. 1	do do ...	176	10625 00	10	9562 50	15	1434 38	2467 59	2220 84	
do 8	do do ...	178	10625 00	These engines were entered on gold invoices made out at amount given (in gold).	9659 10	15	1448 85	2467 59	2220 84	
do 11	do do ...	180	10625 00		9725 40	15	1458 81	2467 59	2243 26	
do 23	do do ...	182	10625 00		9792 63	15	1468 89	2467 59	2258 66	
do 23	do do ...	184	10625 00		9747 71	15	1462 16	2467 59	2274 28	
do 26	do do ...	186	10625 00		9659 10	15	1448 85	2467 59	2263 83	
do 28	do do ...	188	10625 00		9659 10	15	1448 85	2467 59	2243 26	
do 30	do do ...	190	10625 00					2467 59	2243 26	
1872.					19450 80	15	2917 62			
Jan. 2	do do ...	192	10625 00					2467 59	2243 26	
Aug. 29	Fit Brass Tubes..	194	13775 00		24244 00	15	3636 60	2467 59	2243 26	
do 29	do do ..	196	13775 00					2467 59	2171 49	
Sept. 3	do do ..	198	13775 00		24244 00	15	3636 60	2467 59	2171 49	
do 3	do do ..	200	13775 00					2467 59	2171 49	
do 16	do do ..	202	13775 00		12122 00	15	1818 30	2467 59	2171 49	
do 10	do do ..	204	13775 00		12122 00	15	1818 30	2467 59	2171 49	
do 19	do do ..	206	13775 00		24122 00	15	3636 60	2467 59	2171 49	
do 19	do do ..	208	13775 00					2467 59	2171 49	
do 23	do do ..	210	13775 00		24122 00	15	3636 60	2467 59	2171 49	
do 23	do do ..	212	13775 00					2467 59	2171 49	
Oct. 1	Pass Brass Tubes	189	14275 00	13	24838 50	15	3725 78	2493 35	2169 22	
do 5	do do ..	191	14275 00					2493 35	2169 22	
do 12	do do ..	193	14275 00	13	12419 25	15	1862 89	2493 35	2219 09	
do 14	do do ..	195	14275 00	13	12419 25	15	1862 89	2493 35	2219 09	
do 18	do do ..	197	14275 00	11	12704 75	15	1905 71	2493 35	2219 09	
do 26	do do ..	199	14275 00	11	12704 75	15	1905 71	2493 35	2219 09	
Nov. 4	do do ..	201	14275 00	11	25409 50	15	3811 43	2493 35	2219 09	
do 4	do do ..	203	14275 00					2493 35	2219 09	
do 7	do do ..	214	13775 00	11	24519 50	15	3677 92	2467 59	2191 16	
do 7	do do ..	216	13775 00					2497 59	2191 16	
do 11	do do ..	218	13775 00	11	24519 50	15	3677 92	2467 59	2191 16	
do 11	do do ..	220	13775 00					2467 59	2191 16	
do 18	do do ..	222	13775 00	12	24244 00	15	3636 60	2467 59	2171 48	
do 18	do do ..	224	13775 00					2467 59	2171 48	
do 29	do do ..	226	13775 00	12	24244 00	15	3636 60	2467 59	2171 48	
do 29	do do ..	228	13775 00					2467 59	2171 48	
Dec. 5	do do ..	230	13775 00	12	24244 00	15	3636 60	2467 59	2171 48	
do 5	do do ..	232	13775 00					2467 59	2171 48	
do 5	do do ..	234	13775 00	12	12122 00	15	1818 30	2467 59	2171 48	
do 5	do do ..	236	13775 00	12	12122 00	15	1818 30	2467 59	2171 48	
do 12	do do ..	238	13775 00	12	12122 00	15	1818 30	2467 59	2171 48	
do 13	do do ..	240	13775 00	12	12122 00	15	1818 30	2467 59	2171 48	
do 16	Fit Brass Tubes..	242	1375 00	12	12122 00	15	1818 30	2467 59	2171 48	
do 19	do do ..	244	1375 00	12	12122 00	15	1818 30	2467 59	2171 48	
do 21	do do ..	246	1375 00	12	12122 00	15	1818 30	2467 59	2171 48	
do 24	do do ..	248	1375 00	12	12122 00	15	1818 30	2467 59	2171 48	
1873.										
Jan. 6	do do ..	148	1375 00	11	24519 50	15	3677 93	2467 59	2196 16	
do 6	do do ..	250	1375 00					2467 59	2196 16	
do 6	do do ..	252	14000 00	13	24360 00	15	3654 00	2467 59	2146 81	
Mar. 20	do do ..	254	14000 00					2467 59	2146 81	

STATEMENT of Undutiable Parts of Locomotives on which Duty has been paid
Great Western Railway, &c.—Continued.

Date of Entry.	ENGINE.		Value of Currency.	Rate of Disc't.	Value in Gold.	Rate of Duty, per cent.	Amount of Duty paid.	Value of Undutiable Parts.	
	Description.	No.						U.S.C.	Gold.
1873.			\$ cts.	Per cent.	\$ cts.		\$ cts.	\$ cts.	\$ cts.
Mar. 20	Fit Brass Tubes..	256	14000 00						
do 22	do do ..	258	14000 00	13	24360 00	15	3654 00	2467 59	2146 81
do 22	do do ..	260	14000 00					2467 59	2146 81
do 22	do do ..	262	14000 00	13	24360 00	15	3654 00	2467 59	2146 81
do 29	do do ..	264	14000 00					2467 59	2146 81
do 29	do do ..	266	14000 00	14	24080 00	15	3612 00	2467 59	2122 13
do 29	do do ..	268	14000 00					2467 59	2097 46
do 29	do do ..	270	14000 00	15	23800 00	15	3570 00	2467 59	2097 46
Mar. 5	do do ..	272	14000 00					2467 59	2097 46
April 12	Fit Brass Tubes..	274	14000 00	15	23800 00	15	3570 00	2467 59	2097 46
do 12	do do ..	278	14000 00					2467 59	2097 46
May 1	do do ..	280	14000 00	15	23800 00	15	3570 00	2467 59	2097 46
do 1	do do ..	282	14000 00					2467 59	2097 46
do 5	do do ..	284	14000 00	15	23800 00	15	3570 00	2467 59	2097 46
do 5	do do ..	286	14000 00					2467 59	2097 46
do 9	do do ..	288	14000 00	15	23800 00	15	3570 00	2467 59	2097 46
do 9	do do ..	290	14000 00					2467 59	2097 46
do 14	do do ..	292	14000 00	15	23800 00	15	3570 00	2467 59	2097 46
do 14	do do ..	294	14000 00					2467 59	2097 46
do 19	do do ..	296	14000 00	15	23800 00	15	3570 00	2467 59	2097 46
do 19	do do ..	298	14000 00					2467 59	2097 46
do 26	do do ..	300	14000 00	15	23800 00	15	3570 00	2467 59	2097 46
do 26	do do ..	302	14000 00					2467 59	2122 13
Sept. 15	do do ..	304	14000 00	14	12040 00	15	1806 00	2467 59	2122 13
do 16	do do ..	306	14000 00					2467 59	2122 13
do 16	do do ..	308	14000 00	14	24080 00	15	3612 00	2467 59	2122 13
do 18	do do ..	310	14000 00	10	12600 00	15	1890 00	2467 59	2220 84
do 22	do do ..	312	14000 00					2467 59	2220 84
do 22	do do ..	314	14000 00	10	25200 00	15	3780 00	2467 59	2220 84
do 27	do do ..	316	14000 00					2467 59	2220 84
do 27	do do ..	318	14000 00	10	25200 00	15	3780 00	2467 59	2220 84
do 24	do do ..	320	14000 00					2467 59	2196 17
do 24	do do ..	322	14000 00	11	24920 00	15	3738 00	2467 59	2196 17
do 27	do do ..	324	14000 00					2467 59	2196 17
do 27	do do ..	326	14000 00	11	24920 00	15	3738 00	2467 59	2196 17
do 30	do do ..	328	14000 00					2467 59	2196 17
do 30	do do ..								
	15 per c. on...								191149 39
1870.									
Sept. 8	Switching Iron Tubes	91	9000 00	14	7740 00	15 & 5 on 15	1219 05	1738 54	1495 15
				15	1495 15				224 26
				5	224 26				11 21
1872.									
Oct. 24	do do ...	308	9150 00					1738 54	1547 31
do 24	do do ...	309	9150 00	10	16287 00	15	2443 00	1738 54	1547 31
Nov. 2	do do ...	310	9150 00					1738 54	1547 31
do 2	do do ...	311	9150 00	11	16287 00	15	2443 00	1738 54	1547 31
do 4	do do ...	312	9150 00					1738 54	1547 31
do 4	do do ...	313	9150 00	11	16287 00	15	2443 00	1738 54	1547 31
1873.									
Jany. 4	do do ...	314	9150 00	11	8143 50	15	1221 53	1738 54	1547 31
do 18	do do ...	315	9150 00	11	8143 50	15	1221 53	1738 54	1547 31
do 24	do do ...	316	9150 00					1738 54	1547 31
do 24	do do ...	317	9150 00	11	16287 00	15	2445 05	1738 54	1547 31

has been paid STATEMENT of Undutiable Parts of Locomotives on which Duty has been paid by Great Western Railway.—*Concluded.*

ENGINE.	Description.	No.	Value in Currency.	Rate of Disc't.	Value in Gold.	Rate of Duty, per cent.	Amount of Duty paid.	Value of Undutiable Parts.		Excess of Duty paid.
								U.S.C.	Gold.	
			cts.	Per cent.	\$ cts.		\$ cts.	\$ cts.	\$ cts.	
22	Switching Iron	418	9150 00	14	25026 00	15	3753 90	1738 54	1495 15	
	Tubes	419	9150 00					1738 54	1495 15	
	do do ...	420	9150 00					1738 54	1495 15	
	do do ...	421	9150 00					1738 54	1495 15	
	Total						244001 72		21453 70	
	15 per c. duty on									3218 05
	Total excess of duty paid									41398 34

17.

CUSTOMS DEPARTMENT,

OTTAWA, 4th November, 1873.

SIR,—In reply to your telegram of the 3rd instant, as to the admission of locomotives complete for the Great Western Railway, I beg leave to inform you that a specification should be furnished to you by the Company, showing the value of such of the parts of the locomotives in question as are exempted from duty under the law, and after being added up, the value thereof should be deducted from the cost of the locomotives complete, and duty paid upon the balance thereof only.

I am, Sir,

Your obedient servant,

(Signed), R. S. M. BOUCHETTE.

The Collector of Customs,
Clifton, Ontario, Canada.

18.

CUSTOM HOUSE,

CLIFTON, 21st November, 1873.

SIR,—I beg leave to acknowledge the receipt of the Manager of the Great Western Railway's application for reduction of value on parts of locomotives named in tariff; also your letter of the 4th instant, in reply to my telegram, informing me that a specification should be furnished by the Company, showing the value of such of the parts of the locomotives in question as are exempted from duty under the law, and the value thereof to be deducted from the cost of the locomotives complete, and duty paid upon the balance thereof only."

In accordance with the above instructions, I have accepted Entry No. 1388, with a copy of the undutiable parts of locomotives, certified to by the General Manager, and forwarded to your Department by yesterday's mail. I also enclose a copy of Mr. Price's specification for your information, all of which I hope you will find satisfactory.

The Company are importing other locomotives, which will be dealt with in like manner.

I have the honor to be, Sir,

Your very obedient servant,

(Signed), W. LEGGETT,
Collector.

The Commissioner of Customs,
Ottawa, Ontario.

GREAT WESTERN RAILWAY.

CUSTOMS DEPARTMENT,
OTTAWA, 5th April, 1875.

The undersigned has the honor to report in connection with the papers herewith submitted, referring to the refund of duty in those parts of locomotive engines free by tariff, that the principle was established by the Government in power in the year 1868, as will be seen by the letter or memo of the Hon. S. R. Tilley, then Minister of Customs dated 26th May, 1868, copy of which is annexed.

Under this order, the Grand Trunk Railway and other railways have regularly entered their imported locomotive engines for duty, at a rate representing the value of the finished machines, less the value of those parts which were enumerated in the free list, and entitled to free entry.

In the case of the Great Western Railway the same rule would have been acted upon, had its manager been aware of the concession; but as they were not informed on the subject at the time of any of the importations in the annexed list, they invariably paid duty upon the full value of the finished locomotive without any deduction whatsoever, and the refunds granted them, only placed them on the same footing in reference to the amount of duty remaining in the hands of the Government, as the Grand Trunk and other railways.

The copies of Mr. Bouchette's letters to the Collector of Customs, Montreal, and C. J. Brydges, Esq., then manager of the Grand Trunk Railway, of 3rd April, 1868, were based upon Mr. Tilley's memo before mentioned, and the same terms have been regularly accorded to the importers of locomotive engines from that date, until the date of the present tariff, when the parts formerly free, were placed in the schedule of goods subject to an *advalorem* duty of 10 per cent.

Humbly submitted,

J. JOHNSON,
Commissioner of Customs.

To the Honorable
The Minister of Customs.

1. GRAND TRUNK RAILWAY OF CANADA,
MONTREAL, MAY 14th, 1868.

MY DEAR SIR,—We have a number of engines now arriving from England, the first of which are now in port. They are all in parts, much of the machinery being subject to no duty and other portions under the tariff as it now exists, being liable to certain rates of duty.

I am in communication generally with the Finance Minister upon the subject of the rate of duty that we shall have to pay on the machines in their present condition, and I write now to ask you to be good enough to give such directions as will enable the articles to be landed so that no delay may take place in getting the engines to work. We will of course be responsible for any rate of duty that may ultimately be fixed by the Finance Department to be paid for these Engines.

I am, my Dear Sir,
Yours very truly,

(Signed),

C. J. BRYDGES.

A. M. Delisle, Esq.

2.

CUSTOM HOUSE,
MONTREAL, May 15th, 1868.

MY DEAR SIR,—With regard to the engines mentioned in your letter of yesterday, the proper course will be the passing of an entry in such manner as you may deem correct, subject, however, to correction of appraiser, if found necessary. The invoices must be produced at the same time in order that what is dutiable may be ascertained.

In the meantime the engines may be landed and stored in your premises here where the proper examination may take place before final delivery.

Believe me, Dear Sir,
Yours most truly,

(Signed), A. M. DELISLE,
Collector.

C. J. Brydges, Esq.,
&c., &c., &c.

3.

GRAND TRUNK RAILWAY OF CANADA,
MONTREAL, May 19th, 1868.

MY DEAR SIR,—I was in hopes that some change would have been made in the rate of duty during the present Session as to locomotive engines, but I find that the tariff is to remain precisely the same as it is at this moment.

It is, therefore, necessary that I should agree with you in regard to the duty to be paid upon the 25 engines now coming into port for this Company, and four of which are already here on board the *Abeona*. These engines are contracted to be delivered here complete by the makers, but are made in Glasgow in parts and brought out here, and put together after arrival. A considerable portion of the parts of these engines are under the existing and new tariff, free of duty, and the frames, axles, cranks, tyres, crank axles, piston rods, guide and slide tyres, crank pins, connecting rods, tubes, &c., all these parts are separate and of course are in free of duty.

I have asked our locomotive superintendent and the foreman of the works, where the engines were built, to make me out a statement of the actual value at the place of shipment, Glasgow, of those parts of the engines which, under the tariff, are not to be admitted duty free; and I now enclose you a certificate from them of the value of the parts upon which we shall have to pay duty. This, for the four engines, amounts to £3,413 sterling, or £853 5s. each.

I propose, therefore, to pay duty upon that sum for the parts of the engines which are not duty free under the tariff. The rate I understand to be 15 per cent., and I shall be much obliged if you will drop me a line to say that we may make the entry in this way, and this, of course, will govern the arrangement for all the engines which are now on their way out.

I am, my Dear Sir,
Yours faithfully,

(Signed), C. J. BRYDGES.

A. M. Delisle, Esq.

4.

CUSTOM HOUSE,
MONTREAL, May 20th, 1868.

MY DEAR SIR,—I beg to acknowledge the receipt of your letter of yesterday with regard to duty payable upon locomotive engines.

The exceptions of parts of locomotives to which you allude, which are declared free by the tariff have, in my opinion, no reference whatever to locomotive engines

12.

OFFICE OF THE MANCHESTER LOCOMOTIVE WORKS,
MANCHESTER, N.H., August 18, 1873.

Specification of free portion of one locomotive engine built for the Grand Trunk Railway of Canada by the Manchester Locomotive Works, Manchester, N.H.:—

Main frames, all complete.....	\$1,730 00
Engine truck frames.....	518 24
Tender and truck axles.....	611 48
Driving axles, all fitted.....	182 42
Boiler tubes.....	1,088 61
Four connecting rods.....	672 44
Steel tyres.....	668 83
Steel slides.....	142 71
Piston rods.....	44 55
Steel crank pins.....	32 97
Total free, U.S. Currency.....	\$5,932 31
Less, twelve wheels, at \$20 each.....	240 00
	\$5,692 31

ANETAS BLOOD,
Superintendent.

13.

GREAT WESTERN RAILWAY,
OFFICE OF THE GENERAL MANAGER,
HAMILTON, ONTARIO, 29th September, 1873.

SIR,—Sometime since an interview was had with the Honorable Mr. Tilley, your predecessor, in reference to duties on locomotives then being imported from the United States for this Company, and it was arranged that we should finish our importations on the order then given on changing our gauge, leaving the question to be afterwards settled.

That order has now been completed, and another about commencing.

I shall be obliged if you will kindly send me specification of dutiable articles on locomotives built in the United States, and also specification of free portions.

I need not mention that the articles which we claim as free portions are all imported from England, and could be imported into Canada free of duty—at the same time, I would point out that it has been impossible to have these locomotives built in Canada, as the Grand Trunk and the Great Western have, in addition to these locomotives from the United States, kept the only Locomotive Works in Canada (the Kingston shops) full of orders.

Your kind attention will oblige,

Your obedient servant,

(Signed), JOSEPH PRICE.
General Manager.

Hon. Charles Tupper, C. B.,
Minister of Customs, Ottawa.

14.

CUSTOMS DEPARTMENT,
OTTAWA, 3rd October, 1873.

SIR,—In reply to your letter of the 29th ultimo, with reference to the admission of United States locomotives, or parts thereof, I beg leave to inform you that the

CANADA WIRE WORKS.

THOS. OVERING,

Optical Wire Worker,

AND MANUFACTURER OF

Fourdrinier and Cylinder Cloths for Paper
Mills, Wire Cloth, Sieves, Riddles,
Rat Traps, &c., &c.

Particular attention paid to Builders Work
Sawmety, Garden and Farm Fencing made to
order.

757 CRAIG STREET, West of Victoria
Square—Box 193 Montreal, P.Q.

April 12, 1871.

18-37

CALICO GLAZING!

THOMAS PARKER

HAS GOT HIS NEWLY IMPORTED
MACHINERY in good working order for
CALICO GLAZING. The ONLY PLACE IN
CANADA where you can have your Curtains,
Window Blinds, Sofa and Chair Covers, &c., &c.,
cleaned and glazed to look EQUAL TO NEW
without being taken apart.

THOMAS PARKER received a FIRST PRIZE
DIPLOMA at the Provincial Exhibition for
dyeing best colours in Silks, Woollens, and Cot-
tons; also for Scouring.

BRITISH AMERICAN STEAM DYEING, SCOURING, RAY
PRESSING, AND GLAZING WORKS,

44 ST. JOSEPH STREET,

NEAR MCNEIL STREET.

April 12.

twenty-five horse power.

—A number of the new proprietors of the
Joggins mines have called a general meeting
of stockholders. It is generally understood
that these gentlemen have secured a very
valuable property. Although the mines have
been in the hands of the company but a few
weeks, the demand for Joggins coal has large-
ly increased, and the orders already taken
form an aggregate of several thousand tons.
When the contemplated additions have been
made to the works, and a new shaft sunk, the
product of the mine will probably be swelled
to several times its present proportions.

—In accordance with the design of im-
proving the principal stations on the line of
the Grand Trunk Railway, the sum of \$7,500
is about to be spent on the buildings of the
Company in Kingston. The present stone
building which served as a common waiting-
room, and for offices of the station employees
besides is to be replaced by a two-story
building. This will contain a waiting-room
for first class passengers, ladies and gentle-
men, well furnished and comfortable, a
waiting-room for ladies travelling alone,
with proper attendance; and a waiting-room
for second class passengers.

—The Belleville *Intelligencer* says:—The
business of the Grand Trunk Railway Com-
pany has increased to such an extent that
additional Rolling Stock is very much need-
ed. To supply this want, the Company has
recently purchased eleven engines from the
Great Western Railway Company, and has
given orders to the Canadian Machinery
Company of Kingston for nine more engines.
The Rolling Stock Company of Canada has
also given orders for the construction of 500
freight cars for the Grand Trunk, and we
are glad to learn that our enterprising
townsman, C. J. Stirling, Esq., has received
the contract for supplying the prepared lum-
ber for these cars. This part of the contract
alone will involve the expenditure of over

official statement, made on 1st September,
1869, of the expenditure of that country in
the Austro-Prussian war, and the amount re-
ceived as compensation from the Allied
States. The statement includes the indemni-
ties paid to the deposed Sovereigns of Han-
over and Nassau. Mr. Petre gives the follow-
ing summary of the statement:—The total
expenditure is set down at 159,884,231 dollars,
or 222,632,634 sterling. In calculating how-
ever, the real expenditure of the war consid-
erable reductions must be made from this sum.
The indemnities to the King of Hanover and
the Duke of Nassau amount together to £3,733,
816, which, large as the amount is, was more
than covered by the value of the Crown lands
and real property which were acquired in ex-
change for the indemnities. A sum of £4,125,
000 also figures in the account of expenditure
under the head of repayment to the State
Treasury of the Reserve Fund, which was
appropriated by the Government to meet the
immediate necessities of the war. Deduct-
ing, therefore, these two amounts, the real ex-
penditure of the war may be set down at £15,
000,000 sterling. The contributions levied
by the Prussian armies during the campaign
for military purposes amounted to £747,679,
and the war indemnities paid to Prussia in
accordance with the stipulations of the treaty
of peace to £8,345,135, so that, in fact, the
actual cost of the campaign to Prussia is re-
duced to a little under £6,000,000 sterling.
The list of war indemnities includes the pay-
ment to Prussia of 40,000,000 thalers by Aus-
tria, from which was to be deducted 15,000,000
still due to Austria from Schleswig and Hol-
stein for war expenses, and 5,000,000 as an
equivalent for the free maintenance of the
Prussian army in Austria until the conclusion
of peace. There was also to be paid to Aus-
tria by Bavaria 30,000,000 florins; Saxony,
10,000,000 thalers; Wurtemberg, 8,000,000
florins; Baden, 6,000,000 florins; Hesse Dar-
metadt, 3,000,000 florins.

The treaty is a monstrous and decisive pro-
position to make to Nova Scotia; and the
Commissioners have been dragging in false
security if they believed that we shall submit
to the loss of our valuable inshore fisheries
without violence. We are colonists and Bri-
tish subjects; not fools nor a pack of coward-
ly slaves to allow our property to be traded
away without our consent. The English
blockade runners and ship-builders will not
be permitted to father the cost of their blind-
ness on this Province without a struggle. The
attempt would be a violation of the good
faith which the Empire owes to these colo-
nists. It would be an immoral and unprin-
ciple violation of provincial rights by the
strong hand. The Home Government may
as well attempt to sell the Province over our
heads—to sell ourselves outright—as to sell
our fisheries. We have been robbed of our
independent Government by Canada, and
now it is proposed to take the bread out of
our mouths. It will not be done quietly, nor
without driving this Province to the last
verge of desperation. It will be time for us
to abandon our country altogether if we can-
not prevent this iniquitous bargain from be-
ing carried out. We are impoverished
enough, and struggling enough, even now,
but the loss of our fisheries will be a blow
from which the Province will never recover.

Capt. Herdby, of the Belleville (N. J.)
Laundry, after a six months' experiment with
the coolies, makes some interesting state-
ments concerning them. They do not work
as rapidly as girls, and he there pays,
though less in amount nearly
as much relatively as he does the girls. He
has increased his force of Chinamen to one
hundred. All the girls who left at the time
of the introduction of the coolies have return-
ed. A good steady girl can earn sixty dol-
lars a month.

CLC # 04-112

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R 385 P 191
Vol. 4 (2)

GREAT WESTERN RAILWAY.

REPORT (2)

OF

THE DIRECTORS

OF THE

GREAT WESTERN RAILWAY

OF CANADA;

TO BE PRESENTED TO THE SHAREHOLDERS
ON FRIDAY, SEPT. 29TH, 1854.

WITH A STATEMENT OF ACCOUNTS,

&c. &c. &c.

R 385 P 191 Vol 4 (2) Hamilton
S. C.

HAMILTON, C. W.,
PRINTED AT THE "BANNER" OFFICE.

1854.

At the period of the opening of the Line for public traffic, the works generally were in an unfinished state; the prosecution of which towards completion, has been steadily and successfully effected till the present time. The principal works which still remain in progress of construction are the following:—

1—EARTHWORKS, OR GRADING.

At the time of opening the first section of the Road, three of the heaviest cuttings between St. Catherines and the Suspension Bridge were incomplete, and the Railway track was carried through them on a temporary grade, elevated respectively at their summits, 5, 12, and 6 feet above the intended permanent level. The first of these, at St. Catherines, has been for several weeks sufficiently far advanced to admit of the track being laid at its ultimate grade, over which the trains now pass. The other two, situated between Thorold and St. David's,—which consist, one of hard-clay, with boulder stones, and the other of limestone rock—are still unfinished; and the former of the two (requiring still the removal of upwards of 65,000 yards), will not be ready to receive the track at its permanent grade till Midsummer of next year. The embankments formed by the material from these excavations are of course also unfinished, and the gap in each of them is now spanned by a strong temporary trestle structure.

Between Hamilton and London the unfinished grading works, at the beginning of this year, consisted of the completion of the filling up of the Depot grounds at Hamilton; the embankments over the Desjardins gorges; and cuttings at St. Georges, the Grand River, and River Nith. The three works of embankment above mentioned have been steadily prosecuted all summer; the trains being carried over the Desjardins and Dundas gorges on strong temporary trestle Viaducts. The Desjardins embankment, which still requires about 30,000 yards of material, will be complete in six months; that at Dundas will be finished in a fortnight from this time; and the three cuttings west of these, which were at the first taken out to the ultimate grade, will have their sides sloped back before the approach of winter, to such an extent as will prevent any risk of accident to passing trains.

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Between London and Windsor, two heavy clay cuttings were unfinished when the Line was opened, and through one of them the track was laid down at a grade elevated a few feet above the permanent level. One of these cuttings is now quite finished, and the other, which still requires the removal of 35,000 yards of material, will be completely opened out early next year.

2ND—MASONRY AND BRIDGING.

Under this head there remained unbuilt at the opening of the Line a large number of public and private Road Bridges over the Railway track, as well as numerous surface road crossings, cattle passes, and cattle guards. These works have been carried on as rapidly as circumstances would allow, leaving at this time not more than eighteen of the above road bridges to be built, and but very few of the surface crossings and cattle guards. A retaining wall, about 850 yards long, at the foot of the slopes of the cut immediately east of Hamilton station, is now being built, and will be finished by 1st December. The construction of this wall was necessary for sustaining the slopes of the cutting, which consist of a quicksand for a height of three feet from the bottom.

3RD—BUILDINGS.

Shortly after the opening of the Line, all the station buildings employed for the Passenger Traffic, and all the Freight houses at the way stations, were finished and equipped; as was also (with one or two exceptions) all the buildings and apparatus for wooding and watering the trains. At the present time an enlargement of the Freight houses at the Suspension Bridge and at Windsor, and the completion of the stone Freight house at Hamilton, are in progress, and will be finished in time for the accommodation of the Fall Freight, with the exception of one-third part of the Hamilton Freight House. A new second class station house and siding, will be opened immediately at Dorchester, between Ingersoll and London, and two others, of the same description, between London and Chatham. Besides the above-named buildings, now in progress, an addition to the Freight accommodation, and an alteration of the present arrangement of buildings and sidings for freight traffic at

the Falls station will be required when the Suspension Bridge is ready for the passage of trains, (which is expected to be about 1st January next,) and which additions are allowed for in the estimate hereafter following. The water supply for the Engines, Workshops, and Station buildings at the Niagara Falls station is very defective, involving, as a consequence, an expense which need not necessarily belong to this service, and it has always been looked upon as of a temporary character.

It is at present in contemplation to bring a supply from a permanent source, distant about one and a half miles, which will give a head of 25 feet above the level of the rails on the station yard, thereby obviating the necessity for pumping. An improvement of the water supply is necessary at some of the stations, especially on the Western Division, and will require a further sinking of two or three of the existing wells, and some trifling additional works.

The wharf along the front of Hamilton Depot grounds, on Burlington Bay, is not yet completed on its whole length of about 2,200 feet, but it will be entirely finished to that extent at an early period next year.

4TH.—SUPERSTRUCTURE AND FENCING.

The whole Line, with the exception of a few miles between Hamilton and Paris, was opened for traffic with a track laid upon an unballasted road-bed. Between London and Windsor, upwards of one-half of the track was laid upon a basis of longitudinal subsills of 3 inch plank as a temporary substitute for ballast; and after the trains had commenced running, this system of subsills was introduced under the track in all the wet cuttings, and on freshly formed banks between the Falls and London. Simultaneously with the opening of the Line, three ballast trains commenced work between the Falls and London; one of these was employed at the ballast pit at St. Davids, near the Falls, and is now at work in the gravel pit since opened at St. Catharines; the second is at work at the Stoney Creek pit, 5 miles east of Hamilton; and a third at the Dundas pit, six miles west of Hamilton. Shortly thereafter, a fourth engine and train commenced ballasting at the Grand River pit near Paris, and is now transferred to that at the River Nith, 3 miles West of Paris; and in the beginning of June last, two ballast trains com-

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menced work on the Western Division, one at the Lobo gravel pit, 10 miles West of London; and the other at Baptiste Creek, 13 miles West of Chatham. Three additional ballast pits have been obtained, and are ready to be worked; one of these is situated a few miles West of Ingersoll, the second between Lobo and Chatham, and the third between Baptiste Creek and Windsor. The ballast obtained from these pits is of as good a quality as the country affords, consisting either of a coarse sand and gravel, or of a uniform medium sized gravel. The length of track ballasted by these trains up to this time is 26 miles of the section between Hamilton and the Falls; 48 miles of the section between Hamilton and London, and 18 miles of the section between London and Windsor. On nearly one half of the above distance of ninety-two miles, the Line has not yet been raised to its permanent level, but a sufficiency of material has been packed under the cross ties to preserve it from sustaining any unusual injury on the breaking up of the frost. It is deemed preferable to accomplish as great a length as practicable of even a partially ballasted bed, before Winter, than to carry up the track to its full height as the work proceeds.

The ballasting of the whole Line is being performed under contract, by Mr. G. F. Harris, who is bound by such Rules and Regulations in the times of running of his ballast trains, &c., that there has never been the slightest interference with the running of the Company's passenger or freight trains.

An increased siding accommodation for new stations, and for the freight traffic of the Line at all the principal Stations, is still required, amounting in all to nearly—

2 miles additional on Eastern Division,
3 miles do on Central Division,
and 4 miles do on Western Division.

The iron and cross ties for this additional track are already on hand; leaving merely the cost of grading and laying down to be incurred.

The turntables in front of the Engine Houses at the Falls, Hamilton, Galt, London, Chatham, and Windsor Stations, have all proved to be too weak for the service required of them, and an additional cost must yet be incurred in strengthening them.

The risk of any future detention of the trains from the sliding of the mountain slopes near Dundas is also so far as can be foreseen, almost entirely obviated. At the two points where heavy slides took place last spring (one of them in the beginning of March last, blocking up the track for four days) the Line of track has been deviated to a considerable distance outward from the mountain rendering it in all probability free from any danger even though a slide as great as those of last spring should again occur. The location of the Line for nearly three miles here is in a partial excavation along the winding slope of the Burlington ridge, which is composed of loose limestone rock debris resting upon detached layers of blue and plastic clays. This material from the time that it was disturbed by the Railway excavations, has hardly ever ceased to be in motion at one point or another; and on the breaking up of the frosts in the spring of the year there is a constant liability of slides taking place. The porous nature of the material composing the mountain slopes, prevents the possibility of cutting catchwater ditches to convey away the water to the nearest channels and thereby diminish the risk of slides; and the great height of the slopes before the summit ridge is reached renders useless the cutting of ditches along the summit. But it is very reasonably expected that the deviation of the Line above mentioned, will guarantee an unobstructed track during the worst seasons of the year.

The Copetown cutting nine miles West of Hamilton, which presented so many obstacles to its completion during the construction of the Line, has never since the trains commenced running, interrupted for a moment the daily traffic through it; and at present the track and road bed there are as sound as any portion of the Line. The system adopted for retaining the quick sand sides of the cutting, by means of a line of sheet piling on each side, sustained in position by transverse shores of whole timbers, has fully answered the purpose intended.

The embankment over the bog at Mudge Hollow, five miles West of Paris, which occasioned so much difficulty during its formation by reason of its continued settlement in the soft material of the bog to the depth, in one place, of 35 feet, has been so effectually formed by the aid of the brushwood then introduced in layers into the body of it, that hardly any subsidence has taken place during the past six

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months, and none is apprehended at a future time. Westward of this place to Windsor, none of the earthworks have ever caused any trouble.

The track along the whole length of the Line, is at present, and has been since the commencement of the dry weather in excellent running order; there being not more than six or eight miles in all over which trains cannot run at their usual speed.

There is no appearance whatever of the track having suffered any injury from having been opened on an unballasted road bed, and subjected during the whole of last winter and spring to a very heavy freight and passenger traffic. One great safeguard against any damage from this cause consisted in the excellent quality of the sleepers or cross-ties, which for more than seven-eighths of the length of the Line consist of sound white oak six inches thick by ten inches wide, laid at a distance of thirty inches apart from centres.

The rails on the main Line are of three patterns; the flange or T rail with fished joints weighing 65 pounds per yard; the U or bridge rail weighing 66 pounds per yard, fastened at the joints with a wrought iron plate on which the ends of the rails rest, and are spiked down to the cross ties and bolted together by a bolt and nut; and the light and heavy compound rails weighing respectively 66 and 80 pounds per yard, the two halves of which are riveted together and spiked directly to the cross ties. Of the above there are on the main Line $34\frac{1}{2}$ miles of fished T rail; 156 miles of U rail; $23\frac{1}{2}$ miles of light compound rail; 15 miles of heavy compound rail. All the sidings are laid with the common T or flange rail weighing $62\frac{1}{2}$ pounds per yard, with cast iron chairs at the joints.

Subjoined I beg to lay before you a detailed estimate of the cost of completing the above mentioned works, dating from 1st August last, in which an allowance is made for every item required for finishing the road-bed and track in a first class manner, and for placing the whole of the works and structures in a perfectly sound and finished condition.*

*It has not been considered necessary to print all the items composing the estimate, and, therefore, all but the summary is omitted.

EASTERN DIVISION.

	\$	c.	£	s.	d.
1—Grading	79,400	00			
2—Masonry, Bridging, Building, &c.	165,550	00			
3—Drainage Works	35,960	00			
4—Permanent Way	127,560	00			
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	408,470	00			
Add 10 per cent for Engineering and Contingencies	40,847	00			
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	449,317	00	112,329	5	0

CENTRAL DIVISION.

1—Grading	107,400	00			
2—Masonry, Bridging, Building, &c.	136,900	00			
3—Drainage Work	133,160	00			
4—Permanent Way	158,620	00			
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	536,080	00			
Add 10 per cent for Engineering and Contingencies	53,608	00			
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	589,688	00	147,422	0	0

WESTERN DIVISION.

1—Grading	47,500	00			
2—Masonry, Bridging, Building &c.	106,500	00			
3—Permanent Way	207,300	00			
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	31,360	00			
Add 10 per cent for Engineering and Contingencies.	36,130	00			
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	397,430	00	99,357	10	0
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Total,	\$1,436,435	00	359,108	15	0

It must be borne in mind that the above estimate only covers the completion of the line with a single track throughout,

and has only made provision for the accommodation of a traffic not exceeding an average of £8,000 to £10,000 Currency, per week.

This estimate might be reduced to the sum of £309,000 by throwing out nearly the whole of the sums under the head of Drainage Works, and some other items not absolutely necessary for merely ensuring a sound and safe track, and a reasonable amount of station and siding accommodation; but by following this course with reference to the drainage works, the cost of maintenance of way would be largely increased and there would not be the absolute certainty of possessing a track secure from injury from rain or frost and over which the trains could run at full speed in every season of the year, which, the adoption of the complete estimate would ensure. In fact, this estimate assumes the construction of a permanent way, equal in all essential particulars to that of an English Railway, and though it has not hitherto been the practice on this continent to make such a thoroughly completed track as is here contemplated, there cannot be a doubt of the sound policy of such a course, especially when it is borne in mind that the severe winters of this climate subject the track and drainage works to far greater risks of displacement and damage than the same are liable to in England.

There can be little doubt entertained as to the sufficiency of this estimate to cover the cost of putting the Line into the efficient condition above mentioned, because from the present advanced state of the Works, there is no heavy sum required for any one extensive piece of Work where a large margin for contingencies would be necessary; but the gross expenditure estimated is made up of a large number of comparatively small items, all I believe accurately estimated in detail on the data obtained from the experience of the past eight months working of the Line.

I have the honor to be,

GENTLEMEN,

Your most obedient Servant,

G. LOWE REID, ENGINEER.

HAMILTON, 14th September, 1854.

which the Canadian mails are carried, and thence by rail to Tawa, Quebec, and the other Branches in North America.—*London Star.*

Important from Japan.

ESTABLISHMENT OF TELEGRAPH LINES—REVOCATION OF THE EDICT AGAINST CHRISTIANITY.

From the New York Evening Post.

The Paris *Pays* publishes intelligence from Japan to the 10th of July, according to which the authorities were doing all in their power for the faithful execution of the terms of the treaties. An imperial decree authorised the erection of commercial exchanges at Simoda, Nagasaki, and Hakodadi, and appointed a number of merchandise brokers to facilitate commercial intercourse with the various nations included in the treaties.

It will be recollected that the Americans presented a railroad and telegraph to the Emperor. The latter has been put up by a Japanese engineer, and is in successful operation. It is five leagues in length.—The Emperor is so well pleased with the invention, that he has ordered telegraphic communication between Jeddo and the provinces of Gokinaihi, Tokaido, Fokuro, Kudu, Sangodo and Saikaido. An American house established at Simoda has offered to furnish the requisite materials.

The most important act of the reigning Emperor is the revocation of the edict against the Christians issued by the Emperor Dain-Fusam in 1614. In future, foreign agents accredited at Japanese ports will be privileged to bring with them one or more Christian preachers, for their own and their country's benefit.

Attempted Escape of Convicts.

From the New York Times.

Yesterday forenoon, as Deputy Sheriff Engles was taking two prisoners, named Tim Sullivan, alias Tom McCoy, convicted of burglary, and John Donnally, convicted of felonious assault, to the Hudson River Railroad depot, for the purpose of conveying them to Sing Sing, they made a desperate attempt to escape. On reaching the depot of Franklin and Church-streets, each threw a handful of Cayenne pepper into the Deputy Sheriff's eyes, and then fled. The officer, though half blinded, pursued the fugitives—who, being handcuffed, could not make very good time—and after a chase of several blocks, snatched his revolver at them five times, and, with the aid of citizens, succeeded in effecting their capture. The prisoners, following their re-arrest, were taken to Sing Sing. Their plan to escape was pre-arranged, for a waggon was in readiness to pick them up.

A woman, seven feet in height, was at the American Hotel, Indianapolis, on last Thursday week.

nada in Hamilton, has been removed to their new building on the corner of James and Vine streets. The new building contains a banking room, about 43 by 24 feet, with clerks' room and private room for the cashier adjoining. In the centre of the building and communicating with the bank room is a spacious vault or safe built of solid brick work and lined with boiler plate. The iron doors and safe were executed by Messrs. Charles Vale & Co., of this city. The remaining portions of the building is devoted to a private dwelling house for the Manager; this is approached by an entrance on Vine street, the principal entrance to the business offices of the bank being on James street. The style of the building is Italian Romanesque; it has a frontage of 56 feet on James street and 51 feet on Vine street. It was designed and carried out under the superintendence of Messrs. Rastrick, H&I & Wily. Mr. George Worthington was the contractor for the stone work, and Messrs. Edgar & Sharp for the carpenters and joiners' work. The Chartered Bank of the Province deserves much credit, not only for the liberality, but for the discretion shown in putting up buildings for banking purposes in many of our principal cities; in this respect they have offered a most favourable contrast to County or City Municipalities who have been too economical to seek professional advice, and too inexperienced to do well without it. The new Bank of Upper Canada is admirably adapted for its intended purposes, and reflects the greatest credit on its proprietors, and the architect under whose guidance it has been erected.

COAL-BURNING LOCOMOTIVES.—Experiments are being made on the Great Western Railway to test the question—can coal be used as fuel for locomotives, with advantage over wood. Even in England, our readers may not all be aware, coal is not very extensively, (or, at least, far from exclusively) used. Every Railway Company possesses its coke ovens, where coal is converted into coke, previous to being consumed in the locomotives. Of late years, however, attempts have been made, attended with more or less success, to feed the giants with coal, untransformed. On some of the American roads, too, there are coal burning engines, some of which succeed well, and others but poorly. Mr. Eaton, the Locomotive Superintendent of the Great Western Railway, has been experimenting with two locomotives, one of which burns partly wood and partly coal; the other coal alone. Thus far he has been successful. His experiments must extend over a series of months, and he must have an engine constructed with a view to burning coal, instead of using an ordinary one, with the usual fire-box almost unaltered. For since, if the perfect combustion of coal could be arrived at, fifty per cent of the cost of fuel would be saved, it is worth while spending something to attempt its accomplishment. We shall watch the result with interest.

SALE OF VALUABLE STOCKS AND GOODS
The Stock is large and attractive, embracing the most approved **WALKERS AND STYLES**, and the latest novelties in **LADIES' AND GENTLEMEN'S WEAR**, as well as a full assortment of such Goods as are required for Domestic and Family use. As the Goods were purchased direct from the Manufacturers and First-class Houses in Britain, and selected personally by one of the Firm for this Market, they are enabled to **SELL VERY LOW FOR CASH**, and have marked the Goods at a Small Advance on the Sterling Cost.—**AN EARLY CALL SOLICITED.**

J. C. MCINTOSH & Co.,

Druidas Street, London, C. W.

D1029 W408-4f.

London, September 24, 1858.

ROSS, MITCHELL & Co.

BEG TO INFORM THEIR CUSTOMERS
and the public that they will show their

FALL IMPORTATIONS

ON

TUESDAY, THE 27th SEPTEMBER.

These will comprise a complete assortment of

DRY GOODS

AND

Ready-Made Clothing!

THEIR

GROCERY DEPARTMENT

Will also be well assorted in

GENERAL GROCERIES,

Wines and Liquors.

These importations, which have been carefully selected, are offered to the trade at **VERY LOW PRICES,**

For Cash or Approved Credit.

Toronto, Sept. 27, 1858.

D1031-kl

NEW

AGRICULTURAL IMPLEMENT

AND

STOVE WAREHOUSE.



ALEX. ANDERSON,

FOR MANY YEARS CONNECTED WITH
the foundry business of Anderson & Co., has
Opened a new Store for the Sale of

Agricultural Implements and Stoves,

DUNDAS STREET, OPPOSITE THE CITY HOTEL, where
will be found every article in the above line at least
20 per cent. cheaper than at any other establishment,
and all of the most approved patterns.

Those desirous of supporting Home Manufactures
will have the advantage of getting on the shortest
notice, new castings in the event of any breakages
occurring.

For Parties intending to purchase will find it to
their advantage to call and examine my Stock before
going elsewhere, as I am determined not to be
undersold by any establishment in Western Canada.
Repairing done on the shortest notice.
Remember the address!

ALEX. ANDERSON'S,

Opposite the City Hotel,

Dundas Street, London, C.W.

London, Sep. 8, 1858.

D1014-1m

IMPORTANT AUCTION SALE

OF

REAL ESTATE,

IN THE

VILLAGE OF NAIRN!

ON THURSDAY, THE 14th OCTOBER
1858, at 12 o'clock, will be submitted to public
competition, on the premises, that valuable
Village Lot, with Store and Dwelling House ad-
joining, recently occupied as a General Store, and
known as **LOT D**, on the South-east corner of
QUEEN STREET, containing about **ONE QUAR-**
TER OF AN ACRE.

The above is the best stand in the village, and
demands the attention of Country Merchants, and
especially of persons intending to commence busi-
ness in this thriving locality.

TERMS—One-third down; the balance in two
years; the purchaser giving a Mortgage or other
security.

Other particulars made known at the time of sale.

PAUL ANSTIE,

Agent for the Assignees.

Nairn, Township of Williams,

October 2, 1858.

D1036 W409-td

ESTABLISHED 1850.

F. B. BEDDOME,

LAND, ESTATE, INSURANCE AND
GENERAL AGENT,

BROKER & EXCHANGE OFFICE,

No. 3, Albion Buildings,

RICHMOND STREET, LONDON, C. W.

REFERENCES:—John Birrell & Co., Merchants,
London; H. H. Bocher, Esq., Barrister, London;
James Hamilton, Esq., Agent Bank Upper Canada,
London; H. C. Hawick, Esq., Agent Montreal Bank,
Toronto; Messrs. Moffat, Murray & Co., Toronto;
Andrew Hamilton, Esq., Toronto; Henry Rowell,
Esq., Toronto; Duncan Bell, Esq., Hamilton; Messrs.
Waldron, Paine & Robb, New York.

London, June 22, 1858.

D1040 W404-em

TO FARMERS.

MERCHANTS AND MECHANICS

INTEREST.

THE SUBSCRIBER WILL ALLOW TEN
Per Cent. per annum on all sums deposited of
One Pound and upwards. Deposits can be with-
drawn on three days' notice.

F. B. BEDDOME, BROKER,

No. 3, Albion Buildings, London.

London, June 22, 1858.

D1040 W404-em

MOUNT BRYDGES LODGE MEETS
at the **MARONIO HALL**, Mount
Brydges, on the **THIRD MONDAY** in the
Month.

EDWARD HANDY,

Secretary.

JOHN THOMPSON, W.M.

London Sep. 1, 1858.

D1000-ly

Globe

Feb 20 1860

GTR accident
Durham station

It appears that an engine
had been despatched from Richmond
to follow the mail train for some
purpose, and during the time
the passenger train was waiting
at the Durham station by some
mismanagement on the part of
the driver, this engine and
tender ran with much speed
onto the cars containing
the passengers.