

CANADIAN RAILROAD HISTORICAL ASSOCIATION INCORPORATED

**NOTICE OF MEETING:**

The regular monthly meeting of the Association will be held at Associated Screen News, 1330 Sherbrooke Street West, at 8 PM on Wednesday, November 12th, 1952. Host for the evening will be our Publicity Director, Mr. J. Norman Lowe, who has a selection of his usually excellent moving pictures listed on the bill of entertainment.

**ASSOCIATION NEWS:**

**EXCURSION NO. 11 - BY RAIL TO HUBERDEAU - OCTOBER 5TH**

On Sunday, October 5th, the Association held its second Fall Foliage Trip to the Laurentian Mountains. The trip also marked a milestone in the Trip Committee's history by reason of the fact that the Association operated its first special train hauled by a steam locomotive. More than 140 members and guests were carried over the scenic 160-mile round trip journey, in a three-car train headed by engine 5292 which had been specially cleaned and polished for the occasion. The rolling stock was steel equipment, not usually seen on the Laurentian railway runs due to weight restrictions.

The train left Montreal's Central Station of the Canadian National Railways promptly at 9:25 AM and left the city by way of Turcot Yard, Ville St. Pierre, Ballantyne, past Canadian Pacific Railway's St. Luc hump yard through Ville St. Laurent to the junction with the Mount Royal subdivision at Eastern Jct. After passenger stops at Val Royal, Bigras Island and St. Eustache, the train arrived at St. Jerome, where a ten-minute stop was scheduled for photographs and to enable the participants to enjoy the exceptional autumn hues of the foliage on the rolling hills. Once again we were fortunate, as in 1950, with the fact that the "right" Sunday was chosen to visit the Laurentians and the colours of the trees were breathtaking to behold, as many photographs taken on the trip will attest. Several stops were scheduled for this purpose and the camera enthusiasts took full advantage of the scenic places at Montfort, Lac St. Francois Xavier (at Newaygo) and Sixteen Island.

Arrival at Huberdeau on schedule enabled those who so desired, more than two hours in which to explore the neighbouring countryside and the beautiful valley of the Riviere Rouge, as well as to visit the religious shrine on a hill overlooking the mountain community, where a heroic scale replica of the Crucifixion has been erected by the townsfolk.

The train left Huberdeau at about 3:15 PM and arrival in Montreal was made about 7:30 PM. Once again, the Association's Trip Committee must acknowledge the excellent cooperation offered by the Passenger and Operating Departments of the Canadian National Railways in planning the trip and carrying it through to a successful conclusion. Representing the CNR on our trip were Messrs. J.T. Moore, District Passenger Agent, Mr. T.C. Collinson, Master Mechanic, and J.A. Nobert, Assistant Superintendent of the St. Jerome Division.

**EARLY RAILWAYS OF THE EASTERN TOWNSHIPS - VII**

Robert R. Brown

SAINT FRANCIS & MEGANTIC INTERNATIONAL RAILWAY

Even when the Intercolonial Railway was under construction in the late Sixties, it was realized that it would follow a long circuitous route, and many Canadians dreamed of a "short line" through Northern Maine to Saint John, N.B. In 1870, the St. Francis & Megantic International Railway was chartered to build

from Sherbrooke to a point on the international boundary of Maine, where it would connect with the European & North American Railroad at Mattawankeag.

Construction started in 1872 and the line was completed from Lennoxville to Megantic on July 1st 1875. The extension to the boundary was built in 1879 but nothing further was done until the road was acquired by the Canadian Pacific Railway on November 2nd, 1886. The through service from Montreal to Saint John by this route started on June 2nd, 1889.

The name was shortened to International Railway in 1877 but for years it was known as the "Short Line".

LOCOMOTIVES:

1	ST. FRANCIS	4-4-0	16x24"	62"	1876	Baldwin	3976
		Became C.P.R.	#160			Scrapped 1902.	
2	MEGANTIC	4-4-0	16x24"	62"	1875	Portland	326
		Became C.P.R.	#162			Scrapped 1898.	
3	TIGER	4-4-0	16x24"	62"	1882	Kingston	
		Became C.P.R.	#163			Scrapped 1898.	

Problem in "WHISTLE-LOGY"

Let us assume that sound travels at the rate of 1,000 feet per second. Consequently, if a locomotive blows its whistle when 5,000 feet from a station the sound will not be heard at the station until five seconds later. Now let us further assume that the train is approaching the station at a constant speed of 5,000 feet per minute and that the whistle starts to blow when the train is 5,000 feet from the station and continues to blow until it arrives at the station. Thus, the whistle blew for 60 seconds but a person standing at the station would hear the sound for only 55 seconds. Where did the missing five seconds go to ?

In the same way, if a train was going away from the station at the same speed and the whistle blew for a distance of 5,000 feet which would be 60 seconds, a person standing at the station would hear the sound for 65 seconds. Where would the extra five seconds come from ?

ITEMS OF INTEREST:

Canadian National Railways has now received General Motors diesel-electric A units, 1500 h.p. up to 9102 (even numbers only). These units are being transferred to the Western Region. 1000-h.p. switcher units 8018-8021 have also been received from Montreal Locomotive Company. Fairbanks-Morse design road switchers built by the Canadian Locomotive Company, nos. 7618, 7619 were received last week of August, and engines 7620, 7621 in the first week of September. These engines were sent to Manitoba for use on the Lynn Lake line after a short break-in period in the Montreal area. They are specially equipped for cold weather with insulated fuel lines, extra heaters, etc. It is reported that CNR engine 1112, 4-6-0 type, has been sold to the Quebec, North Shore & Labrador Railway, and is being converted to oil-burning prior to its sale, at the National system's Pointe St. Charles shops.

Delivery of diesel-electric locomotives for Brazil from Montreal Locomotive Company started in September.

It is reported that the first car has travelled through over the Pacific Great Eastern Railway from Quesnel to Prince George, on September 11th. It was not

pulled all the way by a single locomotive, but was pushed over an uncompleted bridge from one end, and retrieved by an engine stationed at the other wise. Tentative first through train was scheduled for October 15th.

On October 26th, 1952, the Montreal Transportation Commission replaced streetcars on St. Lawrence Blvd. by autobusses. This obliterated trolley routes 55 and 77, ST. LAURENT, as well as route 52 MOUNT ROYAL-ATWATER. Route 9, RACHEL-WINDSOR, was cut back at St. Lawrence and Rachel, and now operates with double-end cars between St. Lawrence and Iberville, along Rachel. This bus substitution has enabled CTM to retire 45 street cars, in the 901 and 1200 series, as well as the last four units of the 703 class, cars 859, 861, 869 and 881. The retirement of the latter cars marks the end of an era in Montreal's rail transportation history. They were the final units to be seen in the streets with the traditional "belt" rail, and were among the longest units in use on the system. Cars 859 and 861 were of wooden construction, while nos. 869 and 881 were of steel in the lower part of the body. They were among the first steel city cars to be used on the continent. Numbers of the cars released from service will be published in next months News Report along with a resume of the cars remaining in service. Many of the 901 and 1200 series cars are retired subject to reuse if other cars of the same series are damaged beyond repair in accidents.

On October 25th, 1952 the officers of the Cornwall Electric Railway Society voted to scrap the Society's street car, no. 29. This decision was reached after an examination revealed the car required extensive repairs which the Society was not prepared to undertake. Accordingly, the car was returned to the Cornwall Street Railway, with a request that it be scrapped. While the car was of no particular historic significance, it was preserved, through the efforts of interested persons when Cornwall lost its city trolley service in the summer of 1949. Officials of the Cornwall Street Railway, Light & Power Company aided the group in restoring the car, and it was used on many enjoyable trips over the remaining freight lines of the CSR. The car has been built by the St. Louis Car Company in 1938 for the North Texas Traction Company at Fort Worth, and was purchased from the latter Company by the Cornwall system in 1938, along with three other similar cars, nos. 30 to 32. The other cars were scrapped in 1949. At the suggestion of Mr. C.I. Bacon, Manager of the Cornwall Street Railway, Light & Power Co. and member of the Society, the group was not disbanded but will continue to remain as an organization devoted to the preservation of electric railway history in Canada, and trips will be had over the line from time to time.

It is reported that the Toronto, Hamilton & Buffalo Railway has applied a new paint scheme to its box cars. This consists of yellow sides, and black ends, roof, doors and underbody details.

The Algoma Central & Hudson Bay Railway has now joined the ranks of Canada's all-diesel-electric railways.

Complying with the recent order of the Board of Transport Commissioners requiring electric and diesel-electric locomotives to be equipped with the new diesel sounding device which is said to emulate the sound of a steam locomotive whistle, the National system will remove the very distinctive whistles from its Z1a and Z1a electric engines operating in the Montreal zone. The Z1a class were originally Canadian Northern engines built when the Mount Royal Tunnel was opened, while the Z1a class were acquired from the Montreal Harbour Commission. Each class had its own familiar whistle, which Montreal's residents on the northern slope of Mount Royal have come to recognize, in the many years these engines have been in use.

TRANSPORTATION IN A PRE-CONFEDERATION CANADA

-Omer S.A. Lavallee

Among the most treasured items in the author's collection of railway books, which includes many statistical and reference books, is a copy of a compilation known as "Board of Railway Commissioners of Canada - Report of Samuel Keefer, Esq., Inspector of Railways for the years 1859 and 1860" Otherwise known simply as the "Keefer Report" among railway historians, this interesting and invaluable book was published, as its flyleaf shows, at the "Leader and Patriot Establishment, 68 King Street East, Toronto, 1861".

The author of the work, Samuel Keefer, along with the Hon H.H. Killaly, both Inspectors of Railways under the Hon. Alexander T. Galt, Minister of Finance and Chairman of the Board of Railway Commissioners of the Province of Canada, included an analysis, embracing both the physical and financial aspects, of every railway operating in the Province of Canada in the years 1859 and 1860. Discovery of this report some years ago, answered many problems which railway historians had brought to light in preceding years of research, and it eventually proved to be the "Rosetta Stone" on early Canadian railways in the obscure and record-less period between the birth of rail transportation on a practical scale in 1836 until the pre-Confederation years.

It is the author's intention to bring forth a few of the more interesting items appearing in the 205-page report, which it is hoped will be of interest to all students of transportation in Canada's formative years.

In his opening remarks, Mr. Keefer gives a number of reports on the mileage of railways in Canada, accidents, fiscal and statistical returns, but report no. VIII, entitled "Locomotive Engines and Rollings Stock" which is of exceptional interest, follows: (Grammar and Spelling are original)

VIII- LOCOMOTIVE ENGINES AND ROLLING STOCK      1. Locomotive Engines.

" The Official Returns of the several Companies, giving the number, description and general condition of the Locomotive Engines employed by them, during the past two years, together with the number of miles run by them up to the end of each year, cannot fail to be of special interest to the Mechanical Engineers, and to the Railway Managers generally, and therefore their publication is continued. They will be found in the Appendix No. 63 to 99 inclusive.

Abstracts of these Returns have been prepared, from which we learn, (See Appendix No. 62;) that at the end of the year 1859, there were 384 Locomotive Engines on all the railways, 54 of which were made in Canada, 221 in the United States and 109 in Great Britain. The relative performances of these Engines, since the time they were placed in service, may readily be ascertained by reference to these returns. At the end of the year 1860, there were 394 Engines on all the Railways, 266 of which were reported in good order, 56 requiring slight repairs and 72 requiring heavy repairs.

As regards their place of manufacture, 57 were built in Canada, 229 in the United States and 109 in Great Britain. It may here be remarked, that the oldest Engine in Canada, is the DORCHESTER, now in the service of the St. Lawrence & Industry Railway, where it ran 4,300 miles last year. It is a 10 Ton Engine, 10 inch cylinders, inside connections. One pair 4 feet drivers, built by George Stephenson & Son, Newcastle-upon-Tyne. It was put in use in 1849 (Author's note: -on the Industry Railway; 1836 on the Champlain and

Saint Lawrence by whom it was sold in 1849), and has run altogether 66,000 miles and is still serviceable. (Author's note: Its serviceability ended in 1864 when it suffered a boiler explosion at St. Thomas, near Joliette).

The most work has been performed by the Portland Engine, No. 108, of the Grand Trunk Railway; put in service, January, 1851. It has run since that time to the end of 1860, 193,635 miles; and in 1860, 25,438 miles, and is reported still in good order. The weight of this Engine and Tender, with wood and water, is 42.8 Tons.

## 2. Rolling Stock

According to Abstracts No. 62 and 81, of the Official Returns of Rolling Stock in use on all Roads at the close of each of the past two years, it appears that there were in

	1859	1860
1st Class Passenger Cars, 16 wheels . . . . .		1
" " " 12 wheels . . . . .	26	25
" " " 8 wheels . . . . .	208	223
" " " 4 wheels . . . . .	1	1
2nd Class Passenger and Emigration Cars, 8 wheels . .	121	119
" " " 4 wheels . . . . .	4	3
Baggage, Mail and Express, 12 wheels . . . . .	13	12
" " " 8 wheels . . . . .	106	104
" " " 4 wheels . . . . .	2	2
Box, Freight and Cattle, 8 wheels . . . . .	2703	3180
" " " 4 wheels . . . . .	104	101
Conductors Cars, 8 wheels . . . . .	33	40
Platform Cars, 12 wheels . . . . .	4	1868
" " 8 wheels . . . . .	1786	
Grain Cars . . . . .		50
Refrigerator Cars . . . . .		1
Gravel Cars, 8 wheels . . . . .	100	90
" " 4 wheels . . . . .	294	360
Timber Cars, 16 wheels . . . . .		6
" " 4 wheels . . . . .		6
Spar Trucks, 4 wheels . . . . .	25	16
Hand Cars . . . . .	89	121
Snow Ploughs, large size . . . . .	42	35

Quebec, 16th September, 1861. "

Certain items in the foregoing list will catch the eye of the rolling stock expert, and by way of explanation, it might be noted that the 16-wheeled 1st Class Passenger car was owned by the Grand Trunk, and weighed 32,000 pounds. The 16-wheeled Timber cars were owned by the Great Western and weighed 38,000 pounds, each. The single Refrigerator car was the property of the Northern Railway, and weighed but 19,500 lbs. The four-wheeled, first-class, second-class and baggage cars were all the property of the St. Lawrence & Industry Village Railway and had been purchased from the Champlain & St. Lawrence with the engine Dorchester in 1849. They were the original cars on Canada's first steam-operated railway.

An interesting and historic document is Mr. Keefer's report on the test applied to the Victoria Bridge, listed in the Report as "Appendix No. 1":  
It was addressed to J.G. Vansittart, Esq., Secretary of the Board, Toronto, C.W.

Brockville, December 19, 1859.

Sir,- I have the honor to report, that in compliance with the instructions from the Honorable the Receiver General, acting Chairman of the Board of Railway Commissioners, conveyed to me in your letter of the 14th instant, I left Quebec on the 15th, and made my examination of the Victoria Bridge on the 16th, and of the branch leading to it from the main line at Charon Station, on the 17th instant, and finding both Bridge and Branch perfectly safe for public use, the new line across the Bridge was this day opened for public traffic.

The test applied to the tubes of the Victoria Bridge, consisted of a train of 18 platform cars, loaded with stones as heavily as they would bear, and drawn by two Locomotive Engines coupled. This train was long enough to reach over two spans at one time, and weighed, as nearly as could be ascertained, without platform scales to weight the cars, about one ton to the lineal foot. In passing this train over the bridge, a load of 242 tons was laid on each of the side spans, and 330 tons upon the central span.

The side tubes being in pairs reaching from the abutment to the second pier, from the second to the fourth, and so on;- they were submitted to a different test from the central one. The load, or forward part of the train, was brought upon the first half, then the whole train covered the whole tube, and lastly, the rear part of the train rested on the second half, and the effect noted each time, both at the middle of each half, and at points midway between the middle and the bearings, making six observations upon the tube each time of marking.

The tubes covering the 14th and 15th spans being yet unfinished and unconnected over the 14th pier, were, of course, on this occasion treated like the central one as independent tubes. A remarkable uniformity was observed in the effect of this load upon all the side tubes that were completed. When both halves of the tube were loaded, the deflection in each span was five eighths of an inch, but when it rested on one half only, that half sunk three quarters to seven eighths of an inch. The central and separate tubes deflected one inch and a quarter under a load of a ton to the foot.

When the train was sent over at speed, the observed deflections did not exceed those just stated more than the eighth part of an inch, and in all cases when the load was removed, the tubes returned immediately to their former position, thus proving in the most satisfactory manner, that they were entirely unaffected by the passing of a load which was double that of the heaviest freight train that will ever cross the Bridge. It may be here remarked that the tubes of this Bridge were designed to sustain practically, a load of one ton per lineal foot throughout their length, in addition to their own weight; under which load, the horizontal strain was not to exceed five tons of tension to the square inch on the bottom, or five tons of compression to the square inch on the top. The test load applied was as near the intended load as it well could be. These tubes present the finest specimen of Engineering skill and workmanship to be seen in any part of the world, and the public may have entire confidence in their strength and durability.

The preparations for testing the tubes in the manner before described, had been made by the Contractors Agent, Mr. Hodges, at the instance of Messrs. J. D. Bruce and B. P. Stockman, Engineers from the late Robert Stephenson's office in London, who had been sent out from England to examine and report on the Bridge. The testing was commenced by them on the 15th instant, accompanied by Mr. A. M. Ross (the Engineer in charge) and by Mr. James Hodges, and was completed in my presence on the 16th instant. In reporting my entire satisfaction with the test applied and the sufficiency of the tubes, I desire at the same time to express my admiration of the simplicity and accuracy of the means adopted for observing the effect of these weights upon the Bridge, and of that perfection of workmanship in the tubes themselves, which are thus made to shew so slight a deflection under such heavy loads.

I have the honor to be, Sir, Your obedient servant, SAMUEL KEEFER,  
Inspector of Railways.

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O.S.A. Lavallee, Editor.