The Rise and Fall of the PROVINCIAL GAUGE

by O.S.A. Lavallee

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I. THE SITUATION BEFORE 1851

IT IS AN INTERESTING MENTAL EXERCISE to speculate upon how the railways of Canada might have developed if, in some way, the blight of the broad gauge could have been averted. Many of the troubles of the Great Western Railway and of the Grand Trunk might never have arisen, and it is possible, though admittedly not probable, that the Grand Trunk, as an independent railway, might still exist today. Other factors helped the GTR on its downward path, such as absentee management and balance sheet acrobatics, but these handicaps paled in comparison to the artificial restraint which the broad gauge put upon the expansion of this system and the other 5'6" lines for twenty years. Added to this was the financial burden of conversion to conformity, necessitating the purchase of new motive power, regauging of rolling stock and permanent way renewal which was more burdensome to smaller companies and significantly retarded their own conversion plans; the Canada Central Railway, for example, was not changed over until 1880, ten years after the legislation was revoked.

The perspective of history permits us to view this period at arm's length, so to speak, and it is quite clear, from the standpoint of the Twentieth Century historian, that the broad gauge was inflicted on British North American railways by selfish commercial interests, and the Provincial Government was "taken in" by glib talk. Nothing else could possibly excuse an action which was of such tremendous cost not only to the railways, but to the people of Canada.

That such a thing as the adoption of a wide gauge could come seems particularly hard to understand when one realizes that all of the first railways in Canada, the Champlain & Saint Lawrence opened in 1836, the Albion Colliery tramway opened with steam locomotion in 1839 and the Montreal & Lachine Rail Road* opened in 1847, were all built to the Stephenson (4'8½") gauge or track width. Moreover, all of the railways in those parts of the United States in closest cultural and commercial contact with Canada, were of the same gauge.

Gauge problems were fashionable, of course. In England, the Great Western adopted the gauge of 7'0¼", selected by Isambard Kingdom Brunel, surely one of the world's great railway engineers and the greatest protagonist in history of the advantages of the broad gauge, which included larger, more powerful and faster trains and the ability to haul greater loads. The GWR started out in the late Thirties, and

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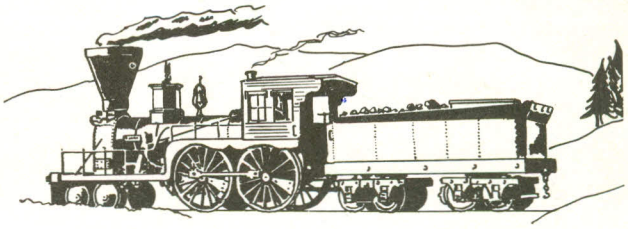
*- The Lachine railway's gauge was officially 4'9".

for nearly sixty years held tenaciously to its seven-foot width. In the United States, similar reasons were advanced for the building of the Erie Railroad to broad width, and in the Forties and Fifties, this line built from New York to Dunkirk and to Buffalo with a six-foot width of track. Rather more of an idiosyncracy than an advantage was the five-foot width adopted by the railways of the southern United States, and later transplanted to Russia where it exists today.

The Province of Canada didn't have a railway problem of any kind in the year 1845, when a Royal Commission was appointed by the Legislature to enquire into means to aid railway construction, and to select a suitable gauge which would be adopted as standard throughout the Province. Possibly due to the fact that the Champlain & Saint Lawrence, the only steam line, and the Erie & Ontario, a horse-operated railway around Niagara Falls, were the only public railways in the Province, caused the matter to be deferred for several years. In the interim, interests in Portland, Maine, and in Montreal, promoted the construction of a railway linking the two cities, which would, in addition, afford Montreal an ice-free port for winter use. Therefore, two railways were incorporated almost simultaneously -- the Saint Lawrence & Atlantic Rail Road, to run from Longueuil, opposite Montreal, by way of St. Hyacinthe, Richmond,and Sherbrooke to the International Boundary near Coaticook, Que. On the American side, charters were sought in Maine, New Hampshire and Vermont, for the corresponding US company, the Atlantic & Saint Lawrence Rail Road, which would build from the Boundary to Portland, via Island Pond, Berlin and Lewiston. We do not know how the gauge of 5'6" came to be selected for this railway, but it is possible that it may have come about as the result of the purchase of its first two locomotives, "St. Hyacinthe" and "Beloeil",which are said to have come from the Arbroath & Forfar Railway in Scotland, which was built originally to this gauge. The first section of the railway to Portland was opened from Longueuil to St. Hyacinthe in the spring of 1847. In the following year, the American line started service on its first section, out of Portland to Danville Junction, using, as motive power, some of the first products of the Portland Company's Works, as shown by GTR No.106, "Coos", below.

This was the time of great activity in railway building in Canada and charters had been obtained for many lines, not the least of which was a "Grand Trunk" railway to extend from one end to the other of what is today Ontario and Quebec. Another was for the Great Western Railway, which was to link the Niagara and Detroit river frontiers in southwestern Ontario, and form part of a through Chicago-New York rail link. Then too, in the Maritimes, there was much agitation for railways at this time, and though the Provinces of Nova Scotia and New Brunswick were politically independent of the Province of Canada, there is no doubt that the development of the railway in these areas was much influenced by that which took place in the upper province.



Finally, in 1851, the Royal Commission brought itself to grips in the matter of the gauge, since so many projects hinged upon the

decisions which would be reached. It is clear now that the mercantile interests of Portland and those of the promoters of the Portland railway were determined to obtain the approval of the broad gauge, and to make it mandatory on the projected "Grand Trunk" and on other major railways to be built in Canada. Most important of all to these interests, it would secure for Portland a virtual monopoly on Canadian export rail traffic -- or so they thought, by forcing traffic to flow artificially from east to west in Canada. They sought to arouse the patriotic instincts of the Canadians by pointing out that a railway system whose gauge was substantially dissimilar to that used in the United States, would hamper any military invasion of Canada from the USA. Ridiculous as this may seem today, it was nonetheless a plausible argument to older Canadians to whom the War of 1812 was still a distinct and unpleasant memory. Other, obviously weaker reasons were, for example, that transshipment at border points would be advantageous to local interests; that lack of interchange would thwart the "theft" of cars by foreign railways and, unthinkable as it may be to the comfort-loving Twentieth Century North American -- that changing trains at gauge-break points would afford passengers "healthful exercise" !

The Chief Engineer of the Portland railway, A.C. Morton, was much impressed by the broad gauge, and he could and did speak with authority. It is not so well known that Morton had previously worked for the six-foot-gauge Erie Railroad and so could be expected to have been influenced to some degree. For the side of the Stephenson gauge, the Great Western, whose complete economy depended upon uniformity of gauge with United States roads, took the stand that this uniformity should continue for the reasons, valid even today, that the standard gauge had an established character, that it would be less costly to build and to maintain, and that interchange with other railways was necessary and desirable.

II. ADOPTION OF THE "PROVINCIAL GAUGE"

Nonetheless, heedless of the voices of moderation and of logic, the Broad Gauge forces carried the day. On July 31st, 1851, the Legislature of the Province of Canada enacted statutes making the adoption of the 5'6" gauge a precondition of the receipt of government financial assistance under the Guarantee Act of 1849. The latter legislation, having as its end the stimulation of railway building in the Province, had provided government help to railways to be built having a route length of 75 miles or more, but the government reserved to itself the right to pass on the technical qualifications of railways applying for this relief. By its action in 1851, the Government of Canada pressured the Great Western Railway into adopting a gauge obviously contrary to its interests, since the railway could not hope to complete its construction programme without the aid afforded by the Guarantee Act. In vain did it protest this cavalier action and much against its will, the GWR started construction of its rails to a width which would not correspond, at either end of its Suspension Bridge-Windsor main line, with connecting United States railways.

Construction forces were released to build a network of railways, almost without exception to the new width. Almost prophetically, just a month-and-a-half after the decision for the Broad Gauge, which was thereafter referred to as the "Provincial Gauge", the Champlain & Saint Lawrence Rail Road connected up with the Vermont & Canada Railroad at Rouses Point, and in mid-September, 1851, a Railway Celebration was held in Boston to mark the first through train from Montreal to Boston, using, in Canada, the existing 4'8½" gauge lines which were not affected by the new legislation. With the traffic of the Montreal area now going to Boston, Portland became more determined than ever to finish the broad-gauge connection. In August, 1852, the railway from Longueuil was opened as far as Sherbrooke. In January, 1853, the American-side A.& St.L. was completed to Island Pond, and on July 18th, 1853, the first through train ran over the broad gauge from Montreal to Portland, Maine. Only days before, the Portland railway had become the nucleus of a new railway, the Grand Trunk Railway of Canada, whose imprint was to appear liberally across the pages of the history of Canadian transportation.

In Canada West, (what is now Ontario), the first steam operated line, the Ontario, Simcoe & Huron Union Railway, was opened in May, 1853, from Toronto to Aurora. On November 10th, 1853, the first section of the Great Western Railway was completed from Suspension Bridge at the Niagara frontier, to the city of Hamilton, all this on the new 5'6" gauge; but the standard gauge still had its protagonists, and in 1854, the Bytown & Prescott Railway, excepted from the provisions of the Broad Gauge act of 1851 by reason of its length of less than 75 miles, was completed from Prescott to Bytown (now Ottawa). The Grand Trunk had not yet been built through Prescott and the selection of the Stephenson gauge for the B&P was dictated by its car ferry connection between Prescott and Ogdensburgh, N.Y., whence the Northern Railroad of New York, and later, the Rome, Watertown & Ogdensburgh Railroad, afforded through rail connections to United States markets.

FIGURE 1. - PROVINCE OF CANADA: Annual Growth of Railway Mileage by Gauge, 1836-1860

Year	New 5'6"	Total 5'6"	New 4'8½"	Total 4'8½"	Grand Total
1836			14	14	14
1847	30	30	8	22	52
1850			12	34	64
1851			22	56	86
1852	66	96	38	94	190
1853	212	308		94	402
1854	276	584	54	148	632
1855	236	820		148	968
1856	437	1,257		148	1,405
1857	58	1,315		148	1,463
1858	141	1,456		148	1,604
1859	221	1,677	28	176	1,853
1860	29	1,706		176	1,882

Source: Report of Samuel Keefer, Esq., Inspector of Railways, 1859-60.

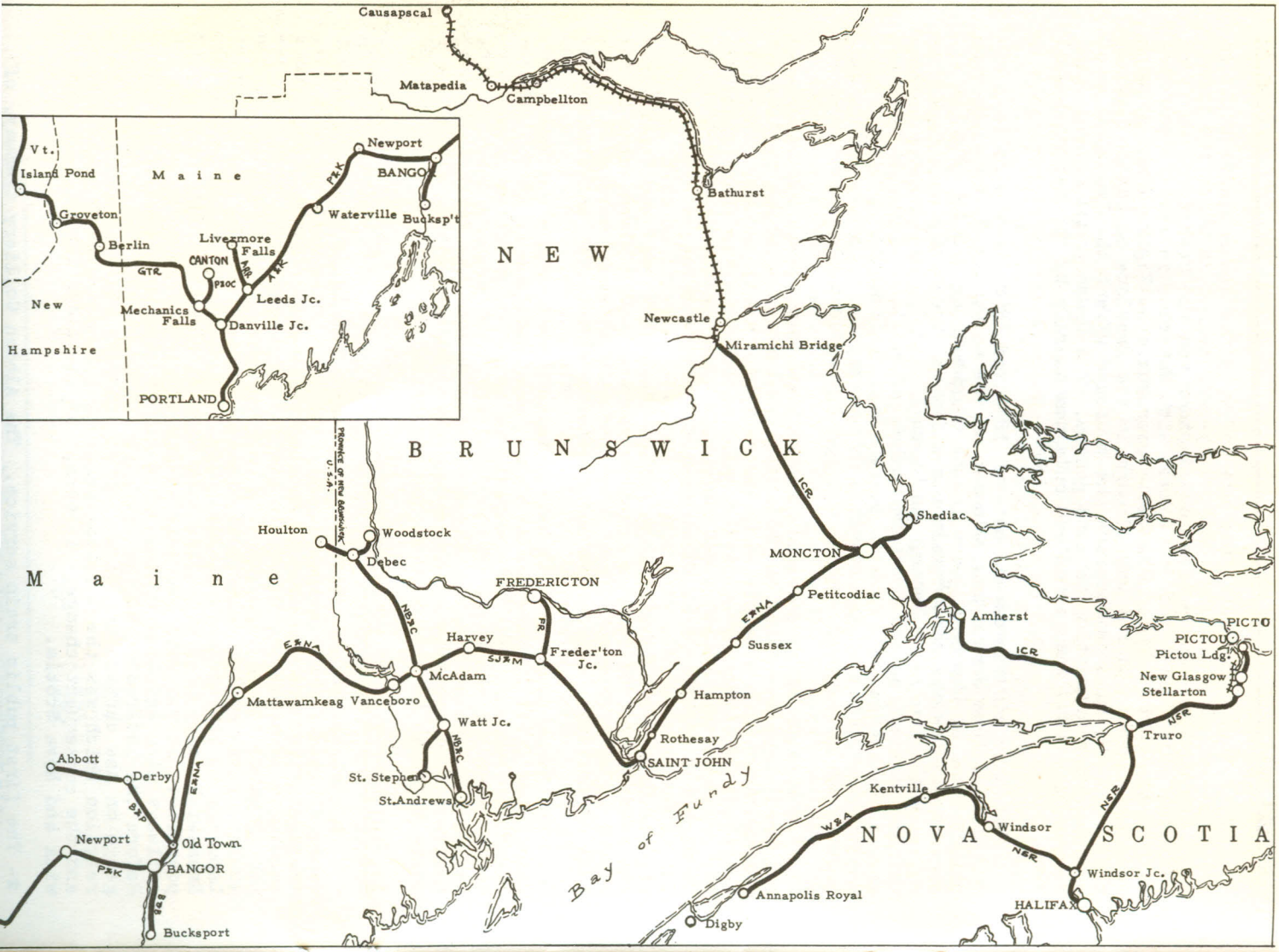
The Bytown & Prescott was one of very few new railways built to the standard gauge during the twenty-year period in which the broad-gauge legislation was applicable. Another was the Stanstead, Shefford & Chambly which connected St. Johns with Waterloo in what is now Quebec, in the early 1860s. The table reproduced as Figure 1 and showing the annual growth of railway mileage in the Province of Canada between 1836 and 1860, will demonstrate the profound effect the legislation of 1851 had on construction in both gauges. The broad gauge mileage kept increasing, and was arrested only momentarily by the depression of 1857.

Not only did the decade between 1850 and 1860 see the railway extend itself from Sarnia and Windsor on the west, to Riviere-du-Loup and Portland on the east, but in the neighbouring British provinces, Nova Scotia saw its first* train run a few miles out of Halifax in July 1855, while two years later, on March 17, 1857, the European & North American Railway opened for three miles out of Saint John, in the direction of Moncton. Both of these lines, influenced no doubt by the current of opinion in the Province of Canada, built to the 5'6" width. Unlike Canada, however, where the public favoured free enterprise and private ownership of railways, the two Maritime provinces undertook these initial railway projects as government-owned and operated enterprises. Public ownership of railways was always a popular creed in the Maritimes. In the course of time, both Prince Edward Island and Newfoundland would undertake their own rail systems as government projects. Indeed, Prince Edward Island, in all of its railway history, never had privately-owned public railways at any time.

South of the boundary, the Portland interests were a strong influence in Maine. Portland had been reached from Boston by the Portland Saco & Portsmouth Railroad, on November 21st, 1842. Though this was a standard-gauge line, other lines in Maine corresponded to the broad gauge of the Atlantic & Saint Lawrence, now become the Grand Trunk. Among these was the Androscoggin & Kennebec Railroad, opened in December 1849 from Danville Junction to Waterville, and the Penobscot & Kennebec RR, which continued the A&K from Waterville to Bangor, opened in September 1855. From Bangor on to the New Brunswick border, and then to Saint John, the European & North American Railway was constructed as a broad-gauge line. Its completion, however, did not come about until 1871.

In 1860, 92% of the 2,160 miles of public railway in Canada, New Brunswick and Nova Scotia, was of the 5'6" gauge. The outbreak of internal hostilities in the United States in 1861, and the subsequent abrogation, by the U.S.A., of its Treaty of Reciprocity with Canada, set up forces in the British provinces which were important factors leading to Confederation on July 1st, 1867. The advent of such a union resurrected a project for a railway connecting Halifax with Quebec. The resulting Intercolonial Railway, reflecting the policy of Imperial military authorities, was routed around the coasts of New Brunswick and Quebec, as far away from the International Boundary as possible. It was built largely to the broad gauge simply because the railways with which it connected at either end, were also broad gauge. Before the Intercolonial was completed in 1876, however, the change of gauge on the eastern end of the GTR, occurring in 1874, set up a chain reaction which saw the Intercolonial changed while under construction, and the consequent change, in turn, of the older lines in New Brunswick and Nova Scotia.

*- The first public train service. The Albion Colliery tramway, of 4'8½" gauge and opened in 1839 with steam locomotion, was Nova Scotia's first steam railway.


Causapscal
Matapedia
Campbellton
Bathurst
NEW
BRUNSWICK
Newcastle
Miramichi Bridge
ICR
Shediac
MONCTON
Petitcodiac
Amherst
ICR
PICTOU
Pictou Ldg.
New Glasgow
Stellarton
NSR
Truro
NSR
Windsor Jc.
HALIFAX
NSR
Windsor
Kentville
W&A
NOVA
SCOTIA
Bay of Fundy
Annapolis Royal
Digby
Sussex
E&NA
Hampton
Rothesay
SAINT JOHN
FREDERICTON
FR
Freder'ton Jc.
Harvey
SJ&M
McAdam
NB&C
Watt Jc.
NB&C
St. Stephen
St. Andrews
Vanceboro
Mattawamkeag
E&NA
Houlton
Woodstock
Debec
NB&C
PROVINCE OF NEW BRUNSWICK
U.S.A.
Maine
Abbott
Derby
B&P
E&NA
Newport
Old Town
P&K
BANGOR
B&B
Bucksport
Vt.
Island Pond
Maine
Newport
BANGOR
P&K
Waterville
Bucksp't
Groveton
Berlin
GTR
Livermore Falls
CANTON
P&OC
L&R
A&K
Leeds Jc.
New
Hampshire
Mechanics Falls
Danville Jc.
PORTLAND

III. HIGHLIGHTS OF THE BROAD GAUGE ERA

Strangely, in spite of the arguments in favour of the broad gauge advanced before the 1851 Commission, no practical advantage was ever taken of the wider width to build heavier or larger motive power or rolling stock, as the Erie had done in the United States and the Great Western had in England. Yet the era was not lacking in accomplishment even though none of the achievements were necessarily attributable to the adoption of the 5'6" track width.

The year 1859 saw the completion of the mile-long Victoria Tubular Bridge across the Saint Lawrence at Montreal, a feat in which the noted Robert Stephenson was consultant and which was considered by railway professionals to be one of the greatest engineering accomplishments in the world. The official opening, in August 1860, was marked by the presence of the nineteen-year-old Prince of Wales, whose Royal Visit in that year was the first of many such visits to this country which employed railway transportation extensively.

At the end of 1860, the opening of Canada's first railway tunnel occurred, this structure built by the Brockville & Ottawa Railway under the town of Brockville and, incidentally, still in use. Earlier, a project which stands apart for sheer audacity rather than practicality claimed the attention of the public when, in the year 1854, the Cobourg & Peterborough Railway completed a pile bridge with draw spans for three miles across Rice Lake. When it is realized that the railway itself was only twenty-eight miles long, one can comprehend that the maintenance of such a costly structure would loom large in its modest balance sheets. After several futile attempts were made to repair it following ice damage in successive winters, it was abandoned.

The Broad Gauge and its era witnessed two serious railway accidents, the first at Desjardins Canal near Hamilton in 1857, and the second at Beloeil, each of Montreal, in 1864. The latter catastrophe still holds the record, with 100 fatalities, as Canada's worst railway disaster. It so aroused public opinion as to bring about reform and unification in railway operating practice, and stimulated the development of safety devices such as the air brake.

IV. MOTIVE POWER AND ROLLING STOCK

Motive power and rolling stock was of the same size as contemporary United States standard-gauge equipment, as exemplified by the "behemoth" of the Canadian locomotive fraternity, GTR No. 209, which was built at Point St. Charles works in Montreal in May, 1859. Weighing 48 tons, 10 hundredweight in working order, and having an overall length of 50'6", it dwarfed its contemporaries and was the object of an admiring public as it appeared majestically at the head of the 1860 Royal Train, much as its successors, CNR 6400 and CPR 2850 claimed the attention of the multitude when Their Majesties King George VI and Queen Elizabeth toured Canada in 1939. Like most engines in Canada a century ago, No.209 was of the 4-4-0 arrangement, though other types included a few 4-6-0s, 0-6-0s, and 2-4-0s and even some 4-2-2s. Motive power is summarized by gauge in Figure 2, and rolling stock in Figure 3. Of particular note in the latter is the sixteen-wheeled passenger car built for the Royal Visit of 1860. A similar vehicle was used in New Brunswick on the European & North American, and is illustrated in one of the photographs appearing with this story.

While locomotive design at this early period gravitated strongly

FIGURE 2. - PROVINCE OF CANADA: Construction Origin and Track Gauge of Locomotive Engines, Dec. 31, 1860.

Built in:	Canada	Great Britain	U.S.A.	Total
5'6" Gauge:	57	105	210	372
4'8½" Gauge:	--	4	19	23
TOTALS:	57	109	229	395

Source: Report of Samuel Keefer, op. cit.

either toward British or American practice, the year 1854 saw the introduction of the first purely Canadian locomotive design, an interesting blend of Anglo-American features, built at Birkenhead, England by Peto, Brassey, Betts & Jackson. Some sixty engines of this design, originally 2-4-0 but later built as more flexible 4-4-0s, became a familiar feature on the GTR and, to a lesser extent, on the Great Western. These engines, known as "Birkenheads", after their place of origin, were a familiar sight in broad-gauge times. So sound were these machines that some of them were among the very few steam locomotives to be rebuilt to standard-gauge during the conversions of the 1870s, and these survivors found their way to short lines such as the Drummond County Railway, the Irondale, Bancroft & Ottawa Railway and the Montreal & Ottawa Railway. But it remained for a broad-gauge "Birkenhead" to be the last in regular service, chalking up more than a half century of service when retired by the Carillon & Grenville in 1910.

V. DECLINE

Throughout this period, the Montreal & Champlain Railway, which had succeeded and united the Champlain & Saint Lawrence, the Montreal & New York and the Montreal & Lachine roads, continued to function between Montreal and the International boundary on two 4'8½" routes. One was from St. Lambert to Rouses Point, via St. Johns, the other from Montreal to Lachine with a car-ferry connection across the Saint Lawrence to Caughnawaga, thence from that point to Plattsburgh,N.Y.,by way of St. Isidore, Hemmingford and Mooer's Junction. In 1864, the G.T.R. acquired control of this Stephenson-gauge network. No attempt was made to broaden the gauge, however, and a third rail was laid across the Victoria Bridge for standard-gauge trains, then another third rail along the standard-gauge line from St. Henri into Bonaventure

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FIGURE 3. - PROVINCE OF CANADA: Summary of Rolling Stock by Type and Track Gauge, Dec. 31, 1860.

Type	4'8½" Gauge	5'6" Gauge	Total
First Class, 16 wheels:	--	1	1
" 12 " :	--	25	25
" 8 " :	17	206	223
" 4 " :	1	--	1
Second Cl. & Emigrant, 8 wheels:	7	110	117
" " 4 " :	3	--	3
Composite, 8 wheels:	--	2	2
Baggage, Mail & Express, 12 wheels:	--	12	12
" " 8 " :	9	95	104
" " 4 " :	2	--	2
Box, Freight & Cattle, 8 wheels:	140	3,040	3,180
" " 4 " :	1	100	101
Conductors' Cars, 8 wheels:	--	40	40
Platform Cars, 8 wheels:	105	1,763	1,868
Grain Cars:	--	50	50
Refrigerator Car:	--	1	1
Gravel Cars, 8 wheels:	--	90	90
" 4 " :	82	278	360
Timber Cars, 16 wheels:	--	6	6
" 4 " :	--	6	6
Spar Timber Trucks:	--	16	16
Snow Ploughs, Large:	1	34	35
Hand Cars:	19	102	121
TOTALS: (Cars)	387	5,977	6,364

Source: Report of Samuel Keefer, Esq., Inspector of Railways, 1859-60.

Station, so that broad gauge trains might use this terminal, which was more centrally located than the G.T.R. station at Point St. Charles.

After having endured tedious and expensive transshipment at interchange points for thirteen years, the Great Western took a notable step on January 1st, 1867, by inaugurating the use of a third rail for standard-gauge over the entire 229-mile main line from Windsor to Suspension Bridge. This proved to be the opening move in the dissolution of the cumbersome and expensive Provincial Gauge. The GWR made no change in its motive power or rolling stock immediately, and trains of mixed-gauge equipment were marked, on this section, by a placard with the letters "NG" carried on the front of the engine. This was to prevent such a train being switched, in error, into a siding which was not equipped for both gauges. At best, this measure was a temporary expedient, resulting in considerably-increased maintenance and operation expense.

After nearly twenty years of experience in operation of the Provincial Gauge, the Government of what had now become the Dominion of Canada took the inevitable step, in 1870, of repealing so much of the Act of 1851 which referred to a mandatory 5'6" gauge. The Great Western was well-prepared for such a move; on one day in December, 1870, the first positive step was taken by changing over the Hamilton-Toronto Branch from 5'6" to 4'8½" in the space of eight hours only. This

line had never been converted to double-gauge. Shortly after, in late 1870 and early 1871, the third rail was removed between Windsor and Komoka, and from Hamilton to Suspension Bridge. Later in 1871, the rest of the Broad Gauge system was converted, but the three-rail section between Komoka and Hamilton was left intact until June 1873, so that usable broad gauge equipment could be kept in service as long as possible. However, in that month, the GWR became a completely standard-gauge railway system.

The Grand Trunk made a start in November, 1872, by changing over its line which, like the GWR, united the Detroit river and Niagara interchanges with American lines. The section affected was from Sarnia to St. Mary's Junction, and from Stratford, via Paris and Brantford to Fort Erie. A third rail was retained between St. Mary's Junction and Stratford, for the use of broad gauge trains on the London branch. The GTR changed the rest of its system in October and November, 1873, with the exception of lines east of Richmond to Riviere-du-Loup, and branches, which did not go over to standard until September 1874, along with the section of the unopened Intercolonial between Riviere-du-Loup and Ste.Flavie (Mont Joli). The balance of the Intercolonial and the Windsor & Annapolis Railway, were changed in June and November, 1875.

With the line to Portland, the original broad gauge railway, converted to standard gauge in November, 1873, the other 5'6" lines in Maine followed suit, all lines west of Bangor being changed by 1875. In 1877, the European & North American between Bangor and Saint John, N.B., via Vanceboro, was reduced to standard, and with it went the 22-mile Fredericton Railway. In 1878, the New Brunswick & Canada Railway was converted, and the stragglers to belated conformity continued with the reduction of the Northern in 1879, and that of the Canada Central which took place on Easter Sunday, 1880.

Even at this eleventh hour, the Broad Gauge was not quite dead; late in 1880, while the Canada Central was being extended westward from Pembroke, under Government subsidy, to the eastern terminus of the Pacific Railway at Callander, out of a desire to utilize broad-gauge equipment left over and still unconverted, account pressure of work, from the gauge conversion of Easter of 1880, the Canada Central constructed its new line, on a temporary basis, between Mackey, Ont., and Callander, to the 5'6" gauge. In 1881, when the CCR shops at Carleton Place could accomodate this remaining equipment for alteration, the section was changed over to standard gauge for normal operation.

At the close of the year 1881, thirty years after the enactment of the Provincial Gauge act, only 60 miles of 5'6" gauge railway remained in the Dominion of Canada. Forty-six of those miles belonged to the Cobourg, Peterboro & Marmora Railway, which operated between Cobourg and Harwood, on the southern shore of Rice Lake, with a mineral spur near Blairton, further inland. The C.P.& M. was never changed but was abandoned completely about 1889 as a broad gauge line. The remaining fourteen miles were those of the Carillon & Grenville Railway, which operated a portage service in connection with the Montreal-Ottawa steamer service on the Ottawa River. The Carillon & Grenville had no physical connection with other roads, nor any use for such a connection; its quaint antiquated train was hauled over the road by the last Birkenhead engine in Canada, and it continued a charming, pastoral and anachronistic existence until the end of the navigation season of 1910 when it closed for good, taking with it the vestigial remains of what had been, in retrospect, a costly and unfortunate experiment for the railways of Canada, yet one of intense interest to the historian -- the era of the Provincial Gauge.

LIST OF 5'6" GAUGE RAILWAYS IN CANADA, WITH DATES OF CONSTRUCTION AND CONVERSION OR ABANDONMENT, WITH U.S.CONNECTIONS

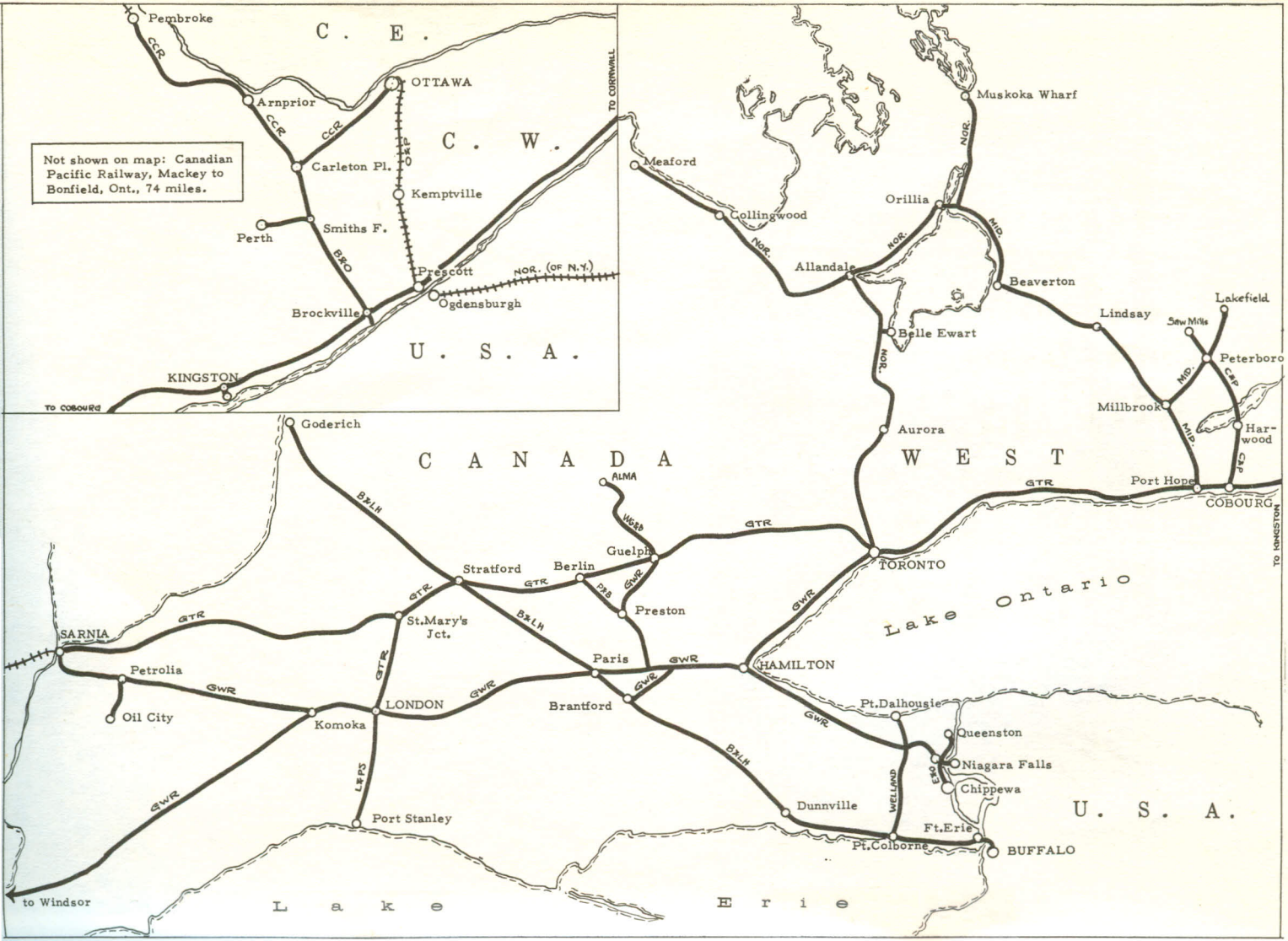
Section	Year Built	Changed to 4' 8½"
GRAND TRUNK RAILWAY OF CANADA		
Longueuil - St. Hyacinthe, Que.	1847	4/1874
St. Hyacinthe - Sherbrooke, Que.	1852	"
Sherbrooke - Boundary U.S.A. (on line to Portland)	1853	"
Richmond - Point Levi(s), Que.	1854	10/1874
Chaudiere Jc. - St. Thomas, Que.	1855	"
Montreal - Brockville, Ont.	1855	11/1873
Brockville - Toronto, Ont.	1856	"
Toronto - Stratford, Ont.	1856	10/1873
Stratford - St. Marys Jc., Ont.	1858	3R 11/1872 10/1873
St. Marys Jc. - London, Ont.	1858	10/1873
St. Marys Jc. - Sarnia, Ont.	1859	11/1872
Victoria Bridge & approaches, Montreal.	1859	3R 1864 4/1874
St. Thomas - St. Pascal, Que.	1859	10/1874
St. Pascal - Riviere-du-Loup, Que.	1860	"
Kingston Branch	1860	11/1873
Bonaventure Sta., Montreal to St.Henry (St.Ga.1847)	3R 1864	4/1874
Arthabaska - Doucet's Landing, Que.	1864	10/1874
GREAT WESTERN RAILWAY		
Hamilton - London, Ont.	1853	3R 1/1867 1873
Suspension Bridge - Hamilton, Ont.	1853	" 1870
London - Komoka, Ont.	1854	" 1873
Komoka - Windsor, Ont.	1854	" 1870
Harrisburg - Galt, Ont.	1854	3R 1870 1871
Hamilton - Toronto, Ont.	1855	12/1870
Galt - Guelph, Ont.	1857	3R 1870 1871
Komoka - Sarnia, Ont.	1858	3R 1870 "
Wyoming - Petrolia, Ont.	1866	" "
Guelph - Alma, Ont.	1870	" "
NORTHERN RAILWAY OF CANADA		
Toronto - Allandale, Ont.	1853	1879
Allandale - Collingwood, Ont.	1855	"
Collingwood - Meaford, Ont.	1872	"
Allandale - Orillia, Ont.	"	"
Orillia - Washago, Ont.	1873	"
Washago - Gravenhurst (Muskoka Wharf)	1875	"
EUROPEAN & NORTH AMERICAN RAILWAY		
Saint John - Moose Path, N.B.	1857	6/1875
Pointe-du-Chene (Shediac) - Moncton, N.B.	"	"
Moose Path - Rothesay, N.B.	1858	"
Rothesay - Sussex, N.B.	1859	"
Sussex - Moncton, N.B.	1860	"
NOVA SCOTIA RAILWAY		
Halifax - Bedford, N.S.	1855	6/1875
Bedford - Grand Lake, N.S.	1857	"
Grand Lake - Truro, N.S.	1858	"
Windsor Jc. - Windsor, N.S.	"	"
Truro - Pictou Landing, N.S.	1867	"

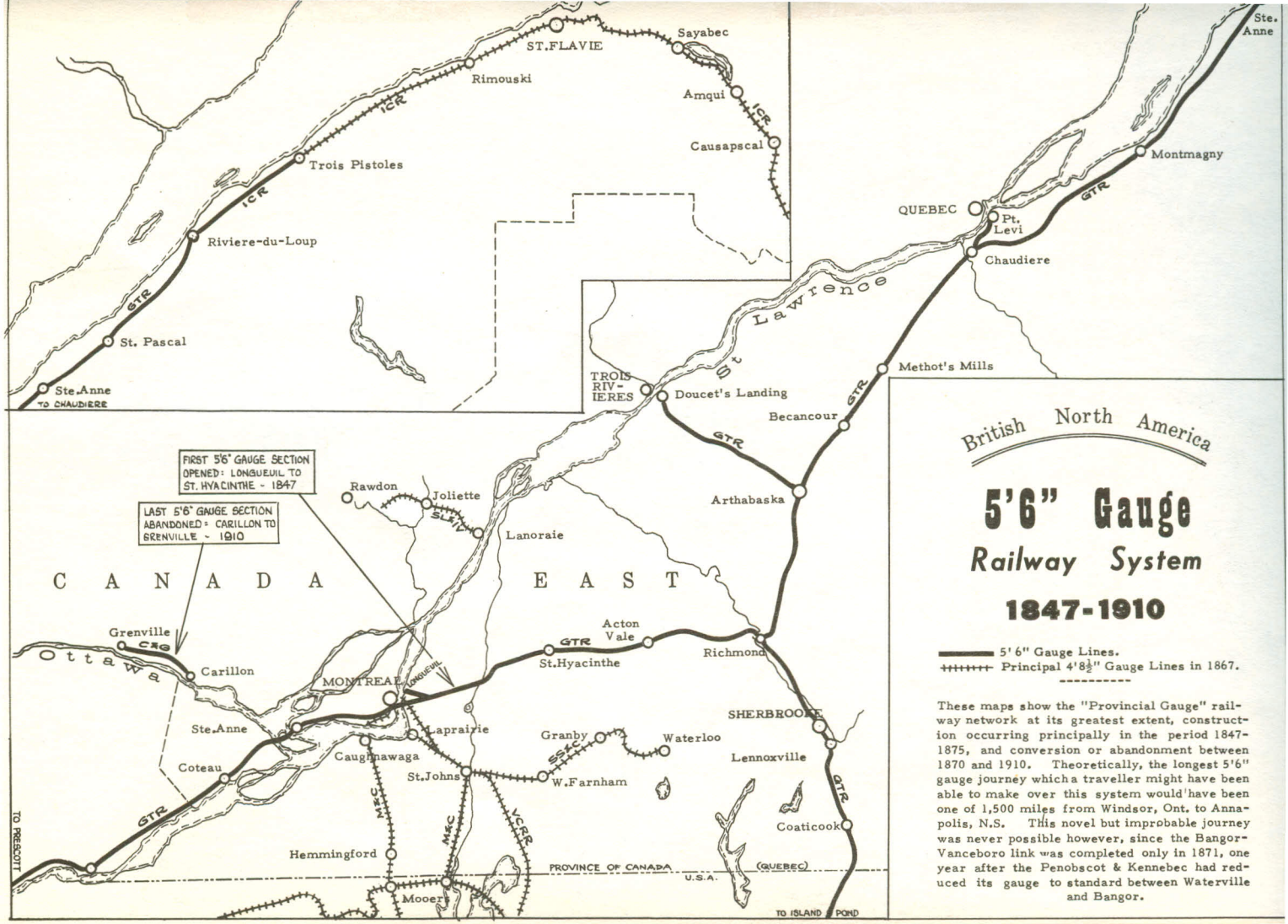
NOTE: "3R" indicates third rail installed this date.

NEW BRUNSWICK & CANADA RAILWAY		
St. Andrews - Barber Dam, N.B.	1857	1878
Barber Dam - Canterbury, N.B.	1858	"
Canterbury - Richmond (Debec Jc.), N.B.	1862	"
Watt Jc. - St. Stephen, N.B.	1866	"
Richmond - Woodstock, N.B.	1868	"
Richmond, N.B. - Houlton, Me.	1871	"
INTERCOLONIAL RAILWAY OF CANADA		
Painsec Jc. - Dorchester, N.B.	1868	6/1875
Dorchester - Sackville, N.B.	1869	"
Sackville, N.B. - Amherst, N.S.	1870	"
Amherst - Truro, N.S.	1872	"
Riviere-du-Loup, - Post Road, Que.	1872	10/1874
Post Road - Trois Pistoles, Que.	1873	"
Moncton - (Miramichi River crossing) N.B.	1875	11/1875
MIDLAND RAILWAY OF CANADA		
Port Hope - Lindsay, Ont.	1857	6/1874
Millbrook - Peterborough, Ont.	1858	"
Peterborough - Lakefield, Ont.	1870	"
Lindsay - Beaverton, Ont.	1871	"
Beaverton - Orillia, Ont.	1873	"
BROCKVILLE & OTTAWA/CANADA CENTRAL railways		
Brockville - Almonte, Ont.	1859	4/1880
Smiths Falls - Perth, Ont.	"	"
Brockville Town Tunnel.	1860	"
Almonte - Sand Point, Ont.	1867	"
Sand Point - Pembroke, Ont.	1876	"
Carleton Place - Ottawa, Ont.	1870	"

BUFFALO & LAKE ERIE RY. Fort Erie-Stratford, Ont.	1856	11/1872
Stratford-Goderich, Ont.	1858	10/1873
LONDON & PORT STANLEY RY. London-Port Stanley,Ont.	1856	10/1872
COBOURG & PETERBOROUGH RY. Cobourg-Harwood,Ont.	1854	Abandoned 1889
Harwood-Peterborough,Ont. (including Rice Lake bridge)	"	" c1860
WINDSOR & ANNAPOLIS RY. Windsor-Annapolis, N.S.	1869	6/1875
SAINT JOHN & MAINE RY. Saint John, N.B.-Vanceboro,Me.	1869	9/1877
FREDERICTON RY. Fredericton Jct. - Fredericton, NB	1869	"
ERIE & ONTARIO RY. Chippewa - Queenston, Ont.	1854	c1875
CARILLON & GRENVILLE RY. Carillon-Grenville,Que.	1854	Abandoned 1910
WELLAND RY. Port Dalhousie - Pt.Colborne, Ont.	1859	3R 1872 c1875
PETERBOROUGH & CHEMONG LAKE RY. (as title)	1859	6/1874
CANADIAN PACIFIC RY. Mackey-Bonfield, Ont.	1881	1883
CONNECTING RAILWAYS OF 5'6" GAUGE IN NEW ENGLAND		
GRAND TRUNK RY. Portland-Boundary, Canada.	1853	4/1874
ANDROSCOGGIN & KENNEBEC RY. Danville Jc.-Waterville, Me.	1849	11/1871
PENOBSCOT & KENNEBEC RY. Waterville-Bangor,Me.	1862	11/1870
EUROPEAN & NO. AMERICAN (Maine) Bangor-Vanceboro.	1871	9/1878
ANDROSCOGGIN RY. Leeds Jc.-Livermore Falls, Me.	1855	1862
PORTLAND & OXFORD CENTRAL Mechanic Falls-E.Sumner	1854	c1878
E. Sumner-Canton,Me.	1870	"
BUCKSPORT & BANGOR RR. Bucksport-Bangor,Me.	1874	1877*
BANGOR & PISCATAQUIS RR. Old Town-Dover, Me.	1869	1877
Dover-Abbott, Me.	1874	1877

* changed to 3' gauge in 1879, back to 4' 8½" in 1883.


C. E.
C. W.
U. S. A.
Pembroke
CCR
Arnprior
OTTAWA
TO CORNWALL
Carleton Pl.
Kemptville
Perth
Smiths F.
B&O
Prescott
NOR. (OF N.Y.)
Ogdensburgh
Brockville
KINGSTON
TO COBOURG
Not shown on map: Canadian Pacific Railway, Mackey to Bonfield, Ont., 74 miles.
CANADA WEST
Muskoka Wharf
NOR.
Meaford
Collingwood
Orillia
MID.
Allandale
Beaverton
Lindsay
Lakefield
Saw Mills
Peterboro
CAP
Belle Ewart
Millbrook
Harwood
Aurora
Port Hope
GTR
COBOURG
TO KINGSTON
Goderich
B&LH
ALMA
WGSB
Guelph
Stratford
Berlin
DSB
GWR
Preston
TORONTO
Lake Ontario
St.Mary's Jct.
SARNIA
Petrolia
Oil City
Paris
HAMILTON
LONDON
Komoka
Brantford
Pt.Dalhousie
Queenston
Niagara Falls
Chippewa
E&O
WELLAND
Dunnville
Ft.Erie
Pt.Colborne
BUFFALO
L&PS
Port Stanley
to Windsor
Lake Erie


British North America
5'6" Gauge
Railway System
1847-1910
5' 6" Gauge Lines.
Principal 4'8½" Gauge Lines in 1867.
These maps show the "Provincial Gauge" railway network at its greatest extent, construction occurring principally in the period 1847-1875, and conversion or abandonment between 1870 and 1910. Theoretically, the longest 5'6" gauge journey which a traveller might have been able to make over this system would have been one of 1,500 miles from Windsor, Ont. to Annapolis, N.S. This novel but improbable journey was never possible however, since the Bangor-Vanceboro link was completed only in 1871, one year after the Penobscot & Kennebec had reduced its gauge to standard between Waterville and Bangor.
FIRST 5'6" GAUGE SECTION OPENED: LONGUEUIL TO ST. HYACINTHE - 1847
LAST 5'6" GAUGE SECTION ABANDONED: CARILLON TO GRENVILLE - 1910
CANADA EAST
Ottawa
St. Lawrence
ST.FLAVIE
Sayabec
Rimouski
Amqui
Causapscal
Trois Pistoles
Riviere-du-Loup
St. Pascal
Ste.Anne
TO CHAUDIERE
Ste. Anne
Montmagny
QUEBEC
Pt. Levi
Chaudiere
Methot's Mills
TROIS RIV-IERES
Doucet's Landing
Becancour
Arthabaska
Rawdon
Joliette
Lanoraie
Grenville
Carillon
MONTREAL
LONGUEUIL
Acton Vale
St.Hyacinthe
Richmond
SHERBROOKE
Ste.Anne
Laprairie
Granby
Waterloo
Lennoxville
Coteau
Caughnawaga
St.Johns
W.Farnham
Coaticook
Hemmingford
Mooer
PROVINCE OF CANADA
(QUEBEC)
U.S.A.
TO PRESCOTT
TO ISLAND POND
GTR
ICR
CAG
SLV
SSC
M&C
VCRR