TABLE OF CONTENTS

FAREWELL TO THE TH&B ........................................... DOUGLAS N.W. SMITH 79
FROM THE COLLECTION (C.N. 7700) ................................ DOUGLAS N.W. SMITH 102
RAIL CANADA DECISIONS ........................................ 107
SUNNY ALBERTA .................................................. BASIL N.A. LANKESTER 109
BOOK REVIEWS .................................................. 110
CRHA COMMUNICATIONS ........................................ 113
BUSINESS CAR .................................................. 114

Canadian Rail is continually in need of news, stories, historical data, photos, maps and other reproducible material. Please send all contributions to the editor: Fred F. Angus, 3021 Wagar Avenue, Montreal, P.O. 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".

- NATIONAL DIRECTORS -

Frederick F. Angus ........................................ Charles De Jean ........................................ M. Peter Murphy ........................................ David W. Strong ........................................
R. C. Ballard ................................................ Gerard Frechette ........................................ Robert V. V. Nicholls ....................................
Jack A. Beatty ............................................ David W. Johnson ....................................... Andrew W. Panko ........................................
Walter J. Badbrook ..................................... J. Christopher Kyle ..................................... Douglas N. W. Smith ................................
Alan C. Blackburn ....................................... William Le Surf ........................................ Dorky Sparks ...........................................
                      Bernard Martin ................................

The CRHA has a number of local divisions across the country. Many hold regular meetings and issue newsletters. Further information may be obtained by writing to the division.

- NEW BRUNSWICK DIVISION -
P.O. Box 1162, Saint John, New Brunswick E3L 4E7

- ST. LAWRENCE VALLEY DIVISION -
P.O. Box 22 Station 'B', Montreal, Que. H3R 3J5

- RIDEAU VALLEY DIVISION -
P.O. Box 962, Smith Falls, Ontario K7A 5A5

- KINGSTON DIVISION -
P.O. Box 105, Kingston, Ontario K7M 6P9

- TORONTO & YORK DIVISION -
P.O. Box 5848, Terminal A, Toronto, Ontario M5V 1P3

- NAGARA DIVISION -
P.O. Box 533, St. Catharines, Ontario L2R 6W8

- WINNIPEG-ESSEX DIVISION -
300 Cabana Road East, Windsor, Ontario N9G 1A2

- KEYSTONE DIVISION -
14 Reynolds Bay, Winnipeg, Manitoba R3K 0M4

- CALGARY & SOUTH WESTERN DIVISION -
90 - 9100, 4th Ave. NE, Calgary, Alberta T2A 5Z8

- ROCKY MOUNTAIN DIVISION -
P.O. Box 6102, Station C, Edmonton, Alberta T5B 2N0

- SELKIRK DIVISION -
P.O. Box 39, Revelstoke, B.C. V0E 2B0

- CROWNSWIFT & KETTLE-VALLEY DIVISION -
P.O. Box 400, Cranbrook, British Columbia V1C 4N9

- PACIFIC COAST DIVISION -
P.O. Box 1006, Station A, Vancouver, British Columbia V6C 2P1

- NATIONAL DIRECTORS -

David W. Strong ........................................
Laurence M. Unwin ....................................
Richard Viberg ........................................
A. Stephen Walbridge ................................
John C. Weir ...........................................

FRONT COVER:
In order to eliminate the double heading of locomotives on passenger trains, the TH&B acquired two 4-6-0 locomotives from the New York Central in the late 1940's. One of these, engine 501, is shown heading up the Berwick to Toronto train 772 on December 15, 1953. Departing Sunnyside station, which is visible above the rear of the train, the train will be at Union Station, Toronto at 10:05. The last car on the train is a New York Central 10 roomette 6 double bedroom sleeping car operating from New York City to Toronto.

Credit: Paterson-George Collection.

As part of its activities, the CRHA operates the Canadian Railway Museum at Delson/St. Constant, Quebec which is 14 miles (23 Kms.) from downtown Montreal. It is open daily from late May to early October. Members and their immediate families are admitted free of charge.

GOAL OF THE ASSOCIATION: THE COLLECTION, PRESERVATION AND DISSEMINATION OF ITEMS RELATING TO THE HISTORY OF RAILWAYS IN CANADA.
Farewell
To The TH&B

by Douglas N. W. Smith

The TH&B owned the only two locomotives with a 2-8-4 type wheel arrangement in Canada. One of these, engine 202, is seen hauling 46 freight cars out of Hamilton on a lovely fall evening. A connection will be made with the New York Central at Montrose Yard near Niagara Falls, Ontario. This picture was taken on October 29, 1944.

INTRODUCTION

During the course of the past year, the Toronto, Hamilton & Buffalo Railway (TH&B) became another name for the history books. CP Rail, which had acquired all the stock in the company in 1977, merged the company into its monolithic mass on May 21, 1987. The occasion was marked by a final meeting of the TH&B Board of Directors in three CP Rail business cars parked at the TH&B station in downtown Hamilton. Thus, one hundred and three years after the date of the issuance of its first charter, the TH&B wound up its affairs. A colourful chapter of Canadian railway history has drawn to a close.

ORIGINS OF THE TH&B

The origins of the TH&B lie in the expansionistic policy adopted by the Grand Trunk Railway in the 1880's. There were two basic reasons for the adoption of such a policy by the Grand Trunk. The first reason was to block CP plans to expand into southwestern Ontario by acquiring railways which could have been used by CP for that purpose. The second reason was to eliminate a major competitor, the Great Western Railway thereby eliminating its main competitor in southwestern Ontario. The two railways operated parallel lines between Fort Erie and Windsor and between Toronto and Sarnia. The acquisition of the Great Western gave the Grand Trunk control of over two of the three lines linking the Fort Erie/Niagara Falls-Detroit gateways. Competition between the two railways for a larger share of the tremendous traffic moving from the midwestern United States to the eastern seaboard had been particularly intense and led to a number of rate cutting wars. Control of the Great Western helped the Grand Trunk to stabilize its rates in southern Ontario.

At the beginning of the 1880's, Hamilton was served by three railways. In 1882, the Grand Trunk took over the Great Western and in 1884 the Northern & North Western, a line which linked Hamilton to Port Dover and Barrie. These two steps made Hamilton a one-railway town.

Such a state of affairs did not sit well with Hamilton businessmen and municipal leaders who feared the effect that a Grand Trunk monopoly could have on freight rates. Government regulation of freight rates did not begin until the turn of the century. During the nineteenth century, railways offered special rebates to favoured shippers and engaged in furious rate cutting on competitive routes in order to secure a larger share of the
The Schenectady Locomotive Works turned out TH&B 1 late in 1894. The locomotive was used in the construction of the Brantford-Hamilton line during the winter of 1895. It was sold about 1917 to the Maple Leaf Milling Company and used as part of a landfill in 1927.

Credit: National Museum of Science and Technology.

traffic. Manufacturers, whose firms were located in towns served by a single railway, were at a competitive disadvantage as they had to pay regular freight rates.

Spurred on by the actions of the Grand Trunk, Hamilton interests secured the first charter for the TH&B from the provincial legislature in 1884. It authorized the construction of a standard gauge line from Toronto to the International Bridge at Fort Erie or Cantilever Bridge at Niagara Falls via Hamilton. A five year time limit was mandated for the completion of the project.

A factor which had made it difficult to raise the funds to build the line had been the inclusion in the charter of a clause forbidding the lease or merger of the TH&B with any other railway. While no progress was made towards actual construction, the legislature extended the charter for another five year period in 1889.

Amendments made to the charter in 1890 rendered the project more palpable. While the new provisions specifically prohibited the lease or sale of the company to Grand Trunk or Canadian Pacific, it allowed the Michigan Central or Canada Southern to lease or take over the company. As well, the TH&B could terminate at Welland rather than the Niagara River. At Welland, connections could be made with the Canada Southern, which at this time was being operated by the Michigan Central Railway, which in turn was a subsidiary of the powerful New York Central System (NYC). By the time these changes had been put in place, a new player had entered the field which significantly altered the final configuration of the TH&B.

PROGRESS IN AN UNEXPECTED QUARTER

The earliest component of the TH&B to be constructed was built by another company which initially had no plans to serve Hamilton. The Brantford, Waterloo & Lake Erie Railway (BW&LE) completed a line between Waterford and Brantford several years before work commenced on the Hamilton-Welland line.

The reasons for the construction of the BW&LE were remarkably similar to those which created the demand for the TH&B. By the mid 1880’s, Brantford was an up and coming community. Its rail service when compared to the neighbouring communities such as Woodstock and Galt, which were served by two railways and had direct service to Toronto, was less than desirable. Brantford was faced with the dual disadvantages of being served solely by the Grand Trunk and not being on a trunk line to Toronto. The Great Western Railway bypassed Brantford in 1854 because the city had refused to grant it a bonus to build the Niagara Falls-Windsor main line through their town. It was not until 1870 that the Great Western built a branch line from Harrisburg to Brantford.

The railway which had claimed the attentions of Brantford during the 1850’s was the Brantford & Lake Huron, which eventually completed a line from Fort Erie to Goderich. It was taken over by the Grand Trunk in 1864. Thus when the Great Western fell into the hands of the Grand Trunk in 1882, Brantford became a one-railway town.

In order to encourage the establishment of new industry in their community, the citizens of Brantford decided that an independent railway outlet was essential. In 1885, they secured a charter for the BW&LE. The first phase called for the construction of a line from Brantford to the Canada Southern, which was the rail line nearest to Brantford not controlled by the Grand Trunk. Progress languished for the several years while attempts were made to induce the Canada Southern to take an active interest in the project. Up to 1888, the best concession that the promoters could secure was a promise by the President of the Michigan Central that favourable traffic agreements would be granted if the BW&LE were completed.

Backed by this promise from the Michigan Central, the directors of the BW&LE began to seek financial assistance. Their charter permitted the railway to connect with the Canada Southern at either Waterford or Hagersville. The choice of Waterford was hastened by the decision of the citizens of that
community to offer a bonus to the line. As well, the citizens of Brantford and the Township of Oakland were induced to provide substantial bonuses for the line. The Dominion government contributed a subsidy of $3,200 per mile. More than half of the cost of building and equipping the line was funded through grants.

Having lined up this funding, construction started in the spring of 1889. Progress was rapid as there were few engineering difficulties. The opening of the line was delayed several months due to difficulties in securing a right of way through West Brantford. The line officially opened on February 1, 1890. An account of the first trips operated, which reveal the close ties between the BW&LE and the Michigan Central, is reproduced in Appendix I.

Initially, the line terminated in West Brantford. This allowed the company to start operations without incurring the substantial expenditure that would have been necessary to bridge the Grand River in order to reach the main part of the city. Reflecting the close ties fostered with the Canada Southern and the shoestring financing, the first locomotives on the BW&LE were second hand engines from the Canada Southern.

Like many projects of the period, the BW&LE never fulfilled the ambitions espoused in its corporate title. Rather than building to the north and south, its future lay to the east.

Following the renewal of the TH&B charter in 1889, the promoters of the revived TH&B project became very interested in the BW&LE which would provide a link for traffic moving from Toronto to the western United States. They found the directors of the BW&LE ready to negotiate. While the BW&LE directors had been willing to finance the construction of the rail line, they appeared not so eager to retain the line. They probably hoped that the Canada Southern would recognize the value of the feeder to its main line and make an offer to purchase or lease the railway shortly after it was completed.
In 1894, the Chief Engineer of the TH&B prepared a map showing the proposed alignment of the TH&B. At that time, the only portion actually built was the original Brantford, Waterloo & Lake Erie Railway between Waterford and Brantford. This map clearly shows the Toronto-Hamilton alignment which was surveyed by the TH&B but was never built. The proposed lines to Port Dover and Port Burwell were never built. The map clearly shows the other rail lines existing in the region. This print is a photo reduction of a larger map. Consequently, the scale in this reproduction is approximately 1/17 mile to the inch.

Credit: National Archives/MNC 104142

would be shared. The stock in the TH&B was distributed on the following basis: CP 27%, NYC 37%, Michigan Central 18% and Canada Southern 18%. The NYC had effective control over the company through its interests in the Michigan Central and Canada Southern. The support of the CP and NYC in the TH&B, however, became evident in the latter months of 1894.

CONSTRUCTION BEGINS IN EARNEST

On October 11, 1894, the ever faithful ratepayers of Hamilton passed yet another bonus bylaw for the TH&B. This one provided a bonus of $225,000 to the TH&B if it built a line from Welland to Waterford via Hamilton. As part of the terms of the bonus, the TH&B agreed to operate daily freight and passenger service and to repay the money if the line were ever sold to the Grand Trunk, CP or CP's subsidiary, the Southern Ontario Pacific.

This time the TH&B would fulfill its promise. Construction on the Brantford-Hamilton line restarted almost as soon as the results of the vote on the bylaw were known. On October 12, 1894, as a reflection of the new vigour prevailing the project as well as its corporate links, a Michigan Central locomotive and three-car passenger train replaced the down-at-the-heels equipment from the BW&LE used on the Brantford-Welland run. The Brantford paper billed the Michigan Central equipment as the equal of any on the main line. Ten days later, the frequency of passenger service was increased from two to three round trips daily. By mid December four new steam locomotives had been delivered from Schenectady to the TH&B and were engaged upon construction work. On May 24, 1895, the 25 mile line from Brantford to Hamilton was officially opened.

The first passenger train to pass over the line was a special train carrying the Thirteenth Battalion from Hamilton to London to take part in the festivities marking Queen Victoria's birthday. At this time, the Michigan Central had trackage rights over the London & Port Stanley Railway from St. Thomas to London. TH&B locomotive #2 headed up the consist which included another unidentified TH&B locomotive, 1 horse car, 1 baggage car, and 11 coaches. Reflecting the close ties with the NYC system, the cars were supplied by the Michigan Central. A pilot engine preceded the special to make sure that the line was safe. Regular passenger train service started on May 27th.

As the bonus from the City of Hamilton would lapse if the line between Hamilton and Welland was not completed by December 31, 1895, construction on this portion of the line was rushed to completion during the latter half of 1895. On December 28, 1895, the government's engineer, Thomas Rideout, inspected the new line. An excerpt from "The Hamilton Spectator" for
this date, which is shown in Appendix III, reveals the rushed state of the construction still going on even while the inspection train was travelling from Welland to Hamilton. Government permission to open the line to traffic was granted on December 30, 1895. In recognition of the unfinished condition of the roadbed between Hamilton and Welland, permission to open the line was conditional upon trains not being operated at speeds exceeding 20 miles per hour.

Some citizens, who opposed the TH&B by-law, employed an independent civil engineer to write a report showing that the TH&B had not lived up to its commitment to have a first class line in place by the end of 1895. This attempt to block the payment of the $225,000 bonus was unsuccessful, but the report, which is reproduced in Appendix IV, remains a valuable document as it describes the condition of TH&B early in 1896.

By the end of 1897, the deficiencies noted in the 1896 report had largely been corrected. A copy of a report filed by the TH&B with the Department of Railways and Canals which illustrates the many improvements undertaken during that year is presented in Appendix V.

The most significant engineering structure on the new line was a 1904.5 foot long double track tunnel which burrowed under the fashionable suburbs along Hunter Street in Hamilton. Due to the sandy soil conditions, the construction involved excavating the ground, laying the masonry for the arch and then covering over the tunnel. By the time it was completed, over 127,000 cubic yards of earth had been removed from the cutting for the tunnel and 88,000 cubic yards from the approaches. Over three million bricks and 12,000 yards of masonry went into the structure. The project was undertaken by the American contractor, Andrew Onderdonk, who was no stranger to Canada. He was responsible for the construction in the 1880's of the westernmost part of the CP transcontinental line from Port Moody to Craigellachie, British Columbia.

While the line was deemed sufficiently complete for the inauguration of regular service on December 30th, the tunnel was not completely finished. It was only on February 7, 1896 that the last brick was laid in the arch. The TH&B expended $3.28 million to build the line from Brantford to Welland.

THE LINK TO TORONTO

Having completed the work necessary to qualify for the payment of the Hamilton bonus, attention was turned to the link to Toronto in 1896. Surveys which had been carried out earlier that decade proposed building on an alignment which was largely south of the existing Grand Trunk line. A map showing the location is used as one of the illustrations to this article. As the TH&B line would have passed much closer to the settled areas between Toronto and Hamilton, it could have seriously
Hauling a freight train, engines 5 and 30 pause at the Hunter Street station in Hamilton in this 1911 view. This is the second locomotive to bear the number 5. It was built by Baldwin in 1905. Locomotive 30, a 4-6-0 type engine, was built by the Montreal Locomotive Works in 1908. Both engines were removed from the roster until 1934.

Credit: National Archives PA-161572.

Prior to the arrival of the Berkshires, the biggest freight engines on the TH&B were 2-8-0 types. Locomotive 102 (original number 51) was built by the Montreal Locomotive Works in 1910 and could develop 45,780 pounds of tractive effort. This view taken on October 31, 1931 shows the engine on a freight train in Hamilton in a relatively unmodernized condition.

Credit: Paterson-George Collection.
eroded the traffic the Grand Trunk derived from these communities.

Faced with the potential loss of traffic over its Toronto-Hamilton line if the TH&B completed its proposed line, the Grand Trunk decided to co-operate with CP. On April 9, 1896, the Grand Trunk's Board of Directors granted CP running rights over its line from Toronto to a point near Hamilton. Thus the completion of the TH&B required only the construction of a 1.4 mile line rather than a 44 mile trunk line. This piece of construction was dubbed the “spur line” by the Hamilton press. It started from a point just west of the Hamilton tunnel and extended to the Hamilton Junction which is located near the mouth of the old Desjardins Canal. Following its completion, the spur line was turned over to CP on May 25, 1897.

Up to March 31, 1897, the Dominion Construction Company, which built the line under a contract signed with the TH&B, CP and NYC interests, was responsible for the operation of the railroad. Due to the unfavourable financial results during the period it operated the railway, the construction company took steps to reduce expenses till the line was taken off its hands. Local newspapers recorded that during the winter of 1897 the stations at Chantlers, Cainsville and Welland Junction were closed and a number of engineers and men in the freight office were laid off.

Effective April 1, 1897, the TH&B was placed under the management of the Michigan Central's Canada Division whose headquarters were at St. Thomas, Ontario. The arrangement only lasted until December 1, 1897 when the line was restored to independent status. The head-office of the Company was established in Hamilton.

START OF OPERATIONS

On May 30, 1897, the CP, TH&B and NYC inaugurated through Toronto-Buffalo passenger service providing four round trips per day. As well, CP began to operate a number of Toronto-Hamilton locals. A description of the first train to make the run from Toronto to Buffalo is contained in Appendix VI. CP supplemented the Toronto-Buffalo trains with several locals of its own between Toronto and Hamilton. The scheduled departure and arrival times at Toronto were as follows:

<table>
<thead>
<tr>
<th>Leave</th>
<th>Destination</th>
<th>Frequency</th>
<th>Arrive</th>
<th>Origin</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0900</td>
<td>Buffalo</td>
<td>Daily</td>
<td>0940</td>
<td>Buffalo</td>
<td>Ex Sun</td>
</tr>
<tr>
<td>0955</td>
<td>Buffalo</td>
<td>Ex Sun</td>
<td>1045</td>
<td>Buffalo</td>
<td>Daily</td>
</tr>
<tr>
<td>1330</td>
<td>Hamilton</td>
<td>Sun Only</td>
<td>1235</td>
<td>Hamilton</td>
<td>Ex Sun</td>
</tr>
<tr>
<td>1310</td>
<td>Hamilton</td>
<td>Ex Sun</td>
<td>1455</td>
<td>Hamilton</td>
<td>Sun Only</td>
</tr>
<tr>
<td>1540</td>
<td>Buffalo</td>
<td>Ex Sun</td>
<td>1540</td>
<td>Buffalo</td>
<td>Ex Sun</td>
</tr>
<tr>
<td>1745</td>
<td>Hamilton</td>
<td>Ex Sun</td>
<td>1800</td>
<td>Buffalo</td>
<td>Ex Sun</td>
</tr>
<tr>
<td>2040</td>
<td>Buffalo</td>
<td>Daily</td>
<td>2025</td>
<td>Buffalo</td>
<td>Daily</td>
</tr>
</tbody>
</table>

An additional new service which started at the same time was a through coach service between Toronto and Brantford.

While it was ready to share its infrastructure, the Grand Trunk was not prepared to sit idly by and let the three railways purloin its passenger traffic. On June 14, 1897, the Grand Trunk inaugurated twice-daily through service between Toronto and Buffalo in conjunction with the Lehigh Valley. As well, it initiated its own through service between Toronto and Brantford. The Toronto-Buffalo trip required three hours on the Grand Trunk-Lehigh Valley route while the fastest train on the CP, TH&B, MC route required 2 hours and 50 minutes.

Between Toronto and Brantford, the TH&B-CP through coach service took two hours while the new Grand Trunk service boasted a 1 hour 55 minute running time.

In 1905, the TH&B and the Michigan Central agreed to pool their locomotives on through trains between Buffalo and Hamilton. CP power was used exclusively between Toronto and Hamilton until 1912 when the three roads agreed to operate their locomotives through from Toronto to Buffalo on a pool basis without change.

In 1905, the first of the passenger cars owned jointly by the TH&B, CP and Michigan Central entered service. These wooden cars carried the name Toronto Hamilton and Buffalo Line on their letterboard and the names of the joint owners were carried in small lettering beneath the windows in the centre of the car. In 1924, these wooden cars were replaced by 22 steel cars, 6 baggage-express cars and 16 coaches, which remained in service to the end of the conventional train era on the TH&B.

FINANCIAL CONSIDERATIONS

In 1897 and 1898, the TH&B operated at a net loss. The unfavourable financial result is probably one of the reasons why the line was placed under independent management in December 1897. One means to achieve profitability was to gain access to the industrial districts of Hamilton. The area with the largest concentration of industry was along the shoreline of Hamilton's harbour. Access to this area was made difficult as it lay to the east of the Grand Trunk's main line between Hamilton and Niagara Falls.

The first step to improving access to industrialized areas occurred on June 17, 1897. On this date, the TH&B began to operate over the Hamilton & Dundas Railway, a steam dummy line. This gave them access to the factories in Dundas. While the Hamilton & Dundas Railway ceased to handle passenger traffic in 1923, the TH&B continued to provide freight service until recent times. The TH&B purchased the trackage necessary for its freight operations from the Hamilton & Dundas in 1927.

In 1899, the railway became profitable. This was due to several factors. Bridge traffic between CP and the New York Central System was growing, the TH&B completed its first line into Hamilton's harbourside industrial district and freight

An additional service which started at the same time was a through coach service between Toronto and Brantford.

While it was ready to share its infrastructure, the Grand Trunk was not prepared to sit idly by and let the three railways purloin its passenger traffic. On June 14, 1897, the Grand Trunk inaugurated twice-daily through service between Toronto and Buffalo in conjunction with the Lehigh Valley. As well, it initiated its own through service between Toronto and Brantford. The Toronto-Buffalo trip required three hours on the Grand Trunk-Lehigh Valley route while the fastest train on the CP, TH&B, MC route required 2 hours and 50 minutes.

Between Toronto and Brantford, the TH&B-CP through coach service took two hours while the new Grand Trunk service boasted a 1 hour 55 minute running time.

In 1905, the TH&B and the Michigan Central agreed to pool their locomotives on through trains between Buffalo and Hamilton. CP power was used exclusively between Toronto and Hamilton until 1912 when the three roads agreed to operate their locomotives through from Toronto to Buffalo on a pool basis without change.

In 1905, the first of the passenger cars owned jointly by the TH&B, CP and Michigan Central entered service. These wooden cars carried the name Toronto Hamilton and Buffalo Line on their letterboard and the names of the joint owners were carried in small lettering beneath the windows in the centre of the car. In 1924, these wooden cars were replaced by 22 steel cars, 6 baggage-express cars and 16 coaches, which remained in service to the end of the conventional train era on the TH&B.

FINANCIAL CONSIDERATIONS

In 1897 and 1898, the TH&B operated at a net loss. The unfavourable financial result is probably one of the reasons why the line was placed under independent management in December 1897. One means to achieve profitability was to gain access to the industrial districts of Hamilton. The area with the largest concentration of industry was along the shoreline of Hamilton's harbour. Access to this area was made difficult as it lay to the east of the Grand Trunk's main line between Hamilton and Niagara Falls.

The first step to improving access to industrialized areas occurred on June 17, 1897. On this date, the TH&B began to operate over the Hamilton & Dundas Railway, a steam dummy line. This gave them access to the factories in Dundas. While the Hamilton & Dundas Railway ceased to handle passenger traffic in 1923, the TH&B continued to provide freight service until recent times. The TH&B purchased the trackage necessary for its freight operations from the Hamilton & Dundas in 1927.

In 1899, the railway became profitable. This was due to several factors. Bridge traffic between CP and the New York Central System was growing, the TH&B completed its first line into Hamilton's harbourside industrial district and freight
A large source for the TH&B freight revenues was the industrial district of Hamilton. In order to serve the many spurs and belt lines, the TH&B maintained twelve 0-6-0 switch engines. Locomotive 48 is shown showing a cut of freight cars in Hamilton on September 23, 1935. Number 48 was built by the Canadian Locomotive Company of Kingston, Ontario in 1917.

Credit: Paterson-George Collection.

volumes increased as new plants opened along the TH&B while established firms became busier.

The following years rapidly proved the value of the link between CP and the New York Central System. During the two decades following the completion of the linking of the CPR and New York Central, freight traffic experienced a seven-fold increase and passenger traffic almost tripled. The 1918 net earnings of $818,000 were almost ten times those of 1899. Financial and operating statistics for this period are shown in Table 1.

**FINAL EXPANSION**

In an attempt to expand its influence in the Niagara peninsula, the TH&B tried to take over the Niagara, St. Catherines and Toronto Railway. The talks were unsuccessful and the property went to the Canadian Northern in 1905.

Under the charter of the Erie & Ontario Railway, the TH&B completed the 15 mile line from Smithville to Dunnville on December 22, 1914. In 1916, the branch was pushed on another 5 miles to Port Maitland. In conjunction with the extension of

<table>
<thead>
<tr>
<th>TABLE 1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Passengers Carried</th>
<th>Freight Ton Miles</th>
<th>Train Miles</th>
<th>Total Revenues $</th>
<th>Net Earnings $</th>
</tr>
</thead>
<tbody>
<tr>
<td>1895</td>
<td>26,827</td>
<td>85,617</td>
<td>31,824</td>
<td>17,453</td>
<td>4,245</td>
</tr>
<tr>
<td>1896</td>
<td>65,662</td>
<td>47,057</td>
<td>157,632</td>
<td>84,901</td>
<td>24,473</td>
</tr>
<tr>
<td>1897</td>
<td>100,275</td>
<td>98,403</td>
<td>166,851</td>
<td>101,220</td>
<td>(41,891)</td>
</tr>
<tr>
<td>1898</td>
<td>127,743</td>
<td>451,149</td>
<td>249,090</td>
<td>259,843</td>
<td>(16,642)</td>
</tr>
<tr>
<td>1899</td>
<td>174,139</td>
<td>490,221</td>
<td>275,078</td>
<td>332,567</td>
<td>85,933</td>
</tr>
<tr>
<td>1901</td>
<td>201,671</td>
<td>616,987</td>
<td>281,930</td>
<td>433,454</td>
<td>156,081</td>
</tr>
<tr>
<td>1914</td>
<td>669,744</td>
<td>2,192,283</td>
<td>477,227</td>
<td>1,502,331</td>
<td>417,014</td>
</tr>
<tr>
<td>1918</td>
<td>509,315</td>
<td>3,584,724</td>
<td>429,817</td>
<td>2,565,708</td>
<td>818,470</td>
</tr>
</tbody>
</table>

Source: Report of the Minister of Railways and Canals.
the branch, the TH&B entered the rail car ferry business. A subsidiary called the Toronto Hamilton and Buffalo Navigation Company started service in 1916 linking Port Maitland and Ashtabula, Ohio. The rail car ferry, the “S.S. Maitland No. 1”, carried Pennsylvania coal destined to Hamilton steel mills on its eastbound sailings and paper products on westbound sailings. Following the expansion of the Welland Canal in 1931, which eliminated the congestion problem which delayed vessels travelling between Lakes Erie and Ontario, the coal traffic...
shifted to an all-water route from Ashtabula to Hamilton. Deprieved of the major source of revenues, the TH&B discontinued the car ferry service in 1932.

As early as 1907, the company had tried to secure access to the industrial town of Port Colborne. The Grand Trunk, however, had been able to block the TH&B applications for railway charters or running rights over its line between Welland and Port Colborne. Once the privately-owned Grand Trunk was folded into the government-owned Canadian National, it became much more difficult to refuse the petitions of industrial firms in Port Colborne access by the TH&B. In 1926, the TH&B secured a provincial charter for the Welland & Port Colborne Railway Company. Canadian National, the successor to the Grand Trunk, decided to grant running rights over their trackage between Welland and Port Colborne. After twenty years of trying, the first TH&B train operated into Port Colborne on January 13, 1927.

IMPROVING THE PROPERTY

Subsequent developments on the TH&B would involve improving the plant and equipment rather than expansion of its service area. In 1928, the TH&B acquired its first modern steam locomotives. These engines were unique as they were the only Berkshire type (2-8-4) steam locomotives to operate in Canada. While much of the territory served by the TH&B is essentially flat land, between Hamilton and Welland there is a 6.6 mile long 1% grade up the Niagara Escarpment from Bartonville, a suburb of Hamilton, to Vinemount. As freight

The original Hunter Street station was a late Victorian structure combining turrets, terra cotta, stained glass and other flourishes to produce a vibrant structure. As part of the grade separation project carried out in the early 1930’s, the tracks of the TH&B were elevated through downtown Hamilton. A new combined station-office building was part of this project. Built in the popular art deco style of the time, this is one of the few railway stations built in this style in Canada. The structure was opened in 1933. This view was taken on July 22, 1948 during a quiet period between trains.

Credit: CRHA, Toohey Collection 48-380.
October 30, 1960

Between TORONTO, HAMILTON, ROCHESTER, SYRACUSE, UTICA, ALBANY and NEW YORK

<table>
<thead>
<tr>
<th>No.</th>
<th>Time</th>
<th>City</th>
<th>State</th>
<th>Time</th>
<th>City</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>509</td>
<td>12:00 A.M.</td>
<td>TORONTO (P.A.)</td>
<td>ON</td>
<td>8:00 A.M.</td>
<td>NEW YORK</td>
<td>NY</td>
</tr>
<tr>
<td>510</td>
<td>1:15 A.M.</td>
<td>BUFFALO (N.Y.S.R.R.)</td>
<td>NY</td>
<td>12:30 A.M.</td>
<td>BOSTON</td>
<td>MA</td>
</tr>
<tr>
<td>511</td>
<td>2:30 A.M.</td>
<td>SPRINGFIELD</td>
<td>MA</td>
<td>1:45 A.M.</td>
<td>BOSTON</td>
<td>MA</td>
</tr>
<tr>
<td>512</td>
<td>4:15 A.M.</td>
<td>BOSTON</td>
<td>MA</td>
<td>4:45 A.M.</td>
<td>BOSTON</td>
<td>MA</td>
</tr>
</tbody>
</table>

EQUIPMENT

All Regular Line Cars are Air-Conditioned.

No. 509 - Daily

SLEEPING CARS - New York to Toronto - 4 Sleeping Berths, 2 Compartments, 2 Sleeping Rooms, 2 Cabins.

COACH - New York to Toronto - 4 Sleeper Berths, 2 Sleepers, 1 Cabin.

THURSDAY ONLY - Buffalo to Toronto.

PARLOR CAR SPACE AVAILABLE IN SLEEPERS.

No. 510 - Daily

SLEEPING CARS - New York to Buffalo - 4 Sleeping Berths, 2 Compartments, 2 Sleeping Rooms, 2 Cabins.

COACH - Buffalo to New York.

PARLOR CAR SPACE AVAILABLE IN SLEEPERS.

No. 511 - Daily

SLEEPING CARS - New York to Buffalo - 4 Sleeping Berths, 2 Compartments, 2 Sleeping Rooms, 2 Cabins.

COACH - Buffalo to New York.

PARLOR CAR SPACE AVAILABLE IN SLEEPERS.

No. 512 - Daily

SLEEPING CARS - New York to Buffalo - 4 Sleeping Berths, 2 Compartments, 2 Sleeping Rooms, 2 Cabins.

COACH - Buffalo to New York.

PARLOR CAR SPACE AVAILABLE IN SLEEPERS.

October 30, 1960

Between TORONTO, HAMILTON, BRANTFORD and BUFFALO

<table>
<thead>
<tr>
<th>No.</th>
<th>Time</th>
<th>City</th>
<th>State</th>
<th>Time</th>
<th>City</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>521</td>
<td>8:00 A.M.</td>
<td>TORONTO</td>
<td>ON</td>
<td>4:00 P.M.</td>
<td>BUFFALO</td>
<td>NY</td>
</tr>
<tr>
<td>522</td>
<td>9:00 A.M.</td>
<td>BURLINGTON</td>
<td>VT</td>
<td>5:00 P.M.</td>
<td>BUFFALO</td>
<td>NY</td>
</tr>
<tr>
<td>523</td>
<td>10:00 A.M.</td>
<td>ROCHESTER</td>
<td>NY</td>
<td>6:00 P.M.</td>
<td>BUFFALO</td>
<td>NY</td>
</tr>
<tr>
<td>524</td>
<td>11:00 A.M.</td>
<td>SYRACUSE</td>
<td>NY</td>
<td>7:00 P.M.</td>
<td>BUFFALO</td>
<td>NY</td>
</tr>
<tr>
<td>525</td>
<td>12:00 P.M.</td>
<td>CHICAGO</td>
<td>IL</td>
<td>8:00 P.M.</td>
<td>BUFFALO</td>
<td>NY</td>
</tr>
</tbody>
</table>

R. F. HILL
General Passenger Agent
HAMILTON - ONTARIO

Issued December 5th, 1943

tonnage increased, the TH&B began to search for a locomotive which would eliminate the need to double-head freight trains. Up to this time, the TH&B relied upon Consolidation type steam locomotives for its freight services. In 1927, the TH&B borrowed two locomotives to evaluate their comparative merits. The test engines were New York Central Mikado 355 and Boston & Albany Railway Berkshire 1433. The Boston & Albany, which was the first railroad to use Berkshires, was a New York Central subsidiary. The name "Berkshire" comes from the mountain range through which the Boston & Albany operates. Based upon these tests, the TH&B decided to order two Berkshires.

The Boston & Albany Berkshires had been built by the Lima Locomotive Company of Lima, Ohio. The TH&B decided not to order their engines from Lima as high customs duties would have been assessed on engines imported into Canada. The order for two engines went to the Montreal Locomotive Works (MLW). While MLW had not built a locomotive of this type, their corporate parent, the American Locomotive Company (Alco), had recently completed an order for Berkshires for the Chicago & Northwestern Railway. Alco supplied the patterns and special appurtenances for these engines to MLW which considerably reduced the cost of producing these two engines.

In 1930, a new 27-stall roundhouse and coal plant were completed at the Aberdeen yards in Hamilton. This replaced a small roundhouse which had been built in 1895 in the middle of the wye where the Toronto and Waterford lines diverged.

Following years of acromony between the City of Hamilton and the TH&B due to lengthy traffic blockages at the TH&B level crossings across downtown Hamilton, the railway and the City reached a consensus, in October 1930, on a plan to elevate the track through the core of the city. While the depression made financing difficult, the project, which included a new combined station and office building, was completed in 1933.

A victim of the depression was the TH&B branch line from Font Hill to Ridgeville. Constructed in 1895 as an offshoot of the Hamilton-Welland line, traffic had been non-existent for many years. The branch, which was abandoned in 1933, was the only major piece of the TH&B to be lifted up to 1988.

**THE POST WAR YEARS**

Shortly after World War II, the TH&B started to dieselize. The roster would be amazingly homogenous and long lived. All the TH&B diesels were purchased from General Motors, and were built either at the Electro-Motive Diesel plant at La Grange, Illinois or General Motors Diesel Division plant in London, Ontario. The 18 units on the roster were either yard or road switchers. The TH&B never owned any cab units. Due to the small size of the diesel fleet, it was more practical to have units which could easily fill in any freight assignment. Rather than buying second generation power during the 1960's and 1970's, the ministrations of the mechanical forces at the Aberdeen roundhouse kept these units roadworthy for upwards of forty years.

Like many North American railways during the 1920's, the TH&B bought a self-propelled car in order to reduce the cost of operating local passenger train service. Gas-electric car 301 spent most of its working life on the Welland-Hamilton-Waterford local train schedule. Pulling a wooden coach, 301 is shown departing Hamilton enroute to Welland. If all goes well, the arrival the train will arrive in Welland at 1710, one hour and ten minutes after the departure from Hamilton.

Credit: Paterson-George Collection.
The first units ordered were four NW-2 switchers which were delivered in December 1947. These were built at the Electro-Motive Diesel plant at La Grange, Illinois as General Motors had yet to establish their locomotive manufacturing plant in Canada. An attractive cream and burgundy paint scheme was applied to these and all subsequent TH&B diesels. This paint scheme remained in use for over forty years making it the longest lived diesel paint scheme of any major railway in Canada.

The march towards dieselization was not continuous. Two second hand Hudson type (4-6-4) engines were purchased from the NYC in 1948 for use in passenger service. Their tenure, however, would be brief.

In September and October 1950, the TH&B took delivery of 4 GP-7’s. These were the first road diesels to be built in Canada. It was hoped that the first such unit, TH&B GP-7 #71, would be preserved. The unit, however, was scrapped following a crossing accident in 1980.

At the end of 1950, 4 SW-9 switchers arrived. The delivery of three additional GP-7’s in June and July 1953 permitted the withdrawal of steam locomotives from freight service in July 1953. Three GP-9’s were delivered in February 1954. These units were equipped with steam boilers and permitted the retirement of the last TH&B steamers from their passenger assignments in March 1954. The last trip made by a TH&B steamer occurred on August 7, 1955 when the Buffalo Chapter of the National Railroad Historical Society operated an excursion hauled by Pacific 15. This farewell trip appropriately covered all of the TH&B lines operating from Welland to Waterford with a side trip over the Port Matilda branch.

Passenger service started a precipitate decline in the 1950’s. The first casualty was the Hamilton-Brantford-Waterford local which made its last run in September 1954. This rendered surplus the gas-electric car which the TH&B had acquired for use in local train service in 1927. The frequency of main line service between Toronto and Buffalo had been stable with four round trips per day from the early 1930’s. As new highways and air services cut into passenger carryings, frequency was reduced to three round trips and in 1957 to two round trips in 1961.

As of April 1964, frequency fell to one round trip per day. Initially, this train operated on an overnight schedule between Toronto and New York City. While six or more sleeping cars destined to New York, Boston, Cleveland and Pittsburg had been the norm on the evening train in the early 1960’s, only one sleeper was being handled by 1968. Indicative of the deline is the following train consist report recorded by the agent at Welland, Ontario for Train 376 on March 21, 1968:

<table>
<thead>
<tr>
<th>Owner</th>
<th>Type Of Equipment</th>
<th>Number Or Name</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH&amp;B</td>
<td>GP-9</td>
<td>402 Buffalo</td>
<td></td>
</tr>
<tr>
<td>Railway Express Agency (express)</td>
<td>Refrigerator</td>
<td>3395 Buffalo</td>
<td></td>
</tr>
<tr>
<td>Railway Express Agency (express)</td>
<td>Refrigerator</td>
<td>3670 Buffalo</td>
<td></td>
</tr>
<tr>
<td>Santa Fe (storage mail)</td>
<td>Refrigerator</td>
<td>3595 Buffalo</td>
<td></td>
</tr>
<tr>
<td>TH&amp;B</td>
<td>Baggage</td>
<td>54 Buffalo</td>
<td></td>
</tr>
<tr>
<td>TH&amp;B</td>
<td>Coach</td>
<td>73 Buffalo</td>
<td></td>
</tr>
<tr>
<td>NYC</td>
<td>Coach</td>
<td>2934 New York</td>
<td></td>
</tr>
<tr>
<td>NYC</td>
<td>Coach</td>
<td>2660 New York</td>
<td></td>
</tr>
<tr>
<td>NYC</td>
<td>Sleeper</td>
<td>Lebanon Valley</td>
<td></td>
</tr>
</tbody>
</table>

Some days the gas electric car was sidelined for mechanical reasons. On one such day in 1948, the local train from Hamilton to Waterford operated with a conventional consist. Shown at Waterford is Pacific 11 and a wooden combine which was retained for just this purpose. Locomotive 11 was built by the Montreal Locomotive Works in 1913.

Credit: Paterson-George Collection.
The end of the Railway Express Agency and the termination of mail contracts spelled the end of the conventional train service. In October 1970, in a cost-cutting move, the train was moved to a day schedule and through car service between Toronto and New York City was terminated. Between Toronto and Buffalo travellers were accommodated in CP RDC's. At Buffalo, a transfer was necessary to connect with the Penn Central service to New York.

In April 1981, the Toronto-Buffalo RDC service made its last run thereby ending the era of the passenger train on the TH&B. The City of Hamilton promptly launched a suit against CP for terminating the passenger service. The City claimed the termination was in violation of the terms of the bylaw which granted a $225,000 bonus to the TH&B by it in 1894. The terms of the bylaw stated that the TH&B must operate passenger service between Hamilton and Welland or repay the bonus with interest. With compounding of the interest, the sum came to $40 million. The city reduced the claim to $14 million and in 1985 accepted a decision of the Supreme Court of Ontario awarding them $1.8 million.

Even though the era of the passenger train had ended, the TH&B remained a busy freight carrier. Traffic consisted of steel from Hamilton and Nanticoke, phosphate rock from Port Maitland and through freight traffic between the United States and Canada. The through traffic comprised 40% of the company’s business reflecting the important role of the TH&B as a link between Conrail and CP.

**THE PASSING OF THE TH&B**

In February 1968, the NYC and Pennsylvania merged to form the ill-fated Penn Central Transportation Company. Mismanagement, regulatory strictures and high losses on commuter services caused the Penn Central to make history in June 1970 when it became the largest company ever to file for bankruptcy in the United States. Made a ward of the government, the Penn Central in concert with other bankrupt lines in the North East emerged as the Consolidated Rail Company on April 1, 1976.

Choosing to reduce rail operations in Canada, Conrail did not acquire the shares in the TH&B which were held by Penn Central. The Penn Central sold these to the CP Rail in 1977 as it was winding up its involvement in operating railway properties.

Ten years later, in May 1987, CP decided to simplify its corporate structure and merged the TH&B into CP Rail. Less than a year later, the manifestations of the TH&B are rapidly passing. The only locomotives left in the TH&B paint scheme as of March 1988 are three switchers, 51, 55 and 57. Number 51, the first diesel purchased by the TH&B and is now into its 41st year of service, soldiers on. Number 57 shares yard duties with the 51 in Hamilton, while 55 is stored in serviceable condition. The other switchers have been retired. The road engines are being rebuilt in CP's Angus Shops in Montreal. Several will be assigned to the TH&B. Covered in the CP Rail paint scheme and sporting chopped noses, there will be little for the wayside observer to associate these with the cream and burgundy units which trundled over the TH&B for almost four decades. Since office functions have been consolidated with CP's in Toronto,
APPENDIX I

BRANTFORD'S NEW ROAD

On Saturday morning [February 1st] at eight o'clock, Engineer Owens pulled the string, the engine tooted and the first regular train on the Brantford and Waterford railway moved slowly out of Brantford with a fair load of human freight, and a number of commercial travelers' trunks -- the latter on a flat car which was impressed to do service in lieu of a proper baggage car. Messrs. Helm and Latham were on board and were pleased with the outlook. The train was in charge of Superintendent H. B. North, an experienced roadrroader, while Baggage master Dennis Hawkins looked after the trunks and luggage and twisted the brakes.

The road passes through a splendid agricultural country, quite close to Mount Pleasant, Oakland and Scotland villages. For a new road, it is in excellent condition. The road-bed is constructed of magnificent material and seemingly is very solid. Along the line a few passengers were picked up, going southward, but on the return journey there was a revelation, and a lack of coaches. The train arrived at Waterford about on time. It ran direct into the Michigan Central yard and station, the company having obtained the right to do so. Soon after the arrival of the train, a superb MCR train of vestibule cars pulled in going west, and a few minutes later a similar one bound east. The connections, therefore, east and west, are most satisfactory. The company have also arranged with the MCR to sell their tickets at their own wicket and include its timetable in that of the MCR. Assistant Superintendent McDonald, of the Michigan Central, was at Waterford attending to the arrangements and ran over the road to Brantford and back. He was greatly pleased with the prospects, and expressed himself so to the writer.

The morning train, returning from Waterford brought about twenty-five passengers from that point, picked up a few at Gordon's crossing, and loaded all Scotland on at that station. What a jam! It was greater than any Sunday school picnic or Orange celebration, and impressed one with the sense that all the denizens of the deep in the bay, the newspaper chronicles do not say, but we have been told a hundred times that the operations have commenced so that by this time the track must be well forward.

Mr. Young found the BW&LE would be an excellent way into Brantford in connection with his scheme. He purchased the road at a price agreed upon. How much exactly, the directors will not say. But the terms were $10,000 down on the spot and the remainder within six months, failing that the forfeiture of the amount deposited. On those conditions the road was turned over to Mr. Young who manned and worked it up to yesterday morning. The plant, that is the rolling stock, consisted of two locomotives, No. 318 and 414, one coach and one accommodation coach, two box cars and five flat cars. These were also handed over to Mr. Young, and so he started to run the road taking and exchanging traffic with the Michigan Central at Waterford.

In the meantime he had opened negotiations with New York and other centres of capital with the purpose of raising money to build the TH&B and pay the purchase money of the BW&LE. Hitherto he has not succeeded. At this moment, the directors wish it to be understood that they do not blame Mr. Young. It is more his misfortune than his fault and they deeply sympathize with him in the loss he has sustained over the deal. The BW&LE directors became impatient. They insisted upon the payment of the balance on the road or they would reassume control of it. Mr. Young pleaded for a little time. Week after week, month after month hurried into oblivion and yet the directors lived upon the slender fare of repeated promises and fading hopes till the fact forced itself upon them that the mission of Mr. Young had failed.

Coming Shadows

On Saturday last, "The Expositor" stated that Messrs. Young, Carsoallen and Wingate were in the city trying to stage off the climax of repossession. This was promptly denied of course, but just as surely turned out true. The directors of the BW&LE had a long and protracted meeting on Monday evening, and there in an upper chamber far from the madding crowd, the desperate venture was conceived and the strategic details of the company evolved. The great moving pivot of the discussion was that as Mr. Young could not pay, and as the TH&B would probably never be built, they should rally forth and give battle to the local railway Philistines.

In conversation with a number of Waterford people, they seem to be more than pleased with the new road, giving them as it does quick and cheap connection with Brantford. "Why," said one man, "if I get a case of goods from Brantford by Hagersville it cost me 70 cents. I can get it now for a quarter."
The Plot

It is not known for a certainty who sketched the plan of campaign. It has on the face of it much of the diplomacy of Mr. Henry, and not a little of the skillful cunning in circumventing an enemy which is natural genius of Mr. J. J. Hawkins, while the safety and solidness of the plot shows the steadying presence of the president [Mr. G. H. Wilkes] and vice president.

Just as the grey dawn was breaking yesterday morning, and almost ere chanticleer had startled the dead echoes of the fading night with his stalwart crowing, four stalwart muffled figures might have been seen quietly and stealthily wending their way West Brantfordwards, speaking never a word but all the same giving abroad the forcedness of their purpose with compressed lips and dashing eye. These were the directors. The night constables stayed on their weary march and touched knightly helmets wondering the while at this thusness. A dissipated dog drowsily dozing on the doorstep not far from the bridge lazily opened one eye, just to close it again as they passed, with a significant wink which meant to say, “Hello, out all night too.”

The Attack

At West Brantford station those directors were joined by an engineer, fireman, and brakemen and a rush was made for locomotive No. 318. The defence was feeble. Not a soul was about. The locomotive “speaking slightly through the nose with a whistle at the close” tendered a ready obedience. The station house was next attacked; the defence again was feeble. Mr. Nelles put in an appearance and a happy thought struck the directors. They made him general manager. [This would appear to be yet more bit of poetic license by the reporter. Mr. Nelles appearance was most likely not a simple hapstance. His previous position had been the Grand Trunk station agent in Brantford.] He took the dignity without a murmur, and bears his honours becomingly. At this moment, a stormy petrel appeared in Mr. North, the superintendent. He was granted a holiday – a long holiday. He refused to accept it, but in the presence of superior numbers, he capitulated. By this time steam was up, a train had been marshalled, and leaving a detachment to hold the fort, the directors went on to Waterford. At Scotland and Vannean they found the station deserted. The ladies in charge had been wired to lock up and go home. The directors sent for them and on their appearance appointed them as their servants and thus kept open the station. As the other stopping places the agents remained on duty under the new management.

The Little Trick

At Waterford, to which point word had been sent by Mr. Young’s friends here, a little trick was attempted. The locomotive was let down on the “Y” and the switch locked. The plotters reckoned without their hosts. Conductor Hawkins produced a key from his pocket and the “Y” was quickly opened. After showing their bill of sale and other legal documents, an agent was placed in charge at Waterford, and, heading the engine through the “Y”, the triumphant victorious directors steamed homewards. They [had] consummated a deal with the Michigan Central, arranged for a full water supply for the engines and immediately began taking over traffic on the Michigan Central.
An Awkward Meeting

At three o’clock the regular train left on time, the directors again on board. Everything worked splendidly and on the return voyage had no less a passenger than Mr. Young.

“What are you doing?” said he.

“Taking hold of our own line,” said a director.

“You just wait,” said Mr. Young “and we’ll see about this.”

“No,” replied a director, “we have waited long enough, indeed too long and we have now taken possession and if you don’t like it, you can see what you can do.”

Mr. Young gave it to be understood that they had acted hastily, but he was demanded to produce a more patient set of men than that of the BW&LE directors.

The Baliff on Hand

Baliff Joseph Jackson proceeded to St. Thomas yesterday with a bill of sale upon engine 414 which is lying there just now and will prevent its removal. Whatever remedy Mr. Young thinks he has, must be had through the medium of law.

All is Well

The line is in full working order and going along in all its departments splendidly. The road is a first-class one and might be made of great service to the city of Brantford as well as profitable to the owners.


APPENDIX III

READY FOR THE OPENING

Arrival of the First Train at the New TH&B Station

There was considerable excitement on Hunter Street last night when the bell of a locomotive was heard. The people rushed to their doors to see the first train pull into the new TH&B station. It was thought that the train came from Welland, but such was not the case. It was a construction train, which came from the crossing at Victoria Avenue, having been switched over from the Northern and Northwestern Railway [actually the Grand Trunk by this time]. It consisted of a number of flat and box cars, loaded with gravel, ties and rails. The train stopped at James Street and blocked the street for some time. Several street cars were blocked, and a number of pedestrians had to wait until the train got by. [The blocking of downtown streets became a constant source of disagreement between the railway and the city. This lead to the large scale grade separation undertaken in the early 1930’s.]

The train was drawn by Michigan Central Railroad locomotive #319, and went into the tunnel. This is the first train to enter the tunnel.

Last night there was a small gap in the track east of Bartonville, but [the line] is now complete between Hamilton and Welland. The ballasting gang reached Stony Creek last night.

By working night and day, Contractor Onderdonk’s men have removed all the earth that caved in the tunnel cutting and, unless some unforeseen accident occurs, trains will be running through it on Monday. The track will be laid [through the tunnel] tonight. The banks have been braced up by immense timbers. Room has been left for the masons to work on the bench walls and to complete the arch without stopping the trains . . .

Hamilton Spectator, December 28, 1895.

APPENDIX IV

Messrs Bruce, Burton & Bruce
Hamilton, Ontario

Gentlemen:

In compliance with your instructions, I have made a careful inspection of the present condition of the TH&B from the junction of the same with the Canada Southern Railway at Welland through the City of Hamilton to the Town of Brantford, in order to determine whether the conditions contained in By-law Number 755 passed by the Municipal Corporation of the said City of Hamilton on the 29th day of October 1894 have been complied with, so as to entitle the said Toronto, Hamilton & Buffalo Railway Company to a bonus of $225,000 granted under said By-Law but subject to the conditions, viz:

Condition 1 – The sum of $225,000 granted by By-law shall be paid to the Company by the delivery of them of debentures to that amount issued under the By-law and bearing interest at four per cent per annum from the first day of September 1895, but none of such debentures shall be so delivered to the Company until the completion of their Railway as a first class road constructed with steel rails weighing not less than eighty pounds to the yard, from Hamilton to a point on the Canada Southern Railway at or near Welland or East of Welland passing through Hamilton by a Southerly route, substantially according to the description and specification thereof, hereinafter contained, nor until the Company have completed a direct connection by a first class line of railway from the line of the Canada Southern Railway at Waterford through Hamilton to the Town of Brantford, independent of the Grand Trunk Railway and of the Canadian Pacific and South Ontario Pacific Railway Companies, and connecting at Hamilton with the TH&B’s line . . . such railway from Brantford to Garth Street in the City of Hamilton to be constructed with the steel rails weighing not less than seventy pounds per yard, nor until the said railway has been actually opened for traffic and is being so operated as to give adequate and regular daily train service, both for passengers and freight . . .

Condition 6 – “If notwithstanding that the construction of the Railway may have been proceeded with, as in the last preceding condition required, the said railway of the TH&B . . . [has not been] completed, opened and operated in the manner set forth in the first condition of this By-law before the 31st day of December 1895, the grant made by this By-law shall be forfeited and time is hereby declared to be of the essence of this condition.”

Commencing at the connection of the TH&B with the Canada Southern Railway at Welland, the iron or steel bridge
over the Welland River is not completed, the Contractors are now building the easterly abutment and a timber caisson has been sunk in the centre of the River apparently to receive the masonry for the centre pier. The abutment at the W estery end of the bridge is finished, but the iron or steel superstructure cannot yet be built on account of the incomplete state of the masonry pier and abutments, nor did I see any trace of the materials for the superstructure at the side of the bridge. At present, the track is carried over the River on a temporary wooden structure. At St. Anns, the piers and abutments of masonry are completed ready to receive an iron or steel superstructure but the superstructure has not been built nor is the material now on the ground for completing this bridge. As at Welland, the track is carried over the River on a temporary wooden structure.

The track is completed from Welland to St. Anns, but the ballasting, surfacing and alignment of the track is not of a first class order. From St. Anns to Smithville, the surfacing, ballasting and alignment of the track is of the same class as between the points last named. From Smithville to Winona, the railway is ballasted with one lift of ballast and from Winona to the side road leading down to the Village of Stony Creek, the railway has likewise been ballasted with one lift of ballast. From Smithville to Stony Creek, the track is not carefully lined and surfaced and is not in good condition. From the side road to the East end of the iron or steel bridge over Stony Creek, one lift of ballast has been distributed along the railway and on the 31st of December gangs of men were employed putting this ballast under the track. From the West end of said bridge to the crossing of Wentworth Street in the City of Hamilton, the railway has not been ballasted and at many soft spots the timbers have sunk into the mud so that the surface of the rails is barely visible. The fences have not been built from Stony Creek to Hamilton.

Over the whole distance from Welland to Hamilton there are only a few sidings for the crossing of construction trains and at many of the points at which there are to be stations, no sidings of any kind have been laid. There are no proper station buildings completed, nor sufficient siding accommodation for loading and unloading freight and for crossing trains. No semaphore, switch or telegraph signals, no permanent tanks or water stations, in fact all the necessary facilities for the safe working of a first class railway have yet to be built. The railway is double tracked from the crossing of Wentworth Street through the City of Hamilton to James Street. A brick freight house is being built at the crossing of Catherine Street but was not nearly completed on the 31st of December nor had any sidings for the handling of freight been laid at this place. Where the railway enters upon Hunter Street and from that point along Hunter to James, the track has not been surfaced and planked up to the level of the rails so as to allow the safe using of the street. A brick passenger station has been built at the East side of James Street. From James Street to the East end of tunnel at Park Street, the railway has yet to be planked and surfaced to comply with the terms of the By-law, not have any gates or other proper appliances been placed at the points of crossing McNab, James, Hughson and John Streets by the Railway Company. Hunter Street from Charles to Park Streets is completely blocked by the tracks and by material for constructing the unfinished portions of the tunnel. At the East end of the tunnel, where it debouches on to Park Street, about 60 feet is yet to be covered with the earth filling. The surface of Hunter Street has been restored from this point to the East line of Bay Street. From the East end of the tunnel at Park Street to a point about 50 feet from the East line of Caroline Street, the tunnel is practically finished and the earth filling over the same in place, but the part of the street from Bay Street to near Caroline has not been properly resurfaced and macadamized. From a point 50 feet East of the East line of Caroline Street to a point 60 feet East of the East line of Hess Street, the tunnel has not yet been built, for about 100 feet of this distance westerly from the present end of the tunnel, 30 feet East of the East line of Caroline Street, the masonry erection walls forming the lower portion of the tunnel have been built, but about 30 feet on the North side have been pushed on to the track by a slide of earth and must be cut and rebuilt. From the W esterly end of the erection wall just named to within 90 feet of the East line of Hess Street, the railway is now an open cutting with almost perpendicular walls of earth about 50 feet in height and shored up for the greater part of the distance with heavy timbers. From a point about 90 feet East of the East line of Hess Street to a point about 30 feet West of the same, the revetment walls on both sides are built and from this point, that is about 60 feet East of the East line of Hess Street, to a point about 30 feet East of the commencement of the tunnel at the West line of Queen Street, the tunnel is finished and the earth filling is being put into place over the same. From a point about 50 feet East of the West line of Queen Street to Queen Street end of the tunnel, the arches are yet to be built, the earth filling put in place and the masonry front and arch of the opening of the tunnel completed and revetment walls leading to the mouth of the tunnel are yet to be built. From Queen Street West to Bay Street, the earth in the slopes of the cutting has not been taken out. A double track is laid from the Park Street end of the tunnel to Garth Street, but at noon on the 2nd of January 1896, on account of the side of masonry and earth on the North side of the railway at the crossing of Caroline Street could not be used as double track railway until the debris from the slide of earth and stone had been removed and the wall rebuilt. There are no proper semaphore or telegraph signals on the railway at any point inside the City of Hamilton.

There is no ballast from Caroline Street to Queen Street on the South track through [the] tunnel and no ballast from Park Street to Garth Street under [the] North track.

From Garth Street to Summit going West, the railway is ballasted with but one lift of very poor ballast. At quite a number of places between these points and where the railway crosses ravines of considerable depth the track has been carried over on temporary pile trestles. At one point where a long and shaky-looking structure of this kind is situated, a masonry culvert has been built and beginning made to fill the trestle with earth. The embankments and cuttings over this part of the railway are too narrow, the drainage has been poorly provided for and at points where the fillings are on side hills the embankments have slipped and left bad spots on the track.

From Summit to Jerseyville, the railway has more and better ballast, but the track required to be lined up and resurfaced.

The cuttings and embankments from Jerseyville to Brantford are of the same narrow character and this is more especially the case where the railway follows the windings of the Grand River immediately on this side of Brantford. There are no proper station buildings between Hamilton and Brantford, nor sufficient
length of sidings and no semaphore, switch or telegraph signals. The bridges are pile trestles and generally the character of the construction of the railway as far as it has advanced is not first class. The station buildings in Brantford are common wooden structures and have evidently been built some time. From Brantford to Waterford, the railway is the old Brantford Waterford & Lake Erie and is constructed as a second rate railway with wooden bridges and culverts except the bridge across the Grand River which is of iron or steel on masonry piers and abutments. At the West end of the bridge there is a long pile trestle which required to be filled in with earth. This part of the railway is laid with a light rail about 56 pounds to the yard. Nothing has yet been done to improve the class of this part of the railway.

From the foregoing facts as to present condition of the TH&B from Welland through Hamilton and Brantford to Waterford, the only conclusion possible is that this railway has not yet been completed and that when it is completed on the lines which its present condition indicates, it will not be a first class railway and equal in class with the main lines of the Grand Trunk or Canadian Pacific or any other first class railways on this continent. Consequently, the TH&B have not complied with the conditions contained in the By-law granting a bonus of $225,000 and are not entitled to receive this amount under the said By-law. An attempt is being made to run regular passenger and freight trains over this railway, but as no timetables can be obtained at the Company’s station, it is plain that the officials acknowledge that it is not possible to run regular trains in the present state of the road.

The real facts of the case are that the construction of the road is not yet sufficiently far advanced to warrant an attempt to operate passenger and freight business over it. The TH&B is now affording a spectacle unique in the history of railway construction in this country, and I most emphatically maintain that this is the first time a new railway has been permitted to be opened for traffic with hundreds of feet of its line through a tunnel unfinished and in such a precarious state that a landside may happen at any moment to block the traffic or endanger the lives of the passengers. Should an accident happen in this tunnel involving a loss of valuable lives, it is difficult to see what defence could be offered by the persons responsible for the premature opening of this railway.

Your obedient servant,

Thomas McKeown
3rd January 1896

---

APPENDIX V

GENERAL DESCRIPTION OF THE TH&B LATE IN 1897

At the eastern terminus, near Welland, is located a four stall frame enginehouse, turntable, and water tank. Water is obtained from the service of the Town of Welland. Land is now being purchased at this point for a sorting yard of six hundred cars capacity. One half mile west of Welland Junction Yard, the Welland River is crossed on a single span through truss bridge of steel, resting on stone abutments. The length of the bridge is 150 feet.

Three miles west, a branch line, four miles in length, runs northward to Point Hill Nurseries. Continuing westward, the main line runs through the Villages of Fenwick and St. Ann's. At the latter place, Twenty Mile Creek is crossed on a single steel deck girder span, 102 feet in length, on stone abutments. At Smithville, a town of about 2,000 inhabitants, 17.3 miles from Welland, is a water station, water being obtained from Twenty Mile Creek.

Continuing westward past Grassies station to Vinemount, [which is] twenty seven miles from Welland, is located a relief water station, where water is obtained from a deep well sunk in solid rock. From Welland to Vinemount, the line runs through a fine agricultural country, practically level, well settled and fertile. One half mile west of Vinemount, the line passes over the brow of the Niagara escarpment. Leaving the brow of the escarpment, the road winds down the face of the bluff on a grade of 55 feet per mile, compensated for curvature. Stoney Creek is crossed on a steel viaduct, 226 feet in length, with posts resting on masonry piers.

Near Bartonville, a steel viaduct, 480 feet long, carries the road over Albion stream. The road enters the City of Hamilton at the base of the bluff, crosses the Hamilton & Port Dover Branch of the Grand Trunk Railway at grade, near Victoria Avenue, where a pneumatic interlocking plant is installed.

The right of way between Welland and Hamilton is generally 75 feet in width, except at station grounds, and along the face of the 'bluff', where extra width is provided. The line is generally straight, there being no curves sharper than 3 degrees.

The track is laid with steel rail of American Society Section, weighing 80 pounds per yard, angle splice joints with four bolts, Georgia Pine ties on tangents, oak ties on curves, and ballasted with gravel.

The Hamilton station is a large brick building, located between James and Hughson Streets, and contains the general offices of the Company. The present freight shed is 40 feet by 330 feet, and is built of brick. A Team and Freight Yard of 150 cars capacity and a freight shed of 40 feet by 305 feet are now being constructed. Three blocks west of the station is the east portal of a large stone and brick arched double track tunnel, 1904.5 feet in length, which affords a passage for the railway through the southerly extension of Burlington Heights. One thousand nine hundred feet west of the tunnel is the junction with the Canadian Pacific Railway's new line to Toronto.

The junction has wye connection and is controlled by a large mechanical interlocking plant. Here also is located a six stall brick roundhouse, turntable, repair shop, etc.

Continuing westerly, the road passes over the Hamilton & Dundas Street Railway, and Aberdeen Avenue, on a steel girder...
bridge. Immediately west of this a large Sorting Yard, to hold six hundred cars, is now being constructed. Binkley Hollow Creek is crossed with a stone arch of 15 feet span and 200 feet in length.

West of Dundas, the road climbs upward with a grade of 80 feet per mile to the Summit, one mile south of Copetown, and eleven miles west of Hamilton. At Summit is a water station with tank.

Easterly from Summit, the country traversed is very rolling and the road passes through the villages of Jerseyville and Cainsville. At Cainsville, the Goderich branch of the Grand Trunk Railway is carried over the TH&B with a steel deck bridge on stone abutments. Here also the line enters the Grand River Valley and passes through the southerly portion of the City of Brantford. At Brantford, there is a modern brick passenger station and a large frame freight house. One thousand feet west of the station is a steel through truss bridge of three spans and 304 feet in total length crossing the Grand River. This bridge rests on stone abutments and steel piers filled with concrete, all of which are firmly anchored to bedrock fifteen feet below the bed of the stream. From Brantford, the road continues southwesterly, passing through the Village of Mount Pleasant. Thence through the villages of Scotland and Vanessa to the junction with the Canada Southern Railway at Waterford. At this junction is located a four stall frame engine house and sand house.

The right of way between Hamilton and Waterford is generally 66 feet wide.

The track from Hamilton to Brantford is laid with steel of American Society Section, weighing 70 pounds per yard, connected with angle splice with four bolts, and is ballasted with gravel. From Brantford to Waterford, the track is laid with 60 pound steel and is gravel ballasted.

The entire road is fenced with substantial wire fences with cedar posts. All way stations have new and modern buildings, are neat in appearance, are equipped with signals and have devices for registering time of the passage of trains. Only the best modern split switches are used on the road, with rigid and positive movement switch stands, proper targets and lamps. At dangerous highway crossings, electric track circuit bells are in use to warn the public of the near approach of trains. In the City of Hamilton, the busiest street crossings are protected by gates and watchmen. The safe passage of trains through the tunnel is guaranteed by the use of electric signals operated by track circuit.

Source: Report to the Minister of Railways and Canals, June 30, 1897.

APPENDIX VI

THROUGH TO BUFFALO

The Canadian Pacific Opens Its New Route

The departure of the first Canadian Pacific train from Toronto yesterday morning for Buffalo marks the opening of a new and important route through Canadian territory via Hamilton to Buffalo, and from there to New York. After years of negotiation, the Canadian Pacific can now run its own trains right through from Toronto to New York in opposition to the Grand Trunk Railway. Yesterday the new service was inaugurated. Briefly, this result has been achieved by the securing by the Canadian Pacific of the right of way over the Grand Trunk tracks between Toronto and Hamilton. It was the first intention of the Canadian Pacific to build between these two points but an arrangement was finally reached between the two companies by which the Canadian Pacific is permitted to use for 50 years the Grand Trunk tracks at an annual rental of $40,000 and a percentage of the operating expenses. From Hamilton, the ... [train operates over the Toronto, Hamilton & Buffalo Railway to Welland, from which the train travels over the Michigan Central to Buffalo by two routes: one by way of Fort Erie, crossing the International bridge, and the other round by Niagara Falls crossing the Cantilever bridge [with] connections

The first diesel purchased by the TH&B was this unit. Built by Electro Motive Division of General Motors in La Grange, Illinois, 51 was delivered to the TH&B in December 1957. With the meticulous care of the shop forces of the TH&B, the engine remains in use more than four decades after entering service. This view was taken in 1985 on the approaches to Aberdeen Yards in Hamilton.

Credit: Douglas N. W. Smith.
being made at [Niagara Falls, New York] with the New York Central Railway.

The train that pulled out of the Union Station at eight o'clock yesterday morning was a heavy one, consisting of a CPR steam locomotive, three baggage cars, five CPR first-class coaches, and two CPR sleeping cars. All the coaches were filled. The members of the Geisha Opera Company, who were going to Schenectady, were on-board, also a number of the members of the Madison Square Opera Company, some artists who had been performing at the Bijou Theatre, the Toronto and Buffalo baseball teams ...

Good time was made between Toronto and Hamilton, the run taking an hour and two minutes, exactly schedule time. All Hamilton seemed to be out to welcome the first train over the new route. Passing through the spur between Hamilton Junction and Hamilton, all the elevations on both sides of the line were crowded with spectators. The new TH&B station and streets in the neighbourhood were jammed with residents, and a rush was made for the train when it stopped to examine the new Canadian Pacific cars. These latter are of a very handsome pattern by the way and are built in the most modern style. They are composite first-class coaches and smokers, beautifully finished in quartered oak, the seats being upholstered in blue plush. The outside is mahogany finish. [CP had a number of new coaches built expressly for this service at its Hochelaga Shops in Montreal.] Mr. W. J. Grant, the CPR Hamilton agent, with wise forethought brought a big box of roses and gallantly gave one to each lady of Geisha Company as a souvenir of the trip.

The train was timed to leave at 9:07, but it was 9:25 before it steamed out on its westward trip, less the sleeper and one coach, with a MCR engine on its head. [With the start of its service to Hamilton, CP inaugurated through coach and sleeper from Montreal to Hamilton.] The train crew was changed at Hamilton, for here a Michigan Central [crew] takes charge.

The TH&B from Hamilton to Welland goes straight up the incline to the top of the mountains overlooking the rich fruit farm district of Grimsby. From here a splendid view of the surrounding country is obtained for many miles around. The delay [which occurred at Hamilton] was made up between Hamilton and Welland. At Welland, the train took the Michigan Central tracks and the route leading round by the way of the Canadian side of the Niagara Falls. A [5 minute] stop was made at what is called Falls View to enable the passengers to get out and view the falls.

After crossing the river the train went over the New York Central tracks to Buffalo. There was a delay on the American side caused by the customs officials, who had to inspect the scenery and baggage of the opera companies, and the train did not pull into Buffalo on time.

At Buffalo, the appearance of the CPR coaches created no little interest among the railroad men at the New York Central depot. They were subjected to a careful scrutiny while they remained in the station. The return trip commenced at 4:50 in the afternoon, the train consisting of four day coaches, one CP sleeper, one Wagner sleeper and a baggage car. The run to Toronto was made on schedule time, the train reaching here at 8:25 last night.

One effect of the present new through service is to lessen the time between Toronto and New York by about three hours by connection at Buffalo with the "Empire State Express", the fastest train out of Buffalo. While the New York Central is the principal connection of the Canadian Pacific, connections will also be made with the West Shore, the Lackawanna and the Erie. Under the new service, there will be four trains daily to Hamilton and Buffalo and two local trains to Hamilton, making a service of six daily trains [between Toronto and Hamilton]. The 8 a.m. train out of Toronto is the only one that will go to Buffalo by way of Niagara Falls. The trains leaving Toronto at 9:55, 1540 and 2040 go by way of Fort Erie and International Bridge. Three trains coming from Buffalo to Toronto take the Falls route, however, arriving here at 9:40 a.m., 6 p.m. and 8:25 p.m. On account of the splendid view of the falls by these trains, the railway officials expect that they will be largely patronized by tourists, although the trip is about half an hour longer than by way of the International Bridge.

One significant feature of the new arrangement the Canadian Pacific has made with the other lines would appear to be that the Vanderbilt system of railways will now throw as much business as possible into the hands of the CPR. The Vanderbilts are interested in the TH&B and all imported goods for Canada going over the Vanderbilt lines, unless specially contracted for via the Grand Trunk, will be handed over to the CPR. Heretofore all the coal required by the CPR from Buffalo came in over the Grand Trunk, now the CPR will haul this coal itself over the TH&B.

Sources: The Toronto Globe, May 31, 1897.
The Hamilton Spectator, May 31, 1897.
CN's First Diesel Switcher

The Canadian Railway Museum is particularly fortunate to have within its collection several units which are examples of early application of the diesel electric engine to railway equipment. One of the most significant is Canadian National locomotive 77, originally 7700, which holds a number of "firsts" in the development of this type of locomotive. It was the first diesel electric switcher to be ordered by any Canadian railway, the first switcher unit designed without a boxcab body, and the first "visibility cab" unit to be built by Westinghouse. 

CN was a pioneer in the field of the use of diesel electric locomotives. In 1925, it placed into service its first diesel electric engines, which were supplied by the Beardmore Company of Glasgow, Scotland. These were installed into nine self-propelled passenger cars, CN 15817 through 15825. The results were so promising that CN arranged for Beardmore to supply the engine for Canada's first diesel electric road locomotive, the famous 9000, which was delivered to CN in 1928.

The order for CN's first diesel switcher was placed with the Canadian Locomotive Company (CLC) of Kingston, Ontario. The mechanical parts were built and the locomotive erected by CLC. The electrical equipment was supplied by Westinghouse Electric and Manufacturing Company (WE&M), the oil engine was built at WE&M works in South Philadelphia, the control equipment and motors at WE&M works in Pittsburgh, and the generator and exciter by Canadian Westinghouse Company at Hamilton, Ontario. While CLC outshopped the unit with most of the technical specifications of the locomotive, its builder's number 1861 in May 1929, CN did not place the unit into service for more than a year.

"Canadian Railway and Marine World" provided an extensive description of the locomotive after its delivery to CN on May 17, 1930. The February 1931 issue is the source for Canada's first diesel electric switcher, known as the 77, which was built by Westinghouse.

By Douglas N. W. Smith

The allocation of the cost was as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>One six cylinder crude oil engine</td>
<td>$23,300</td>
</tr>
<tr>
<td>Electric equipment</td>
<td>34,400</td>
</tr>
<tr>
<td>Mechanical parts</td>
<td>26,300</td>
</tr>
<tr>
<td>One set of air brake equipment</td>
<td>3,600</td>
</tr>
<tr>
<td>Six reels</td>
<td>17</td>
</tr>
<tr>
<td>Inspection charges</td>
<td>629</td>
</tr>
<tr>
<td><strong>Total Original Cost</strong></td>
<td><strong>$88,246</strong></td>
</tr>
</tbody>
</table>

The locomotive was equipped with a Westinghouse 6 cylinder oil engine. The cylinders were 9 x 12 inches. H. F. Finnmore, Assistant Electrical Engineer of CN in a paper read before the Hamilton Branch of the "The Engineering Institute of Canada" reported that the engine developed 350 horsepower at 800 revolutions per minute (rpm). An auxiliary foot throttle increased the engine rpm to one thousand and at this speed the engine developed 450 horsepower. The normal rating for the locomotive was 400 horsepower at 900 rpm.

The engine burned heavy fuel oil and operated on the four stroke cycle principle. A 300 kilowatt Westinghouse generator was rigidly connected to the engine. It delivered power to four traction motors, one motor being attached to each axle of the trucks. The total weight on the driving wheels was 140,000 pounds.

The engine and generator, which were supported on a common bedplate, were placed on the longitudinal centre line of the locomotive. The auxiliary apparatus, fuel tanks and sand boxes were mounted against the walls, providing a neat arrangement and distributing the weight evenly on each truck.

The control apparatus provided series and parallel connection of the traction motors. The electrical output of the generator was limited by means of torque governor so as not to overload the engine. The 7700's fuel tanks had a capacity of 400 gallons which was sufficient to power the unit for one week. The fuel tanks was split in two compartments, the upper one being at such a height so as to provide a gravity feed to the engine. A hand pump was used to fill the tanks or transfer fuel from one to the other. Sand boxes were located over each truck. The water tank was supported from the roof at the rear of the main generator.

The radiator sections for water and oil cooling were installed horizontally in the roof. Blower fans, which provided ventilation, were thermostatically controlled. The arrangement permitted complete draining of all exposed water and oil pipes when the engine was not in operation.

To cope with the constant use of air brakes called for in switching service, the unit had large air storage and compressor capacity. The air tanks were located on the length of the roof. These were replenished by two air compressors which were capable of generating 150 cubic feet of air per minute. These operated from the main generator during idling and from an auxiliary generator during running.

The cab was elevated at one end of the locomotive. The main body of the unit enclosing the engine and generator was tapered so that it would not interfere with the vision of the engineer thereby making the unit fully bi-directional and earning it the designation "visibility cab". Doors were mounted on both sides and ends of the unit to permit easy accessibility by the crew.

CN spent slightly over $88,000 for the unit. The electrical equipment was the single most expensive part of the locomotive. The allocation of the cost was as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>One six cylinder crude oil engine</td>
<td>$23,300</td>
</tr>
<tr>
<td>Electric equipment</td>
<td>34,400</td>
</tr>
<tr>
<td>Mechanical parts</td>
<td>26,300</td>
</tr>
<tr>
<td>One set of air brake equipment</td>
<td>3,600</td>
</tr>
<tr>
<td>Six reels</td>
<td>17</td>
</tr>
<tr>
<td>Inspection charges</td>
<td>629</td>
</tr>
<tr>
<td><strong>Total Original Cost</strong></td>
<td><strong>$88,246</strong></td>
</tr>
</tbody>
</table>

The locomotive was equipped with a Westinghouse 6 cylinder oil engine. The cylinders were 9 x 12 inches. H. F. Finnmore, Assistant Electrical Engineer of CN in a paper read before the Hamilton Branch of the "The Engineering Institute of Canada" reported that the engine developed 350 horsepower at 800 revolutions per minute (rpm). An auxiliary foot throttle increased the engine rpm to one thousand and at this speed the engine developed 450 horsepower. The normal rating for the locomotive was 400 horsepower at 900 rpm.

The engine burned heavy fuel oil and operated on the four stroke cycle principle. A 300 kilowatt Westinghouse generator was rigidly connected to the engine. It delivered power to four traction motors, one motor being attached to each axle of the trucks. The total weight on the driving wheels was 140,000 pounds.

The engine and generator, which were supported on a common bedplate, were placed on the longitudinal centre line of the locomotive. The auxiliary apparatus, fuel tanks and sand boxes were mounted against the walls, providing a neat arrangement and distributing the weight evenly on each truck.

The control apparatus provided series and parallel connection of the traction motors. The electrical output of the generator was limited by means of torque governor so as not to overload the engine.

The 7700's fuel tanks had a capacity of 400 gallons which was sufficient to power the unit for one week. The fuel tanks was split in two compartments, the upper one being at such a height so as to provide a gravity feed to the engine. A hand pump was used to fill the tanks or transfer fuel from one to the other. Sand boxes were located over each truck. The water tank was supported from the roof at the rear of the main generator.

The radiator sections for water and oil cooling were installed horizontally in the roof. Blower fans, which provided ventilation, were thermostatically controlled. The arrangement permitted complete draining of all exposed water and oil pipes when the engine was not in operation.

To cope with the constant use of air brakes called for in switching service, the unit had large air storage and compressor capacity. The air tanks were located on the length of the roof. These were replenished by two air compressors which were capable of generating 150 cubic feet of air per minute. These operated from the main generator during idling and from an auxiliary generator during running.

The cab was elevated at one end of the locomotive. The main body of the unit enclosing the engine and generator was tapered so that it would not interfere with the vision of the engineer thereby making the unit fully bi-directional and earning it the designation "visibility cab". Doors were mounted on both sides and ends of the unit to permit easy accessibility by the crew.

CN spent slightly over $88,000 for the unit. The electrical equipment was the single most expensive part of the locomotive. The allocation of the cost was as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>One six cylinder crude oil engine</td>
<td>$23,300</td>
</tr>
<tr>
<td>Electric equipment</td>
<td>34,400</td>
</tr>
<tr>
<td>Mechanical parts</td>
<td>26,300</td>
</tr>
<tr>
<td>One set of air brake equipment</td>
<td>3,600</td>
</tr>
<tr>
<td>Six reels</td>
<td>17</td>
</tr>
<tr>
<td>Inspection charges</td>
<td>629</td>
</tr>
<tr>
<td><strong>Total Original Cost</strong></td>
<td><strong>$88,246</strong></td>
</tr>
</tbody>
</table>
The cost greatly exceeded that of a steam locomotive with a comparable tractive effort. Part of the reason for the high cost was due to the fact that 7700 was built as a one-off test unit. If it had been built as part of a larger order, the tooling and design costs would have been spread over a larger number of units.

Balancing the greater initial cost was the superior performance of the diesel. Mr. C.E. Brooks, Chief of Motive Power of Canadian National, reported to the Canadian Railway Club late in 1930 that the unit was satisfactorily handling the work of a 36% steam switching locomotive, that is one with a starting tractive effort of 36,000 pounds. It had, however, a much higher availability and was significantly cheaper to operate. CN estimated that during each 24 hour period the 7700 cost approximately $40 less to operate than the cost of its steam switchers. In this pre-inflation era, this amount was sufficient to offset the lower purchase price of a steamer. A CN internal memo dated 1933 detailing the different levels of performance of CN’s steam switchers and test diesel switchers is shown in Appendix I.

The unit spent its entire life in Montreal and eastern Ontario. In late May or early June 1930, it was placed in regular service in the St. Henry passenger car yards in Montreal. In a paper in the September 1931 issue of “The Engineering Journal”, it was reported that 7700 operated three shifts a day – 24 hours a day – every day of the week. It was sidelined for one eight hour shift every fifth day to be brought in for fuel, lubricating oil, water, sand and other servicing. In 1945, it was assigned to Point St. Charles as a shop switcher. On December 28, 1950, its number was truncated to 77 to free the 7700 number series for a potential new diesel electric purchases.

After more than twenty years of service, the engine was replaced with 12 cylinder 380 horsepower Caterpillar D397 900 revolution per minute engine in September 1953. For most of its life the traction effort of the locomotive was rated at 36%. Following the re-engining in 1953, the rating was changed to 15%.

In 1958, it was assigned to CN’s subsidiary, the Thousand Island Railway (TIR). Based in Gananoque, Ontario, the 77 served as a standby engine for an equally elderly diesel, TIR 500. This unit had been assembled in CN’s shops between 1928 and
and 1930. In the summer of 1961, 77 was used in work train service in eastern Ontario. On December 31, 1962, it was officially retired. Retirement, however, did not stall 77's motors. CN leased it to the Canada Starch Company who used it to switch freight cars at their plant in Cardinal, Ontario. The 77 remained in service at Cardinal through 1967.

Fortunately, the historical value of this small diesel was recognized. CN graciously donated it to the Association on April 26, 1968. Less well known is the fact that the original engine block is also at the Canadian Railway Museum. 77 was in operating condition until 1980 when the lubrication oil in one bearing experienced a dilution failure. Today the 77 is inoperable, but repairable. We are indeed fortunate to have an example of the pioneering days when the diesel locomotive was an oddity and the hold of the steam locomotive on railways appeared secure.

I would like to thank Mr. R. Corley for his assistance in the preparation of this article.

**CN Inter-Departmental Correspondence**

Montreal
December 29, 1933

To: S. J. Hungerford
Acting President

Subject: Performance Of Diesel Switchers

Referring to our recent conversation regarding the performances of Diesel Switchers now in operation at Turcot freight yards and St. Henry coach yard.

For some time back, we have been studying this subject and have gathered all of the available data possible in order to show the comparative results between the Diesel switcher and the steam locomotive. Mr. Gage, who has been working with our Operating Department in collecting this data, has submitted a report which I feel sure will be of interest to you.

Diesel Switcher 7700, equipped with a Westinghouse 300 horsepower engine, is operating in 24 hour service in passenger car switching at St. Henry coach yard, and 7750, the Diesel switcher, equipped with two Ingersoll-Rand 300 horsepower engines - a total of 600 horsepower, is operating in freight service, breaking up and marshalling manifest trains in Turcot West freight yards. This locomotive is also working 24 hours per day. From all reports we receive, both engines are giving satisfactory service. I think this is evidenced by the fact that these engines have been in service a considerable time and are still operating.

The following are the comparative operating costs as developed by the Operating Department and Shop Methods Department, which have been carefully checked and we believe are fairly accurate:

<table>
<thead>
<tr>
<th></th>
<th>7750 Diesel 600 HP</th>
<th>8300 Steam 50%</th>
<th>7700 Diesel 300 HP</th>
<th>7400 Steam 36%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 Man Crew</td>
<td>1 Man Crew</td>
<td>2 Man Crew</td>
<td>1 Man Crew</td>
</tr>
<tr>
<td>Cost Per Hour</td>
<td>2.29</td>
<td>1.69</td>
<td>3.92</td>
<td>3.16</td>
</tr>
<tr>
<td>Cost Per Shift</td>
<td>18.35</td>
<td>13.49</td>
<td>31.32</td>
<td>25.30</td>
</tr>
<tr>
<td>First Cost</td>
<td>132,200</td>
<td>45,000</td>
<td>88,700</td>
<td>40,000</td>
</tr>
<tr>
<td>Interest and Depreciation at 10%</td>
<td>13,200</td>
<td>4,550</td>
<td>8,870</td>
<td>4,000</td>
</tr>
<tr>
<td>Cost Per Hour Including Interest and Depreciation</td>
<td>3.89</td>
<td>3.29</td>
<td>4.70</td>
<td>5.20</td>
</tr>
<tr>
<td>Cost Per Shift Including Interest and Depreciation</td>
<td>31.16</td>
<td>26.30</td>
<td>37.56</td>
<td>41.60</td>
</tr>
</tbody>
</table>

NOTE: The above costs per hour are on the basis used by the A.R.A. [sic] and do not include switchmen's wages.
We are still being handicapped in the operation of oil electric switchers by employing an Engineer and Fireman. This subject has been recently referred to Mr. Crombie as it is felt that the Fireman on this class of equipment is not required. Might say that American railways who employ a large number of oil electric switchers in service are practically all operating with only one man on the locomotive.

It will be further noticed that even including interest and depreciation, the figure for the Diesel electric locomotives is lower. The Diesel operation shows a substantial saving over the steam engine, particularly when only one man is employed in the cab.

I might say that during the year 1924, my predecessor made some demonstrative tests, using steam engine 7455 at Turcot, taking the indicated cylinder horsepower at one minute intervals.

---

A face only a mother (or engineer) could love. The boxy design of the front end of the 7700 is clearly reflected in this builder's photo taken at its Kingston plant. The equipment trust certificate is clearly visible in the lower left hand corner of the engine.

*Credit: National Museum of Science and Technology.*

---

**DRAWBAR - PULL SPEED CURVE**

**ENGINE 7750**

**TURCOT, DEC. 12th, 1933**

- **SPEED MILES PER HOUR**
  - 2
  - 4
  - 6
  - 8
  - 10
  - 12
  - 14
  - 16
  - 18
  - 20

- **THOUSANDS OF POUNDS**
  - 10
  - 20
  - 30
  - 40
  - 50
  - 60
  - 70

- **STEAM 50%**

---

**C.P.R. ELECTRICAL ENGR.'S. OFFICE**

**MONTREAL 19th DEC 33**
throughout 15 consecutive hours, with the following rather surprising results which would, in one way, indicate the inefficiency of the steam engine:

1. Average speed 4.06 miles per hour
2. Time in motion 55.9%
3. Thermal efficiency at wheel rim with standby losses 1.9%
4. Average cylinder horsepower over the total time 66.7 horsepower

In as much as this locomotive could develop at least 800 horsepower at higher speeds, the load factor at 8.5% in its actual work application seems to be very low.

I am attaching herewith a chart showing the comparative drawbar-pull speed curve of an average steam switcher as compared with the Diesel electric 600 horsepower switcher 7750, which shows – at low speeds – the Diesel switcher is the more efficient locomotive, but falls away in tractive power as speed is increased, as compared with the 50% steam engine. While the steam engine curve was taken from actual test results, I am inclined to think that it does not show the maximum efficiency of the locomotive as well as it should. You will notice that we have plotted a curve showing the theoretical tractive power of a 50% steam locomotive.

A careful check of existing locomotives operating in St. Henry coach yard, Turcot and Point St. Charles yards, shows that we have 26 engines in operation, including the two Diesels. The steam switchers cannot be counted on for more than 16 hours service per day, whereas the two Diesels are working constantly 24 hours per day.

Should the railway company find itself in a position whereby they could make an investment with the object in view of effecting economy, we believe that with seven Diesel electric locomotives, we could take 12 steam engines out of service at these points; also believe that considerable saving may be made by the operation of Diesel switchers in such yards as Toronto Terminals and at Sarnia.

In my opinion, if we were called upon to build additional switching locomotives, we should not build anything under 600 horsepower, although it is true that many operations can be performed with a 300 horsepower machine. I do not think from an operations point of view that the 300 horsepower engine is sufficiently powerful to make its operation flexible and adequate for general transportation service.

Roberts
Chief
Motive Power and Car Engineering
In this month's issue, we will continue to serialize the tremendous number of branch line abandonment decisions released by the Railway Transport Committee of the Canadian Transport Commission just prior to its demise on December 31, 1987.

**TH&B TRUNCATIONS**

The first item is a footnote to the history of the Toronto Hamilton & Buffalo which appears in this issue. On December 21, 1987, the RTC authorized CP to abandon the 2.6 mile remaining portion of the TH&B Dundas branch.

The line was built by the Hamilton & Dundas Railway (H&D) in 1876. The H&D was primarily a passenger railway operating over the streets in both communities. It could not interchange carload freight with the steam railways as Hamilton prohibited such operations over its streets. Freight was carried in small box cars owned by the H&D which could accommodate the sharp curves around street corners in Hamilton. The contents of these cars had to be transferred to full sized freight cars at the Ferguson Street Station in Hamilton.

The TH&B acquired running rights from a point just west of the Aberdeen freight yard to Dundas in 1897. This permitted the factories in Dundas to ship carload lots without the need for trans-shipment. In 1923, the H&D ceased passenger operations. In 1927 the TH&B bought the 3.51 segment of the Hamilton & Dundas line it used for freight service.

In 1930, the line was extended down the centre of Hatt Street in Dundas and up the Niagara Escarpment to the plant of the Canada Crushed Stone Corporation, a distance of 0.43 miles. The plant ceased to ship by rail in 1982. The RTC approved a TH&B application to cut the line back to mileage 2.66 in 1985. As no freight had been shipped over the remainder of the line since 1985, the RTC granted CP's request to abandon the remainder of the line without any public hearings.

**WHITTLING DOWN CONTINUES**

Over the past fifteen years, CN has been gradually ending its rail operations on Vancouver Island. During 1987, the RTC carried out hearings on CN's application to shut down all its remaining lines on the island.

The construction of the trackage currently used by CN was started by the Canadian Northern Pacific Railway (CNP) in 1911 on lines from Victoria to Patricia Bay, in the Saanich Peninsula, and to Port Alberni. The war effort and the scarcity of steel for rails slowed construction progress on these two lines considerably. On April 30, 1917, the CNP opened the Patricia Bay line. While grading work on the line from Victoria to Port Alberni was largely complete, only 4 miles of rail had been laid by 1918. The CNP became part of the new Canadian National Railways in December 1918.

While the government abandoned the CNP's plan to build to Port Alberni, it did ultimately permit CN to lay 95 miles of rails northwards from Victoria on the graded right of way. The reason for the construction of the line was to open up new areas of the interior of the island to lumbering.

By the end of 1919, the rails had reached the Koksilah River,
some 53 miles from Victoria. The 32 miles from Koksilah to Kissinger were laid down during the next nine years. Based upon official CN records, the official opening dates for the various segments of the line are as follows:

<table>
<thead>
<tr>
<th>Line Segment</th>
<th>Distance (Miles)</th>
<th>Date Opened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patricia Bay Junction to Milnes Landing</td>
<td>24.7</td>
<td>January 19, 1920</td>
</tr>
<tr>
<td>Milnes Landing to Kinsol</td>
<td>26.2</td>
<td>January 20, 1920</td>
</tr>
<tr>
<td>Kinsol to Canlog</td>
<td>16.9</td>
<td>August 6, 1923</td>
</tr>
<tr>
<td>Canlog to Cowichan Lake</td>
<td>3.8</td>
<td>May 18, 1924</td>
</tr>
<tr>
<td>Cowichan Lake to Youbou</td>
<td>9.6</td>
<td>November 4, 1924</td>
</tr>
<tr>
<td>Youbou to Kissinger</td>
<td>11.7</td>
<td>July 6, 1928</td>
</tr>
</tbody>
</table>

On November 4, 1924, CN opened a 6.6 mile line from Deerholme to Cowichan Bay. This line was built after lobbying by lumber mills at the north end of the CN line in order to reduce the distance their products had to travel by rail to reach marine transportation. When this line opened, what had been a 100 mile rail trip from Youbou to Patricia Bay was reduced to 30 miles. In 1927, a car ferry slip was built in Victoria.

The first CN line to be abandoned on the island was the one to Patricia Bay. Except for the first few miles north of Victoria, this line was abandoned in 1935. The situation remained stable for the next three decades. Due to the weakening of two major trestles between Victoria and Deerholme, CN ceased through freight service from Victoria to Youbou in 1965. This split CN's operations into two isolated segments which were connected by car ferry operation.

On November 27, 1974, CN applied to abandon its line from Victoria Wye, the new name for Patricia Bay Junction, to Deerholme. In 1976, the RTC authorized CN to abandon the section of the line from Victoria Wye to Leechtown effective August 9, 1978 and from Leechtown to Deerholme effective June 30, 1979. The reasons for these long delays before the abandonment could occur was to permit lumber companies to complete cutting on-line timber.

CN applied to abandon the line from Youbou to Cowichan Bay in 1976 and the 1.6 mile remanent of the Patricia Bay line (called the Saanich Spur) extending northwards from Victoria Wye in 1977. Subsequently, CN amended its application to exclude 1.2 miles of track at Cowichan Bay as CN was using this trackage to trans-ship lumber from truck to rail cars. The RTC ordered the retention of both these lines due to the volume of traffic then being offered.

On April 1, 1987, CN applied to abandon the remainder of its trackage on the island, namely the 1.2 miles at Cowichan Bay and its trackage in downtown Victoria. As the time was approaching for the mandatory five year review of the earlier RTC decision, the Committee chose to consider all CN’s applications at one time.

In its decision of December 31, 1987, the RTC concluded that CN could abandon the entire line from Youbou to Cowichan Bay due to the low levels of traffic. Less than 100 carloads were shipped and losses approximately $900,000 in 1986. The lumber traffic, which had sustained this line, no longer moves by rail on the island. Due to low freight rates offered by the Burlington Northern, this traffic now moves by truck to New Westminster where it is loaded onto Burlington Northern cars for movement to receivers in the United States.

The RTC found that the lines in Victoria should be retained. It found that CN had been actively discouraging shippers and the line had the potential to become economic. Thus CN’s operations on Vancouver Island, which once extended over more than 100 miles of lines, now is down to less than 4 miles of trackage.
Sunny Alberta

By Basil N. A. Lankester

Back in 1916/17 when I was six, I was confined on my back for about 18 months and unable to move at all. Now, it so happened that part of this time we were living next to a large military camp at Whitley in the county of Surrey, England. The camp held some 30,000 troops in training and waiting to be drafted to France for what was hoped to be the final push. At the time of which I write, I think they were all Canadians, many of whom we came to know very well, as my mother was heavily involved with the Y.M.C.A. canteen and recreation facilities within the camp area. Quite a number of men used, when possible, to come to our house in the village just to enjoy a brief respite from camp life and I found them and their stories about life in Canada very absorbing, they also used to spoil me a bit from time to time, the result of all this was that there grew up within me a great desire to see the country for myself.

When I was in due course cleared of my illness, it was the opinion of the doctors attending me that I should live an outdoor life which eventuated in my studying agriculture for a time, and then the question arose as to how, and where, I would earn my living.

In my mind I can still see the glowing posters on English railway stations some time after the war was over, advertising the great open spaces and golden corn of the Prairie Provinces, especially Alberta, with vast expanses of the latter stretching away to the horizon. Well those posters plus my earlier meeting up with so many Canadians influenced my desire to head west one day, if possible.

It was 1927 that my family met a certain Captain Rex Gibson who had a quarter section on R. R. 1 at Stony Plain Alta. (and who I believe became a leading light in the Mountain Club of Canada until his untimely death on a climb in the Rockies some years ago). An arrangement was reached that he would take me on as an apprentice for about a year to see how I got along, and how I liked the country, once there. This plan came to fruition in spring 1928.

Looking back at my now somewhat delapidated photo album, I am reminded that, along with another nine Britishers and about 2,000 immigrants from the Ukraine, I boarded the White Star liner S.S. “Regina” at Liverpool in late March 1928 to suffer one of the roughest Atlantic crossings one could ever experience, that is, until the last couple of days when we were fog bound all the way into Halifax. We reached Halifax on the 6th April which was I think a Good Friday, but not before nearly running aground on the island in the middle of Halifax harbour! I had virtually eaten nothing during the whole 10 day voyage, such sea sick pills as there were at that time helped me not at all, and with only about £2 in my pocket the prospect of a four to five day train journey ahead of me seemed a bit daunting. In fact, some old long resident Halifax relatives, Archibald, by name, were to meet me and said they would see I had plenty of food for the journey, but due to the disembarkation taking place on Easter week-end we never met up as they did not know the ship had disembarked on the Saturday.

For the first couple of days I managed on some bread, sardines and jam, which I had managed to purchase in the docks before the train’s departure. I spent my little remaining money on a snack in the huge long countered buffet car which had been attached to the train. Then came the crunch. I asked the head cook if he could give me a job the other side of the counter. “Yes sure!” came the reply, “you can start right now, but you won’t get paid other than a couple of good meals a day.” “Fine” I replied and got round the back of the counter where I found the largest tin bath tub full of spuds that I could ever have visualised. “Get peeling those, he said, and you can go on peeling them till we reach Edmonton”! The rest of my small party wondered to where I had disappeared until dinner time that day when they came to have a bite. Knowing my liking for steam they thought I might have hitched a ride on the footplate! No such luck!

The train being an Immigration Special was made up of day cars only, so when nightfall arrived the car crew asked if I wouldn’t prefer to doss down on the floor of the buffet car, rather
than sit up all night, which offer was eagerly accepted by me, as the odour of food was infinitely preferable to the overpowering smell of garlic and other strange smells in the passenger cars, to say nothing of the freedom from noisy kids with their inevitable cries during the night.

One amusing thing was that, with the extremely long train we were, and with what I imagined was one of the world's most powerful power units hauling us, (she was a C.N.R. 4-8-4 automatic stoked loco with a round rear end to the six axelled tender of which I have photos, but no numbers visible) there were times after our many halts to allow fast through traffic to pass, when probably, due to the ice and snow making the track slippery, there would be a fair old jerk as the wheels bit, and any slack in the couplings took up, causing some 70 or more settings of drink and food suddenly to slide down the long highly polished counter. Quite a sight as each person made a grab for their own plate etc: sometimes falling off the bar stool in the effort!!

And so it was, no doubt, after numerous loco changes, we eventually reached a very cold and dark Edmonton at about 23.00 hours. I had at least been well fed, had had nice warm nights and peeled thousands of potatoes - I still eat them and enjoy them! The kitchen/buffet car gang were all jolly kind to me and seemed most grateful that they had been saved the peeling job!!

My efforts in the farming line did not last too long due to the stock market crash and I then had 5½ years with the Bank of Montreal at Edmonton and Vegreville. Before moving on to East Africa, where we also harboured some of the world's largest meter gauge locos!

PS. I still have a photo of C.P.R. loco 2321 taken in 1932, and C.N.R. loco 2329 of which I enclose a small print taken by me at Cartier in 1932 according to the scribble on the back.

I also have a photo I took at Gelkie, Alta. in 1930 of loco No. 5116 when I think she was hauling an East Bound "Transcontinental" through train. And finally a shot of an older loco No. 1144 taken somewhere around Moncton I think, in 1928!

Maybe the foregoing could be of interest to someone.
alphabetically and including illustrations of all known major types. Also illustrated are complete covers (stamped and postmarked envelopes), as well as post-1949 cancellations. The information given includes the earliest and latest known date of each type, covering a period from the late 19th century until the early 1950's.

Anyone interested in philately or in railway or ship history will find this book of considerable interest. The railway history alone is worth the price of the book, including as it does, a number of historic photos of both trains and ships. The subject of airmail is not included since there were never any post offices actually aboard the aircraft, and it is only travelling offices that are covered. In summary the book is a valuable and much-needed addition to the literature of philatelic and transport history of eastern Canada.

F.A.

West Of The Great Divide
An Illustrated History of the Canadian Pacific Railway in British Columbia 1880 - 1986
By Robert D. Turner
Published by: Sono Nis Press
1745 Blanchard Street
Victoria B.C.
V8W 2J8
Price: $39.95 350 pages

Those interested in the history of transportation in British Columbia will be familiar with the name of Robert D. Turner, author of such great works as The Pacific Princesses, The Pacific Empresses and Vancouver Island Railroads. His latest book, appropriately titled West Of The Great Divide, is yet another masterpiece. It is no less than a history of Canadian Pacific railway operations in British Columbia from the start of construction of the government section by Andrew Onderdonk in 1880 up to the present-day C.P. Rail system in 1986. Undertaking a book of this magnitude is all the more difficult these days because of the numerous C.P. histories that have been published in the last few years as the railway celebrated its various centennials. However Mr. Turner has succeeded fully in producing a book which is of very great interest and which does not duplicate any other work on Canadian Pacific history.

In West Of The Great Divide one will not find lengthy accounts of the politics and financial problems inherent in railway construction. Nor will there be extensive lists of locomotive and equipment. The story does not end with the completion of the main line, but continues to the present. What one will find is an extremely readable and coherent history which does what few if any other books have done: in one volume it tells the story in such a way that a person totally unacquainted with C.P.R. history would have an excellent grasp of the railway's British Columbia operation by the time he reached the end of the book.

In the preface, Robert Turner reflects on his feelings as he rode in a century-old business car to Craigellachie on November 7 1985, the 100th anniversary of the Last Spike. This sets the keynote for the book: how so much has changed and yet so much remains the same. We are then taken on a trip through history from the first plans of 1880 to the new Rogers Pass tunnel of the 1980's. Not only is the main line discussed, but the numerous branches, the subsidiary companies and the steamship routes.

To augment the text there are almost 500 photographs, including 24 in full colour, twenty maps and diagrams as well as timetables, logos and other graphics. Some of the photos have not been published before. While it is difficult to single out any special ones, for there are so many, one must mention a few. We have often seen the view of the first through train arriving at Port Moody on July 4 1886, however we now see the rear of the train taken by the same photographer a few minutes later, and in great detail is the last car, none other than official car 78 now business car 1 at the Canadian Railway Museum! Another view shows locomotive 374 pulling a freight train over the new steel bridge across the Salmon river in the early 1890's. In a later era we see the all-steel Imperial Limited at Field in 1925, and still later the Royal train of 1939 hauled by 2850, the original "Royal Hudson". As we reach the mid-20th century we behold colour photos of 2-10-4 locomotives on the Field hill, and later the CLC Fairbanks-Morse C-Liners. Towards the end there are glimpses of the modern day freights, the VIA Rail passenger trains, and a last look at steam as No. 1201 heads eastward after its visit to Expo-86.

A very important part of this book is the very generous chapter of Sources of information. This covers five important pages and is followed by a bibliography listing no less than two hundred and forty eight titles. This bibliography alone is a great contribution to historical study; using it the student of the subject can go as far as he wants since it includes most of the significant...
works on C.P.R. history.

*West Of The Great Divide* is a book which should be in the library of every student Canadian Railway history.

F.A.

**Canadian Trains Canadiens**

By Guy and Mireille Charmantier.

Published by: Les Éditions du Cabri

Boîte postale 26

Quartier Verpierre

06540-Breil-sur-Roya

France

Obtainable from: Borogrove Bookroom

#11 5803 Bow Crescent N.W.

Calgary, Alberta

T3B 2B6

Price: $69.00

This book, written by French authors and published in France, is devoted to Canadian trains. In the words of the authors “it results from a discovery and an attachment, a discovery of a country through its trains and a progressive attachment to this country, its inhabitants and its nature”. The end product is a large-format (9 X 12½ inch) high quality volume which will be of considerable interest to railway enthusiasts.

The book begins with a brief history of Canadian railways, followed by a description of the contemporary Canadian railway network. The latter includes technical information as well as quite a lengthy account of VIA rail including reproductions of some of the newspaper headlines concerning the 1981 discontinuance of the “Atlantic” and its 1985 reinstatement. This sets the general theme of the book; the majority of the text and photos deal with passenger service although some freight trains are pictured. Following some technical data on locomotives, there is a very informative two-page map showing major railway lines with their dates of construction. Curiously, dates before 1900 omit the “18” of the year, thus 1885 appears as 85. While not all dates are shown and a few are off by a year or so, the map gives a good idea of the chronological development of railways in Canada.

It is, however, the next section that makes this book so outstanding. This is the series of photographs, more than 300 of them including 63 in colour. The photos were taken between 1981 and 1986 and, as mentioned, are largely of passenger trains. These include not only VIA but also Ontario Northland, Algoma Central, the Montreal and Toronto commuter trains and even the Salem & Hillsborough, the Prairie Dog Central and the Royal Hudson. The colour photos are all of superb quality, very sharp and detailed. They cover trains from coast to coast and, unlike some books, the Maritime provinces are very well represented. A few of the colour photos depict scenes which are no more, such as the turbo train, or Amtrak’s “Adirondack” leaving Windsor station.

All text and all captions are fully bilingual which will be greatly appreciated by French-speaking enthusiasts who are too often left out when it comes to books of this kind.

The only drawback to this fine book is the high price which is, unfortunately, necessary due to such conditions as currency exchange rates. However, the number and quality of the photos make this a work which, once purchased, will be valuable for many years as a great record of the Canadian passenger trains in the 1980’s.

F.A.

**A Statutory History of Railways in Canada 1836-1986.**

By: Robert Dorman & D.E. Stoltz

When the statutory history of the steam and Electric Railways of Canada was published in 1938, it was hailed as the definitive source of information on the establishment of Canadian railway companies. Two generations of historians, lawyers and railway buffs have used the original edition and the Addendum as a reference.

Since 1938, the structure of the Canadian railway system has changed. As a result, Transport Canada began an update of the Statutory History and asked The Canadian Institute of Guided Ground Transport to finish the work and ensure its publication. In addition to post-1938 statutory citations and the 1986 status of railway companies, this update contains numerous revisions and additions to the pre-1938 citations.

Robert Dorman was a long-time employee of the Department of Marine who began the Statutory History as a labour of love. He was still keeping track of statutes as late as 1947 as the Department of Transport archivist. Doug Stoltz was a law student at Queen’s University while researching this update. He has since served in the Parliamentary Library and the
faculties of law at the university of ottawa. he is currently with
the department of justice.
500 pages
isbn 088911 268 1
$39.95 (cdn.), postage paid

CANADIAN RAILWAY FREIGHT PRICING
Historical and Current Perspectives, 1836-1983.
By: W. G. Scott
This book traces the development of canada’s railway freight
rate structure from its earliest origins until the mid-1980s,
including the settlement of the “crow” debate with the passage
of the western grain transportation act. it covers many new
freight rate developments that have arisen since howard darling
wrote the politics of freight rates and also reviews the
economic content of these issues, thus setting the background for
the coming debate on the government’s proposed chances to the
transportation act.
the author, w. g. (bill) scott, is a well-known transpor-
tation economist who recently retired from cp rail here he was
general manager of pricing economics. mr. scott provides a
carrier perspective on this controversial subject.
key issues such as legal “equity” versus economic
“efficiency” associated with differential railway pricing
practices; variable freight rates based on differences in “costs”
and “demand”; and “general” versus “selective” rate
increases are highlighted.
474 pages, 22 tables, 27 figures
isbn 0 88911 262-2 (6 x 9, soft cover)
$21.95 (cdn.), postage paid

C.R.H.A. communications

NIAGARA DIVISION
This year the niagara division celebrates its 10th anniversary.
To start off the year right an excursion was held in march to
niagara falls new york using amtrak trains #32 (niagara
rainbow) and #63 (maple leaf).

TORONTO & YORK DIVISION
At the beginning of the year hollie lowry became editor of
the division’s newsletter turnout as well as continuing as
secretary. at the division’s annual general meeting the
following were elected to the executive:

President: jack bell
Vice Pres.: chris kyle
Vice Pres.: tony rubin

Directors: gord billinghurst
Werner kluger
Joel rice

NEW BRUNSWICK DIVISION
The division was very active in 1987, particularly with the
Salem & Hillsborough Railroad. a CN turntable has been
acquired from westfield and plans call for its move to
Hillsborough before the summer. there may also be a good
opportunity to acquire some 85 lb rail.
during the Christmas season, the S&HR ran a number of
Sunset Charters. as a result a number of snowplow extras had to
be run mostly with volunteers! the last run was on december 23
when CN public relations were out for their Christmas party.
during this run they announced that a flanger would be donated
to the railway. nice Christmas present!

With the holiday season over, restoration work began again
to finish the first class coach and tune up engine 1009.
The first 1988 issue of the division’s newsletter update
was the largest ever. along with a good selection of news items
were two very interesting articles on the McAdam station and
the railway facilities there.

to March 15, 1988

ANNUAL AWARDS
April 18, 1988
To: all CRHA Divisions & Editor – Canadian Rail.
From: Annual Awards Committee.

With reference to the January/February issue of Canadian
Rail, page 31-32, regarding the Annual Awards program, the
date for submission of awards nominations has been rescheduled

This extension of time has been made for the following
reasons:
1. The time of the announcement of the program to the
submission date was very short.
2. Extending the submission date will permit nominators more
time to review their selection of authors and/or persons as
candidates in the awards categories, and submit their
nominations.
3. As the presentation of Awards will be made at the CRHA
Annual Convention, hosted this year by the New Brunswick
Division on the Labour Day weekend in September, there will be ample time for the Panel of Judges to present their decisions prior to that date.

Some excellent nominations have already been received by the Awards Committee, and any further nominations which may be made by this extension of time will make this first year of awards an even better success than it now appears it will be. It will be appreciated if each Division will publicize the new date and encourage its members and friends to participate in the program.

The 

business car

STEAM EXCURSIONS !!!! STEAM EXCURSIONS !!!! STEAM EXCURSIONS !!!!

During 1988, the Bytown Railway Society will be sponsoring steam excursions using former Canadian Pacific steam locomotive 1201. These trips will originate in Ottawa at the National Museum of Science and Technology. Pulling former CP heavyweight and VIA streamlined cars, the train will traverse freight only trackage. These trips will be the only steam excursions to operate in Central Canada this year. Photo runpasts are planned for each excursion.

“The Highlander”

On Saturday July 30, 1988, a special train will run from Ottawa to Hawkesbury, Ontario. It has been many years since a passenger train operated over the line between Glen Robertson and Hawkesbury. Those passengers not wishing to ride to Hawkesbury may detrain in Maxville and watch the famous highland games which will be taking place that day.

Leave Ottawa: 0800-0900
Return to Ottawa: 1700
Ticket Price: Not to exceed $50.

“The Autumn Valley Express”

On Sunday, October 2, 1988, 1201 will run from Ottawa to Pembroke, Ontario. Following the scenic Canadian National route, which includes two spectacular crossings of the Ottawa River, passengers will be treated to the glorious fall foliage in the picturesque rural areas of the Ottawa Valley.

Leave Ottawa: 0830-0900
Return to Ottawa: 1730-1800
Ticket Price: $50.

Tickets for these excursions may be ordered by mail. You should indicate if you prefer to ride in the non-air conditioned heavyweight cars or air conditioned VIA cars. Seat will be assigned as ticket orders are made so the sooner you place your order the better the chance of getting a seat in the car you prefer.

Orders should be sent to the Bytown Railway Society, P.O. Box 141, Station A, Ottawa, Ontario K1N 8V1. Payment should be by cheque or money order. With regard to “The Highlander”, should you wish to order one ticket, your cheque should be made out “Not to exceed $50”. For those ordering more than one ticket, the $50 amount should be multiplied by the number of tickets ordered. Please note that there are no special rates for children or adults. Complete details as to departure and arrival times will be mailed out with the tickets.

WOODSTOCK PRESERVATION

Sometimes the railroads can make people happy and this might be one of those cases. Woodstock, N.B., a C.P. Town, had an active passenger service up to the 50’s, and rather ornate brick station to prove it. Now the Town is looking forward to CP to donate the station for the use as a museum. The Mayor says that CP Rail has started the process that would turn over the building and property to the Town but it might take from six months to a year before it is complete.

A beautiful autumn day set the stage for the Bytown Railway Society’s 1987 excursion from Ottawa to Pembroke. The trip was a rapid sellout, so those contemplating going on this year’s excursion should order their tickets early!

Photo by Douglas N.W. Smith.
A STREET CAR NO ONE DESIRED
RAIL FANS BUY IT FOR $1

A streetcar not desired by the B.C. government is now the delight of Edmonton railway enthusiasts.

The $243,000 German-made streetcar bought by former New Democrat premier Dave Barrett in 1975 but never taken off its loading skid was sold to the Edmonton Radial Railway Society for $1 by this Social Credit successor Bill Vander Zalm.

The streetcar, a source of political embarrassment, did not leave B.C. with any fanfare last week on its three-day trip by truck from Vancouver.

B.C. Transit originally asked that the streetcar be loaded and hauled away in the wee hours or on a weekend, said railway society member Harvey Bradley.

"They even wanted to break into the driver's compartment and take down the Vancouver and New Westminster street signs so it wouldn't be obvious where it came from," Bradley said.

Grand crows unloaded the 17,500-kg vehicle from a truck at Fort Edmonton Park almost a dozen years after it first arrived in Vancouver.

The Siemens-Duwag model, a prototype of the LRT system now in use in Edmonton, was mothballed by Social Credit after it beat the NDP in a provincial election.

After six years of negotiations with B.C. Transit, the 55-member railway society is happy to add the streetcar to its collection of period public transit vehicles.

"It's not vintage yet," said society treasurer Tony Kernahan, "but 25 years from now it will be an excellent example of early LRT technology."

The society paid about $8,000 to have it shipped here.

The car could be used as a link between the park and the city transit stop on nearby Fox Drive or possibly across the river to the Valley Zoo. It carries 38 people sitting and 150 standing and has a top speed of 70 kmh.

Meanwhile in Victoria, word of the sale provoked an angry reaction from NDP transit critic Robin Blencoe, who said B.C. taxpayers shouldn't be subsidizing the ventures of the Edmonton group.

"This is a late Christmas present from our premier to the people of Edmonton," said Blencoe in an interview from his Victoria office. "It's all part of Bill Vander Zalm's plan to privatize the people's assets."

S. Edmonton Journal via Lon Marsh

RIDING THROUGH THE ROCKIES BY DAYLIGHT - A VIA INITIATIVE

VIA Rail Canada will introduce two special tourist trains in two-way service between Vancouver and Jasper, and Vancouver and Banff for the summer of 1988. The service will operate once a week from June 5 to October 9 for a total of 19 departures. So that the full trip of just over 500 miles on each route can be made during daylight, passengers will stay overnight in hotels in Kamloops at the halfway point. The one-way fare including meals and accommodation will cost $275. A six-day package circle tour with a bus link between Jasper and Banff traveling along the Icefields Parkway will be $859 per person. The trains will use refurbished "Daylighter" equipment, but will not carry dome cars or diners; meals will be served at one's seat. The trains are expected to attract 17,000 passengers for the season and generate some $3.4 million in hotel revenues at Kamloops, Banff and Jasper.

In developing this new service, VIA worked closely with many local governments and business groups, and VIA is to be congratulated for its initiative in creating a tour train for some of the best scenery in the west. There were mixed press reactions including the misnomer that VIA's present trains in the West do all the mountain scenery at night. While welcoming these new trains, Transport 2000 remains strongly committed to daily transcontinental trains from Vancouver to Calgary and Edmonton and beyond with the purchasing of new bi-level Superliner equipment for these services. In a future issue of Transport Action, the success of AMTRAK Superliner trains in the U.S. west will be analyzed to indicate how long-distance trains can meet multiple transportation needs and draw on multiple travel markets. In this way a daily transcontinental service can remain viable as a form of basic ground transportation, rather than being cut back to reduced frequencies and being devoted to only one kind of clientele.

S. Transport 2000

BACK COVER:

Before coming to the Canadian Railway Museum, 77 served on the Canada Starch Railway at Cardinal, Ontario. In this post-1961 view, Canada Starch steam locomotive 5 looks on at its replacement. After the repowering of the unit in 1953, CN changed 77's class to LS-4a and revised traction rating to 15%.

Credit: Phillip Jago.
Canadian Rail
P.O. Box 282 St. Eustache, Qué., Canada
J7R 4K6

Postmaster: if undelivered within
10 days return to sender, postage guaranteed.