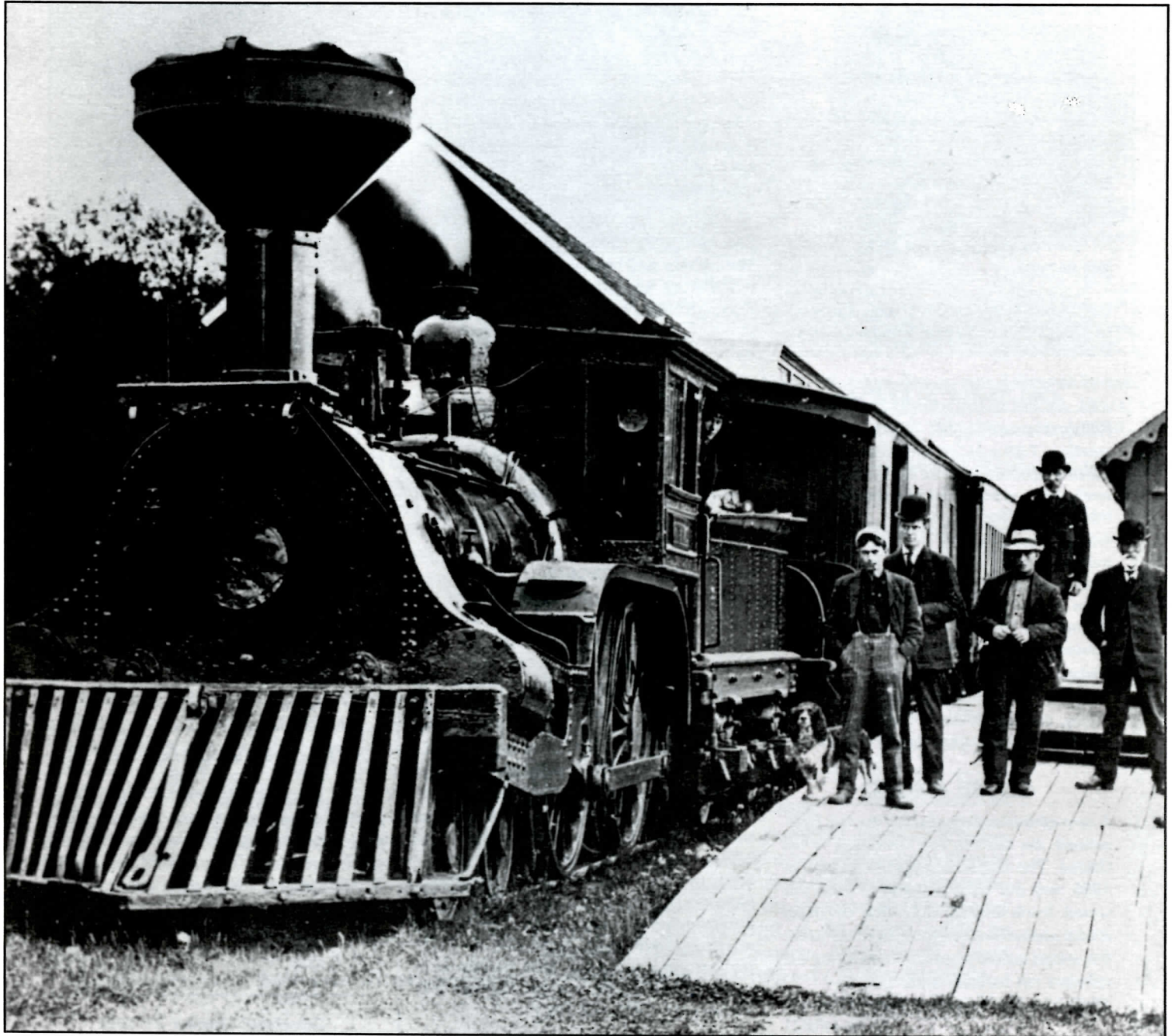


Rail & Transit



OCTOBER 1994



Newsletter of the Upper Canada Railway Society

THIS MONTH

IN RAIL AND TRANSIT

3

BIRKENHEADS:

THE CREWE-TYPE IN CANADA

An historical review by Dana Ashdown of the development and use of the Birkenhead-type locomotives, one of the Grand Trunk's most important locomotive types of the 1850s.

9

SALEM AND HILLSBOROUGH AFTER THE FIRE

David Othen reviews the current state of the New Brunswick tourist railway.

10

1994 KIDSUMMER VISITS GO TRANSIT

Xavier Henry-Cotnam reports on the annual GO Train trip for children.

11

RESEARCH AND REVIEWS

RAILWAY ARCHAEOLOGY...

... Around and about Montréal

BOOKS...

... Calgary transit, Montréal stations

INFORMATION NETWORK...

... Railways in Madoc

12

TRANSCONTINENTAL

THE RAPIDO Iron Highway

... Lachine Bridge

THE PANORAMA . B.C.'s 3716 back in steam

IN TRANSIT .. PCCs gone from Harbourfront

MOTIVE POWER CP's fleet increases

ON THE CALENDAR

Friday, November 18 - UCRS Toronto meeting, 7:30 p.m., at the Metro Archives theatre, Spadina Road at MacPherson, just north of Dupont subway station. Please bring your slides and videos.

Friday, November 25 - UCRS Hamilton meeting, 8:00 p.m., at the Hamilton Spectator auditorium, 44 Frid Street, just off Main Street at Highway 403. The programme will be recent news and members' current and historical slides.

Friday, December 16 - UCRS Toronto monthly meeting, 7:30 p.m.

Friday, December 16 - UCRS Hamilton monthly meeting, 8:00 p.m.

COVER PHOTO

A turn-of-the-century view of the last Birkenhead: the Carillon and Grenville's 4-4-0 Ottawa. This engine was built in England in 1856, and the C&G acquired it from the Grand Trunk around 1873. She remained almost unaltered throughout her final years; the unique curved smoke arch enclosing the cylinders can be easily seen.

Photo from the National Archives of Canada,
PA-141077



NUMBER 538 - OCTOBER 1994

Newsletter

OCTOBER DATES

Two notable October occurrences, both from many years past:

On October 21, 1880, a contract was signed between the federal government and the Canadian Pacific Railway to build a transcontinental railway. Construction had already begun by this date. The line was completed on November 7, 1885, with the last spike ceremony.

On October 27, 1856, the Grand Trunk Railway opened its Montréal-to-Toronto line. The railway had been incorporated in 1853 to build this key railway in eastern Canada. It was intended to serve all important cities in Québec and Ontario, and to link up with railways in the United States.

READERS' EXCHANGE

Wanted: Slides of Burlington Northern in Vancouver and New Westminster, Southern Railway of British Columbia, and CN around Thornton Yard and New Westminster. Will pay postage both ways. Please reply to William L. Reddy, P.O. Box 117, Castile, New York 14427-0117, U.S.A.

MORE INFORMATION

The upper photo on the back cover of the August *Rail and Transit* was by John D. Thompson. The TTC car in the photo is 2776, not 2766, and so the comment about the car still being owned by the TTC is wrong; it is 2766 that is stored at the TTC's Wychwood carhouse. The building behind the car contained the offices of the Toronto Railway Company from 1898 until after the TTC takeover in 1921. Other Mackenzie and Mann companies also had their offices in the building, which was demolished around 1970. • In Richard Carroll's item, "For old time's sake" in the September *Information Network*, the 90-minute run on the Canada Southern from Windsor to St. Thomas was scheduled from 1964, not 1967, to 1971. Richard also points out that he has been preparing his speed surveys for *Rail and Transit* since 1985, not 1975.

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Subscriptions to *Rail and Transit* are available with membership in the Upper Canada Railway Society. Membership dues are \$29.00 per year (12 issues) for addresses in Canada, and \$32.00 for addresses in the U.S. and overseas. Student memberships, for those 17 years or younger, are \$19.00. Please send inquiries and changes of address to the address at the top of the page.

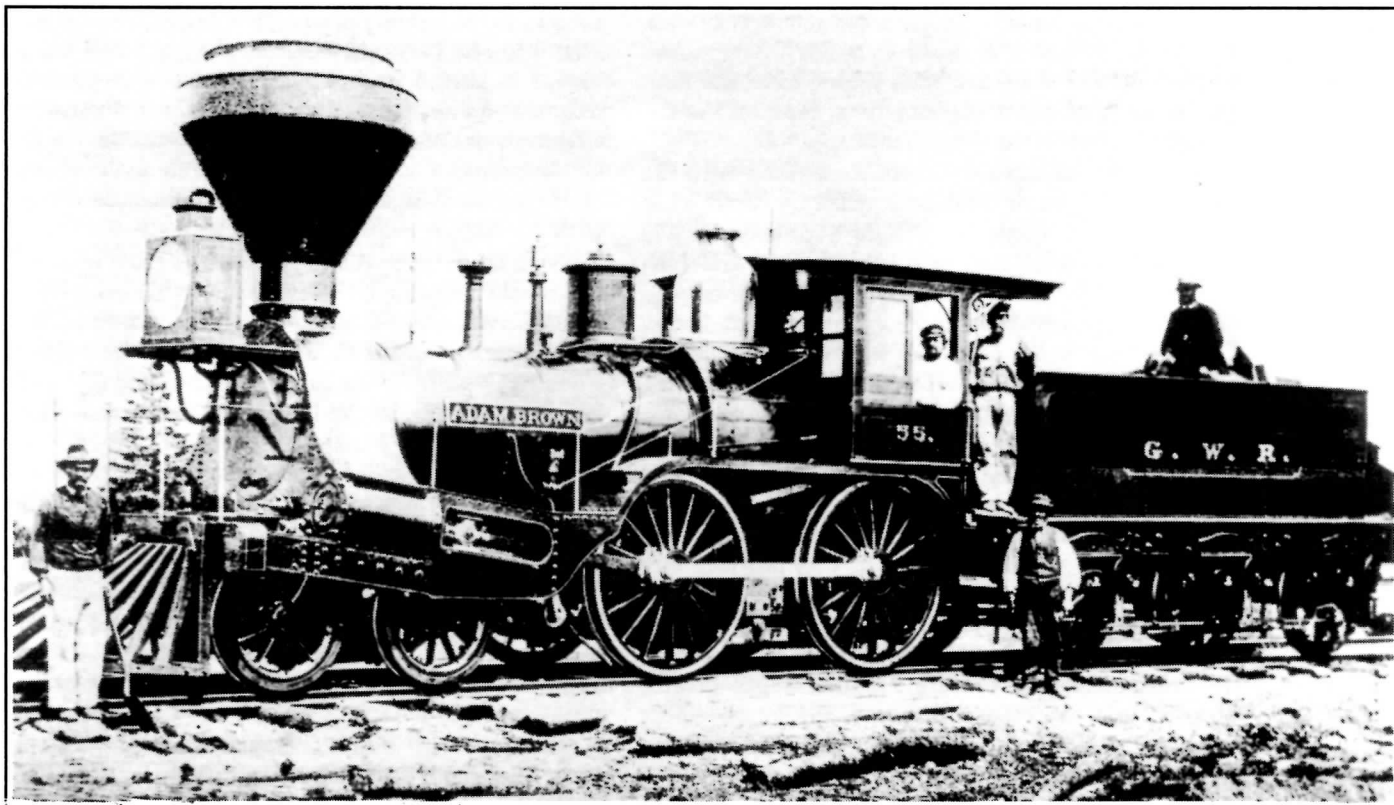
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Completed October 31, 1994

BIRKENHEADS: The Crewe-type in Canada



By Dana Wm. Ashdown

Picture the sight a century-and-a-half ago of a high-wheeled, rigidly-framed 2-2-2 at full throttle, racing down the track with a brace of coaches. On a siding, a panting 2-4-0 freight engine and charge waits. A trace of fog, a whorl of leaves, and you might be witnessing a scene taken straight out of a Dickens novel, set along the London and North Western Railway.

But the English Midlands it isn't. Canada it is.

So how, on a continent where the 4-4-0 was seemingly ubiquitous, could such an anomaly exist?

Canadian railways in the 1850s were strongly influenced by British engineers and capital, and the general feeling was that they should emulate those of the "Old Country" as much as possible. Such extravagance was too much for the small companies, who opted instead for cheaper American-style construction and rolling stock. Not so the Grand Trunk and Great Western, who went so far as to grace their rights-of-way with rigidly-framed English steam engines. By 1857, this amounted to one-quarter of all of the Grand Trunk's locomotive stable and one-half of the Great Western's — 94 locomotives in all!

Significantly, 56 of those were outside-connected

Great Western Railway No. 55, *Adam Brown*, was delivered by the Canada Works in Birkenhead, England, as a 2-4-0, No. 76, *Minos*, in 1855. She was rebuilt as a 4-4-0 at Hamilton around 1860.

—National Archives of Canada C-46991

2-2-2s and 2-4-0s of the "Crewe-type" developed by the London and North Western Railway and its predecessor, the Grand Junction. Their appearance was unmistakable, and in Canada they came to be known as "Birkenheads" in deference to the Canada Works of Birkenhead, England, birthplace to 53 of the country's Crewe-types.

In fact, their arrival in North America was far from accidental; indeed, it was almost pre-ordained. Like all journeys, though, we must start at the beginning, with the Grand Junction Railway.

Evolution of the Crewe-type

The Grand Junction was a troubled company. It began operations in 1837 with 25 2-2-2s of Robert Stephenson and Company's popular inside-connected "Patentee-types," first introduced on the Liverpool and Manchester Railway in 1833 (a total of 55 2-2-2s would be acquired). Within 13 months every single Grand Junction locomotive had suffered a broken crank axle.

The Patentees – so-called because of certain patented improvements by Stephenson – were enlargements of the builder's 2-2-0 and 0-4-0 "Planet-types" and featured outside "sandwich frames" (consisting of wrought-iron plates over an oak core) carrying all the axle boxes, with supplementary inside iron frames. Although the Patentee design could be reconfigured into 2-4-0, 0-4-2, and 0-6-0 variations as well, they were nonetheless lightly built and the crank axles proved to be the most vulnerable parts of all due largely to impurities in the wrought-iron and inadequate framing.

Thus, the railway's directors were faced with the appalling prospect of a future plagued by breakdowns and heavy repair costs, an intolerable situation for any growing company. The board recognised that the locomotive department needed to be reordered and asked the engineer-in-chief, the eminent Joseph Locke, for his recommendations. Locke selected one of his own civil engineers, William Barber Buddicom, to head the department, in whom the task of bringing costs down was placed.

Taking office in January 1840, Buddicom applied himself to the most pressing problem: that of the broken crank axles. The inside iron plate frames on the Patentees were practically useless for they provided very little support to the crank axle. Buddicom replaced them with a more substantial plate frame and sprung axle box on each side, inboard of the driving wheels. This gave the crank axle four bearing surfaces, hence greater support, and, with a heavier axle, the improvement reduced the incidence of breakage. But axle breakage

still occurred for, as Buddicom reported, "The difficulty in procuring them perfectly sound is very considerable."

In the summer of 1840 the railway acquired two outside-connected 2-2-2s from Messrs. George Forrester and Company of Liverpool in order to determine the viability of straight-axled engines on the line. They had outside iron plate frames and were unique in having the cross-head guides incorporated into the frame. The Forresters did not "work as effectively as the crank axle ones," as Buddicom put it, but he proposed to have two of the Patentees rebuilt with outside cylinders "to give the principle a fair trial."

A month later, in February 1841, he came up with a new scheme using inclined outside cylinders, 5-foot 6-inch drivers and 3-foot 6-inch carrying wheels, later being described in *The Railway Magazine* as "an engine ... on the plan of the American engines [4-2-0s], and having six wheels, but without the bogie fronts." This was the *Aeolus*, a 2-2-2 with an outer plate frame incorporating the cylinders and cross-heads, much as Forrester had done, and to which the lead and trailing axle were fixed; and a full-length inner plate frame carrying the straight driving axles. Whereas Forrester's engines had widely spaced horizontal cylinders and fly cranks, producing an undesirable swaying motion at any speed, *Aeolus'* inclined cylinders were closer in, and the cranks were integral with the driving wheels, resulting in a much smoother ride.

Although two other outside-connected variants were also rebuilt from worn-out Patentees, it was *Aeolus* which set the pattern for what was later to become known as the Crewe-type. Yet Buddicom did not see the final developments through on the Grand Junction, because in August 1841 he left the company for France where he made the *Aeolus* the "pattern for the Paris and Rouen Railway."

The job of taking the new plan on to its ultimate form fell to the new locomotive superintendent, the easy-going Francis Trevithick, third son of Richard Trevithick and one of Joseph Locke's protégés. However, the railway's new preoccupation with the removal of the principal workshops from the ill-placed Edge Hill facility in Liverpool (leased from the Liverpool and Manchester Railway) to the extensive plant being constructed at Crewe under Trevithick's supervision, curtailed locomotive development until 1843, only six being added during the interim in 1842 – four from Messrs. Jones and Potts of Liverpool and two rebuilt at Edge Hill from Patentees – all being refinements of *Aeolus*.

The first engine actually built at Crewe was the *Tamerlane*, finished in October 1843. But, like the six which came before it in 1842, *Tamerlane* represented an interim step on the path to the final Crewe-type locomotive. It was only when the 2-4-0 *Hecla*, the tenth built at Crewe, was completed in October 1844 with Stephenson valve gear that the true Crewe-type emerged.

Table A			
Long fire-box Crewe-type locomotives			
built by the London and North Western Railway, 1853-1858			
Type	2-2-2		2-4-0
Built	1853-1858 / 1853-1854 and 1857		1853-1857
Wheel diameter	Drivers	72" / 84"	60"
	Carrying	3'-6"	3'-6"
Wheelbase	Driving	6'-6" ¹	7'-8"
	Total	13'-4"	13'-6"
Cylinders	Size	15 x 20"	15 x 20"
	Slope	1 in 12 / 1 in 18	1 in 8.33
Boiler pressure	100 lbs.		100 lbs.
Tubes			
Number and outside diameter	158 (156 ²) @ 1-3/4"		158 @ 1-3/4"
Length between tube plates	9'-11-7/8"		9'-10-1/2"
Heating surface			
	Tubes	721 (711 ²) sq. ft.	715 sq. ft.
	Fire box	66 (68 ²) sq. ft.	81 sq. ft.
	Grate area	13 sq. ft.	13 sq. ft.
Number built	32 / 11 (43 total)		96 (+ 4 tank engines)
1. Axle spacing on 2-2-2s between drivers and trailing wheels.			
2. Figures apply to five 84"-drivered 2-2-2s built in 1857.			

Ultimately, Francis Trevithick would oversee construction of 422 2-2-2 and 2-4-0 Crewe-types delivered between 1843 and 1858 at Crewe (including fourteen assembled at Edge Hill), thereby making them the standard engine pattern on the Northern Division of the London and North Western Railway, as the Grand Junction became in 1846.

Of course, Trevithick made many improvements during that time, which saw engine weight increase from under 34 000 pounds to over 48 000 pounds (see Table A for general specifications of the final "long fire box" versions), but his conservative nature – boilers, for example, were always kept at a diameter of 3 feet 6 inches in order to retain the simple straight-sided fire boxes which fitted between the inside main frames – prevented any real advance in power output. Furthermore, Trevithick's lack of enforced standards meant that specified dimensions were not always met on the completed engines, which were still largely hand-built. Nor was Joseph Locke's aim of achieving a truly standardised design in which "as many parts as possible" would be made "to one standard" fully realised. A common boiler plan could have been used for both the 2-2-2s and the 2-4-0s, but wasn't. When the London and North Western's locomotive department was reorganised in 1857, the well-liked Trevithick's lack of drive brought about his dismissal and he retired permanently from railway work.

Nevertheless, the Crewe-type design was taken up by other railways and manufacturers, commending itself by its robust and straight-forward construction and its adaptability. Not only were 2-2-2 and 2-4-0 arrangements built for passenger and freight service respectively, but tank engines, 4-4-0s, 4-6-0s, and 0-6-0s were developed, even as late as the 1880s, often featuring the characteristic curved smoke arch enclosing the cylinders. Whether in Great Britain, Europe, Scandinavia or Canada, the Crewe-type was unmistakable.

The Crewe-type and the GTR

How then did the Crewe-type locomotive find its way to the Grand Trunk Railway of Canada when U.S. designs dominated the whole continent?

Recall that it was Joseph Locke who instigated the search that led to the Crewe-type, and that it was William Buddicom who developed it, and that it was they who introduced the concept to Europe when Buddicom made it the "pattern for the Paris and Rouen Railway" – the engines there being known as "Buddicombs." Introduce now Thomas Brassey, perhaps the greatest railway contractor of the age, to whom Locke was a benefactor and ally. They worked on many projects together, including the Grand Junction and the Paris and Rouen, and doubtless Brassey was well aware of the Crewe-type engine and its performance. The works at Crewe were no less familiar, for his firm cleared the ground for their construction.

By the 1850s, Thomas Brassey was working in tandem with another of the age's contracting giants: the

partnership of cousins Samuel Morton Peto and Edward Ladd Betts who were second only to Brassey in importance. The combination was a force to be reckoned with, and when contracts were let for the Grand Trunk Railway of Canada they stood ready, in company with contractor Sir William Jackson, M.P., to take the lion's share as Messrs. Peto, Brassey, Betts and Jackson.

Incorporated in 1852, the Grand Trunk was conceived as the main line for what was then the United Province of Canada (roughly the southern portions of today's Ontario and Québec), running from the Michigan border in the west to Québec City in the east by way of Toronto and Montréal. Like the Canadian Pacific Railway two decades later, the Grand Trunk was as much a result of government policy as it was private enterprise, and when completed in 1860 it tallied over 1000 miles of 5-foot 6-inch gauge railway with the longest main line in the world. It was also an international railway. Through the lease of the Atlantic and St. Lawrence Rail Road in Maine and the acquisition of its Canadian sister, the St. Lawrence and Atlantic Rail Road, 295 miles in all, it gained an almost ready-built line between Montréal and Portland, Maine, thereby ensuring Canada's access to an ice-free, year-round ocean terminal.

Peto, Brassey, Betts and Jackson's reputation and their ability to float capital bonds in London through banking allies Glyn, Mills and Company and Baring Brothers combined to win them the Grand Trunk contracts, coming to comprise the 600 miles which made up the Central Division (Toronto-Montréal, 345 miles, opened in October 1856), the Eastern Division (Richmond-Lévis-Rivière-du-Loup, 253 miles, opened progressively between 1855 and 1860), and the massive Victoria Bridge over the St. Lawrence River at Montréal with its tubular iron spans (opened in December 1859).

Unfamiliar with North American conditions, Peto, Brassey, Betts and Jackson promised an English-style railway, erecting impressive stone and brick stations and iron and masonry bridges where wooden structures would otherwise have served. But the cost was enormous and became further exacerbated when the British form of track construction used proved ill-suited to the climate and had to be replaced. The consortium lost money on the work, yet gained a hard-won lesson in economy which would serve them well when they took on subsequent contracts around the world. With the exception of the European and North American Railway in New Brunswick, they made no other undertakings on this continent, leaving such work to indigenous contractors more experienced with local conditions.

Procuring rolling stock for the completed segments also fell within the contractors' area of responsibility. On the Toronto-Montréal Central Division alone, this added-up to 97 locomotives, 60 passenger cars, 500 freight cars, and 110 pieces of work equipment in accordance to the original specifications: a sizable quantity. Early on, Peto, Brassey, Betts and Jackson drew upon Canadian and U.S. manufacturers to meet these needs, but only as a temporary measure. Plans were already afoot to build a factory in England for that very

purpose. The expected requirements for the Grand Trunk contracts alone were enough of an encouragement to establish a factory, but in a world hungry for new railways, and with Peto, Brassey, Betts and Jackson ready to feed that hunger, it was simply good business.

The site chosen for the new plant, appropriately dubbed the "Canada Works," was in familiar territory on the Mersey River estuary at Birkenhead, opposite Liverpool. This was the domain of the London and North Western Railway, one of Britain's gateways to the New World, and in the country's industrial heartland. Besides which, Mrs. Brassey came from Birkenhead.

The plant itself was the subject of a great deal of thought and they were not afraid to learn what they could from others in that respect. Two of Brassey's own men toured the United States and examined many of the locomotive and car factories there, being very impressed by the innovations in labour-saving machinery they saw. As established at Birkenhead, the Canada Works were really two separate facilities. On one side of the property stood the 215-foot long bridge shop which supplied all of the iron spans for the Grand Trunk.

The locomotive and car works were opposite and extensive. This building measured 900 feet in length and 36 feet in width, and was represented in the *Liverpool Journal* as being "divided in separate compartments, the principal of which is the fitting, turning, and erecting shop, a noble room, 300 feet long. There is, also, the boiler makers' shop, the smithy (with 22 furnaces), the brass-moulders' and copper smiths' shop, the pattern makers' shop, the cast-iron foundry, the warehouse, the store, and other smaller 'shops'." Naturally, they were equipped with the very latest: "Two large stationary high pressure engines, of 40 horse power each, supply the motive power to the numerous slotting, planing, punching machines, steam hammers, and other mechanical contrivances for assisting the labour of handcraftsmen. These machines are constructed by Whitworth and Naysmith, of Manchester, and Shank, of Johnson, near Glasgow." So fitted, the works were capable of producing up to 40 finished locomotives a year along with all the ironwork necessary for car building, this latter activity being completed at the Grand Trunk's Point St. Charles shops at Montréal.

As already stated, Peto, Brassey, Betts and Jackson did buy some U.S. engines for the Grand Trunk, but to operate a first-class English railway in Canada, first-class English locomotives were needed, and that required a first-class English design. The Crewe-type had already proven itself on the London and North Western's Northern Division and needed no introduction to Thomas Brassey and partners. It was sturdy, it was dependable, it was powerful, and it was adaptable. Acquiring the plans from the railway couldn't have posed any special problem either, for Brassey's association with the London and North Western was still close. So close, in fact, that in March 1854 he asked to have ten locomotives built at the Crewe Works for one of his own lines running into Birkenhead. The company would have obliged him, too, if their own needs were

not so pressing.

As if to reinforce the links between the London and North Western Railway, Peto, Brassey, Betts and Jackson, and the Grand Trunk, the Grand Trunk's first locomotive superintendent was Frederick H. Trevithick, the brother of Francis Trevithick who had perfected the Crewe-type.

The Birkenheads

Paralleling the London and North Western, Peto, Brassey, Betts and Jackson supplied the Grand Trunk with 2-2-2s for passenger work and 2-4-0s for freight, but even though the broader 5-foot 6-inch Canadian gauge offered an opportunity to enlarge upon the improved "long fire box" Crewe-types introduced in 1853, surprisingly few changes were made in the first models beyond widening the gauge, increasing the number of boiler tubes by twenty to 178, and enlarging the cylinder diameter on the 2-4-0s to 16 inches. The "Birkenheads," as the Canada Works engines came to be known, were somewhat heavier as a result, but externally, they differed little from their Crewe-built cousins.

The initial order given to the Canada Works was a mixture of fourteen 2-2-2s and six 2-4-0s, being erected in batches of ten with the first divided equally between the two types. By May 1854, only a year after the ground was broken for the factory, two engines were already completed and steamed up for the first time: the 2-2-2s *Lady Elgin* and *Lord Elgin*. As described in *The Mining Journal*, "The cylinders are 15 inches diameter and 20 inches stroke, with driving and trailing wheels, the [former] 6 feet diameter, and the leading wheels 3 feet 6 inches diameter. The engine [boiler] is tubular, having 178 tubes, each 1-7/8 inch diameter, which is equal to 872 feet of heating surface. In the fire box, the heating surface is equal to 78 superficial feet; making a total of 950 superficial feet of heating surface. The American principal of a 'spark catcher' has been adopted, as the steam will be generated by wood fires, which throw sparks up the chimneys, and which require to be intercepted, so as not to damage or set fire to the forests through which the engines travel. The engine will be able to take 22 or 23 carriages [undoubtedly of the four-wheeled variety] 40 miles an hour."

No mention was made of enclosed cabs, so it may be safe to say that these were added after the engines arrived in Canada.

Shipment of the new locomotives was facilitated by Peto, Brassey, Betts and Jackson's own vessel, the *Ottawa*, which was "employed solely in conveying the locomotive and carriage work across the Atlantic, and," said the *Liverpool Journal* in the spring of 1854, "her 'tween decks are being opened up and fitted so as to give great stowage for such heavy freight. She can lay alongside the [Canada Works] yard, where there is a powerful crane that will hoist her cargoes on board as they are completed."

Compared to the typical U.S. 4-4-0 of the time, the early Birkenheads were rather squat looking and certainly no beauties. As one Boston newspaper remarked in March 1855, "There is now being unloaded

from a Liverpool vessel, at the Boston and Worcester Railroad wharf, three locomotives built in England for the Quebec and Montreal Railroad. They were very novel in their construction, differing very materially from the American machines."

Once fitted-up and checked over at Montréal, many of the Birkenheads found immediate employment on those sections of the Grand Trunk already opened to traffic. The section between Richmond and Lévis was opened, unballasted, on November 1854, by which time the first Birkenheads had arrived. An 1855 Grand Trunk report stated that after ballasting in the spring, the line was "in such good order that the express train has successfully accomplished the distance between Montreal and Lévis, 168 miles, in five hours, for the last two months." With an average speed of 34 miles per hour (including stops), this was exactly the kind of task for which the six 2-2-2s (including the *Lady Elgin* and the *Lord Elgin*) were intended.

As might be expected, experience with the engines in service revealed some major deficiencies. Early on, the four-wheeled tenders proved to be too small and so, starting in 1855, all new 2-4-0s were provided with larger tenders carrying half again as much water. The use of wrought-iron tubes and fire boxes also seems to have caused some trouble, especially during the winter when the track heaved with the frost, a condition for which rigidly-framed engines are unsuited. As the English engineer Charles Hutton Gregory explained to Grand Trunk shareholders in August 1857 regarding the Birkenheads:

"In common with all the other engines, they have wrought-iron fire-boxes. Their tube plates are wrought-iron; those supplied by the Canadian contractors and by some of the American houses being copper. Twenty-nine of them have iron tubes: the engines built in America having either brass or copper tubes. They were built without the 'truck' or 'bogies' in front.

"I greatly prefer fire-boxes and tube-plates of copper, and tubes of brass; but it is right to state that iron fire-boxes, tube-plates, and tubes are frequently used in England, and well thought-of by some engineers of great experience; so that I do not feel that my decided preference for copper and brass would justify a rejection of iron, especially as no specific requirements in regard to such details were to be found in the contracts. The iron tubes gave much trouble during the winter: a circumstance which I ascribe mainly to the absence of 'trucks,' which, experience shows, saves the engines from the effect of the blows given by the permanent way when set by frost.

"These engines were built without 'trucks' under the sanction of the Engineer-in-Chief, and in reference to such sanction I may state that while I soon recognised the value of 'trucks' under the carriages, I felt for some time objections to the use of them under the engines, which were only overruled by the statements of the experience acquired by your officers."

In other respects, Gregory felt that the Birkenheads were superior. "The workmanship, although plain, is more solid. Wrought-iron is used in many parts where the others have cast iron. Their boiler plates and tube

Table B
General specifications for Canada Works locomotives built for the Grand Trunk Railway of Canada, 1854-1864

Type (as rebuilt)	2-2-2 (4-2-2)	2-2-2 (4-4-0)	2-4-0 (4-4-0)	2-4-0 (4-4-0)	4-4-0	4-4-0 ¹
Built	1854-1855	1854-1855	1854-1855	1855-1856	1857	1857 and 1864 ¹
Drivers	72"	72"	60"	60"	60"	60" ¹
Cylinders	15 x 20"	15 x 20"	16 x 20"	16 x 20"	16 x 20"	17 x 22" ¹
Boiler pressure	110-120 lbs.	110-120 lbs.	110-120 lbs.	80-120 lbs.	120 lbs.	110 lbs.
Tubes						
Number, inside dia.	178 @ 1-11/16"	178 @ 1-11/16"	178 @ 1-11/16"	178 @ 1-11/16"	178 @ 1-11/16"	200 @ 1-11/16"
Length	10'-4"	10'-4"	10'-1"	10'-1"	10'-1"	10'-1"
Heating surface						
Tubes	887-903 sq. ft.	887-903 sq. ft.	877 sq. ft.	877 sq. ft.	877 sq. ft.	986 sq. ft.
Fire box	73-76 sq. ft.	67-88 sq. ft.	86-83 sq. ft.	81-93 sq. ft.	83 sq. ft.	89 sq. ft.
Fire bars	14 sq. ft.	13-14 sq. ft.	15 sq. ft.	14-15 sq. ft.	15 sq. ft.	15 sq. ft.
Weight						
Engine	52 864 lbs.	56 560 lbs.	57 344 lbs.	57 344 lbs.	57 344 lbs.	60 032 lbs.
Tender	29 904 lbs.	29 904 lbs.	29 904 lbs.	41 104 lbs.	41 104 lbs.	41 104 lbs.
Total	82 768 lbs.	86 473 lbs.	87 248 lbs.	98 448 lbs.	98 448 lbs.	101 136 lbs.
Water capy, tender	1073 gals.	1073 gals.	1073 gals.	1576 gals.	1576 gals.	1576 gals.
Length, locomotive	41'-9"	41'-9"	41'-9"	43'-10"	43'-10"	43'-10"
1859 assignments						
Eastern Division	3	5	6	2	1	0
Central Division	0	6	0	20	3	4
Total	3	11	6	22	4	4 (+ 4 ¹ = 8)

1. Figures confirmed for the four locomotives built in 1864.

plates average 7/16-inch and 3/4-inch in thickness, while those of the American engines average 5/16-inch and 1/2-inch. I believe that when furnished with 'trucks' they will be found to last longer than the American engines; and the comparison of their working expenses shows no inferiority."

Converting the Birkenheads to "trucked" engines was accomplished with relative ease at the railway's Point St. Charles shops in Montréal simply by removing the leading pair of wheels and fitting a four-wheel truck under the front end in their place. Thus the fourteen 2-2-2s became 4-2-2s, and the twenty-eight 2-4-0s became 4-4-0s. The specifications in Table B reflect these changes.

At the time of Gregory's report there were 42 Birkenheads on Grand Trunk property and the Canada Works had in hand an order for another eight freight engines. However, these eight would be built as 4-4-0s and would be further modified by the elimination of the outside frame from the end of the piston guides back; many of the others were similarly altered in Montréal, especially the 4-4-0s rebuilt from 4-2-2s, with a much improved appearance in consequence. The first four delivered in November 1857 were otherwise identical to the converted 2-4-0s, but the final four, received in December, were given 17 x 22-inch cylinders and enlarged boilers.

Thus, by the end of 1857, there were 50 Birkenheads in service on the Grand Trunk – 14 passenger and 36 freight – representing 25 per cent of the railway's locomotive stock, with 17 assigned to the Eastern Division and 33 to the Central Division. Evidently, they were classified by their colour, red, green or black, but precisely how this applied is unclear; perhaps it was related to cylinder size. A final four were added as late as 1864 to bring the total up to 54.

The last of the Birkenheads

Of course, these were not the only Crewe-types in Canada. The Great Western Railway, which ran between Niagara Falls, Hamilton, and Windsor, acquired almost as many rigidly-framed English locomotives as the Grand

Trunk. The majority were inside-connected 2-4-0s and 0-6-0s, but six were of the Crewe-type, with three 2-2-2s supplied by John Jones of Liverpool and three 2-4-0s from the Canada Works. They were quite similar to the Grand Trunk's Birkenheads but, as the summary presented in Table C indicates, they were not identical. All six were rebuilt at Hamilton as 4-4-0s by 1860; the surplus leading wheels were used to convert the tenders from four to six wheels.

William Hutton Gregory's prediction that the Birkenheads "will be found to last longer than the American engines" did come true. When the Grand Trunk converted to standard gauge between 1872 and 1874, 27 Birkenheads – fully half – were selected for rebuilding. Only five American engines from Gregory's time were so treated. Another two Birkenheads were sold to smaller broad-gauge lines.

Although the Grand Trunk retired the last of its Birkenheads in 1889, one surviving broad gauge engine managed to steam into the twentieth century. She was the Carillon and Grenville Railway's *Ottawa* – the last Birkenhead – first delivered to the Grand Trunk in May 1856 as Number 70, a 2-2-2 assigned to the Eastern Division. While the engine was altered to a 4-2-2 in 1857, she was not rebuilt to a 4-4-0 configuration until the 1860s, being sold to the Carillon and Grenville about 1873. What assured *Ottawa's* survival was the Carillon and Grenville's isolation from the other Canadian railways. Only a short 13-mile line opened in 1854 around a set of rapids on the Ottawa River, it was to have been one component of a longer railway between Montréal and Ottawa, but when the company went bankrupt, nothing further was done. Instead, it became a summer-only connection between river steamers and remained so until 1916 when the Canadian Northern Railway bought the property for its right-of-way. The *Ottawa's* historic value did not go unrecognised, but the big transcontinental, preoccupied with wartime demands and new construction, expressed almost no interest in the veteran's preservation and she was unceremoniously scrapped.

Fortunately, at least two Crewe-types have been preserved elsewhere. The National Railway Museum at York, England, now maintains the Grand Junction 2-2-2 Number 49 *Columbine* of 1845. A Buddicom 2-2-2 survives in France.

And how fared the Canada Works of Birkenhead? So long as Thomas Brassey and his associates pursued contracts in Britain and around the world the works remained active, often building engines of the Crewe-type. Unfortunately, when war in Europe brought about the bankruptcy of Peto and Betts in 1866, locomotive production was significantly curtailed. Thomas Brassey's death in 1870 affected the works further and only a handful of engines were completed after that date. By the time production ceased in 1875, the Canada Works had turned out over 260 locomotives.

Truly, if there was a class of railway engine representing the Canadian railway scene of the 1850s, it was the Birkenhead. ■

Table C Crewe-type locomotives built for the Great Western Railway of Canada, 1855		
Type	2-2-2	2-4-0
Built	1855	1855
Builder	John Jones, Liverpool	Canada Works, Birkenhead
Drivers	72"	60"
Cylinders	15 x 20"	16 x 20"
Tubes		
Number, inside diameter	180 @ 1-13/16"	170 @ 1-11/16"
Length	10'-3"	10'-6"
Heating surface	876 sq. ft.	789 sq. ft.
Water capacity of tender	1452 gals.	1452 gals.
Number acquired	3	3

The Salem and Hillsborough Railroad

After the fire

By David Othen

David Othen is a volunteer trainman on the S&H. This article does not represent the official views of the Salem and Hillsborough Railroad.

Early on the morning of Friday, September 19, 1994, the entire maintenance shops and offices of the Salem and Hillsborough Railroad were destroyed in an enormous fire. Flames leapt several hundred feet into the air and the heat was so intense that the firefighters from four communities had difficulty working close enough to direct their hoses.

After a week of investigation by eight RCMP officers, no official announcement of the cause was made. Circumstantial evidence could lead one to believe that the cause was arson. The main storage building, which was approximately 310 feet by 80 feet by 30 feet high, has entirely disappeared, except for a small corner that collapsed onto a metal-framed coach. The two-and-a-half-storey office and workshop building is now a pile of ashes about six inches deep, covered with twisted metal siding, out of which protrude a few burnt-out shells of motors and other equipment. Salvage and scrapping have been under way since shortly after the fire.

Inside the building were three locomotives:

- No. 29, a 4-4-0 steam locomotive built by the CPR at its shops in Montréal in 1887. A day after the fire, No. 29's moving parts were oiled and it was towed to another storage area. It appears that the bearings are intact and that the control levers can be operated, but all gauges and woodwork will need to be replaced. All of the wooden parts were destroyed and there is a large hole in the floor of the tender. It should be possible to return No. 29 to operating condition, but a complete stripping and rebuild from the wheels up will be needed before there is any chance of her running again, and this will take several years. The engine will be heavily oiled before winter to protect it from further deterioration.
- Alco RS1 No. 208, originally Minneapolis and St. Louis No. 946, and subsequently Cape Breton Development Corporation (Devco) No. 208, which was inside the shops having two cylinder liners changed. This unit was the S&H's main operating diesel. The unit contained both fuel and oil and burnt so intensely that the brass bell melted, leaving only the clapper. The 539 engine exploded, blowing the engine covers off, and presumably the pistons have melted. The steel rails buckled under each of the eight wheels and the steel beams that supported the hoist fell onto the engine and crushed the cab and engine roof. It is a complete write-off and will have to be scrapped where it stands.
- A second RS1, No. 209, formerly Wisconsin Central No. 3260 and Devco No. 209, which was being kept for spare parts, was also completely gutted. The glass in the cab windows melted down over the bell and sander controls. It is hoped that some of the pistons out of the engine assembly will be salvaged to provide parts for the one undamaged diesel, No. 8245.

Also in the shed was an 1887 wooden business car, *Violet*, originally built to carry the Grand Trunk Railway's president on his semi-annual inspection tours. Virtually nothing except the trucks is left. A similar fate was suffered by CPR baggage car 404919 (previously No. 4381), which was undergoing conversion to an open-sided coach. The more modern Canadian National observation car 1065-*Fort Ellis*, that had been renamed *Nauwigewauk* and renumbered 1001, was reduced to a pile of twisted metal and will have to be scrapped. An outside-framed boxcar was completely destroyed and the planking from a flatcar was burnt.

All shop tools, lathes, woodworking, and painting equipment was destroyed, as well as an air compressor, a three-quarter-ton truck, and many historical items that had been retrieved from a series of old sleeping cars. Of course, all the S&H company records, communications equipment, and office supplies were also destroyed.

Alongside the storage shed was Canadian National baggage car 8665 which contained a very large collection of blueprints and drawings of CNR equipment. It was gutted, the roof beams warped, and both sides are bulging outwards. The car will have to be scrapped, although the trucks can be salvaged. Some of the drawings have since been removed, but all have charred edges and were heated enough for the plastic cord surrounding each bundle to soften. Two open-sided box cars which had wooden sides and seats had all the wood burnt off but these cars can probably be repaired eventually.

Steam engine 1009, which was nearing completion of an overhaul, was just outside the shed. It is a 4-6-0 built in 1912 by Montreal Locomotive Works for the CNR. The headlight on the tender shattered and the wiring was charred. The engine has subsequently been steamed and operated successfully.

The only remaining diesel engine is No. 8245, a former Canadian National locomotive and the last of only 11 S12s built (a Canadian modification of the S4 and the last to use the 539 engine). The railway had gathered a large quantity of spare parts for the 539 engine and the ancillary equipment, including many spare batteries, and all of these were lost in the fire. Hence, should No. 8245 experience a breakdown, it will probably take several months to get spare parts and put it back into operation.

The S&H has established three committees – a salvage committee, a design and rebuilding committee, and a fund-raising committee. This third committee has established a building fund, and an international campaign has been launched, aiming for somewhere in the vicinity of \$2.5-million. Donations will be used initially to stabilise the artifacts and then to rebuild the maintenance facilities and purchase replacement equipment. We have received offers of help from many

Continued on Page 10 ➤

1994 Kidsummer visits GO Transit



By Xavier Henry-Cotnam
(Introduction by Calvin Henry-Cotnam)

August 12, 1994, was GO Transit day for Kidsummer. Kidsummer is a programme of daily activities for children in the summer organised by Toronto Life Magazine. This year was the second summer for GO Transit's involvement. For this program, GO Transit provides an extra train that departs from Toronto Union station westbound at about 10:00 a.m. The train travels to the Willowbrook maintenance facility, where it passes through the car wash before returning to the main line to continue further west. It then changes direction and returns express to Union Station around noon. The ten-coach train is outfitted with Operation Lifesaver posters instead of regular advertising and both railway police and GO's enforcement officers are on board to answer questions and promote safety.

My family and I arrived at Union Station at about twenty minutes to ten o'clock aboard GO Train 909. When we got there, there were a lot of people. We saw the CN Police and GO's enforcement officers, along with characters like Hugo the Hippopotamus from Wild Water Kingdom, Barney the Beaver from the TTC, Polkaroo from TV Ontario, and GO Transit's new mascot, GO Bear. We got on the train just after ten o'clock. Our train, "Special 1," was on Track 1 and was made up of cab-car 230, coaches 2219, 2070, 2147, 2418, the wheelchair accessible 2304, 2311, 2402, 2046, and 2228. The train started out being pushed by F59PH 556 and returned being pulled by it.

This year, CN Police were on the train with GO's enforcement officers, while CP Police were there last year. A woman from Kidsummer was on the P.A. with a group of kids to tell us about things we could see from the train, to teach us about safety, and to sing songs and tell jokes. Before we left Union Station, she had to explain how the yellow alarm strips were for emergencies only, because someone had pressed one.

I was able to look inside the driver's cab at Union Station, but new rules don't allow passengers to even sit in the seats across from the cab when the train is

moving. I had my dad's scanner to listen to the crew talk to each other, to Commuter Central, and to Willowbrook yard. Most of the talk was on CN's Channel 1, 161.415 MHz, or on GO's UHF channel, 413.9375 MHz. When we were in Willowbrook yard, there was talk from yard crews on another UHF channel, 419.4375 MHz.

The train travelled west from Union Station, passing SkyDome and the CN Tower. We saw some more GO trains parked at the Bathurst Street yard. At Mimico, we left the main line to enter Willowbrook. As we entered, the train first stopped so that a member of the crew could get out to throw a switch. Then we moved in further and stopped again. Two hostlers got on the cab-car and one of them took over driving the train from the engineer while in the yard. (*Separate personnel must operate trains within the yard.*) We then went through the car wash.

On the way to the wash, we passed a couple of boxcars including one that had one side painted the same colours as GO's coaches. It even had windows like a coach! It is used for emergency simulations. Before we went through the car wash, the hostler that was driving said on the radio that he wanted "water only; no soap," but as we went through, there seemed to be soap with the water. He said again on the radio that this was supposed to be water only.

After getting the train washed, we went back onto the main line at the west end of the yard. We continued west as far as Port Credit, where we stopped and the engineer in the locomotive at the east end of the train started driving us back to Union Station. Last year, we went as far as Oakville West station, but the train arrived back at Union Station well past noon. This year, like last year, our trip back to Union Station was fast and we were back at Union before noon. Kidsummer handed out bags of things like stickers, buttons, and colouring books when we returned to Union Station. ■

Salem and Hillsborough

► Continued from Page 9

businesses and individuals in Atlantic Canada and are hopeful of a strong response from railfans throughout Canada and the U.S. The town of Hillsborough supports the rebuilding of the facilities and on Saturday, September 24, 1994, 175 people attended a pancake breakfast to raise funds.

Donations to the building fund may be sent to the Salem and Hillsborough Railroad, P.O. Box 70, Hillsborough, New Brunswick E0A 1X0. Please indicate if you require a tax receipt. The railway's telephone number is 506 734-3195.

A history of the railway and an equipment list, including a list of the items lost or damaged, is available at \$6.00, including postage and handling, from Pat and David Othen, 2 Beverley Street, Dartmouth, Nova Scotia B2X 2K3. My Internet e-mail address is dothen@shark.stmarys.ca. ■

Research and Reviews



Just A. Ferronut's

Railway Archaeology

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The season is showing as the number of pumpkins on the rural doorsteps and the newly ploughed dark brown fields with their multitude of seagulls become increasingly common. I won't comment on what will follow, but the multi-coloured trees do make it pleasant to wander the countryside at this time of the year.

After my trip to the east that I finished describing last month, I have been doing a little more travelling around the Montréal area of Québec.

Contrecoeur

One show that I didn't hear about until a few days before it closed was an all-summer exhibit at the Maison Lenoblet du Plessis in Contrecoeur. Contrecoeur is a small historic community on the south shore of the St. Lawrence River about halfway between Montréal and Sorel. The Maison Lenoblet du Plessis was the home of a early notary of the area. It even has the remains of a tunnel that was originally constructed for access to the nearby St. Lawrence in the event of a Indian attack. So, amid the setting of a nineteenth-century household, the Société québécoise d'histoire ferroviaire set up their display of photographs and memorabilia from railways of the area, mainly the Quebec, Montreal and Southern Railway.

The Quebec, Montreal and Southern Railway was incorporated in 1906 and was the final pre-Canadian National company that combined the earlier efforts of the East Richelieu Valley Railway, the Great Eastern Railway, the Montreal and Sorel Railway, the Quebec Southern Railway, the South Shore Railway, and the United Counties Railway.

The QM&S extended from near the U.S. border northward along the Richelieu River valley to Sorel, with a line along the south shore of the St. Lawrence that eventually extended from Saint-Lambert (opposite Montréal) northeast to Fortierville (about two-thirds of the way from Montréal to Québec), where it connected with the Lotbinière and Mégantic Railway.

Like many Québec railways, the QM&S and its constituent companies had a history of varied alliances, including being controlled

by the Delaware and Hudson Railway. The D&H had been planning to use the QM&S as part of a third provincial railway system. Of course, this didn't happen, and in 1929 the QM&S became part of the CNR.

The Société québécoise d'histoire ferroviaire's display included a sizable number of working documents and track configurations of the QM&S, including connections with other railways. In addition, photographs of many of the area's stations taken at various times from 1900 to 1994 adorned the walls and displays. This exhibit was rounded out by numerous small artifacts from earlier days of railway operation, including lanterns, order hoops, and other items seen around stations.

Most of the photographs and artifacts of this display were from the collection of G. A. Pelletier, one of the founders of the SQHF.

One extra point about Contrecoeur relates to its station. I wrote about this station in the November 1993 column. At that time, I mentioned that the station was still in its original site and was being used as a youth centre. My visit in late August 1994 revealed that this station is gone! At this point, I have not been able to determine what has happened to it. Was it relocated or has it been destroyed? Hopefully, we can determine and report on its fate.

Trois-Rivières show

Another late summer model show was the "Expo Trains Miniatures 94" held in Trois-Rivières. This show, held at the Université du Québec, was an interesting mid-size show. Not much startling, but well done, with a mix of operating models in several scales along with workshops. The needs of the modellers were supplied by a number of hobby shop sales booths as well as railway collectibles and photographs.

Shawinigan and Garneau

After the Trois-Rivières show, we drove north to Shawinigan and then over to Garneau before heading back to Montréal.

At Shawinigan, both the CN and CP stations are still in existence. These stations are barely a good block apart and both have been designated as federal heritage stations. CP is still using portions of its single-storey red brick station for some of their staff. The CN station, also single-storey, but of yellow brick, has one part used by VIA, and a substantial western portion by the CN pensioners' association. Both buildings are in good condition.

Back in July, I did an article covering the generalities of the lines along the north shore of the St. Lawrence between Montréal and

Québec. I had mentioned that I would try to fill in more details of the various urban areas. Well, I am beginning to understand the existing CP and CN main lines through Shawinigan. However, I am still not certain of all of the details of the trackage of the surrounding area. There have been relocations and abandonments, and in addition to CN and CP, there is the Shawinigan Falls Terminal Railway.

As I mentioned in July, the CP line was constructed by the St. Maurice Valley Railway, and extends north from CP's line in Trois-Rivières along the west bank of the Saint Maurice River for 21.7 miles to Shawinigan and a further 6.2 miles northeast to Grand-Mère. CN's original line was constructed by the Great Northern Railway of Canada and on closer examination appears to have skirted north of Shawinigan, with a 3.8-mile spur, the Shawinigan Subdivision, extending into town from Aldred Junction. Aldred Junction was located 3.6 miles west of Grand-Mère. The Great Northern Railway of Canada and two other companies amalgamated in July 1906 to become the Canadian Northern Quebec Railway. The Canadian Northern 1918 timetable indicates that the southern 1.8 miles of the Shawinigan Subdivision was electrified for use by the Shawinigan Falls Terminal Railway.

Without getting into all of the legal niceties of the inclusion of the Canadian Northern into Canadian National and the impact of the Canadian National-Canadian Pacific Act of 1933 on this area, let's leave it for now that Canadian National had enough control in the 1920s to construct a new 7.9-mile line through Shawinigan that permitted the abandonment of 7.5 miles of the old northern alignment along with 3.59 miles of the Shawinigan Subdivision. This relocated line crossed the CP line three times between Shawinigan and Grand-Mère. The work was completed in November 1929.

From Shawinigan, we drove the 8.9 miles east to CN's medium-sized Garneau Yard. This was, as noted in the July column, the former junction with CN's Saint-Stanislas Subdivision. Again, things have changed in the last few months. The site of VIA's shelter last spring has been reggraded and is now in the process of receiving several new tracks. These tracks appear long enough to be receiving and departure tracks. One oddity is the fencing that was under construction around a portion of the west end of these tracks. With the rumours floating that CN's Lac Saint-Jean Subdivision is a prime candidate

for sale as a short line, one must wonder if these new tracks may be for future interchange purposes.

Following the home-made VIA station signs led us to the yard office at the east end of the yard, where the passenger facilities are presently located in unused office space.

A small world

In last month's column I mentioned my visit with Keith Pratt on Prince Edward Island and his showing of a videotape of the two-foot-gauge railways in New England and in particular a 1939 trip on the Bridgton and Harrison Railroad. While at the library recently looking for some material on Montréal's Victoria Bridge, what did I find but a 1940 article in *Canadian National Magazine* by Keith on his trip. Then, a couple of weeks ago at our regular Tuesday lunch, both Ron Ritchie and Doug Brown mentioned that they were at the same 1939 gathering on the Bridgton and Harrison in Maine. Small world, eh?

Belleville christmas card

I picked up a copy of the Belleville *Intelligencer* the other day. While skimming through it, what did I spot but a sketch of CNR 4-8-4 Northern 6218 at speed. The caption reads that this pen and ink sketch adorned the City of Belleville's 1972 Christmas card to commemorate the retirement of 6218 on July 4, 1971, as the last operating steam engine in Belleville. The card listed the mayor and the ten alderpeople who just circled their name to indicate from whom the card had come.

CN family day at Taschereau Yard

Thanksgiving Day was the date picked for CN's 1994 family days. This is one day that the bosses can be truly accused of feeding their staff baloney (in the form of hot dogs)! The weather was mostly sunny, but a bit cool, as many of CN's staff took the chance to see numerous aspects of the railway that they may not see during their normal work.

Shuttle passenger trains from Central Station were supplied for those who wanted a train ride to and from Taschereau Yard. I understand there were three train-sets used. CN GP9s 7017 and 7019 were the power on one train. The coaches were a mix of Deux Montages commuter cars, mostly in blue and yellow, although a couple of white-and-blacks were included. Shuttle buses moved people around the yard. Considerable work had been undertaken, not only on the various displays, but also to arrange games and activities for the kids. And yes, the various senior officers of the company did man a number of booths serving hot dogs and drinks to the kids and the not-so-young.

Grand Trunk Western 2-6-0 Mogul 713 was brought up from Delson and placed nose to nose with CN Dash 8-40CM 2440. GTW

713 was equipped with a steam line to provide some fake smoke, and both engines were set up for walk-through inspections. A pair of freight units (9500-series GP40-2s) ran back and forth on the tracks south of the diesel shops to provide cab rides to those interested.

Many of the railway departments had displays highlighting their contribution to today's railway. The track and work-equipment people had an extensive display of high-rail vehicles, including electronic track testing equipment and cranes, and other items such as pre-fabricated track panels. Perhaps a rarity today, to show how things are changing, was a caboose, set up for a walk-through. The safety groups were represented with safety displays by CN police and emergency response units. Another car set up for a walk-through that drew many comments was a dining service car of the type still used at derailments or other activities requiring a supply of many meals for the workers.

The influx of electronic and mechanised equipment that was on display provided an ample chance to see how railroading has changed over the last 50 or 60 years. This type of event proves that all on the railways is not doom and gloom as many would like us to believe. See you next month.

Books

Transit in Calgary

In 1994, the City of Calgary marks the centennial of its founding, and *Calgary Transit: Then and Now* highlights the important role played by urban transit in the growth of the city from its population in 1894 of 4000 people to today's population of 727 000.

The author, D.M. Bain, notes that local historians have overlooked the transit system as a keystone of growth in Calgary, and that this is unfortunate, as Calgary has the distinction of being the only city in the world where streetcars have superseded buses twice.

The city's streetcars gave way to trolley coaches and buses from 1946 to 1950, but the original streetcars had taken over from a privately-run and not very successful bus operation in 1909. Later, Calgary Transit's C-Train light rail operation replaced a number of important bus services when it opened in 1981.

The book examines in some detail the Calgary Municipal Railway streetcar system and includes information on the rail, trolley coach, and bus systems that have operated in the city from 1931 to the present.

The book includes a large number of well-reproduced black and white photographs supplemented by full colour shots on the front and rear covers. The photographs cover a range of subjects from equipment views to system maintenance to major events on the

system. They come from a number of sources including Calgary Transit, the City of Calgary, the Glenbow Archives, and private collections.

Included are shots of some of the rarities operated by Calgary Transit over the years, including a Robin-Nodwell "Econo-Bus" and one of three Daimler-Duple Roadliners from 1965. Demonstrator buses such as the M.A.N., Volvo, and New Flyer articulated buses are also illustrated.

A detailed roster of the city's transit fleet from 1909 to the present is included at the back of the book. The roster information includes not only the usual information, but also dates of withdrawal and disposal information, where known. The roster includes the 50 most recently delivered low-floor buses from New Flyer in 1993. In addition, a photograph of a natural-gas-powered demonstrator bus, delivered to the system just as the book went to press, is included.

The book is available from local bookstores and hobby shops or directly from Kishorn Publications. The author is known for his work with the British Railway Modellers of North America series of railway picture books, and this publication follows the same format. The book is of excellent quality and a most worthwhile addition to your library shelf.

Calgary Transit: Then and Now, by D. M. Bain. Published by Kishorn Publications, Calgary, 1994. Softbound, 68 pages, \$15.00 plus \$2.00 postage; add GST for Canadian orders. Kishorn Publications, 5124 33 Street N.W., Calgary, Alberta T2L 1V4.

—David Onodera, in *CTHF Bulletin*

Montréal railway stations

You may recall that back in July 1993 I mentioned that Mike Leduc, one of our Montréal lunch crowd, was working on a book about stations that have existed along the railway lines on Montréal Island of the companies that now form Canadian National. Mike, an avid historian of the Québec railway scene, has finished his book, *Montréal Island Railway Stations: CN and Constituent Companies*, and has published it himself.

The book is aimed mainly at the historian interested in understanding the relationship between and technical information on the 124 railway stations and station names that have existed at 89 different locations along the CN family of lines on Montréal Island. This is not a coffee-table book, but it does have several photos and a number of plates of track layouts and maps. Mike has provided an interesting layman's introduction that briefly outlines the history of Montréal and its railways, followed by a few pages that provide a good basic insight into how a railway station fits into a railway's operation. Then it is into the hard facts of the stations.

This portion of the book has been subdivided into six main lines, with the stations grouped as they existed along these routes.

The book closes with a series of tables that provide a comparison of the changing mileages of the stations over the years. This section also has an alphabetical list of the stations and a good bibliography for those who may want to do some extra digging.

I would have to recommend the book to anyone interested in the history of railways and their stations on Montréal Island. To some, there may be a couple of extra reasons for purchasing a copy of this book. First, Mike and his associates are seriously discussing a companion book, in the same format as this one, to cover the CP family of stations on Montréal Island. Secondly, as Mike published this book himself, it was a limited press run of 500 copies.

Montréal Island Railway Stations: CN and Constituent Companies, by Michael Leduc. Published by Michael Leduc, 1994. Soft-bound, 98 pages, \$15.50, shipping and handling included; for orders to the U.S., pay in U.S. funds. Michael Leduc, 57 Roosevelt Drive, Dollard des Ormeaux (Québec) H9G 1J1.

—Art Clowes

Information Network

Information Network item numbers

Beginning this month, each topic of discussion in this section is designated with an item number. Replies and further comments will be carried under the same number as the original question or message. By my count, we have discussed 40 subjects in the Information Network since it first appeared in January 1993. My thanks to the curious and the knowledgeable who are educating all of us. —PS

Item 41

Leaside station restaurant

Question from: **Ray Corley**

I am looking for the numbers, and the on-site positions, of the rolling stock that was used at the Village Station restaurant, operated by CP Hotels in the former Leaside station, between 1975 and 1983.

Item 42

Baggage carts

Question from: **Pat Scrimgeour**

I would like to know more about the history of VIA's oldest equipment still in everyday use. I speak here of the baggage carts, now painted blue and yellow, that are used to load and unload checked baggage at major stations. The carts are wooden platforms, with stakes at the ends, riding on steel-and-wood wheels. At the most important stations, they are sometimes hauled by small tractors. I realise that the story may be the same as

the axe that has been in the family for four generations — it's had seven handles and three heads, but it's still the same axe — but I wonder how old these carts are. Have any been built recently, or are the surviving carts just relocated to the surviving stations as the passenger-train network shrinks?

Reply to Item 39 (August 1994)

Railway line in Madoc

Reply from: **Art Clowes**

Information from: **Ray Corley, David Ray Smith**

The 8½ mile line between Madoc (Bridgewater Junction) and Actinolite (Bridgewater), about 40 km north of Belleville and Trenton, was built, or at least started, by the Toronto and Ottawa Railway. Some comments about this trackage appeared in the July 1990 *Ferrophiliac Column*.

The Toronto and Ottawa Railway Company was incorporated on March 2, 1877. It was the follow-up company to an earlier one with very ambitious plans. That earlier company was called the Huron and Quebec Railway Company and was incorporated on March 24, 1874. The Huron and Quebec had, as its name implies, planned to construct a line from Goderich through Huron, Perth, Wellington, Simcoe, York, Ontario, Victoria, Durham, and Peterborough Counties to connect with the Ontario and Quebec Railway. The Huron and Quebec also had authority to construct branches to Sarnia, Fergus, Elora, Guelph, and Toronto.

The mining activities in the Madoc and Actinolite areas were no doubt an extra plum for the railways, but since the Huron and Quebec didn't get out of the starting gate, the company was re-organised, renamed, and re-incorporated as the Toronto and Ottawa. The new company had reduced its horizons to the point where it was authorised to construct a line between the cities in its name via Peterborough.

The Toronto and Ottawa barely broke ground in its effort to connect the provincial with the national capital. They were responsible for building only 29.64 miles of railway. Not all of this distance had been completed before the railway was taken over by the Midland Railway of Canada in 1882. Besides the 8.75 miles from Bridgewater to Bridgewater Junction, the Toronto and Ottawa started the 6.38 miles between Blackwater Junction and Manilla Junction and the 14.51 miles between Peterborough and Omeme Junction.

With the help of Ray Corley and the few records I had, we concluded that there is doubt as to whether the east end of this T&O line was ever completed and operated. Just east of where the later Bay of Quinte line from Yarker, via Tweed and Bridgewater, to Bannockburn, crossed the T&O on the west bank of the Skootamatta River, there was a

smelter. While Ray considered that a pair of bridge abutments just north of the Highway 7 bridge over the Skootamatta River were probably part of the T&O, he could find no confirmation as to whether the railway ever got east of the smelter.

The right-of-way from Madoc eastward for about four and a half miles is south of Highway 7, and parts are now occupied by a pole line and a small part is used for a roadway. From the 4½-mile mark east to about the old Bay of Quinte line, the T&O right-of-way is now occupied by Highway 7.

The records indicate that the line from Madoc to the west end of Actinolite was opened on July 1, 1882, but we do not yet know whether the east end into Actinolite was actually put into operation. The line was operated for only 11 or 12 years, and operations had ceased by 1894. A railway inventory dated June 30, 1897, implies that the line was still in place but not operated.

Since the T&O was abandoned somewhere between 1894 and 1897, there could not have been any physical connection to the Bay of Quinte Railway, since its line through Actinolite did not open until December 12, 1903. The Bay of Quinte line through Actinolite lasted until July 29, 1935.

Bridgewater Junction, in Madoc, was about half a mile south of the old Madoc station on the Belleville and North Hastings Railway's line, which extended from Madoc Junction through Madoc to Eldorado. This line was opened in 1878 and was abandoned north of the north end of Madoc in February 1893, but the rails were not removed until November 1913. The Bridgewater Junction switch was south of Seymour Street in Madoc, with the line north of that street as it extended eastward. Signs of this line existed in 1990, and, if my memory serves me correctly, the roadbed did extend through a ball park or school ground, as Julian Bernard suggested.

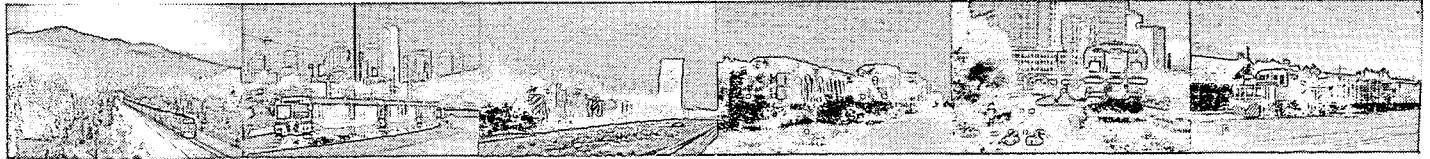
Comments on Item 39 (August 1994)

Railway line in Madoc

Message from: **Julian Bernard**

The reason behind my interest, other than a long-held fascination with the Bay of Quinte Railway, is that my daughter has recently bought an 8½-acre parcel of land on the north side of Highway 7 at Highway 37. At the west end of her property she has some frontage on the Skootamatta River. It was while exploring the area that evidence of the Toronto and Ottawa began to come to light, and the additional information will inevitably lead to further exploration.

The smelter, which neither of us knew about, must have been just behind the present West Wind Motel. The bridge abutments at the river on the north side of Highway 7 are still there.



THE RAPIDO



EASTERN CANADA

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CP RAIL SYSTEM

IRON HIGHWAY COMING

CSX Intermodal and CP have announced a joint testing and marketing agreement for a new intermodal system known as the Iron Highway. The system uses new technology and equipment to provide a short-haul intermodal service of between 300 to 700 miles, markets which are not now effectively served by railways. It consists of a continuous platform that separates in the middle and forms ramps for highway trailers to be loaded or unloaded. This allows intermodal opportunities in locations that do not currently support loading and unloading facilities.

Under the agreement, CP will market and test for six months two Iron Highway trains in the Montréal-Toronto corridor. CSX will test two platforms between Chicago and Detroit. These markets may be linked into a larger Iron Highway network in the future.

During this first test phase, four non-powered Iron Highway platforms will be made up into two trains, and will be pulled by conventional locomotives. Future plans call for each train to be equipped with its own power unit at each end. The test phase is expected to begin in the spring of 1995.

ROUNDHOUSE FIRE

A fire in CP's Sudbury roundhouse caused \$500 000 in damage on the evening of September 19. The Ontario Fire Marshal's office is investigating the blaze, which took more than two hours for firefighters to bring under control. There were no locomotives inside the roundhouse. The building was being used by maintenance crews, and contained track work equipment and vehicles, some of which were damaged. The remains of the structure will likely be demolished.

—Sudbury Star

HH-US STRIKE UPDATE

U.S. President Clinton established a presidential emergency board on August 29 to investigate the contract dispute between CP Rail

System's Heavy Haul-US division and the United Transportation Union. During this investigation, workers were required to return to work while the board made its recommendations. This was to be completed by September 28, and was to be followed by a 30-day cooling-off period in which the parties could work out a settlement based on the recommendations. UTU workers could then resume their strike if no agreement was reached. The cooling-off period was later extended, with the agreement of both parties, to February 28, 1995.

The board released its report early in October, which recommended that UTU workers receive wages consistent with UTU members on other major U.S. railways. The board also recommended that the size of all train crews be reduced, which was the issue that prompted the strike. The board urged the union and railway to negotiate a new contract based on its "manifestly reasonable" recommendations, none of which are binding.

If no new agreement is reached by February, the company is free to impose new wage and work rules and the union is free to resume its strike.

CREW CALL CENTRE OPENED

CP opened its new \$8-million computerised Crew Management Centre in Montréal on September 28. The centre currently dispatches one-third of CP's Canadian train and yard crews, and tabulates their pay. When it is fully operational by early 1996, it will have replaced, with 106 people, the present 24 crew calling bureaus across the country, which now employ 185 workers.

The new system replaces paper "trip tickets" that crews filled out at the end of each run and sent to Toronto. Each year, the Toronto payroll office processed more than 1.5 million of these forms. Now, crews can access a data base through a computer at their yard office, or by touch-tone telephone and a toll-free number. Crews enter details into this data base, which then calculates their pay.

—Montréal Gazette

WINDSOR WATERFRONT LAND DEAL

CP and the City of Windsor are negotiating a land swap. CP would give to the city its riverfront property, and would receive in exchange a parcel of land in Windsor's core that could be developed. CP's land stretches between Caron and Crawford avenues, and was used for the Detroit-Windsor barge service (see June *Rail and Transit*). CN reached a similar deal last year for its unused waterfront land.

—Windsor Star

INTERMODAL REPORTING MARKS

As a result of the integration of the D&H, Soo, and CP under the CPRS name, intermodal equipment is being organised system-wide. The following are the reporting marks for CPRS's containers, trailers, and truck chassis:

CPPU — Canadian domestic containers
 CPPZ — Canadian domestic trailers and chassis
 CPDU — D&H containers
 CPDZ — D&H trailers and chassis
 CPBU — Soo containers
 CPBZ — Soo trailers and chassis
 SOOZ — Soo FreeRunner intermodal cars

CN NORTH AMERICA

MERGER REACTION

Reaction has been less-than-optimistic to CP's offer to purchase CN's operations east of Winnipeg and Chicago. A government task force was rapidly assembled after the offer was made, to study the "commercialisation" of CN. The parliamentary task force will consider all options for CN, including CP's proposal, and will present its report on December 31, 1994, which is after the December 22 deadline on CP's offer.

The purchase offer was made by CP after failed attempts by the two railways to agree on a merger of operations in the east. The two companies did agree that only one railway can remain in the east. Thirty years ago, railways handled 70 percent of freight traffic in eastern Canada, but this has shrunk to only 30 percent in recent years.

Government and labour concerns about the merger include the loss of jobs in the consolidated eastern operation, and the fear that CP will move container traffic to its east-coast U.S. ports, rather than maintain business in Halifax. The financial sector does not seem worried about the proposal. The Canadian Bond Rating Service predicted that the takeover would have a positive impact on the railway business. The agency reaffirmed its credit rating for CP after conducting a preliminary analysis of the bid.

Included in the offer is a renewable 20-year access agreement under which CP would move CN freight between Western Canada and a 30-mile radius of Toronto or Montréal, at cost. All of this traffic would be interchanged in Winnipeg. This does not, however, cover existing CN traffic originating and terminating in the east, which worries shippers. Traffic outside of Toronto or Montréal would need to be "interchanged" to a short-line operator or to CP for the remainder of

the trip. Auto production plants at Oakville and Oshawa would be included in the 30-mile radius of Toronto. After every five years, the fees charged by CP would be renegotiated.

If the proposal is accepted, CP plans to sell or abandon some CN mainline track, including Thunder Bay-Sudbury in Ontario, and Moncton-Saint-André Junction in eastern Canada. CP plans to offer employment to all CN employees involved in train operations, and then reduce the combined workforce over the following three to four years. By the year 2000, the workforce in the east would be 16 500, 2500 fewer workers than the expected level at the end of 1995. CP's purchase price would cover employment security payments to CN workers laid off prior to the acquisition.

CN would retain its own track between Winnipeg and Thunder Bay for grain shipments. CP would acquire a portion of CN's motive power, freight car, and intermodal fleets. The offer does not include any non-rail businesses, such as real estate.

The offer is open for 90 days, and is subject to government approval, including a request that an expedited process be established to obtain approval. Whatever the government's decision on the merger offer, it is proceeding with plans to introduce legislative initiatives starting next spring to help revive the rail industry.

—Financial Post, CP Wire, Toronto Star, Montréal Gazette, Journal of Commerce, and Globe & Mail via Doug Page and Rex Rundle

LACHINE CANAL BRIDGE WORK

Dismantling of CN's Saint-Henri bridge, carrying its Montréal Subdivision over the remains of the Lachine Canal at Mile 2.86, and replacing it with a new five-span bridge, required the line to be closed on October 15 and 16, and until 10:00 on October 17. The bridge was also restricted to one track on October 14 in preparation for the closure.

The work consisted of the removal of the existing through-truss bridge (formerly a swing bridge), and replacement with five new through-deck-plate-girder spans on each track. Piles and concrete caps were installed ahead of time. The least amount of dismemberment was done to the truss bridge, as it is being stored for possible future use.

During the track closure, VIA trains from Ottawa and Toronto ended at Dorval, and passengers were carried by bus between Dorval and Central Station. VIA trains were turned and serviced at CN's Taschereau Yard.

CN freight trains were detoured over a number of routes. High-priority trains for the east, including Trains 132, 206, 208, 306, 308, 310, 312, and 314 followed the CP via Trois-Rivières and Québec, and their west-bound counterparts used the CN north shore

route from Québec via Hervey-Jonction. Slower trains for the east, including Trains 362, 363, 402, 448, 500, and 545, were diverted via the CP through Delson and the CN Massena Spur and Rouses Point Sub. between Delson and Cannon Jct. Trains 323 and 324 (Montréal-Palmer, Massachusetts) were rerouted over CP to Rouses Point, New York. Trains 393 and 394 (Montréal-Island Pond, Vermont) were detoured over CP to Lennoxville. Most trains were transferred to CP at the Parsley interchange between CN's Taschereau and CP's Saint-Luc yards, but through trains which did not need to stop in Montréal were interchanged at Dorval.

There was no change to VIA trains to and from the east of Montréal, and no change to CN freight trains to and from the west of Montréal, as they were unaffected by the bridge replacement.

CENTRAL VERMONT UPDATE

The battle continues over RailTex's attempt to purchase the Central Vermont Railway from CN. RailTex has been meeting with union officials and politicians, in an attempt to resolve issues around the purchase of the line. The U.S. Interstate Commerce Commission is currently reviewing the proposal.

Instead of no severance packages or six-year severance packages, which are both possibilities under existing U.S. legislation, RailTex has proposed a "job continuation programme." This would give displaced CV workers half-pay, full benefits, and the first right to jobs on other RailTex lines.

RailTex has also applied for an exemption from U.S. labour legislation so that a non-railway company (as RailTex considers itself) could acquire the assets of an existing railway, and would not have to honour existing union agreements.

If the ICC approves the purchase, RailTex will call the operation the New England Central Railroad. RailTex said it is committed to the continued operation of Amtrak service over the line to Montréal. A decision was expected from the ICC on October 28.

—Journal of Commerce

DERAILMENT

Grand Trunk Western freight train 421 derailed seven of its 99 cars at Flint, Michigan, on October 1. The accident occurred at the east end of the Flint Yard. Amtrak was forced to terminate Train 365 at Port Huron and Train 364 at Durand, and bus passengers between these points.

—Al Turner

TUNNEL UPDATE

Excalibore, the tunnel boring machine making its way from Sarnia to Port Huron, has started working again and is making up for lost time. The monster mole is improving its production weekly. It crossed the half-way point on October 20 when it placed ring

number 632 of 1230 precast steel reinforcing rings lining the tunnel. On October 18, the machine completed 18 rings, advancing 27 metres in 24 hours. That week, the machine completed a total of 83 rings, or 125 metres, in six days. The week before that, 73 rings (110 metres) were completed. Engineers on the project say that there is room for even better production rates, and despite being shut down for several months, break-through in Port Huron is expected before December 31. The first train is scheduled to operate through the tunnel on March 31, 1995.

VOTE TO STRIKE

A strike vote was held in September by CN's largest union, the Canadian Auto Workers, and the results were 85 percent in favour of a walkout. This latest vote was held by 5000 clerical and 6500 shopcraft workers. Carmen on the railway voted last December in favour of strike action. The 11 500 workers could walk out shortly after a federal conciliator submits a report to the government. The dispute centres around the railway's attempt to eliminate the employment security clause in the contract that guarantees full salary to workers with eight years, if they are laid off. In Atlantic Canada, where there have been many cuts, there was a 90-percent strike authorization.

—Canadian Press

POLICE IN A PICKLE

Police are puzzled over the pilferage of 65 cases of Heinz pickles from a CN boxcar. The pickles were progressing to their destination at a storage facility at the Heinz plant in Leamington from another plant in Holland, Michigan. The pilfering was performed in the proximity of Tilbury and has prompted a probe by a CN police constable. A possibility does exist that this incident is linked to a case last August when six youths were caught breaking jars of Heinz pickles in a boxcar. A Heinz official said the street value of the pickles would be around \$1300, give or take a few hundred.

—Windsor Star

VIA RAIL CANADA

JOB CUTS

VIA announced an extensive elimination of jobs, both in management and unionised ranks, on October 13. Of the job cuts, 243 management positions were eliminated immediately, 90-day notices were given for 65 clerical positions and 25 telephone sales office (TSO) positions, 14-day notices were given to 130 maintenance centre employees, and 15 more positions will be eliminated on December 1, for a total reduction of 478 positions.

VIA is examining whether the lifetime employment security provisions in its labour contracts apply to these reductions. In the collective agreement, workers with more than

eight years of service are entitled to full pay and benefits if the company lays them off because of technological, operational, or organisational changes. The provision does not apply if economic factors beyond the railway's control, such as a decline in passenger traffic, lead to job cuts.

VIA claims the reason for the cuts is a drop in operating subsidies from Ottawa, and that this qualifies as economic change, so the railway does not have to pay those workers the benefits and salaries for life. The Canadian Auto Workers union disagrees with VIA's argument, and has lodged a grievance. If the job reductions do fall under the lifetime job security provisions, it would affect 80 percent of the 235 unionised positions that were eliminated.

In 1989, when VIA was receiving \$680-million each year in federal subsidies, it had 7400 employees. After the current cuts, employment would be reduced to 3755. These cuts, says VIA, are a necessary step in the carrier's attempt to meet the government's target of a reduced annual subsidy of \$233-million by 1996-97. These job cuts will save \$163-million over the next four years. Non-unionised workers were given a severance package, which will cost VIA a total of \$14-million, but neither side would reveal any of its contents.

The elimination of jobs is as follows:

Job reductions by location

CITY	MGMT	UNION	TSO	MTCE	TOTAL
Halifax	9	2	-	20	31
Moncton	3	-	8	-	11
Montréal	172	36	4	61	273
Toronto	38	14	13	35	100
Winnipeg	12	9	-	4	25
Vancouver	9	4	-	25	38
TOTAL	243	65	25	145	478

In Moncton, a union spokesman said a grievance was being filed because VIA's practice of allowing travel agents access to the reservations computer was a form of contracting out work. Another grievance is being filed on behalf of workers who received only 14-day notices instead of 90-day notices for their job losses.

The cuts are being called lay-offs, but a VIA spokesperson said it is very unlikely any of the affected employees will be called back to work. Montréal was the hardest hit, with 273 positions lost at VIA's headquarters. Nearly 45 percent of the remaining VIA jobs nationwide are still in Québec.

—Various news sources via Tom Box, Dave Stremes and Rex Rundle

MARITIME NEWS

VIA has confirmed that it will maintain a bus service between Saint John and Moncton. The present service between the cities is the Montréal-Halifax *Atlantic*, which will be discontinued in December because of the sale of

CP Rail's Canadian Atlantic Railway, over which the *Atlantic* travels. An RDC service had been considered, but a bus service was estimated to cost one-quarter of the \$1-million annually it would cost to operate the RDC.

The last *Atlantics* will depart from Montréal and Halifax on December 15. The Canadian Auto Workers union has filed a number of grievances related to the cancellation of the service. The union claims that three workers have been excluded from employment security. The union is also claiming that VIA did not provide 90 days notice as required in their collective agreement. There are nine part-time station jobs that will be eliminated.

Starting December 17, the *Ocean* will operate six days a week and will be combined with the *Chaleur* between Montréal and Matapédia, Québec, on days the *Chaleur* operates. The *Chaleur's* arrival and departure times in Gaspé will remain largely the same, but the days of operation will change, and the train will arrive at and depart from Gaspé within a few hours, eliminating the long lay-over. Previously, the train laid-over one or two nights in Gaspé before making the return trip. This will also reduce the costs by reducing the number of crews needed to run the *Chaleur*.

—Financial Post, Le Soleil

GO TRANSIT

ACCESSIBLE TRAIN SERVICE

By early next year, GO Transit will have completed the first phase of making its train service accessible to physically-disabled passengers. The first stations to be fitted with elevators and ramps will be the busy terminal stations at Oakville, Pickering, and Union Station in Toronto. The initial target of September 1994 for completing the work was delayed because elevator construction at Union Station was halted due to supplier problems.

When accessible service commences, disabled passengers will be able to board trains using a portable bridge placed by a train crew member between the fifth car of every train (which will always be an accessible 2300-series car) and a special raised mini-platform with ramps and railings at each end. Construction of these mini-platforms at accessible stations has already begun. The use of the bridges will commence before all elevators are completed, permitting level access to trains for all passengers.

The accessible cars will be marked by distinctive exterior signs. All 2300-series cars have already been fitted with flip-up seats throughout the lower level. When raised, the flip-up seats provide space and tie-down straps for passengers using wheelchairs. These seats can be folded down for use by

able-bodied passengers at other times.

The programme of opening GO service up to disabled passengers is a \$16-million four-year effort. In addition to the mini-platforms, changes will include: installation or upgrade of elevators at stations, making washroom and ticket sales booths accessible, and the installation of platform and tunnel intercoms. By the fall of 1995, up to 27 stations will offer accessible service.

—GO Transit

OTHER NEWS

CSXT ABANDONMENT APPEAL

Two Ontario grain shippers have filed an appeal with the Federal Court of Canada to overturn an NTA abandonment approval of 34 miles of CSX Transportation's Blenheim Subdivision in Ontario. CSXT was granted permission on September 22 to abandon its track between Ruthven and Blenheim. The shippers, who move corn, wheat and soybeans, claimed their carloadings increased this year and this was not taken into consideration in the NTA's decision. Without the railway service, the shippers say they will lose the ability to ship to distant markets. CSXT will maintain service on the line pending the court's decision.

—Journal of Commerce

HULL, CHELSEA AND WAKEFIELD

The Hull, Chelsea and Wakefield steam tourist train ended for the 1994 season during the last weekend of October. The schedule of excursions published earlier this year called for additional operations through the winter, but these trips will now not be run. The early shutdown was a change from previous plans, but operations between Hull and Wakefield are expected to resume on schedule in the spring of 1995.

—Ted Wickson

NORTHLANDER COLLISION

The Ontario Northland *Northlander* was struck by a tractor-trailer at a crossing north of New Liskeard around noon on October 7. The truck hit the train in the first car behind the locomotive, derailing that car. The truck driver suffered non-life-threatening injuries and no one on the train was injured. The accident closed Highway 11.

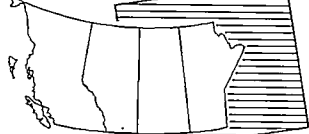
W&H OFFICIAL OPENING

The newest railway in the Annapolis Valley in Nova Scotia, the Windsor and Hantsport, held its opening ceremonies on October 1. About 150 people turned out for the event held on the 100th anniversary of the founding of the Dominion Atlantic Railway.

The new railway has eight locomotives, 76 cars, and employs 17 people, many of them former DAR employees. Its three major customers are Fundy Gypsum Company, which accounts for about 90 percent of the freight on the line, Co-Op Atlantic in New Minas, and Hostess Frito-Lay.

—Halifax Daily News

THE PANORAMA



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BRITISH COLUMBIA RAILWAY

STEAM OPERATION WITH 3716

The overhaul of BC Rail's former CPR 2-8-0 3716 has been completed. The locomotive was at the Southern Railway of British Columbia shops on September 6 and 7 for wheel truing; the SRY shop is one of the few with wheel-turning equipment in the Lower Mainland. On September 13, 3716 had a partially-successful test run, planned to go as far as Pemberton. It departed North Vancouver at 07:50, pulling NRHS cars 301, 803, 741, and *Mount Cascade*. The train got only as far as Mons, where it could not maintain enough steam pressure to handle the grade. It returned to North Van at 23:00. On September 22, it completed a successful test trip from North Vancouver to Squamish and back, pulling a different short freight train on each leg of the trip.

The next trip by 3716 will be a snow-season excursion to Pemberton and back on February 19, 1995. This trip, sponsored by the local chapter of the NRHS, will leave at 07:10 and take 13 cars to Squamish, drop eight of them there, and take the remaining five cars to Pemberton. For information and reservations, call Discover B.C. at 1-800-663-6000. • BC Rail has acquired a second tender for 3716, from a 2-8-4 Berkshire locomotive in the U.S. • BCR 2860 was to be used for private excursions to Squamish on October 6, 10, and 15.

—Hugh Fraser, Dave Wilkie, *The Sandhouse*

TOWNS WANT BCR TO PAY TAXES

In 1926, the British Columbia legislature exempted the Pacific Great Eastern, predecessor of BC Rail, from paying property taxes, in the interest of continuing B.C.'s economic development. "This may have been justified in 1926 when it was started, but now we are unwillingly subsidising the railroad," said Steven Thorlakson, the mayor of Fort St. John. He said BCR owns 540 acres in his town, blocking development and preventing creation of a new tax base. Critics charge that cities and towns lose about \$5-million in property taxes each year while BCR rakes in a yearly profit of \$50-million.

"BC Rail is one of only two crown corporations, the other being BC Hydro, that make

any money," said an official in the province's ministry of finance. "That's why it's easy to take a shot at them."

BCR sees itself as being caught in the middle of a battle between the province and municipal governments. "We're a child of the provincial government," said Barrie Wall, a BCR spokesman. "We're publicly owned and we didn't make a decision to be exempt from property taxes — the Legislature did." BCR inherited generous land rights granted to its predecessors at a time when land had little value, the finance ministry source said. "Now, land in places that were once whistle stops is in the middle of cities, and it's worth a lot of money."

—Knight-Ridder/Tribune Business and Market News

BC TRANSIT COMMUTERRAIL

EQUIPMENT AND CROSSINGS

The British Columbia government has announced a contract with Bombardier to build 28 cars for the Vancouver–Mission CommuterRail service. Bombardier has reciprocated with a promise to spend up to \$66-million in B.C. on goods, services, and other investments, including \$28.5-million within two years. Until the new cars arrive in 1996, BC Transit will lease surplus double-deck cars from GO Transit.

According to staff at BC Transit's CommuterRail offices, getting passengers safely to their destinations is a whole other project. It involves discussion with groups that will be affected when the 135 km/h (84 m.p.h.) trains appear on what has been a route for slower freight trains. CommuterRail general manager Lecia Stewart said the trains must cross roads at 43 level crossings, and major stakeholders such as Vancouver Port Corporation want assurances that the new trains won't create unreasonable delays for truck traffic which must cross railway lines going to and from the port. Stewart said freight trains already use the route, "But as you can imagine, it doesn't present the same level of anxiety that a train moving through at perhaps 127 km/h (79 m.p.h.) will." Discussions are focusing on minimising delays arising from the new service, safety of other vehicles, and which crossings should have gates, in addition to the automatic crossing protection.

—Vancouver Sun

CN NORTH AMERICA

ACCIDENTS

Two people riding in a garbage truck were killed on Thursday, September 22, when a train struck the truck at a level crossing. The crash occurred at the CN main line through Fort Langley, B.C., where the line is double-tracked.

Several cars derailed from a CN train outside Lynn Lake in northern Manitoba on

Tuesday, September 20. CN officials said ten cars came off the tracks. Seven were empty coal ore cars, and the three others were carrying gasoline and diesel fuel, but there was no word whether there were any fuel leaks.

—Canadian Press

ABANDONMENT

CN was granted permission by an NTA order on September 26 to abandon on October 26 the operation of 9.6 miles at the south end of its Imperial Subdivision in Saskatchewan. This authority is for the abandonment of operations from Mile 50.6, near Holdfast, to Mile 60.2, near Dilke.

OTHER NEWS

SOUTHERN RAILWAY SOLD

The Southern Railway of British Columbia has been bought by an Alberta company controlled by Dennis Washington, of Missoula, Montana. Washington also owns Montana Rail Link, and bought Cates Towing of North Vancouver last year. Southern Railway is the remaining freight operation of the British Columbia Electric Railway, later known as the B.C. Hydro Railway. A crown corporation, it was sold by the province to Irel Rail Corp. of San Francisco in 1986. SRY has 170 employees in B.C. and had revenues last year of \$18-million.

—Victoria Times-Colonist

WHEAT CAR SHORTAGE CONTINUES

If you plan on picking up a few thousand tonnes of durum wheat or canola in time for Christmas, get in line now. The Grain Transportation Agency has released estimates of railway car needs that far exceed supply. That means buyers and sellers must adjust their schedules and they're not all happy about the prospect. The agency estimates that 34 000 cars are needed to move a record 19 million tonnes during the peak period, through December. The railways are assembling a near-record fleet of 29 500 cars and it's unlikely that number will change. Even if more cars were available, only so many can be loaded, moved, and then unloaded efficiently. The result is that cars will have to be turned around more quickly, requiring everyone between the farm gate and the ships in port to operate more efficiently than last year, when labour disputes and car shortages led to bottlenecks.

—Canadian Press

THE TOURIST TRADE

ROUNDHOUSE MUSEUM SOCIETY

On September 27, the Roundhouse Museum Society in Victoria announced that the overgrown CP/E&N spur from the Esquimalt Graving Dock, unused for 15 years, would be cleared, the rotting ties replaced, and the half-kilometre line used to store rolling stock. Public Works Canada had given permission to use the spur.

The next day, the Songhees Indian Band announced that the abandoned spur line proposed for the museum is on Songhees land, and that the band wants to use the area for a cultural centre. The Songhees people never granted the government the right to build the spur in 1920 on Songhees and Esquimalt band lands, Chief Norman George said. He said the band has spent the past two years preparing a specific claim for the property and expected to submit the claim to the government that week. Tim Lomas, Roundhouse Museum Society project coordinator, said he was not aware the spur line was on disputed territory. The society had planned to begin clearing the spur line and replacing ties the following weekend, but cancelled its work. —*Victoria Times-Colonist*

PRIVATE CAR VISITS VANCOUVER

Rail Ventures' private passenger car *Yerba Buena* arrived in Vancouver in the wee hours of September 16, part of Burlington Northern Train 636. It went to the CN station for a function connected with the *Rocky Mountaineer*. The car was next spotted on the tail end of the westbound *Rocky Mountaineer* arriving in Vancouver on Monday, October 3. It departed southward on Burlington Northern Train 631 just after midnight on October 5.

—*Dean Ogle*

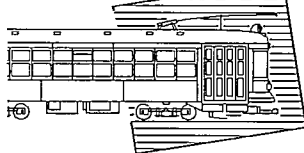
KVR LAND TO PROVINCE

After two years of negotiations, officials are wrapping up an agreement transferring much of the remaining Kettle Valley Railway right-of-way from Canadian Pacific to the province of British Columbia. Full details of the agreement are not yet available, but the director of the real-estate services branch of the ministry of environment, lands, and parks did confirm it involves CP Rail receiving "millions of dollars" and other considerations, such as access to ballast on Crown land. In return, the province receives title to: the Princeton Subdivision, from Spences Bridge to Penticton; the Osoyoos Subdivision, from Osoyoos to Spences Bridge; part of the Boundary Subdivision, from Midway to Grand Forks; and the part of the Kaslo Subdivision from Nakusp to Rosebery. Approval is needed from CP's board of directors and the provincial treasury board.

In 1990, the province acquired most of the KVR Carmi Subdivision between Penticton and Midway. A two-year planning process, still awaiting government approval, recommended a mixed use for the right-of-way — non-motorised recreation from Naramata to Chute Lake, logging truck access from Chute Lake to Myra Canyon, park status for Myra Canyon itself, and so on. The government is expected to embark on a similar planning process for the Princeton Subdivision once the agreement with CP is confirmed.

—*Vancouver Sun*

IN TRANSIT



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TORONTO

PCCs GONE FROM HARBOURFRONT

The TTC has stopped operating its PCC streetcars on the 604-Harbourfront route, and has replaced them with CLRVs, beginning on Friday, October 14. Residents of a luxury condominium on Queens Quay, just east of Spadina Avenue, have been complaining for some time about the squealing of streetcars as they travel over the west-to-north curve, from Queens Quay into the loop at Spadina. Over the past few years the TTC has tried several ways of reducing the squealing, while at the same time maintaining that the noise was normal for a streetcar loop.

On-board blocks of solid lubricants were tested, which deposited lubricating material on the wheels of the streetcar. These were not a success. Water lubricators have been installed in the rails of the loop, but cannot operate throughout the winter.

Several sound tests were conducted with both PCCs and CLRVs, and while the results were technically inconclusive, the residents lobbied for the CLRVs, which cause less squeal than the PCCs. The TTC has agreed to remove the PCCs and replace them with CLRVs at least for the winter, but intends to return the PCCs during the tourist season, when the old cars are an attraction in themselves.

Further options for reducing squeal of the PCCs will be examined in the interim, including on-board air-operated flange lubricators. These would require the fitting of a compressed air source to the cars, however, and as all remaining PCCs are all-electric, and do not have compressors, this may be prohibitively expensive.

The 604-Harbourfront route, opened in June 1990, was the only route to be regularly and exclusively assigned PCC cars. Until needed again on 604-Harbourfront, the ten A15 class PCCs at Roncesvalles carhouse will be used on rush-hour assignments on 504-King, 505-Dundas, and 506-Carlton, as the seven non-sightseeing PCCs at Russell division are used. The cars will deteriorate if not used at least some of the time. The TTC has a surplus of CLRVs, and substitution of the newer cars for the PCCs will not cause a shortage of cars elsewhere.

PETER WITT IN SHOP

TTC-owned Peter Witt 2766 is currently in the Harvey Shops for an overall cosmetic restoration, and some minor mechanical work. The car has been stored since 1988, when it was last used in sightseeing service. In recent years, it has been inside at the former St. Clair Division, and suffered some minor vandalism while there. The car was last used in August 1992, when it ran trips around the loop at Hillcrest during a weekend family safety day for TTC employees.

The car is receiving the work in preparation for ceremonies surrounding the 100th anniversary of Roncesvalles carhouse, the oldest TTC facility still operating in its original location. The anniversary date is Sunday, January 22, and an open house will be held at Roncesvalles on that day. No. 2766 will be present as a display, but will not likely be used to carry passengers. —*Ted Wickson*

TROLLEY COACHES TO SCRAPER

Removal of the TTC's Western Flyer trolley coaches to a scrap yard in Hamilton has begun. Up to October 9, 39 coaches had been towed to the Future Enterprises scrap yard, on Rymal Road in Hamilton. Four coaches (9221, 9335, 9339, and 9348) were sold to the owner of a coffee shop in Etobicoke, and were also removed.

SRT PROBLEMS

Beginning on Wednesday, September 28, rush hour service has been temporarily reduced on the Scarborough RT line, because of mechanical problems with the fleet of ICTS cars used on the line. The day before, inspections revealed problems with the trucks on some of the cars. Cracks were discovered in the drag link assembly, which is a part of the steerable truck mechanism. TTC and Bombardier are working on a solution to the problem, but in the meantime only four of the usual six four-car trains are available for use.

Since six trains are used to give a four-minute service during the morning and afternoon rush hours, the car shortage has meant that a six-minute service is the best that can be operated in the rush hours. Initially, up to twelve buses were used on an express service between Scarborough Centre and Kennedy stations, to help carry customers that could not fit on the reduced train service. As of the end of October, full train service had not been resumed, although only three to four extra buses were being used on most days.

ALPINE WAY COMES DOWN

The "Alpine Way" aerial cable ride at Exhibition Place has been partially dismantled. The cables had already been removed from the line by early October. On October 11, the tall steel towers east of the Sports Hall of Fame were being felled. The eastern part of the line, including the terminal, is in the way of

the trade centre that will be constructed south of the present Coliseum. In early October, the east-end terminal building was still complete, and had several cars visible inside.

INDUSTRY NEWS

OBI LAYOFFS

Ontario Bus Industries continues to have its troubles. All production employees at its Mississauga plant have been laid off indefinitely, and all manufacturing at the company has been suspended. Initially, the problem was a backlog of fabricated bus frames at the Mississauga plant, and delays in assembling those frames into completed buses at OBI's Bus Industries of America plant in Oriskany, New York. Further financial troubles, including a lack of cash flow to pay suppliers, have now resurfaced, and caused the latest shutdown.

The company was sold for a nominal fee to the Ontario government earlier this year, after defaulting on loans from Ontario and the state of New York. Few deliveries have been made since the sale and reorganisation. Now faced with a recurrence of the financial problems, the Ontario government has begun looking for a buyer for the operation, in an attempt to keep the plant operating, and to reduce its ongoing losses, which are being covered by the government.

In the interim, the province has been encouraged transit agencies in Ontario that have orders with OBI to make partial payments to the company, to help it out financially. About \$12-million has been paid out in progress payments in this fashion, \$7-million of which is towards the TTC's 100-bus order for low-floor Orion VIs.

If the company does survive, it will be in a modified form. One of the decisions of the interim management has been to consolidate bus frame fabrication in Mississauga, and final assembly in New York, for orders destined to either Canadian or U.S. customers.

SASKATOON

STRIKE ENDS

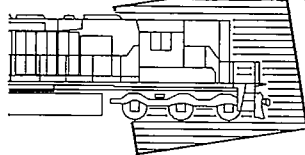
A lengthy strike by municipal workers in Saskatoon ended in mid-October. The strike began in early August, and in addition to closing libraries and halting garbage pick-up, all transit service in Saskatoon was shut down during the strike.

QUÉBEC

STRIKE BEGINS

The STCUQ transit system in Québec City was largely shut down by a strike from October 28. The dispute was over wage negotiations, with the drivers' union holding out for a 10½-percent wage increase over the next two years. All off-peak bus service has been cancelled by the strike, but the drivers are still providing rush-hour service.

MOTIVE POWER



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CP RAIL SYSTEM

NEW ORDER FROM GE

After years of rumours and speculation, CP has actually broken down and ordered new power. Surprisingly, it is not from General Motors, the only supplier of locomotives to CP since the 1970s. An order has been placed with General Electric for 40 AC4000 locomotives, with an option for 40 more. The units are scheduled for delivery in the fall of 1995. This is the first new power CP has ordered since the SD40-2Fs in 1988, and the first time that CP has purchased power from GE. CP is reportedly also considering purchasing from various sources between 40 and 100 remanufactured locomotives.

LEASED UNITS

More and more changes to the lease fleet to report this month. Algoma Central SD40-2s 181, 185, and 187 departed Sault Ste. Marie on CP Train 912 on August 27, and are currently in service on CP ACR 183 departed Sault Ste. Marie October 21 on Train 912, destined for lease service on CP as well. Also new to the CP lease fleet are BC Rail SD40-2s 746 and 747 (on lease until November 1), and the following new Helm arrivals:

HATX 176 (ex-CSX GP38 2168)
401 (ex-CSX GP40 6562)
402 (ex-CSX GP40 6564)
403 (ex-CSX GP40 6567)
407 (ex-CSX GP40 6681)
408 (ex-CSX GP40 6759)
912 (ex-CSX SD45-2 8965)
913 (ex-CSX SD45-2 8961)
5007 (ex-KCS SD40 600)
5008 (ex-KCS SD40 609)
5009 (ex-KCS SD40 610)
5010 (ex-PAL/VMV, née-MP SD40 3038)
HLCX 3675 (ex-IC GP38AC 9541)
3676 (ex-IC GP38AC 9542)
3678 (ex-IC GP38AC 9546)
3679 (ex-IC GP38AC 9547)
6203 (ex-QNS&L SD40-2 241)

With respect to the VIA F40s on lease to CP for freight service, not only has there been rotation of the units involved since the lease began, but the number of units on lease has increased to eight. Currently, 6448, 6449, 6450, 6452, 6453, 6455, 6456, and 6458 are in service on CP.

LEASED UNITS BOUGHT

Former GATX lease units 2002 and 2006, originally Union Pacific SD40-2s, have been renumbered as CP 5424 and 5428 and have both had red "CP Rail" decals, with widely-spaced lettering, applied to the sides of their yellow long hoods, as well as a red "CP" on the nose of the units. CP is currently fielding white, yellow, action red, candy-apple red, and black units wearing the company name.

RETIREMENTS

Recent retirements: GP7 1500 and GP9 1517 on August 19, M630 4555 on August 16.

GENERAL MOTORS

At its London plant, GM has completed production of Norfolk Southern SD70s 2532-2556. Work is in progress on SD80MACs for Conrail, SD70MACs for Burlington Northern, and F59PHM-Is for Amtrak California.

The Amtrak California units are going the long way to California. CP takes them to Toronto, and then west to Vancouver where they are interchanged to Burlington Northern. From there they are forwarded to Southern Pacific at Eugene, Oregon. Blue, black, silver and yellow units 2004 and 2005 left London on Train 516 on October 23, and interchanged to BN on October 28th.

Production of the BN SD70s has reached unit number 9498. Delivery of recent units to BN in Chicago is as follows:

9486, 9487, 9490, 9491	October 10
9485, 9489	October 11
9492, 9496, 9494	October 24
9496, 9497	October 27
9498	October 28

VIA RAIL CANADA

SOLD FOR SCRAP

VIA's stored FP9 6536, FPA4 6768, and F9Bs 6604, 6605, 6623, and 6634 have been sold to General Scrap and Carshredder in Paddington, Manitoba.

BACK COVER - TOP

The Salem and Hillsborough Railroad in happier days. CNR 4-6-0 1009 (MLW, 1912) and CPR 4-4-0 29 (CPR, 1887), at the yards in Hillsborough, on September 27, 1987.

—Photo by Wendell Lemon

BACK COVER - BOTTOM

CN F9A 9177, F9B 9195, and F9A 9175 wait at the lower level tracks on the north side of the Don Yard in Toronto on Victoria Day, 1987. During their last years, the F-units were used on transfers between MacMillan, Don, and Mimico yards, and on the run to the Geco Branch in Scarborough. Now, the engines have been retired, this part of Don Yard has been closed, and the trains to Scarborough are less busy after the closure of the GM van plant there.

—Photo by Steve Danko

