1917 --- 80TH ANNIVERSARY OF THE HALIFAX EXPLOSION ---- 1997

THE MAGNIFICENT RESPONSE OF THE RAILWAYS TO THE DISASTER OF DECEMBER 6 1917

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FRONT COVER: The Intercolonial Railway's North Street station in Halifax soon after the explosion of December 6, 1917. The roof of the train shed has collapsed, and many windows of the station are boarded up. The snow is from the huge blizzard that occurred on December 8. Notice the street car on the left, already back in service. The station, built in 1876, was closed about two years after the explosion. Compare this photo with the one on the back cover of Canadian Rail No. 433, March - April 1993.

BELOW: A passenger train amid the wreckage soon after the track was cleared and put back into service. Note the old wooden combine car just behind the engine. This is a detail from the panoramic photo that appears on page 150. National Archives of Canada, Photo No. C-19945.

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

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The Magnificent Railways

Rail Response to the 1917 Halifax Explosion

By Joseph Scanlon

Director, Emergency Communications Research Unit, Carleton University, Ottawa

On December 6, 1997, at about 9:05 A.M. it will be exactly eighty years since Canada’s worst disaster; the Halifax Explosion. There are few people around who remember it first hand, but to those that do, it is likely the most dramatic event of their lives. Five years ago, on the 75th anniversary, we had a major article on the subject, describing the effect the Explosion had on the railways. Today we have another article which treats the subject from a different perspective; the contribution of the railways to the relief of the sufferers and the propagation of the news. In this article, Mr. Scanlon brings out aspects of the story which have tended to be overlooked by other accounts. Mr. Scanlon is just completing a book on the response to the 1917 explosion. There are two working titles: one is “Explosion”, the other is “Within Living Memory”. To commemorate the eightieth anniversary we are privileged to present this highly informative article, which is an excerpt from the forthcoming book.

I. HALIFAX, NOVA SCOTIA, DECEMBER 6 1917, 9:05 A.M.

Just after 9:05 a.m. on Thursday, December 6th, 1917, the head of the Dominion Atlantic Railway, George Graham, started walking from the Richmond yards, near Halifax’s North end station, to Rockingham, a distance, if he followed the tracks, of 4.1 miles or 6.56 kilometres. As he walked, he passed by overturned railway cars and damaged engines and the bodies of 25 railway employees. It was the morning of Canada’s worst disaster, the Halifax Explosion, and Graham was on his way for help.

II. THE EXPLOSION

The Halifax Explosion occurred 20 minutes after a Norwegian ship, the Imo, and a French ship, the Mont Blanc, collided in the harbour. The Mont Blanc was carrying picric acid (a high explosive) in its forward hold, gun cotton in its centre hold and TNT aft. On deck it had barrels of aviation gasoline. The collision broke open the barrels of gasoline, created sparks that set it on fire and sent the flaming gasoline into the forward hold. Twenty minutes later, the ship exploded with one-seventh the power of the first atomic bomb.

The explosion destroyed everything within 800 metres and damaged everything within 1,600 metres. It also started hundreds of fires. Many persons were injured when hit by flying glass (they had been watching the fire out the window.) Others were trapped in their damaged homes and burned to death when stoves tipped over. The explosion also created a tidal wave that lifted ships out of the water dropping one smaller boat, the Hilford, amongst debris on the docks.

Many details of what happened were kept secret because the explosion caused severe problems for the Canadian Army. Most of the wooden buildings at Wellington Barracks, east of the main impact area, were damaged, destroyed or set on fire. The Armoury, where recruits were drilling, was a wreck. The girders in the roof were broken, rendering the building unsafe. Fourteen soldiers were killed, 399 injured and 39 were still missing six weeks after the explosion. Eighty per cent of these casualties were at the Wellington Barracks.

The Infectious Diseases Hospital near Bedford Basin was so badly damaged its patients had to be evacuated, but it admitted 150 victims. The Nova Scotia Hospital for the mentally ill was also damaged, but it turned its recreation area into an emergency hospital and dealt with 250 injured. Cogswell Street Military Hospital had its windows and window casings and outer doors blown into the wards. Parts of the ceiling collapsed. The ceiling of the operating room was destroyed. It took in 400 to 500 patients. The Victoria General, had about 150 beds. It received 750 patients.

III. THE RESPONSE OF THE RAILWAYS

The chef in Graham’s private railway car was serving breakfast to Graham and his daughter when the French munitions ship, Mont Blanc, exploded with one-seventh the power of the first atomic bomb. Graham and his daughter escaped injury but when he looked outside he saw devastation. There were 374 damaged or destroyed freight cars and five damaged engines. There was even a naval tug on shore in that wreckage. (It had been lifted up by the wave caused by the explosion and dropped onto the docks.) Although neither Graham nor anyone else would know this for some time, there were 55 railway employees among the 1,963 dead. To Graham, however, something else was significant: the railway telegraph was down. To send for help, he would have to walk to the nearest surviving station; so that’s what he did.

George Graham started with the railway as a telegrapher in Locust, Ontario, then took leave to study shorthand and typewriting. After that his career took off. In 1889, he became secretary to M. J. Haney, the man who built the Crow’s Nest Pass portion of the C.P.R. Later, he was chief clerk to Thomas, later Lord, Shaughnessy, C.P.R.’s General Superintendent, (who became President in 1899 and served in that capacity until 1918). Graham was then made superintendent in Winnipeg, Brandon, Fort William and Vancouver successively before coming east in November, 1915, as general manager of the Dominion Atlantic. The Evangeline Trail was Graham’s idea as was the Dickey golf course and Grand Pré park. He was so enthusiastic about Nova Scotia, many assumed he was born there.

Doreen Roberts says in her thesis for Acadia that, “George Graham was not a man who would seem likely to engender affection. He was a dictator. He was impatient and domineering.” The morning of the explosion, he was at his domineering best. When he reached Rockingham, he probably sat down at the telegraph key himself. Then he gave his orders to Dominion Atlantic head-quarters at Kentville, aware that Wolfville and Windsor were listening in: he wanted a special train with physicians and nurses to come to Halifax as quickly as possible.
The huge cloud of smoke from the explosion was photographed from an unidentified ship several miles away.
National Archives of Canada, Photo No. PA-166585.

As Graham was walking towards Rockingham, a civil engineer with the Intercolonial Railway, W. A. Duff, was checking out the damage in the city's North end. He had borrowed a car from Cook Construction and as he drove through the debris he could see hundreds of homes on fire and thousands of injured making their way to medical centres. (It is estimated that 9,000 persons were injured in the explosion.) At the North end station, he found the roof had collapsed, causing many deaths and injuries. (Later, the remains of the roof had to be knocked down.) He could also see wreckage blocking the lines. Like Graham, Duff decided to head to Rockingham. He, however, didn't make it immediately.

There were so many injured he felt compelled to drive some of them to the Victoria General Hospital. By the time he did that and started out a second time to Rockingham, there were already piles of corpses along the roads.

"I arrived there probably about 10 o'clock or shortly afterward. At Rockingham, I found that I could get in touch with our dispatcher at Truro on our own wires and I gave him a message for C. A. Hayes, General Manager, and stating what occurred at Halifax, and giving him also approximate damage done to property and my estimate of the number of wounded and killed asked him all doctors, nurses and relief supplies possible be sent to Halifax from places in Nova Scotia and New Brunswick."

After that, Duff headed back into the city. There, he met the acting mayor, Henry Colwell. Colwell had already visited the Canadian Army commander, General Thomas Benson, and asked for military help but he felt more was needed. Among the dead were the fire chief, his deputy and all but one of the crew that responded when a ship was reported on fire. Colwell asked Duff to send another message:

"I again went to Rockingham and got in touch with our dispatcher at Truro and asked him to get messages from the Mayor of Halifax to the different towns of Nova Scotia and New Brunswick. After sending these messages for the mayor, I arranged that the telephone company get a wire working for us between Rockingham and Halifax Ocean Terminals in order to bring trains in to Halifax on their arrival."

At the time of the explosion, the Intercolonial was building the new rail line that would circle Halifax then cut into the waterfront at what is now the container port near Point Pleasant Park. The new station would be at the south rather than the north end of the city. By December 1917, the line itself was largely finished but there was no telegraph line. Duff realized the new line could be opened if a telegraph line was installed. That would allow trains to by-pass the wreckage in the Richmond yards and enter the city at the relatively undamaged south end.

Despite the devastation and despite a blinding snow storm that hit Halifax that weekend, Maritime Telephone & Telegraph employees got the telegraph in place so the new rail line could open. On Friday, the Ocean Limited left Halifax for Montreal from the new Ocean terminal. On Tuesday, when a trainload of injured was taken to New Glasgow, it, too, left from the new terminal at the south end of the city.

In addition to killing and injuring residents, knocking down buildings and starting hundreds of fires, the Halifax Explosion knocked out both the commercial telegraph and the telephone system. Until noon that day, the crucial link between Halifax and the outside world was the railway telegraph. It was through the railway telegraph that messages went out requesting an organized response. It was also through the railway telegraph that news of what happened spread across Nova Scotia and around the world. In its first report of the explosion, the London Times cited the Intercolonial railway in Moncton as its source of information.

Although George Graham’s message to Kentville was the first message to call for help, the first response was already underway when Graham sent that message. Even before the ex-
plosion, Vincent Coleman had heard what was happening and had wired Rockingham warning that a munitions ship was on fire. When Coleman sent that message the Boston Express was already past Rockingham and the Kentville train was held up (the Express was late) so Coleman’s message had no effect on incoming trains. However, his message was heard not just in Rockingham but in Stewiacke, Shubenacadie and all the other stations along the line to Truro. When the Mont Blanc exploded, there was an immediate reaction all along the line.

When communications with Halifax were lost, the operator at Truro passed the word to the station manager and he told the mayor, William Dunbar. Dunbar ordered the fire alarm sounded — it blows 10 whistles for an emergency — then started calling his colleagues. (Dunbar was a physician.) A special train carrying Truro’s physicians, nurses and volunteer firefighters was en route to Halifax in less than an hour, the mayor among them. No one had to be convinced there was a problem: the explosion was so powerful it had shattered the windows in Truro’s Learmont Hotel. Because of the breakdown in communications, no train orders could be issued: the Truro special had to work its way from station to station. At most stations it picked up others who wished to go to Halifax. At Shubenacadie, for example, Hugh Upham, a Presbyterian minister, got on board. Because it was an emergency, everyone travelled free.

While the train from Truro was en route, Dominion Atlantic staff in Kentville, Wolfville and Windsor were rounding up physicians and nurses. Bill Collicutt was a patient at the Kentville Sanitorium. He says: “All I remember is terrific excitement, that a special train was leaving for Halifax with as many as they could possibly spare at the Sanitorium.” Collicutt had come back from overseas with tuberculosis. Incredibly enough he was back in the Sanitarium the day John Kennedy was assassinated. (He was 97 in 1994.) Dr. W. B. Moore of Kentville also remembers that day. He was about to start his rounds when he received a call from the Dominion Atlantic asking him to assist:

“At once I prepared to do as requested, and was gratified shortly afterwards to find that willing response had been made by all available medical men and nurses of the town and vicinity, who were at the station and entrained for Halifax.”

Kentville was an important railway centre in 1917. DAR headquarters had paint shops, repair shops, and a round house with turntables. It employed about 120 men. Trains coming from Yarmouth and Digby stopped for 15 minutes so passengers could get lunch. It was the station for Aldershot, where 1,000 Canadian troops waited to be shipped overseas and a manufacturing centre. In 1910, it became the home of the Nova Scotia Carriage Co., which, over the next few years, produced 10 different models of automobiles, 115 styles of carriages and 22 different sleighs. Given these resources - and a direct order from the boss - it wasn’t long before Kentville, too, had a train en route to Halifax. It was the second to arrive with relief personnel and supplies. As well as physicians and nurses it carried pharmacists and a Leo Tooke, the police officer who would spend the next three weeks managing the morgue.

George Graham had seen for himself what had happened. The superintendent of the Canadian Government Railway had also seen what happened but J.T. Hallisey was cut about the head and unable to function. The general manager of the Intercolonial, C. A. Hayes, was in Moncton and had no personal knowledge of what happened. Before long, however, he had several sources of information. The first was Vincent Coleman’s last message. It had mentioned a “munitions ship” and “fire.” Then came Duff’s two wires. Hayes advised the Minister of Railways, J. H. Reid:

A map of the devastated area published late in December, 1917. The large “X” marks the approximate site of the explosion.
train. (Hayes sent the first train immediately because he knew it would take time to round up and load this equipment: he attached his private car with that first train - he felt his place was in Halifax.) A third train left Moncton at three o'clock: it carried another physician, six nurses, Alderman Chapman and other officials.

The new fire engine “Patricia” was the pride of the Halifax fire department. This is what it looked like after the explosion. All members of the crew of the engine were killed.

“Halifax is on fire. Sending special trains out of Moncton and any other city with fire apparatus and auxiliary outfits and picking up all fire apparatus between Moncton and Sydney and rushing them to Halifax.”

That message was the first wire received by Ottawa. The federal government told the Governor General and he, in turn, wired London, even sending a special personal wire to the King. The railway telegraph was the link to the world.

In addition to wiring Ottawa, Hayes got his staff to phone Moncton City Hall. Then, at a hastily called meeting at his office, it was agreed a special train would be sent to Halifax carrying doctors, nurses, Intercolonial safety first men, and medical supplies. Bandages and surgical equipment would be supplied by local firms. Those present were Hayes, three members of his staff, the city clerk, J. A. Magee, and Alderman A. C. Chapman.

Duff’s request was also relayed to other Intercolonial stations. In New Glasgow, the local superintendent passed the news to the mayor. By 11.45 a.m., New Glasgow had a train ready consisting of two flat cars — one loaded with a steam fire pumper, the Lulan, the other with 900 metres of hose — and two passenger cars. On board were five physicians and eight nurses. Also on board were provisions and a chef. By the time the train was assembled, 25 Stellarton firefighters were also on board. (Many of the men in the roundhouse were volunteer firefighters.) The train picked up three more physicians — one in Stellarton, (Clarence Miller), one in Westville (A. Ross) and one in Hopewell (A. W. McLeod). It was the third relief train to reach Halifax.

The first Moncton train left for Halifax at 11.05. At Sackville, it picked up more supplies. At Amherst, it hooked on a flat car with firefighting equipment, including hoses and a hose cart. (An account published in Canadian Rail in 1992 says that there was also a special from Amherst.) A second special left Moncton at one o’clock. It was pulling flat cars loaded with a fire engine, hose wagon and cranes. On board were also firefighters and a wrecking crew from the railway, needed to clear the tracks. There were also three military hospital cars attached to this

The Truro train reached the outskirts of Halifax at 12.20. The special from Kentville got there two hours later, the one from New Glasgow three hours after that. The first Moncton train arrived at 11:00 p.m. At first, all those on board had to walk from the outskirts past the debris and the bodies and the burning houses. Only when they reached City Hall were they greeted and given specific assignments. (The hastily formed Halifax Relief Committee was already taking charge of the response.) Later, the trains were met by soldiers with cars. At the request of acting Mayor Colwell, the Canadian Army had seized civilian vehicles for emergency use.

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A soldier guards the freight yard beside the wreckage of the cars. Photo by MacLaughlan
When these trains finally reached Halifax, the city needed tar paper, beaver board, nails, glass, putty and other building materials and it also needed workmen but it had an over supply of physicians and nurses. The Dominion Atlantic and Intercolonial had seen to that. Between them, on the day of the explosion, the two railways had moved six special trains, all carrying vital personnel and equipment, and they had done this despite the loss of tracks and equipment and personnel and damage to the railway telegraph. Perhaps the only thing that makes this performance less remarkable was that in 1917, the fourth year of the war, the railways were moving special troop trains and supply trains every day. Whatever the reason, on the day of the explosion, the railways were magnificent.

Although the main railway movement the day of the explosion was to, rather than away from Halifax, some trains did get out. For the most part, they carried uninjured or slightly injured survivors who wished to leave the city. One train, which made it to Saint John, carried 50 injured children. It also carried students from Mount St. Vincent Academy. The Sisters decided to suspend classes and encouraged their out of town students to go home. The Royal Naval College closed down as did the School for the Blind. Dalhousie University closed until after Christmas. The soldiers who had been in Camp Hill hospital also shipped out. Even though they were all recovering from war wounds, they voluntarily left their beds when they saw the victims coming into the hospital.

Because of the enormous volume of telegraph traffic moving out of and into Halifax, most students headed home by train without messages to announce their arrival. Parents learned that their children had survived the explosion when they turned up at their door or their local railway station. Once again the Intercolonial provided emergency service. W. W. McPherson, said he was ordered to carry, "any refugee, fare free... to any point on the line."

I was instructed to stop at any point where a passenger might want to get off."

IV. THE RAILWAY TELEGRAPH

In 1917, trains on the move had no way of communicating with each other, with stations or with dispatchers. There were no cellular phones on board, no radios, no telegraph keys. Instead, they travelled according to standing orders issued before a journey began. Those orders specified when they were to arrive at and leave each station and when they were to meet trains coming the other way. A train might be late for any number of reasons; but it must never leave a station before schedule.

Since the trains couldn't communicate, each time they stopped at or passed a station, the station agent would note the time of arrival and departure and pass that information by railway
telegraph to the dispatcher for that line. The dispatcher would watch those messages and decide if new orders were required. An IC Rail dispatcher might, for example, note that the train from Moncton was on time, but the train from Truro was late. It would make sense to move the meeting place from Sackville to Amherst.

If he did make that decision, he sent the new orders to the stations concerned—first to Amherst, where the late train would now have to stop and then to Sackville, where the train on time could move ahead. The agents at those stations would flip a lever which raised a signal ordering the trains to stop. Then they would hand the new orders to the conductors running those trains and to the engineers driving them. This system involved some careful checks to prevent errors. New orders were not sent until the agent acknowledged he was ready to receive. Only his telegraphed "I" for "Aye" or his "GA" for "go ahead" would clear the way. Only when new orders were repeated and the signal was set did the dispatcher note those orders were in effect. All trains were also classified as "superior" and "inferior" depending on the direction. "Inferior" trains took the siding, while "Superior" trains used the main line.

The code used on both railroads was American Land Line. It is similar to Morse Code and to the Continental system used by the commercial telegraph companies but has its own variations. Ten letters—C, F, J, O, P, Q, R, X, Y, and Z—are different from Morse because they are sent using a pause as well as dots and dashes. The dashes also vary in length. C, for example, is dash dot dash dot in Morse code, dot dot PAUSE dot in Land Line. A short or normal dash means T. A long dash means L. It took station agents years to become proficient at sending and receiving. When they were comfortable, it became like music—they could take 40 words a minute, listening to the flow of the words, rather than the dots, dashes and spaces of the letters.

Although train orders were coded with calls signs such as "H" for Halifax, "G" for Truro and "A" for Rockingham, "BO" for Moncton, they were heard not just by the station receiving them but by every station along that portion of the line. On the Intercolonial, for example, all messages from Halifax could be heard by every station between Halifax and Truro, all messages from Moncton could be heard by every station from Moncton to Truro and all messages from New Glasgow could be heard by every station from Sydney to Truro. Halifax, Moncton and New Glasgow each ran their part of the line. That made Truro the hub since messages from all three regions could be heard in Truro.

**LEFT:** A view from Pier 8, showing part of the railway yard. Notice the locomotive (probably of the Halifax and Southwestern Railway) partly buried in wreckage. A Missouri Pacific freight car is also visible.

*Photo by Canada Patent and Copyright office. National Archives of Canada, Photo C-19947.*
When a station in one region, say the Intercolonial’s headquarters at Moncton, wished to talk to a station in another region, say Halifax, the message had to be relayed or patched through Truro. (A telegraph link could be extended...at night, some Atlantic agents would send directly to Toronto.) When the telephone came into use, it was possible to by-pass the telegraph; but that prevented stations in between from hearing a call. Since the efficient running of the line depended on information being shared, that made no sense.

Although handling messages, especially train orders, was a crucial part of an agent’s job, he had other duties. He would answer inquiries, sell tickets, send and receive telegrams and, in many smaller centres, bargain with merchants about freight rates. (On the Intercolonial an agent could set rates for shipments going as far as 100 miles.) Small stations might have an agent who was not an operator. Some larger ones had an agent and an operator. In any station with a telegraph, staff kept an ear on it, just the way police officers listen to all calls on their radios. That was partly because they didn’t want to miss a call, partly because it was the way to keep informed. Station agents knew who was coming and going and who was planning a trip. They knew if there was trouble down the line and they would hear immediately if something of enormous significance was going on. In small towns, they were the first to know when a soldier had been killed, news they kept to themselves—the family had a right to hear first.

V. THE TRAIN TO TRURO

Although no one on the incoming Boston Express was hurt in the explosion, the train was surrounded by injured as soon as it stopped in the Richmond yards. The passengers ripped up sheets from the sleeping cars to make bandages and drained water from the engines to wash out wounds. One of the passengers, A. S. Goldberg, described the scene:

“When we got to Africville the train made a complete stop. We got out and we were horrified at the sight. The platform of the railway station was crowded with wounded people, most of them children. Many of the children were grooping about. They could not see. Their eyes were filled with small bits of glass. I noticed, too, that most of the children were cut about the neck. It seemed just as if a keen knife edge had slashed each little throat.”

George Graham saw what was happening as he walked past. As soon as he was finished issuing his orders, he boarded the Kentville train— the one that had stopped—and spotted a young Army physician, Avery De Witt. (De Witt was from Kentville and had been at home overnight.) Graham told De Witt his help was needed, put him on a yard engine and sent him to the Boston Express.

If De Witt had doubts about the seriousness of the situation, the trip on the yard engine ended them. The man driving the engine was the fireman—his engineer was killed in the explosion. He was also dirty and shiv-

LEFT: Another view from the waterfront. Plainly visible is Canadian Government Railways boxcar 250213, badly damaged. Notice also the trees blown over, and also the men on horseback.

Photo by MacLaughlan. National Archives of Canada, Photo No. C-19950.
ering (he had used his coat to cover an injured child.) When DeWitt reached the stopped train, he found hundreds of injured desperately in need of medical care.

"... he set to work immediately, operating amid the ruins and assisting in loading the wounded... he being the only doctor on board. He performed two successful operations for removal of the eye, his only instruments being a pair of scissors and a forceps."

(As he worked, he may have acquired some extra bandages. The driver of the yard engine went out to Mount St. Vincent College jumped out of his cab and ran to towards the Sisters of Charity to ask for help. They ripped up sheets and slips and everything else they could find to make bandages. It seems likely the engineer brought these back to Avery DeWitt and the Boston Express.)

It was nearly noon when the train's conductor, J. G. Gillespie, got permission to move the engine to a roundhouse for water and fuel. It was one o'clock before the train slowly left Halifax, 1:40 before it reached Bedford. By that time the special from Truro had already arrived: its passengers had started walking into the city.

Those on the Boston Express will never forget the journey that followed. The train's windows were shattered and 250 of the 300-odd passengers were injured, some seriously. One body from the yard engine, Wiley B. Canning, had hastily been pulled into the train's cab. As the train moved along, Avery DeWitt walked from car to car, performing emergency surgery. (He was so busy he was unaware that another physician and a nurse had boarded the other end of the train at Windsor Junction.) Eighteen on the train had eye injuries. Five had to have one or both eyes removed. His patients included five-year-old Frances Simmons, who had both eyes removed, and seven-year-old Delonora McLellan, who had one eye removed. Two other children — three-year-old Henrietta Smith, and Laurie Clancey, not quite five — died before the train reached Truro.

Delonora McLellan's parents, two brothers and a sister were with her. One brother, George, died the next day. The others, including her mother, who also had facial cuts and injuries to both eyes, survived. Laurie Clancey, who also died, was with her mother and father, her brother, Robert and three sisters — Florence, (no age available) Anna, nine, and Elizabeth, 10. There were 10 sailors from Calonne and one from Curaca, from two ships which had been loading horses in the inner harbour. These men had climbed the bank along the harbour up to the railway tracks.

When the Boston Express reached Truro at 3.30, Avery DeWitt was in for two surprises. The first was that all the Truro physicians and nurses had gone to Halifax. The second was that there was another physician and a nurse on board - his father and his sister. (They were the ones who boarded at Windsor Junction.)

DeWitt, his father and his sister would have to deal with 250 to 300 patients using volunteer help. However, the people of Truro were not caught entirely by surprise. Warned by the railway the trainload of injured was arriving, they rounded up 40 automobiles and set up emergency hospitals in the court house, the Truro Academy and the fire hall, all hastily furnished with cots. Some also opened their homes. As one of those on the train observed, "In less time than it takes to tell about it all the survivors who were on board were carried to some place of comfort and safety." (The town's one ambulance made 34 trips from the station to an emergency hospital.)

The sight of the injured was shocking:

"Their faces were blackened until their features were indistinguishable. Their clothing was torn and, in some cases, almost burned to cinders ... small school children with their school bags still on their shoulders being led by the train, many of them blinded and otherwise crippled. One little fellow had his arms blown off at the shoulder."

One scene was particularly poignant. A young woman, holding her baby, stood in the back yard of the home by #9 siding, where the train had stopped. The baby was dead. The youngster who lived in that house can not remember much else but he can still recall the lady, standing in his back yard, holding her dead baby and crying.

Doug Rutherford was in school at the time and he had wanted to join others flocking to Halifax. His mother told him not to — if he did that he would catch it from his father — so he headed to the Truro station where he climbed into the first car to take an injured person to the courthouse. He spent the afternoon assisting the nurses while they bandaged injured patients.

"When the nurses wanted something I went and got it. They were washing up the sick and putting bandages on their cuts and bruises. I remember one fellow. He was about my age. He was bad. I kind of kept an eye on him. Whenever he wanted something I got it."

The "nurses" were actually other volunteers. Despite the assistance of persons like Rutherford and the best efforts of the DeWitts, 10 more victims died within 24 hours. Among them were five children, a baby named Galbraith, the son of Harry Galbraith; Clara Carter, 10 months; Joseph Latham, two years, four months; Reta Levy, three years, nine months, daughter of Harvey Levy, a railway brakeman; and Jacquelan Hills, age six.

Joseph Latham died in the home of Principal Cummings of the Agricultural College. (The principal had also taken in his parents and they were with the child when he died.) Reta Levy died in the home of Mr. and Mrs. A. Davidson. Her mother was with her when she died.

Three views of the damage at the North Street station of the ICR. These photos were taken after some service had been restored to the station.
A view of the "Imo" aground on the Dartmouth shore after the explosion. This was the ship that collided with the "Mont Blanc" and so caused the disaster. The large sign "BELGIAN RELIEF" on the side was to indicate that it was carrying relief supplies so it would not be torpedoed. The "Imo", which was built by Harland and Wolff in Belfast in 1889 as the White Star liner "Runic", was refloated four months after the explosion, and sailed again. She was lost on December 3, 1921.

Avery DeWitt kept going day and night for five consecutive days, ignoring the fact his own hand was infected. As his commanding officer later said, "He should have immediately gone sick but he struggled on with his work, narrowly escaping the loss of his arm." DeWitt wasn't alone in his devotion. Two passengers on the Boston Express, James Whitely of St. Stephen, New Brunswick, and John Clark of Saint John, stayed in Truro for 12 days, helping with the injured.

VI. THE RAILWAY SPREADS THE NEWS

The first significant news coverage of the Halifax Explosion took place at 10 a.m., 55 minutes after Mont Blanc blew up. That was at Truro where, as was traditional in those days, office boys posted bulletin boards outside the newspaper. The first bulletin posted by the Daily News was a succinct account that made no effort to tell anything more than was known:

"MUNITIONS SHIP BLOWN UP IN HALIFAX The city is covered with smoke; all telegraph and phone wires wrecked, motor cars are rushing to the city from outside points for information and to furnish aid as necessary."

Before the paper went to press, there was more news and the Daily News got all of it in its first edition. More significant, it had the basic story reasonably accurate:

Halifax Stricken With Terrible Disaster At 9 o'clock This Morning Munitions ship in collision at Pier 6 — Ship Set on Fire A Fearful Explosion in 20 Minutes

The coverage was a testimony to the reliability of the railway telegraph. Truro was a division point on the railroad, the link between Halifax and Intercolonial headquarters in Moncton — and it was hearing all the news flowing up and down the railway. As each morsel of information arrived, the railway staff would pass it on to the newspaper, and staff from the paper would post it outside their office. Within minutes, crowds were watching as each new board was posted. Nova Scotia is a small, tightly-knit province and many in Truro had relatives in Halifax, including children in school. Also, a number of persons went in on the early morning train. In fact, one of the dead was Arthur Carroll, who had gone into Halifax on business that morning.

The telegram, of course, was only part of the reason the news spread so quickly that morning. As soon as news reached any local station, the operator would immediately tell everyone he saw including the man who ran the general store. He would tell his wife and since the storekeeper's wife usually ran the local telephone system — she would get onto the phone and, using the phone as a party line, tell everyone else.

When the explosion occurred it made such a bang that Ina Mackay in Pictou County thought immediately of her husband at a nearby farm: the gasoline engine on the threshing machine might have exploded. Next she thought of another mine explosion in Westville. Like many others, she was soon on the telephone trying to find out what was going on.

The phone system Ina Mackay used was the Lovat Mutual Telephone Company built by local farmers in 1914. Its central operator was the wife of the storekeeper in Salt Spring. Those on the line could talk to each other by cranking and giving the appropriate ring — the Mackay ring was 21, two long and one short — but it was also possible for everyone to get on at once, thus the name, "party line". Although the operator hadn't heard anything when Ina Mackay first called her she soon heard what had happened. The operator at the nearest railway station in West River heard the news when it was relayed from Moncton. He passed it on to others. One of those others was the operator at Salt Spring. She told everyone else. Given the drama of what was happened, it is safe to say that on Thursday, December 6th, 1917, the rural phone systems were more like radio stations than a device for two-way conversations. Everyone was listening, waiting for the latest news — and that news was coming along the railway telegraph.
It is hard - after all these years - to realize just how well the railway telegraph and phone system performed on December 6, 1917. From the evidence available it seems that those who took the longest to learn were children at school, and even they learned when they came home for lunch at noon. That was three hours after the explosion. That means news of the explosion spread all over Nova Scotia in three hours despite the fact that the commercial telegraph was down and the phone system in Halifax was out of action and despite the fact that there was no radio and no TV. That is remarkable for in 1963, almost half a century later, when John Fitzgerald Kennedy was assassinated, it took precisely the same amount of time, three hours, for word of his death to spread across the United States despite the fact there was massive coverage by radio and TV and a fully-developed phone system.

VII. NOTE TO READERS OF CANADIAN RAIL

It is more than possible that some readers of this article will know personally about what happened on December 6, 1917, or will know people who do. It is also possible that some readers will know of letters, articles or other documents (even diaries) relevant to the explosion. The author would very much like to hear from anyone, no matter how trivial their information may seem. He can be reached at:
117 Aylmer Ave., Ottawa, Ont., K1S 2X8
or by phone at 1-613-730-9239 or by fax at 1-613-730-1696 or via electronic mail (e-mail): jscanlon@ccs.carleton.ca

ABOVE: Looking south, after the track was cleared of wreckage and train service was restored. This photo was taken from the top of a train; note the locomotive in the foreground.
Photo by MacLaughlan

RIGHT: A surviving relic of the explosion is this piece of the “Mont Blanc”. This fragment, weighing almost 9 pounds, was picked up, nearly a mile from the explosion site, by Lieut. Donald Angus, the father of your editor, who was stationed in Halifax in 1917. It has been kept in the family for eighty years. The quarter-inch steel plate is crumpled and torn as if it was a piece of paper. Many thousands of pieces like this were scattered over a wide area - all that was left of the “Mont Blanc”.
Photo by Fred Angus.
The Sesquicentennial of the Montreal & Lachine Railroad

By Fred F. Angus

One hundred and fifty years ago the railway era came to Montreal in the form of an eight mile long standard gauge railway connecting the city with the village of Lachine. The date was November 19, 1847 when the first train departed from Bonaventure station and steamed westward to Lachine. It was a small beginning, but it was the start of a great new industry. In the next half century the railway system grew so much that less than forty years later another train left Montreal bound for the Pacific coast.

In 1947 there was a major celebration to commemorate the centennial of this historic event, including the striking of a commemorative token and the unveiling of a large bronze plaque at Bonaventure station. This year, however, there seems to be little planned to mark the sesquicentennial. This article is to help rectify the omission and to observe this important date in the transportation history of Montreal, and indeed of all Canada.

From Montreal’s Turcot yard, a rusty, weed grown track, still used to serve adjacent factories, extends westward to the city of Lachine. No one looking at this unpretentious track would realize that this is part of one of the most historic lines in Canada, the Montreal and Lachine Railroad. It was not always a rusty, weed grown track. A century and a half ago the world was very different, and at that time the M&L made history. Let us go back to 1847 and find out about it.

From the earliest days of westward expansion the Lachine Rapids, just west of Montreal, had been an obstacle to transportation. Early explorers believed that the St. Lawrence river was the gateway to the fabled Northwest Passage that would lead to the Pacific and to China. In 1666 the explorer LaSalle established a post which was named “La Chine”, this being the French name for China. The name was also applied to the rapids beyond which it was believed (very far beyond as it turned out) lay the Orient.

On one expedition, LaSalle, having traveled thousands of miles, lost his notes, and almost his life, when his canoe capsized in the rapids when almost home. When a village was built there, in 1675, it was named Lachine; by this time the two words had been combined into one. In 1825 the Lachine canal was built, and this was of great benefit for freight traffic, but was slow for passenger vessels. Consequently, during the navigation season, the two roads connecting Montreal and Lachine (known as the Upper and Lower Lachine Roads) were among the busiest on the island. Much the same situation existed as on the road from Laprairie to St. John’s which connected Montreal with the steamboats to Lake Champlain and New York. Here the Champlain & St. Lawrence Rail Road, Canada’s first, had been built in 1836. By the 1840s there was a demand for the same solution to be applied to the Lachine route.

The chief promoter of the scheme was James Ferrier (1800-1888) who had come from Scotland, and who was Mayor of Montreal (1845 – 1846), Chancellor of McGill University, Chairman of the Canadian Board of the Grand Trunk Railway and, eventually, a Dominion Senator. Application was made to the government of the Province of Canada for a charter, and this was granted on June 9, 1846 (9 Vic. Cap. 82) incorporating the Montreal and Lachine Rail Road Company with a capital of 75,000 pounds currency, equal to $300,000. Authority was granted to build a railway from Montreal to Lachine wharf, and also to operate steamboats on the St. Lawrence and Ottawa rivers.

Following the survey of the route, by John Ostell, William Casey from New York was hired to construct the line. Mr. Casey had laid out the Champlain & St. Lawrence Rail Road, Canada’s first, a decade before. Unfortunately, on August 6, 1846, soon after starting the job, Mr. Casey died of tuberculosis and was buried in Montreal. Mr. Ferrier then asked the Scottish engineering firm of Kinmond, Hutton and Steele, from whom the company had ordered two locomotives, to send an engineer who could take charge. Alexander Millar, the Locomotive Superintendent of the Dundee and Arbroath Railway was appointed, and he arrived at Montreal early in 1847.

Construction began on May 1, 1847, and three locomotives were ordered; one from Norris Brothers of Philadelphia, and two from Kinmond Hutton and Steele in Dundee Scotland. The Norris engine, probably named “Lachine”, arrived about November 6, 1847, while the two Scottish ones did not come until the summer of 1848. The latter two, called the “Montreal” and the “James Ferrier”, were similar to the “John Molson”, ordered for the Champlain & St. Lawrence, and delivered to that railway in 1849. Soon after the delivery of the Norris engine, the work on the track was completed and the opening was set for Friday, November 19, 1847.

Finally the big day arrived and, shortly before noon, about 250 invited guests gathered at Bonaventure station. The weather was cold and dull, but this did not dampen the enthusiasm as the ceremonies began. Undoubtedly much “liquid refreshment” was consumed as was usual at such events. There was one note of sadness, for an important person was missing. John Mills, the Mayor of Montreal and a great supporter of the railway, had died earlier that month. Mr. Mills had been helping in person at the immigrant sheds in Point St. Charles where so many new arrivals were dying of typhus. He caught the disease there and became a victim himself. An amusing story concerned the reporter from the Gazette. Evidently not very much importance had been given to the event until it was discovered that the Governor General,
TOP: This map, dated 1879, shows the route of the original Montreal and Lachine Railroad, as well as the later Grand Trunk line. By the time this map was drawn it was six years since the GTR had switched its gauge to standard. However the old track layout, dating from the days when the M&L and the GTR were different gauges, is plainly visible in the parallel tracks west of St. Henry. Notice that the former M&L line is shown as M&C Ry. (standing for Montreal & Champlain Railway) even though it had been part of the Grand Trunk for fifteen years! In the days of the two gauges, the Grand Trunk laid a third rail to allow it to come into Bonaventure station. This was, of course, removed when the gauge was standardized in 1873.

ABOVE: A view of a street in Lachine in 1843, four years before the arrival of the railway. Soon the town would be within twenty minutes of Montreal.

RIGHT: This very rare broadside, for the season of 1848, advertises the steamboats “British Queen” and “British Empire” which sailed from Lachine for Lake Ontario with connections for points west in Canada and the United States. The connection to the boats was the reason for the existence of the Montreal and Lachine Railroad. Notice the reference to the railway, and the 9:30 A.M. train from Montreal which connected with the steamboats at Lachine. This was the first year the railway was available; before that it was necessary to take a carriage from Montreal.
A Norris 4-4-0 of 1847, similar to the “Lachine” of the Montreal & Lachine Railroad. Two features of this locomotive are notable, the strange looking double connecting rods, and the fact that the front drivers have no flanges. Both features were typical of Norris engines at that time. The “Lachine” was sold to the Champlain & St. Lawrence in 1848 where it became the “Champlain.”

Lord Elgin, would be present. It was than that the representative of Montreal’s oldest newspaper discovered that he had forgotten to bring paper and pencil, and had to borrow these items from a rival reporter!! Thus the main article was reprinted from the Courier. However from our point of view, the article that the Gazette reporter wrote is more interesting, as it gives an excellent description of the line, whereas the Courier was mainly concerned with the attendees, the speeches and the luncheon. Herewith we reprint the entire Gazette article as well as that portion of the Courier one that is of interest to railway historians. Both articles appeared in the Gazette for Monday, November 22, 1847. As always, spelling and punctuation are as originally written.

“We borrow, in another column, a very copious report of the opening of the Montreal and Lachine Railway, on Friday. We can only add our congratulations to those of our contemporary, on the way in which the affair went off. A more complete report of the speeches at the luncheon would have been given, but it was not generally known that His Excellency would be present, or that it would be attended in the distinguished mode in which it was. Consequently, there were no preparations for reporting; and it was only by accident that one party connected with the press found in his pocket some insufficient materials for making notes.

In addition to the particulars mentioned by our contemporary, we may state that the Railway is free from deep cuttings, only one mile and a half being excavated, and that but to a very trifling depth. The culverts, though pretty numerous, the road being carried along a natural level, insufficiently drained, and through which brooks wind in every direction, are not large or costly, the largest being twelve feet span, and the smallest three. This useful undertaking has been completed under the Presidency of the Hon. J. Ferrier; the principal engineer being J.C. Ruggles, Esq., the superintendent of locomotive power, Alexander Millm; Esq., and the general duties of Secretary to the company actively and efficiently discharged by our well known and respected townsman F. Macculloch, Esq.

Our contemporary has left us little to say. The Montreal terminus is at the end of Bonaventure street, midway between the St. Antoine and St. Joseph Suburbs, in which was a pestilential swamp, but which will soon be thoroughly and completely drained. The building is large and commodious, but, for the present, without pretension to architectural ornament; though the construction of a roof so large, seventy-five feet by two hundred and fifty, solely supported by the side walls, shows much architectural skill. The road is planned and ready for a double line of rails [sic], though, except for a short distance at each extremity, but one is yet laid down. It commences with very massive piling, so solidly driven and braced, that no more jar or tremour is felt than on natural ground. As the road emerges from the station, the traveller has on his left the large commercial and manufacturing establishments of the Griffintown suburb, and on his right that of St. Antoine, the Mountain, and the numerous villas which dot its sides. The first leading object is the elegant house of Mr. Torrance; then the imposing mass of the Baptist College; then the Italian palazzo villa, with its gilded dome, of Mr. J. Doneganna, round which are grouped along the margin of the cote the residences of Mr. Judah, Mr. Desbarats, Mr. Attorney General Badgley, Mr. Quesnel, the
Hon. Judge Roland, and several other gentlemen, while numerous others climb the higher grounds beyond. On the left we have the residence of Mr. Brewster and Mr. Harrison Stephens, and the road goes along a plain which, if the prosperity of the town continues, will speedily be of the highest value for building purposes. It now crosses the Lachine turnpike road at the commencement of the Tanneries, which it leaves to the right, and goes along nearly parallel to the canal on its left. On one side lies the Tanneries - by-the-bye we hope the Company will make arrangements for the accommodation of its inhabitants - we catch a glance into "the Glen", in a snug nook of which Mr. Ramsay has perched an unpretending cottage, and see the turnpike road rising up to get the level of the cote, along along which it continues for several miles, passing the fine farms of Mr. Brodie, Mr. Besty, and several others of the very best farmers and most enterprising citizens in Canada. The road itself now keeps, with scarcely any variation of level, the swamp which, when drained, as we trust it now soon will be, will be highly productive; and soon, by an almost imperceptible ascent, clears it, and for some time goes on solid gravel, bounded by the canal on the left, beyond which on the rising ground, we have the country residences and farm of Mr. Dow, Mr. William Evans, &c.; and nigh in behind them the woods which bound the concessions abutting on the St. Lawrence, a fine and well cultivated tract of country, on which are the properties of Messrs. B. Gibb, Newton, Penner, Watson, Somerville, Crawford, E. Guy, and others of our best known and respected citizens and neighbours - about six or seven miles of as good land as ever plough was put into. After this the quality of the land does not improve, nor does its cultivation, though the latter, we hope, will before long. Within a mile of Lachine the line again crosses the turnpike road, and, with a slight cutting, plunges into the beautifully wooded and park-like estate of Col. Wilgress, which only needed this advantage to make it in every respect eligible for country residences, and, leaving the mansion of the Hudson Bay Company, occupied by Sir George Simpson, to the left, enters the village near the Ottawa Hotel, crosses the road again, and opens out the view of the broad and noble expanse of Lake St. Louis. A wharf extends into the lake, and a terminus is in the course of erection.

The notice which appeared in the papers late in April 1848, announcing that the M&L would be open on May 1. This could be considered to be Montreal's first railway passenger timetable.

The Company had taken the greatest care in stationing watchers along the whole line within sight of each other, who, by flags, signalled that all was right, and would have arrested it immediately had there been any interruption or danger of accident. At this terminus the avenues were kept by a party of the Montreal police, under Capt. Wily and Mr. Jeremie, at the other by a body of the Lachine Canal police, both mounted and on foot, looking exceedingly well, and, we may say, soldier-like, in their new winter equipments.

The article copied from the Courier was mainly concerned with the social events of the occasion, the banquet, speeches etc., so is of less interest to us. However there were some very interesting comments about the track, the motive power and the cars. These comments are printed below:

"At a few minutes after twelve o'clock His Excellency the Governor-General arrived in his carriage, and was received on the platform by the President and Directors of the Company. After he had taken his seat the whistle gave the warning note and the train started. In twenty-one minutes the cars arrived at Lachine, where a stoppage took place for a few minutes, until the engine was detached and sent to the head of the train, and in 20 minutes the train was again in the Montreal terminus. The cars used were of three different denominations, 1st, 2nd, and 3rd class; the former were exceedingly elegant and comfortable, being lined with cloth, and stuffed with morocco, in Mr. O'Meara's best style. The second class were also very well fitted up, and might well be mistaken for first class, as they were well secured against the weather. The third class are far superior to anything on this continent. The whole of them are got up on the English plan, the seats being transverse and not longitudinal. The Engine, of American manufacture, is a very powerful one - it was made at Philadelphia, by Morris & Co.; it weighs eighteen tons; the diameter of the driving wheels is five feet, its stroke twenty-two inches, the diameter of cylinder fifteen inches. The length of the line is eight miles; the gauge four feet eight inches and a half; the weight of rail, T rail of malleable iron, sixty-three pounds per yard. The road was commenced on the first of May last. The maximum incline is fourteen feet per mile for one mile only, and the minimum six feet per mile for two miles; the road is level. There are three miles and a half of piling, and two and a half of embankment. The excavation one mile and a half, and natural surface half a mile. The brick building at the Terminus is two hundred and fifty feet long and seventy-five feet wide. We cannot help noticing that every part of the road appears to us to be constructed in the strongest and safest manner. Nothing could be easier than the motion over the rails, and the road is as smooth as if it had been run over for months. We need not mention that the frost, and the little snow which had fallen was much against the train."
The First Railway Train To Come Into Montreal, Montreal & Lachine Railroad, Nov. 19, 1847.

From an engraving by J. Walker, made at the time. From the collection of the late A.D. Dougall Mac Donald, Montreal.

The Walker drawing with the fictitious inscription. Omer Lavallée has shown that this inscription was done by John Loye between 1918 and 1942, and that the engraving does not represent the opening of the Montreal & Lachine Railroad.

Adding insult to injury! At the time of the Montreal and Lachine R.R. centennial in 1947, Mr. A.L. Sauvial, of the CNR's display department, modified the Walker engraving by replacing the 2-2-2 locomotive with a Norris 4-4-0. While the locomotive type is now correct, the drawing still does not show the opening of the M&L.

No article about the early days of the M&L would be complete without some mention of the famous (or infamous) Walker engraving. For a long time this charming drawing, showing a train hauled by a 2-2-2 locomotive, was thought to depict the opening of the M&L; however Omer Lavallée, in Canadian Rail No. 383, November-December 1984, has shown that this is not the case. The inscription saying it showed the opening has proved to have been added by John Loye sometime after 1918. Although it might depict the M&L, it cannot be before mid-1848 when the Scottish locomotives went into service. These engines are believed to have been 2-2-2s, but this is by no means certain, all that is known for sure is that they had a single pair of driving wheels. To compound the confusion, the CNR, at the time of the celebration of the M&L centennial in 1947, created a completely phony drawing by substituting a Norris 4-4-0 for the 2-2-2! We might also note that the drawing shows horses and cattle on the hills, yet the Gazette article specifically mentions that no cattle were present. The Walker drawing is a beautiful depiction of an early train, but it is not a view of the opening of the Montreal and Lachine Railroad.

Since the M&L was essentially a portage railway, it did not operate in the winter when the steamboats were out of service. Accordingly, soon after the official opening, the line shut down for the winter. This must have been within a short time, since no advertisements for the line appear in the newspapers of the period. The next mention of the railway appears on April 28, 1848, when the newspapers published a notice that the Montreal & Lachine would begin service on May 1. There were three classes of accommodation, with one way fares being 1 shilling 10 1/2 pence (37 1/2 cents) for first class, 1 shilling 3 pence (25 cents) for second class, and 7 1/2 pence (12 1/2 cents) for third class. Although reduced fares were offered for first or second class same-day return tickets, the fares were high considering the purchasing power of money in 1848. A first class return ticket from Montreal to Lachine would be half a day's wages for the average worker. Even two third class tokens (there was no reduction for third class return tickets) would be a quarter day's wages. 100 years later, after the value of money had been greatly eroded by inflation, one could ride a street car from Montreal to Lachine for about 12 cents; this is less than the third class fare in 1848! For an additional 3 pence (5 cents) there was a connection to Place d'Armes by the new City Omnibus Company, the first city transit line in Canada. While most M&L tickets were likely the usual paper or cardboard type, those for third class were delightful copper tokens of which we will have more to say in the next article. The advertisement also showed a timetable stating that there would be six trains a day in each direction, but adding that "It is intended, when arrangements have been completed, to have more frequent trains".

The "arrangements" mentioned above probably referred to the impending delivery of the two Scottish locomotives. These arrived, aboard the ship "Hector" in July, 1848, and the "James Ferrier" was tried out for the first time on Monday, July 31, 1848.
The locomotives of the Montreal & Champlain Railway on December 31, 1858, as shown in the Keefer Report for 1858, printed in 1859. Of interest to us here are the locomotives "Champlain" (originally the "Lachine"), "James Ferrier" and "Montreal", which appear 7th, 15th and 14th respectively on this list. Note that there were two engines named "Montreal" which were distinguished by being called "Big Montreal" and "Little Montreal". The one that concerns us is "Big Montreal". As a point of interest, locomotive "John Molson" was similar to "James Ferrier" and "Montreal" but was delivered to the Champlain and St. Lawrence and not the M&L. Its dimensions shown here indicate that it was considerably larger than the new "John Molson" built for the Canadian Railway Museum in 1970.

These Kinmond engines proved to be very satisfactory and, with their big driving wheels, were fast. It is reported that a train hauled by one of these locomotives, and driven by engineer "Sandy" Millar, made the trip from Lachine to Montreal in nine minutes, or an average of more than 53 miles an hour; not bad for 1848! An account of this feat, which presumably occurred about August 1848, is said to have been written by Mr. W.L. Kimmond, nephew of the chief partner of the firm that built the Scotch engines. This account was quoted by rail historian Robert R. Brown. It is so good that we reprint it in full:

"We had three coaches on the road behind the engine. In these were the directors of the railway company; but we enjoyed no very comfortable day. Besides the directors there were three United States engineers with us on the train to see what the Scotch engines could do. We started and you never saw the like. The directors were bumped up, shoved to this side and then to the other. One moment their high hats almost went through the roof, the next the wearer would be plumped down upon the seat and before he could think twice about it he would be knocked against the side of the car. They bobbed around in most undignified fashion. I was in a state of great anxiety. Millar had taken the bit in his teeth and was determined to show the directors what the Scotch engines could do. There was one of my Uncle's managers in the coach and he was sent with his hat through the roof, with no other injury except a shaking up and a broken hat. Where our engines went, we would go. We had eleven minutes of this speed, and then we were at Lachine; eight miles in eleven minutes. The directors were furious. The feat achieved was extraordinary but they were half dead with shaking and fear of an upset. They had no mind for more experiments of this kind. Unless we both promised to go more slowly they would ride back to Montreal in post-chaises, which a man was sent to hire. Well we promised enough. Sandy Millar gave his promise - with a wink, however: He got up on the engine, but would not allow me to follow. He had an excuse that he wanted plenty of room. Finally, he said with some good strong Scotch words: "These directors will find out now that this is a Scotch engine and that we can go even at a quicker rate. We will show them what we can do, now when we have them. Get up in the third coach. You are not coming up here." Well, without any more ado we started, and flew back to Montreal in nine minutes - that is, nearly a mile a minute. If the directors were startled with the speed shown when they went out in eleven minutes, you may be sure they were none the less when they came back in less time by two minutes. The president came to me very much ruffled and told me that he was going to fire Millar first thing in the morning. I said nothing because I could make no objection. But soon they had recovered their breath, and their common sense came uppermost. Most of them, and the shareholders too, were Scotchmen. They did not discharge Sandy Millar but asked him to become general manager of the road. That was his triumph and of course ours too."

Of course such speeds were not attained in regular service, and this demonstration was very dangerous. It is definitely not recommended that the volunteers at the Canadian Railway Museum try this with the new "John Molson"! However even the scheduled time of twenty minutes would be hard to beat in 1997.

With the two new engines in service, the Norris 4-4-0 "Lachine" became surplus, and it was sold to the Champlain & St. Lawrence Rail Road in November, 1848. The sale price was 1962 pounds 10 shillings currency ($7850) which is only 100 pounds ($400) less than the M&L paid for it; this is not surprising since the engine was almost new.
A map, dated 1879, showing the layout of the Bonaventure terminal in downtown Montreal. The passenger depot shown is the original building of 1847, and the dimensions shown on this map agree with those given in the newspapers at the time of the opening of the M&L. Much of the freight depot was built in 1864 by contractor Sherman soon after the Grand Trunk began to run its trains into Bonaventure. It is said that at least one of the original M&L English-style cars was incorporated into the terminal buildings. The passenger station shown here was torn down in 1887 and replaced by the impressive brick building that survived until 1952.

This is a good time to debunk another myth concerning the M&L. For years there had been a legend that the “Lachine” had derailed and sunk in the Turcot swamp where it was said to remain to this day. The story arose to explain the early disappearance of the locomotive from the M&L roster, and was perhaps inspired by the story of another locomotive that may have (or may not have) sunk in the swamp in the 1850s. However the appearance of an identical locomotive on the C&StL at the same time the “Lachine” disappears from the M&L suggests that the engine was sold. With the discovery, in the National Archives, of the record of the sale, we now know that the “Champlain” of the C&StL and the “Lachine” of the M&L are one and the same locomotive.

The Montreal & Lachine went on to bigger things. In 1847, the same year the M&L had opened, a company called the Lake St. Louis & Province Line Railway had been incorporated (10-11 Viet. Cap. 120) to build a railway from Lake St. Louis to the U.S. border. By 1850, nothing had been done, but in that year, probably at the urging of James Ferrier, an act was passed (13-14 Viet. Cap. 112) uniting the M&L and the LStL&PL under the name of the Montreal and New York Railroad Co. By 1852, the M&NY had built from Caughnawaga, opposite Lachine to the border, where it connected with the Plattsburgh & Montreal R.R. which had built north from Plattsburgh. With the provision of a car ferry from Lachine to Caughnawaga, there was, by September 1852, a connection from Montreal to Plattsburgh, and the boats on Lake Champlain, in direct competition with the Champlain & St. Lawrence which had been extended from St. John’s to Rouses Point the previous year.

There then began a period of intense competition between the M&NY and the C&StL which threatened to ruin both companies. They soon realized this fact and began some cooperation. Eventually, in 1857, an act was passed (20 Viet. Cap. 142) amalgamating the C&StL and the M&NY as the Montreal and Champlain Railroad Company.

In 1859 the Grand Trunk completed the Victoria Bridge which gave it access to Montreal from the south and east, and connected with their line to the west. They soon sought a better terminus in Montreal as well as a short route to the United States. Both these were available from the Montreal and Champlain, although with a different gauge. Eventually this resulted in the Grand Trunk leasing the Montreal and Champlain in 1863, and buying it outright ten years later. In 1863 the much-desired third rail was laid into Bonaventure station, allowing the broad-gauge GTR trains to come into central Montreal. In 1864, extensive freight sheds were built at Bonaventure station; the contractor for this job is believed to have been the brother of the famous Civil War general W.T. Sherman, who at this very time was leading the Union armies on the Atlanta campaign and the famous march through Georgia to the sea. The original train shed of 1847 remained in place until the terminal was completely rebuilt in 1887. Also in 1864 a third rail was laid on Victoria Bridge so creating a standard gauge connection between the two separate portions of the Montreal and Champlain. Because of the difference in gauge, the GTR operated the M&C as a separate railway for the next ten years, but when the GTR converted to standard gauge in 1873 the M&C was purchased and integrated into the GTR system. However a map of 1879 shows the two lines running more or less parallel, just as they had done in the days of the different gauges.

In 1887 the Grand Trunk, perhaps inspired by the CPR’s new Windsor station under construction only two blocks away, completely rebuilt Bonaventure station, the new building being an impressive Victorian brick structure which was in use (minus the top floor which burned in 1916) until 1948, and was demolished in 1952. The following year, 1888, a double track extension was built from Lachine to Dorval where it connected with the main line of the Grand Trunk. At the same time the former M&L was double tracked. Thereafter the line through Lachine became the main line, and the former main line assumed a secondary role. In fact the portion of the old line between Lachine and Dorval, parallel to the CPR, was abandoned in 1936 to build a highway.
This photo, taken during the great Montreal flood in the spring of 1886, shows the passenger terminal at Bonaventure. In the background is the original M&L trainshed of 1847, then 39 years old. It would survive only one more year before it was torn down to make way for the large new Bonaventure station.

The first challenge to the former M&L, for local passengers, came in 1896 when the Montreal Park & Island railway built an electric line from Montreal to Lachine and offered frequent service. This line was later absorbed into Montreal's street car system and remained until 1958 when it was replaced by a bus route. However the railway was now the Grand Trunk's main line, and for more than seventy years it carried GTR, and later CNR, trains from Montreal to all points west. There was also considerable commuter service, using tank engines. This extended to Vaudreuil, but was cut back to Dorval in 1955. The period from 1888 to 1961 was the golden age of the Lachine line, as it carried far more traffic than anyone could have dreamed of back in 1847.

In 1943, Montreal's new Central Station was opened, and all regular long distance traffic was moved from Bonaventure to Central. However Bonaventure was still used for commuter service and troop trains; the latter were, of course, discontinued at the end of World War II. In 1947 the centennial of the Montreal & Lachine was celebrated, and a large bronze plaque was set up to commemorate the event. At that time there was still passenger service on the whole of the former M&L except for the spur to Lachine wharf which was abandoned at an unknown date. This situation did not last much longer for, in the summer of 1948, the commuter service was abruptly switched to Central Station due to a serious fire at Bonaventure freight terminal. This was the end of passenger service between Montreal and St. Henry after 101 years. Bonaventure station was now unused, and in 1952 it was torn down.

The next major change came in 1961. For years the Lachine line had been a bottleneck due to the numerous level crossings on its route. Also the residents did not like the constant train traffic through their city. However the old GTR line was gone, its place being taken by a highway. Finally a solution was found. An arrangement was made with the CPR by which the CNR would build a new line for the CPR between Lachine and Dorval, just to the north of its existing line, and would then build its new line on the former CPR roadbed. This was done, train traffic was moved to the new line, and at midnight on June 4, 1961 the last train went through Lachine station which was then closed. The extension to that line, from Lachine to Dorval, which had been built in 1888, was then torn up and its place is now occupied by a street. The portion of the M&L between Turcot and Lachine was single-tracked, but remains in place to serve industries.

Although Bonaventure passenger station was gone, the freight terminal, and hence the original M&L line to Montreal, was still in use. This ended in 1981 when the freight terminal was closed, the tracks were removed between Bonaventure and St. Henry, and the area redeveloped for housing. So ended the existence of the first railway to enter Montreal.

Today one can still see considerable traces of the Montreal and Lachine Railroad. All westbound trains from Central station, and freights from Turcot yard, still follow the approximate right of way between St. Henry and Turcot West. However, due to extensive track relocation, one cannot be sure where the actual roadbed of 1847 lies in relation to the extensive track layout. Between Montreal and St. Henry the track is gone, and in most places the roadbed is covered by houses. However between Turcot West and Lachine the track is still in place, although its heyday is long over, and it has been reduced to the status of an industrial spur. Standing alongside this track, it takes a great deal of imagination to recall the days when trains passed here every few minutes, bound to innumerable destinations. It takes even more imagination to visualize that here was where Sandy Millar ran the Scottish locomotive, and its three-car train, at a speed of a mile a minute away back in 1848. Whatever happens, the M&L's place in history is secure, for it was here that the railway era began on the Island of Montreal, a hundred and fifty years ago.
The Montreal & Lachine Railroad Token

By Fred F. Angus

The token issued by the Montreal and Lachine Railroad has been a favourite with coin collectors and railway historians for almost a century and a half. These big copper pieces, with a hole in the middle, an early locomotive on one side and a beaver on the other, have an attraction and fascination that is not present in many other coins and tokens. They are now very scarce, which adds to their desirability, but are sufficiently common that it is still possible to obtain one. Despite their popularity, and the fact that they have been collected for a very long time, there are a lot of unanswered questions about these tokens that still puzzle numismatists.

Consider this situation. It is the summer of 1848. There are revolutions throughout Europe, but all seems peaceful here. You are in Montreal, which is still the capital of the Province of Canada (and will be until the following spring), and have business in Kingston, Canada West. Since the railway will not be open for another eight years, you will go by the steamboat “British Queen” which sails from Lachine. The Montreal and Lachine Railroad station at Bonaventure is about a mile away, but this is not a problem since the City Omnibus company has recently inaugurated the first city transit line in Canada. You board the omnibus and hand the driver the five cent fare. Since there is no Canadian silver coinage (and there will not be until 1858), this may be an American half dime, or perhaps two big Bank of Montreal penny tokens and a couple of “habitant” sous.

In a few minutes you are at Bonaventure station in good time for the 9:30 A.M. train to Lachine. Since the trip is short, you decide to go third class. You go to the ticket office, pay 25 cents (perhaps an American quarter or a Mexican 2 reals) and receive two big shiny copper tokens 1 3/8 inches in diameter. You look at them and notice that they bear on one side a picture of an early locomotive of the “Planet” type of about 1830, much older than the one that will pull your train. Surrounding the picture is the name of the railway. On the other side is a picture of a beaver chewing on a branch, above which, in large letters, is the inscription “THIRD CLASS”. Most noticeable is the 11/64 inch hole in the centre of the token. You have bought two tokens so as to have one for the return trip, but now you think you might just keep one as a souvenir. You board the train and the conductor comes around and collects the tickets. You hand him one of your tokens, and he places it on a wire, so you now see why it has the hole. He then closes and locks the door to your English-style compartment and goes on to collect tickets from the passengers in the other cars. At exactly 9:30 the train starts, and twenty minutes later you are at Lachine wharf ready to board your steamboat.

When the Montreal and Lachine Railroad was built it was decided to provide three classes of accommodation, corresponding to the steamboats with which the train connected. The fare structure was such that the second and first class fares were double and triple respectively that of third class. At that time work was being done on enlarging the Lachine Canal, and it was expected that many of the third class passengers would be the workers on this project. In addition, Indians from Caughnawaga, travelling to Montreal, would likely cross the river to Lachine and take the train, also going third class. The company felt that paper or cardboard tickets would not be suitable for these people since they would be carried around in pockets and would get dirty and worn out; something more durable was needed. We do not know who thought of the idea of metal tokens, or even when they were ordered, but it was evidently quite early, possibly even before the railway was opened.

The concept of metal transportation tokens was quite new, but those issued by the M&L were not the first in Canada. As early as 1808 the owners of three toll bridges at the east end of the Island of Montreal had issued a series of twelve tokens (four for each bridge) for different categories of vehicle. These bridges were destroyed by ice the following year and the tokens are very rare. In the 1820s tokens had been made for a Quebec City ferryboat, and another token was issued about 1840 for a ferry at Halifax. However the Montreal and Lachine tokens were almost certainly the first for a Canadian railway, and they were much larger and more impressive than their predecessors.
From the surviving accounts we know that the M&L ordered the tokens from Birmingham England, and they were struck in quite large quantities, but unfortunately we do not know how many. No other token has these designs, so they must have been specially engraved for the M&L. At that time there were two major private mints in Birmingham, Boulton & Watt, and Ralph Heaton & Sons. We do not know which firm minted these tokens, but if it was Boulton & Watt it must have been one of their last orders for they closed in 1848. Heaton's still exists and is now known as The Mint, Birmingham Ltd. As a point of interest they made many of Canada's regular coins between 1871 and 1907.

In due course the tokens arrived in Montreal and were put into use. Considering the wear on the surviving examples it is evident that they were used for a few years, but we do not know how long. After 1850, the name of the company would have been obsolete (as it was changed to Montreal & New York in that year), but this would not necessarily have meant the end of the tokens; there are many cases of earlier issues of tokens continuing in use. One thing that seems certain is that there was no second order of tokens since all those known are of the same variety.

Regardless of how long they were used, we do know that they were out of use by the time the Montreal & Champlain was taken over by the Grand Trunk. Evidently they were stored at St. Lambert for we are told that the balance remaining in the hands of the company were melted at St. Lambert in September, 1862. The only ones to escape the melting pot were those in the hands of the public, including some that were kept as mementos.

The first numismatic account of these tokens to appear was in 1869, only seven years after the melting. In that year Canada's first coin catalogue, "Coins Tokens and Medals of the Dominion of Canada", by Alfred Sandham, was published. Many coins and tokens were illustrated by line drawings, including the Montreal & Lachine. This illustration and the corresponding text (with the type reset) is reproduced here. The Sandham account of the M&L token is the best that has appeared in a Canadian coin book despite the fact that it appeared 128 years ago.

The next major Canadian Coin book was "The Canadian Coin Cabinet" by Joseph LeRoux M.D. which appeared in 1888. It lists the M&L token as No. 600, illustrates it, and has this description: "Obv.: Engine. MONTREAL & LACHINE RAILROAD COMPANY. Rev.: Beaver,pee. THIRD CLASS. Size 21, rarity 5. The Company had special low rates for the Indians, this token was a ticket for an Indian".

Most famous of all early Canadian coin books, and one that is often still consulted, was "Illustrated History of Coins and Tokens Relating to Canada" by P.N. Breton, published in 1894. Breton catalogues our favourite token as No. 530. He describes it thusly: "It was found that ordinary railway tickets were not convenient for use among the Indians and workmen on the Lachine Canal, who formed the bulk of the third class travel by this road. These tickets were therefore imported from Birmingham. They were strung on a wire as were they collected by the conductor. The balance remaining in the hands of the Montreal and Champlain Railway Company, were melted at St. Lambert in 1862".

The three accounts agree on the most important points, and give a good idea of the history of the token. A new edition of Breton appeared in 1912, but without the description. After 1914 interest in Canadian tokens waned and there was no new publication until about 1950. Most descriptions merely follow Breton or LeRoux, and little new is offered. The latest token catalogue does not even list the M&L since it confines itself to official or semi-official tokens intended for currency.

This description, by Alfred Sandham in 1869, is the earliest known listing of the M&L token in a numismatic book. The drawing is reproduced actual size, and the text has been reset but retains all the original spelling and punctuation. The nine miles is the distance from the centre of Montreal and not from Bonaventure.

In 1947, as part of the centennial celebrations, the CNR had a replica token struck, in both copper and silver. The replicas are easily distinguishable from the originals since they have the date "1847" to the left of the locomotive, and "1947" to the right of it. They are not of as good a quality as the original, and do not have all the fine detail. They also have a shiny black patina to make them look old! An original M&L token is of unalloyed copper, is 1 3/8 inches in diameter, has a 1/8 inch hole in the centre, and weighs about 16.2 grams. This indicates that about 28 were made per pound of copper, so they are much heavier than the Canadian large cents which were 80 to the pound.

Another mystery concerning this token is the "X" that is often seen scratched on the obverse under the "T" of "Third Class". At first it looks like some unofficial mutilation that would reduce the value of the piece. However about half of all known specimens of this token, including the one illustrated here, have that "X", so it must have meant something. One can make many guesses as to its significance, but the true answer is still unknown.

Today it is estimated that about 200 of the Montreal & Lachine tokens still exist. That is not many to satisfy all collectors, so they must be considered very scarce, almost rare. Due to the demand, they are quite expensive and it would be very difficult or impossible to get one for less than $100. In better condition the price is much higher, going up to $400 or even more. Yet 200 known is quite a few, and it is still possible to find one if you want to pay the price. Certainly this token is extremely interesting and attractive, and it is one of the oldest relics of a Canadian railway that one can ever hope to own.
The Beaver Returns!

By Fred Angus

The Canadian Pacific Railway (CPR) as part of its new image, has announced that it is adopting a new insignia which will once again include the much loved and historical symbols, the beaver and the shield. So, after an absence of almost thirty years, the beaver has returned. The new beaver has a more aggressive pose than those formerly used, in keeping with the railway’s aggressive competition for the transportation business, and the symbol now displays both Canadian icons for the shield bears a maple leaf. In keeping with the historical heritage of the CPR, the date “1881” appears below the shield; this was the year that the company was founded. To commemorate the return of the beaver, we will look at earlier symbols used by the CPR, some with the beaver, some without, but most including a shield. For the first twelve years there were almost as many beavers as there were Canadian Prime Ministers in the same period, but about 1898 the design assumed a long-lived configuration.

The earliest insignia used by the CPR appears to be the above shield, fairly fancy, but without a beaver. This dates from about 1886 and was used for approximately two years. As in all the CPR shields up to 1929, the railway name appears prominently. We shall meet his shield again for, after being unused for more than a hundred years, it has recently been revived as the insignia of the Canadian American Railroad.

In 1888 the shield was modified to a spade shaped design with three points on top and, for the first time, was surrounded by a beaver. In all cases from then on, the beaver, when he appears is properly described as a crest. Too often the term “crest” is erroneously used to describe the entire insignia. A true crest is only what is atop (on the crest of) the shield, and the beaver meets this definition. The earliest use that the author can find of this shield, and hence of the beaver, is on a system timetable dated November 19, 1888. An identical shield also appears on August 15, 1889, but the design had been changed by 1891. We may say, with reasonable accuracy, that this beaver was used from about 1888 to 1890.

By 1891 the beaver had changed again. He now was even more rat-like than on the 1888 insignia, and was on a shield almost the same as the previous one, but with smaller lettering. This shield and beaver seem to have been unpopular and short lived; the only example I can find is on a timetable dated November 30, 1891.
By 1892 the shield had assumed almost the form it would keep until 1929, and the beaver had evolved considerably from its earlier appearance. He now looked much less like a rat, and had enough courage to turn and face the onlooker. He was still quite small however, and did not cover the whole shield. This beaver was more popular than the earlier ones, and lasted for about five years. He has been noted as early as October 17, 1892, and as late as May 30, 1897. However he was still too small to represent truly the rapidly expanding CPR.

Sometime around 1898 the beaver finally grew up. He was once again looking ahead, not toward the reader, but is now much bigger, covering the entire shield, which itself is slightly longer. In fact his tail overlaps the upper right corner. With this design, the insignia had finally assumed the form it would keep for more than thirty years, the longest period for one design in the CPR’s history. The earliest example I have found is on a timetable dated March 13, 1899, but I believe it was adopted during 1898. During the time that this beaver graced the CPR’s shield the railway had what is arguably its greatest era. It was then that the West was being settled and branch lines were spreading across the prairies. It was also the time of World War I, the great wartime traffic and the continued prosperity of the 1920s. Throughout all that time the design of the insignia remained unchanged until 1929 when a complete redesign saw the temporary disappearance of the beaver.

In 1929 a new shield was inaugurated; this had the words “CANADIAN PACIFIC” at the top, under which was the part of the company concerned, e.g. “RAILWAY LINES”. Beneath this was a circle, representing a globe, upon which was “World’s Greatest Travel System”. The most conspicuous change was that there was no beaver; after 41 years he had gone. By what must be sheer coincidence, within a few months of the disappearance of the beaver, the stock market crashed, the great depression began and, as the depression was ending in 1939, World War II broke out. After the war, thought was given to a new image so, in 1946, the beaver returned.

The 1946 shield is what most of us remember. The new beaver was more realistic as he sat upon the shield chomping a tree branch, and happy to be back. The wording now said “Canadian Pacific” in script, under which was a globe saying “Spans The World”. In the spring of 1946, the biggest beaver of all appeared, the big neon sign on Windsor station. This sign remained until 1969 when it was removed and dumped on the scrap pile. Fortunately it was rescued from this ignominious end and is now at the Canadian Railway Museum. The 1946 beaver was also on the new stainless steel passenger cars and the passenger diesel locomotives.
This view of street car 1317 on Windsor Street in 1956 shows "the biggest beaver of them all", the sign that hung on Windsor Station from 1946 to 1969. Both sign and car are now at the Canadian Railway Museum.

In 1968 CP was reorganized. The parent company became C.P. Limited, and the various branches were known by such names as C.P. Rail, C.P. Ships, C.P. Hotels, etc. The unifying symbol was the "multi mark", something like a triangle within a circle within a square. Gone was the beaver, the shield, and even the well known initials "CPR". Although the multi mark later fell into disuse, the other names continued until recently. In fact to the average person the initials CPR came to signify Cardiac Pulmonary Resuscitation rather than Canadian Pacific Railway!

Then in 1995 the company reorganized again. The railway portion, soon to be headquartered at Calgary, received the old name Canadian Pacific Railway and the initials CPR. It was also said that there would be a new insignia, and we all wondered if it would include the beaver. In 1997 the official announcement was made and the beaver returned. Welcome back, old friend, we've missed you. Long may you remain.

While on the subject of the new symbol for CP lines, it is appropriate to mention these two very attractive examples used by lines that used to be part of the CPR. The Canadian American Railroad uses the same shield that the CPR used between 1886 and 1888. This is very fitting as the CAR includes part of the "Short Line", between Montreal and Saint John, that was under construction when the original symbol was in use.

The Quebec Southern symbol is new, but very distinctive and pleasing. It displays the Fleur de Lys, the emblem of Quebec.
The Restoration of Courtauld’s No. 7

By Jean-Paul Viaud
Curator, Canadian Railway Museum

Shawinigan Water and Power Company, locomotive No. 1, now Cornwall No. 7 at the Canadian Railway Museum, as it appeared on August 11, 1901, when it was new. Photo courtesy of Hydro-Québec.

In 1989, Canadian Rail printed an article on some pieces of the collection. [Note 1]. One of them was an electric locomotive, which was last operated by the Cornwall Street Railway under road number 7. This piece of equipment has been part of our museum collection since 1959, and on the site since 1963.

At the time of the article, there were a lot of gaps in our knowledge of the locomotive. She was described as “built about 1900, by the Montreal Street Railway, for the Shawinigan Falls Terminal Railway. It was locomotive number 1 of the SFTR and in its career was, at different times, equipped with a trolley pole and pantograph.” No photograph of her, early in her career, had turned up... until recently, when a search through the archives of Hydro-Québec, [Note 2] for a larger publication which will be published next year, turned up a photo of it taken in 1901.

Several authors have written on the different companies which, at one time or another, were the owner and/or user of the locomotive. Not all agree on the dates, the use or the disposition of the it, which complicates determining its history.

Based on that premise, what follows is a resume of her career. The most obscure part is the “Niagara period” when she was in use by the Niagara, St-Catharines & Toronto Railway, between 1912 and 1931 [Note 3] (or 1932 [Note 4]). All information on that period will be most welcome by the author, particularly pictures! As such I am calling on all members of the CRHA who can help me in that search.

THE BEGINNING --- SHAWINIGAN

In 1899, the Shawinigan Water & Power Company was founded in Montreal. From the start it was an audacious project at the turn of a century which saw electricity as more than a simple funny laboratory experiment. Telegraph, telephone, lighting, and now tramways were part of the day-to-day life in several big North American cities. Still, the distribution of electricity over long distances was still a matter of trial and error.

Not very rich, this company was looking for partners and clients. The new industries which were heavy consumer of elec-
ntrical power (aluminum for example) were very much sought after. It was for these companies that the electric railway was built in Shawinigan.

Between 1899 and 1900, the S.W.& P. Co operated several narrow-gauge steam locomotives to help in the construction of the complex. It is known that the S.W.& P. Co had a fleet of locomotives which were numbered. Sadly there is no roster left of that period and only an occasional photograph were we can see one of these interesting pieces of equipment (one of these photographs will appear in the final publication).

In 1899 it was decided to built an electric line for switching purposes between the different industries which were to be established. [Note 5] The American firm Warren-Scharf Asphalt Paving Co. under the supervision of the overall contractor, the Montreal based engineering firm F. Pringle & Sons, was responsible for all the work related to the electric line construction.

At first this line was only 4.5 miles long, and the electrification had to wait until 1901, when new workers, some former employees of the Montreal Street Railway, were hired. In June 1901, the electric line was officially opened (until then traffic was by the Canadian Pacific and the Canadian Northern using steam locomotives) with the new locomotive: S.W.& P.'s first electric locomotive.

She was ordered probably at the end of 1900 to be delivered at Shawinigan in 1901. Until now no documentation has been found on the exact order date and delivery date. She was built by the Montreal Street Railway using an American design (the Cayadutta R.R. had been using a G.E. electric locomotive of the same size and characteristics since 1894) and MSR equipment: the trucks are the "Montreal" variant. It is very interesting to see that the MSR was experimenting at the very same time with its first double trucks streetcars.

In 1900 MSR 638 was the first city streetcar in Montreal with double-trucks, one motorized. Subsequently, all trucks were equipped with GE or WH motors and K series controls. It was with these cars that the "Montreal" truck variant was introduced. This definitely confirm that the MSR was the builder of the S.W. & P. Co. locomotive.

No. 7 in service in Cornwall on August 15, 1945, the day World War II ended.

Photo by Ernie Plant, National Archives of Canada, Merivalees Coll. PA-166503.

She was a flat, small cab, double-ended, double-trucked locomotive of moderate size, 27.5 tons, with 550 volt DC motors of 50 H.P. As the line was not grounded, the locomotive was designed to use a double-trolley system with one trolley for power (positive) and one for ground return (negative). It necessitated a double trolley line and was difficult to maintain and use. For this reason, in 1906, it was decided to convert the line to single trolley system.

In 1902 the Shawinigan Falls Terminal Railway was incorporated. The locomotive and all the equipment (line, power house etc.) was leased to this company by the S.W.& P.Co. (in 1950, when CP and CN took over the SFTR, they took also the original lease, which has disappeared from the archives at Hydro-Quebec) [Note 6]. Our locomotive probably took the road number "1" at this occasion, but there is no hard evidence that she ever bore this number on her sides.

In 1908, a second locomotive was ordered by the S.W.& P. Co, on behalf of SFTR, from GE Canada. Capable of operating on an AC or DC system, she was acquired as a replacement to No. 1 and not a complement. Delivery date was scheduled for the winter of 1907-1908 since the company was looking forward to an increase in the number of movements [Note 7]. At the same date, No. 1 was retired and held in storage, probably as a back-up. As such she never had a pantograph, which was only used by the other SFTR locomotives since the conversion to 6,600 volts AC in 1912 (the voltage was lowered again in 1917).

THE NIAGARA PERIOD

In 1912 the line was converted to AC high voltage (6,600 volts). Being of no use, No. 1 was sold to the Niagara, St-Catharines & Toronto Ry. Omer Lavalée [Note 8] stipulated that the locomotive was sold to a company in St. Catharines, and eventually went to the N.St.C. & T. Ry. He is the only one to say so, and there are no other sources which present the same data.

John Mills has noted in his roster [Note 9] that she was described as a "flat small cab". She seems to have been rebuilt in 1917. There are no other sources which describe this locomotive in the same way as John Mills did. The photograph dated August 11th, 1901, from Shawinigan, shows a small, flat cab. The only picture known until now was the one taken in August 1945 at Cornwall, long after the rebuilding of the locomotive. By then she had a small steeple cab with a round top, not a flat one.

It is safe to assume that she was really rebuilt in or around 1917 to her present appearance. I am looking for pictures which will show her before and after 1917, while in use by the N.St.C. & T. railway.

THE CORNWALL PERIOD

In 1928 she was sold to a used equipment dealer (R.W. Marshall?) which finally sold her in 1931 or 1932 to Cornwall Street Railway where she became second No. 7.

During the years between 1931/1932 and 1946, she was used for switching purposes on the CSR system, before being sent to the Courtauld's Canada Industries site were she remained in use and owned by the CSR (but exclusively for Courtauld's). The control was modified to a single controller, placed 45 degrees askew from the normal position. WH 93-A2 60 HP 500 DC motors were now in use (and may have been added during the 1917 rebuilding). About 1958 she was badly damaged, with a broken
main frame, when she was run into by a loaded freight car. She was thereupon retired from service. Finally given to Courtauld's for disposition, she was officially transferred to the CRHA in 1959 before being sent to the Canadian Railway Museum in 1963.

**SINCE THEN...**

The locomotive had been badly damaged in the accident. The frame was broken and bent. In 1964, the museum’s volunteers, led by Peter Murphy, arranged for a welder to repair the frame, and they also did some cosmetic restoration.

Between 1963 and 1996 she was left outside, but not ignored. She has been selected for the National collection, and as such will play an important part in the permanent exhibition. Restoration began at the museum shop in 1996, and the locomotive was completely dismantled in the process. All the wood (cab, roof, floor) has been replaced with the appropriate material. All the electrical apparatus has been dismantled and examined. It will be cleaned and repaired, with new parts where necessary. The frame has been wore thoroughly overhauled, with rusted parts cut off and new ones welded in place. Much needs to be done but we hope to be able to have her ready for 1998, with eventually her motors in running order before her 100th birthday in 2001.

**HELP WANTED**

If you have any data, pictures or information etc. about this locomotive, please send it to:

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**NOTES**

1. Fred Angus; "From the Collection: Cornwall Electric Locomotive number 7 and Ottawa Electric Railway Car Number 423" In Canadian Rail, January-February 1989, pages 16-18
3. The following authors give 1931 as an acquisition date for the locomotive by Cornwall:
   - Andrew Panko & Peter Bowen, NS&T (Canadian National Electric Lines), Niagara Division of the Canadian Railroad Historical Association, St-Catharines, 1983.
   - Andrew A. Merrillees & O. Maus, "Niagara, St-Catharines & Toronto Railway All-time roster of equipment" In Bulletin 19, February 1946, Upper Canada Railway Society.
4. The following authors give 1932 as an acquisition date for the locomotive by the Cornwall Street Railway:
   - Fonds Andrew A. Merrellies, type-written document, roster of equipment for the Cornwall Street Railway. Author unknown, but very probably A.A. Merrillees. (CRHA Archives).
5. The deadline date for the delivery of electrical power by the new plant was scheduled for July 1903 at the latest. This date appears regularly in the different documents consulted at Hydro-Quebec.
6. Fonds F1, Hydro-Quebec Archives. A note in the original file stipulates that the original document was transferred to CN & CP. It would be very interesting to read it, since it is described as including maps and inventory of equipment.
7. Fonds F1, contract 6266. Hydro-Quebec Archives
8. Omer Lavallée, The Shawinigan Falls Terminal Railway. Type-written manuscript for a Canadian Rail publication. Montreal, 1950. CRHA Archives
Book Review

Lines of Country: An Atlas of Railway and Waterway History in Canada By Christopher Andreae

We have just received a copy of this publication which can only be described as a "MAGNUM OPUS"! Since it arrived just before the deadline for this issue of Canadian Rail, there is not time to do the detailed book review that this work so richly deserves. It is a huge book, 16 by 12 inches, containing 228 pages of history, photographs and, above all, maps of Canada's railway and waterway systems, past and present. The answers to many historical questions are to be found here, especially the date of construction of just about every railway line in Canada. I've already used it five times, and it's only been here two days! The maps are arranged by historical date as well as by location, making it easy to find the information required.

For anyone serious about the history of Canadian railways or waterways, I have only one comment about this book: BUY IT! It is quite expensive ($95 Canadian or $75 U.S.) but worth every cent. It is published by: Boston Mills Press, 132 Main Street Erin Ontario, M3B 2T6

Due to our print deadline, we quote from the prepared review:

"Christopher Andreae's Lines of Country: An Atlas of Railway and Waterway History in Canada is the result of 20 years of painstaking research. It will serve as a useful reference work on transportation in Canada for generations to come."

Paul Tellier, President and Chief Executive Officer Canadian National

What's Your "Line of Country" less common term for, 'what's your business?'

A truly historic work twenty years in the making, Christopher Andreae's Lines of Country: An Atlas of Railway and Waterway History in Canada is first and foremost an atlas for those interested in Canada's transportation networks. The first such work of its kind to encompass both railway and waterway mapping for the entire country of Canada, it is packed with dates, names and technical information, and is intended to help - among others - historians, geographers and transportation planners. Yet Lines of Country will also appeal to the preservationist in every railway and waterway enthusiast, for while it charts the maze of lines crisscrossing the country, it suggests ways of enjoying these physical resources; to perhaps stop at a level crossing and ponder where the train came from and where it is going.

Building the Lines Reading the Lines Mapping the Lines

In his prologue Andreae outlines the evolution of railways and waterways which were influenced by - and in turn exercised influence on - the country's other transportation modes, including the motor vehicle, aviation and pipelines. It is also a brief survey of significant issues that have affected the development of the railways and waterways subsequently mapped in the atlas.

Section one closely examines the technology of railway and water canal construction, providing a sense of scale and complexity to the thin lines portraying tracks and canals on the maps. Illustrations and drawings explain technologies not readily depicted in the text. In section two, a wealth of cartography represents the growth of the railway and canal systems in Canada. (The history of their design illustrates the rapidity of technological change in the publishing world. When they were first completed in 1982, cartography relied on manually scribing the lines and laying type on plastic scribecute film - a highly specialized craft. Although computer mapping became available in 1990, Andreae chose to continue manual revision of the maps for economic reasons. Few, if any atlases produced now, or in the future, can boast of this traditional method of cartography.) In section three, tables containing short, synoptic histories of the companies mapped in this atlas are provided, as well as dates of the companies' amalgamation and name changes. Andreae also provides complete instructions in reading all maps and tables.

Two indexes have been prepared to aid the reader. One is a plate index listing all railways and canals. The second is a thematic index of the text to identify historic themes not evident to the reader. A complete bibliography, organized into separate sections for railways and waterways, illustrates the variety of resources used by Andreae in completing this epic atlas.

"What would I like to do now that this quarter century project is finished? Spend time with my family; finish a model railway; write short articles; and develop a touring business guiding people to transportation sites around the world."

Christopher Andreae

About the author

Chris Andreae is a well-respected Canadian transportation historian with a master's degree in Museum Studies from the University of Toronto and a master's of Social Science in Industrial Archaeology from the University of Birmingham, England. Since 1980 he has been the president of a heritage consulting firm, Historica Research Limited, London, Ontario, and a partner with the Blackfriars Tour Group, London, Ontario. He is a member of the Canadian Association of Professional Heritage Consultants and the Ontario Historical Society. He currently resides in London, Ontario.

A book of this magnitude also required the input of the following designers:

Cartography design: The design of the plates for this atlas were completed under the direction of Geoffrey J. Matthews. Among Mr. Matthews's numerous atlas projects are the award-winning "Economic Atlas of Canada" and the three-volume "Historical Atlas of Canada". He is now retired and living in Australia.

Book design: The design and layout of the book were completed by Mark Fram. He has written and designed several books, including "Well Preserved" (Boston Mills, 1992, 2nd edition). He is the president of the architectural firm, Polymath & Thaumaturge Inc. He lives in Toronto.

Lines of Country has been funded by several sources, particularly with the assistance of the Canadian National Railway.
Letters and Other Communications to the Editor

FOLLOW UP TO 1879 RAIL ARTICLE

Mr. Peter Lacy, of Winnipeg, Man., has sent the following very interesting letter:

"I read your article "The 1879 Government Rail Contracts" in the July - August '97 Canadian Rail with great interest. At the end you speculated as to where more of the rail might be found. Well, I can tell you where some of it is, and that is: actually in use on the Winnipeg Hydro Tramway, at Pointe du Bois, Manitoba! I discovered this while doing research for my book on the Tramway. There is a great variety of rail of extreme vintage in use; the oldest I noticed was a piece of Mersey Steel, dated 1875. In a stretch of track about 100 yards in length, and in a nearby stockpile, I found no less than 25 different combinations of makers and dates, ranging from the aforesaid Mersey Steel through Krupp to Carnegie, 1902."

CORRECTION TO SPERRY ARTICLE

Mr. Don McQueen, of London, Ont., has pointed out the following error in the article on rail testing in Canada: "Re CSXT item in CR #460, page 124. Chatham - Blenheim is only part of what remains of C&O in southern Ontario. Daily wayfreights run from Sarnia to Chatham via Wallaceburg and Dresden. They run to Blenheim when needed." Since Mr. McQueen's letter, two other members have pointed out the same error.

Mark Gustafson, the author of the article, says that they did indeed test all the way from Sarnia to Blenheim, as Mr. McQueen and others have pointed out. The error is entirely the fault of the editor.

PHOTOS WANTED

Mr. Dale Wilson, 158 Adie Street, Sudbury, Ontario P3C 2C8, phone (705) 674-8217, fax (705) 674-4049. E-mail dwt2@web.net writes the following:

"I'm looking for some very much "out of the ordinary" photos. Would you happen to have - or know anyone who might have - photos of the ill fated CPR passenger venture between Toronto, Ottawa and Montreal in the fall of 1965, immediately following the ending of the CN/CP pool arrangement. The Montreal-Toronto service was done with trains named "The Royal York" and "Le Chateau Champlain", and I've never seen pictures of them. Any suggestions would be welcome."

Editor's note: These trains only ran from late October, 1965 to early 1966. Photos of them must be very rare; I've never seen one either. Can anyone help Mr. Wilson?

MORE HELP WANTED

Mr. David Hardman, 94 Regent Street, London, Ontario N6A 2G4 writes:

It has recently come to my attention via "The Keystone", the publication of the P.R.R. Society, that the PRR [Pennsylvania Railroad] once sold an A3 class 0-4-0 to the NB & PEI Ry. Which later passed to the Canadian Government Railways, which finally turned it over to the CNR. The author says it was lettered for the CNR, can anyone confirm this? Does anyone have any photos of this loco in any of its 3 Canadian guises, or a photo of any NB & PEI Ry. loco so I can see how they lettered their locos (NB & PEI number was 3, CRGy number was 1177 and CNR number was 2, class X2a). Many years ago a firm in the U.S.A. imported a plastic model of a PRR A3 0-4-0; I am looking to buy a couple of these models. No motor required as a smaller motor must be installed to permit cab sides to be reduced to scale.

NEW BOOK ON TRAIN WRECKS

Robin Brass Studio, 10 Blantyne Ave., Scarborough, Ontario, M1N 2R4 writes:

We shall soon be publishing "Wreck! Canada's Worst Railway Accidents" by Hugh Halliday. I enclose an information sheet. Does your publication do book reviews, and if so would you be interested in reviewing this book? [yes to both questions. Ed.]. Your readers may be interested to know the book is coming out later this month. It will cost $18.95.

VIA AND AMTRAK OFFER COMBINED PASS

Via and Amtrak are coupling their rail systems through a new North American pass starting next year. This proposal is bound to appeal to European travellers, giving them an equivalent of the Eurail pass, a favourite of North Americans. While the Canadian and American passenger systems will retain existing pass programs, the new "North American Rail Pass" will cover 900 destinations and 45,000 kilometres of rail travel. It will cost $895 (Canadian) for a 30-day period during peak season, and $625 in off-season. That's for economy class; upgrades are available. Final restrictions will be announced when it is introduced in January. The pass will be available to North Americans as well as visitors.

GREAT WESTERN RAILWAY NUMBERING

Mr. Ray Corley has sent us considerable data on the various numberings used by the Great Western Railway of Canada between 1835 and 1882. This corrects and augments the information printed in the July - August 1997 issue (No. 459) of Canadian Rail. It is hoped to print this data some time during 1998.
Canadian Rail
120, rue St-Pierre, St. Constant, Québec Canada J5A 2G9

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