Just A. Ferronut's *January 1996*

Railway Archaeology

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Welcome to a new year, but already I am behind schedule. I was planning to cover the Preston & Berlin Railway this month, but I spent too much time on other projects to get the map finished. Hopefully, next month! In the meantime, we will look at some things that have come up as the result of my "other projects."

Point Saint Charles

The GTR/CN railway shops at Point Saint Charles (now AMF) have made the national media because of its pending sale. Locally, discussions about the location of the main track and first station in Point Saint Charles have been bandied about on a local computer forum. And a few days ago a local radio station, that has been highlighting various streets around Montréal, chose Sebastopol, a short street just to the west of the original GTR shops as its topic of the day.

With the Grand Trunk building in the Point during the Crimean War, and in keeping with the practice of the period to adopt names for streets, etc., from news items, Sebastopol became one of them. It was named for the Ukraine city of Sebastopol, now called Sevastopol, that in 1854-55 had withstood a siege of 349 days. The thing that makes Sebastopol Street interesting to the railway history enthusiast is that it still has several groups of the row housing built by the Grand Trunk during its years of infancy for its workers. These two storey, flat fronted brick row homes, are quite different from the more common rows of stone housing in Montréal with their basements half above ground for extra living space and outside metal stairs. Many of the early railway employees were from Newcastle, England, and these homes on Sebastopol Street are similar to the designs used there in the 1850s. Within a couple of minutes walk to the railway shops, these houses provided their occupants with a view of the growing community of Montréal to the east, with its backdrop of Mount Royal. On the social side, the GTR was progressive for its time. While doing some rooting around, I noted that the GTR had opened a library for its employees at the Point in 1857. Three years latter in 1860, the Prince of Wales, while in Montréal to open the Victoria Bridge, made a good will gesture by leaving a sum of $440 for the benefit of Grand Trunk employees. This money was used to purchase books for the employees' library.

My search for information about the early track alignment, etc., at the Point, turned up an interesting article from a 1930 Canadian National Railways Magazine. This story is recollections from a Locomotive Inspector named William Henry Sarjeant, who had started work at Point Saint Charles for the Grand Trunk Railway in June 1866. Billy Sarjeant was 14 at the time, and after trying his hand at a couple of other jobs, concluded that he wanted to be a mechanic, or a tradesman, and he set his sights on a job in the Grand Trunk Shops.

He states: "Richard Eaton was Superintendent of Motive Power, in 1866. I knew him by sight, as everybody knew him, and I lay in wait for him when he was on the way to the shops. There was a good deal of open country about Montreal in the sixties, especially at the Point and I waited for Mr. Eaton in an oat field, alongside a bridle path, where he was sure to pass. The bridle path through the oats, strange as it seems to me today, is now known as Bridge Street and the oats have all been threshed long ago."

Sarjeant worked 64 years in the shops at the Point, retiring from Canadian National early in 1930. While perhaps parts of his article are a little more on the human side than historical, I am going to pick a few sections that highlight some of the changes that have impacted railways and their employees in his period and to which we can relate current issues. To start with how many jobs are procured today, by waiting for the "boss" to walk by?

In recalling public transit Mr. Sarjeant said: "Montreal had horse cars at that time (in the 1860s) of course. The Point bus went from the Post Office, and I can still hear the driver calling "Hey! hey! who's for the Point? Five cents all the way!" It was a double decker with a railing on top and held, if I remember rightly, 15 or 18 passengers. At the grades, the male portion of the load used to get out and shove."

"I served my seven years' apprenticeship, coming through the boiler and machine shops to the erection shops, which was my aim. In the course of time, I was made leading hand, and then I was appointed gang boss, repairing locomotives and afterwards erecting new engines. I became inspector in 1911. The first engine we built I think, was the 'Eaton' named after the Superintendent. That was in 1882 and we were enormously proud of the masterpiece. In my time I supervised a gang of from 20 to 32 men in the erection of about 260 locomotives."

"It is a source of great pride to have been long enough at the railway shops to see the coming of the CNR 6100. She was not something that sprang to life at the wave of some magician's wand, but the logical result of 60 years' growth. In the old days, our methods were antiquated in the extreme. Think of the clumsy wood-burners; of stacks of wood as high as the running sheds, of the work of loading the fuel on the engine; and of the feeding it into the fire box. Think of the horse power we used to cut the wood! Think of the peat bog at St. Hilaire! Today, we have automatic stokers and oil burners. Our little engines could haul 26 cars. It took us from three to six months to give one of them a thorough repair. Now we could turn a 6100 over in a week. It has been the pride of my life to have inspected the Northern. I only wish I could have the opportunity to build one!"

"While it may have been good for the muscles, the work was hard in those early days. Valve faces in the steam chests had to be chipped and filed and brought back to their original surfaces after wear and tear. Crank pins had to be filed by hand instead of turned by machinery. In fact, everything was done by hand, and it was slow as well as tedious."

But to the Mr. Sarjeant's of his day: "I'd go through it all again, just for the joy of working with locomotives. Given the strength, nothing would please me better than to start another 64 years this minute." How many people today, would say that about their job?

While discussing changes and still in the Point area, a couple of more comments on the Victoria Bridge repairs that we have mentioned in several recent columns. Our member Doug Brown has been supplying me with copies of many of his fathers, Robert R. Brown's articles on railway history. One

recent group had some material on the Victoria Bridge, and Doug was musing as to what percentage of the total weight of steel would these current CNR repair/upgrade contracts represent. The current tender call is for 13,000,000 lbs., this in additional to some work already completed. So, back to the books! The weight of the iron in the tubes of original single track 1859 bridge was 20,258,560 lbs. The steel in the present, or Jubilee double track bridge that opened in 1898, weighs 44,000,000 lbs or 2.17 times as much as the first bridge. The present 13,000,000 lbs represents an replacement equal to approximately 30% of total weight of the existing bridge excluding the seaway diversion spans. However, I expect that some of this 13,000,000 lbs will be for strengthening, so that the post construction total weight of the bridge will be something greater than 44,000,000 lbs. On the money side, the figures of $35-$40 Million has been mentioned when discussing the current work. The cost for the turn of the century reconstruction is listed at $1,883,678.87. While I don't have a cost on the iron for the original tubular bridge, its total contract price was $6,813,333. This last figure may look out of line, but when one remembers the amount of work and the problems related to constructing the piers and abutments of the sub-structure, the portion for the iron work is probably quite small. The 24 shorter spans of the Victoria bridge each consisted of nearly 5,000 pieces, while the 330 feet centre span had 10,309. The 130,000 pieces of iron were fabricated in Birkenhead, England, then shipped to Montréal for erection. The Victoria tubular bridge was built in spite of the what nature could throw in the forms of floods, ice, epidemics, etc., and of course there were the man-initiated problems, lumber rafts hitting the construction work and the small primitive tools of the day.

Before we leave the Victoria bridge, let's see if we can clarify the various first rail operations over it. December 17, 1859 is often used as the date for the passage of the first train. Samuel Keefer, Inspector of Railways, in his letter dated Brockville, December 19, 1859, states that on Saturday, December 17, he issued instructions that the Victoria Bridge, following his test train operations on December 16, while not totally completed was "perfectly safe for public use, the new line across the bridge was this day opened for public traffic."

Flipping back to Wednesday, November 2, 1859, the Fredericton, NB, *Head Quarters*, on the matter of the Victoria bridge states: "This structure will in a few days be ready for the passage of the "iron horse." Already has the contractor, accompanied by several other gentlemen, passed over it, by the aid of a few plank thrown over gaps not closed up." While this does not state how these gentlemen carried out their journey, at least it defines the closure on this bridge.

About three weeks latter, on Friday, November 25, the *Montreal Gazette* records: "Yesterday (Thursday) afternoon at 2:25, the contractor's engine, now employed in carrying iron plates and rails into the tube, and a platform-car, carrying over 60 persons, mostly connected with the Grand Trunk Company, passed through the bridge to the south of the river. It was originally intended to run the Directors splendid car through with the party; but owing to some immaterial accident it was not used, and seats were placed on a platform car. Included in the party, in addition to the senior railway officers, were bridge engineers, representatives of the contractors, as well as civic and government surrogates. On arriving at the centre tube, the train stopped, and the party gave three cheers for the Queen; they then proceeded, and on emerging from the tube at the south side of the river, here the Honourable Georges-Itienne Cartier, Attorney-General (and railway promoter) made a few pertinent remarks about having had the pleasure of passing over the longest bridge in the world; he also mentioned the engineers and contractors in a few happy phases, and concluded by calling for three cheers for the Queen; these were given, and God Save the Queen was then sung, the Attorney-General leading. The time occupied in passing through was 122 minutes."

Other Railway Crossings of the Saint Lawrence

The St. Lawrence River started as a barrier to railways, and while it may have lost that status, it still is a substantial hurdle, and one that is very expensive to cross.

Other than the railway bridges at Québec and Montréal, it is oft easy to forget the other railway crossings that exist or have existed along this great river. It is a subject that could fill a book, but lets take a snapshot look at them.

Starting from the mouth of the St. Lawrence, the first crossing we encounter is the newest. Starting on May 27, 1978, the rail-car ferry M. V. Georges Alexander Lebel initiated the regular transfer of rail cars between Matane and Baie-Comeau. This ship can transfer 26 - 50 foot rail cars or 31 - 40 foot cars. The original target was the movement of paper from the north shore. CN had taken over the former Canada and Gulf Terminal Railway to provide the rail connection between Matane and CN's former Intercolonial line at Mont-Joli.

The next rail crossing is a little over 200 miles upstream, at Quebec. While I haven't come across a great amount of details, there was a rail car ferry service between Québec City and Levis in 1917. An article on the opening of the Québec Bridge states: "Freight rail service between the two shores, over the now famous Quebec bridge, having been inaugurated, was continued throughout the night, and what was threatening to become an accumulation of loaded cars on either side of the river, because of the inability of the ferry steamer "*Leonard"* to make more than two crossings a day on account of ice, instantly disappeared. The steamer "*Leonard*," was withdrawn from service on December 3rd., 1917."

The end of the major construction problems for the Québec Bridge came at 4:01 p.m. on Thursday, September 20, 1917, when the final 10 inch connecting pin securing the centre span was placed.

The first train containing guests of the builders, crossed the great Québec cantilever bridge on October 7th., 1917.

However, December 3, 1917 was to be the 'big day" for rail operations over this great bridge. A train consisting of NTR engine No. 2900, Mikado type, weighing 2242 tons, thirteen loaded freight cars, conductor's caboose and superintendent's car No. 35, total tonnage 1,229 tons, was made up at Chaudiere Junction and arrived south end of bridge at 10:45 a.m.

The locomotive was manned, by the oldest engineer of the district, popular "Ned" Parsons, and fireman Boucher. The train was in charge of conductor A. Boutin, with brakemen A. Bonneau and J. C. Bernier. Two engineers of the Bridge Commission, along with the St. Lawrence Bridge Company's engineer rode in the cab. The Railway's Resident Engineer, Mr. Brousseau rode on pilot of engine.

The train entered south portal at 11:53 a.m. running at low speed, arrived north shore at 12:00 o'clock noon, where all were welcomed by the Superintendent, District 1, NTR Western

Lines.

While the guests had lunch, the engine was turned and new train made up consisting of twenty loaded cars, caboose and business car, total tonnage 1,238 tons. This southbound left Bridge station 2:25 p.m. arrived south shore 2:32 p.m. It was then time for the Railway to get its revenue freight moving.

Passenger train service was inaugurated over the Quebec bridge on January 6th., 1918.

With motors revving, its up river for another 150 miles to Montreal.

The ferry services across the St. Lawrence at Montreal, while in operation long before the railways, were for passengers and freight and not equipped with railway tracks.

The Champlain and St. Lawrence Rail Road was in operation for 15 years, before their line was extended from Laprairie to St. Lambert and Moffat's Island in 1851. Moffat's Island was a stones throw downstream from the Victoria bridge and provided the south shore terminus for a ferry service with Montréal. In the spring of 1864, a third rail was laid across the Victoria bridge to permit the rail traffic from the Champlain and St. Lawrence Rail Road and the Central Vermont to join that of the GTR in using the Victoria bridge into Montréal. The unused portion of the rail line to Moffat's Island was abandoned in 1866.

The first south shore terminal for the Grand Trunk's line coming from Portland, Maine, was a couple of miles down stream from the Victoria Bridge in Longueuil. The Grand Trunk operated a ferry service between Longueuil and Montréal. Shortly after lunch on June 10, 1856, just as the ferry was preparing to leave Longueuil, its boiler exploded, killing about 30 people. This service like the upstream service did not handle any rail cars. The opening of Grand Trunk's Victoria Bridge made this terminal obsolete.

The Grand Trunk kept control of the railway crossing of the St. Lawrence at Montréal until the 1880s. The Canadian Pacific was looking at the traffic south of the St. Lawrence and east of Montréal. Through a couple of manoeuvres, the CP, got control of a couple south shore railways, and in conjunction with this control, built their "flying cantilever" bridge between Lachine (Highlands) and Kahnawake. This bridge is at the head of the Lachine rapids and about 10 miles upstream from the Victoria bridge. This bridge, officially known as the St. Lawrence Bridge, was a single track structure constructed in 1886-87. In the 1930's the bridge was replace, again with a single track structure (the current west or up river structure). In the 1950s, during the St. Lawrence Seaway project the east or down stream structure was added.

Before moving west, there was one other struggling railway, that used an unique method to cross the St. Lawrence at Montreal. This was the South Eastern Railway, which over the winter of 1880-81 laid a railway track across the frozen St. Lawrence. Robert R. Brown in one of his articles provides a few excepts from *Montreal Gazettes* of January, 1881. One reports states that on Saturday, January 8, 1881, the SER engine "C. A. Scott" was heading from Montréal towards Longueuil to pick up 17 cars, when it jumped the rails, turned over on the ice and broke through. Track repairs were undertaken at once and the road was ready for operations the next day.

The newspaper later reported that on Tuesday, January 25, the engine "C. A. Scott" was raised up out of the water. While some of the lighter parts were broken and bent, it did not appear seriously damaged.

The St. Lawrence river was also an obstacle to J. R. Booth as he extended his Canada Atlantic Railway network southward towards Vermont. Booth, for the first four years of rail operations south of the St. Lawrence had relied on a ferry to transport rail cars from Coteau Landing across the river, 30 miles or so west of Montréal. In 1888 he decided to construct a rail carrying bridge across the St. Lawrence using a couple of islands to help. The new bridge was started on April 1, 1889 and the bridge was opened to rail traffic on February 19, 1890. This was a single track structure. The Canada Atlantic was acquired by the Grand Trunk in 1905, and in 1911 the Canada Atlantic bridge known as the Coteau Bridge was replaced by a new structure capable of heavier rail loadings.

While there were a couple of proposal for railway and bridges over the St. Lawrence, nothing developed until you travel another 30 miles or so upstream to Cornwall.

While in the last years of the 19th. century, the Central Counties Railway of Ontario was attempting to woo Cornwall to subsidize it to built a railway from the Ottawa area, that would use Cornwall as its southern terminal, it was the Ottawa and New York Railway that got the nod for a railway that would continue south across the St. Lawrence into the state of New York.

Work on the railway from Ottawa to Cornwall started in 1897. Work also started on putting together the rail network south of the river that would permit rail travel from Ottawa to New York City. On the American side, some existing lines, with new links would be used. The railway bridge over the St. Lawrence was also started in 1897. The rail crossing was to consist of two separate bridges, using an island to help span the river. The work on these bridges seemed plagued with problems. It was proposed to place cableways over the river to help with the transfer of materials, etc., for the bridge construction. The cables were to be supported on towers some 120-130 high. Lidgerwood cable machinery would activate the movements over these cableways. On Tuesday, October 5, 1897, one of the towers collapsed, and set the project back. The following year on September 6, 1898, the bridge over the south channel collapsed. The line from Ottawa to Cornwall was officially opened on July 29, 1899. The bridge over the St. Lawrence was opened in 1900.

The construction of the St. Lawrence Seaway in the 1950s, spelled the doom of this line, because of the problems and costs to maintain a rail line over the St. Lawrence. So, in the early evening of Thursday, February 14, 1957, NYC 8304 was the last train to pull out of Cornwall for Helena, NY.

There is one last site we will look at in our journey up the St. Lawrence river, Brockville, some 475 miles upstream of Matane. Brockville was the eastern terminus for the Brockville, Westport and Sault Ste. Marie Railway, a line that had great ideas as its name implies. This railway never got beyond Westport, 45 miles north-west of Brockville, which it reached in 1886.

This little railway was also looking to the south and the American roads just a short distance across the St. Lawrence. Their idea was to bridge the St. Lawrence and connect with the Rome, Ogdensburgh and Watertown Railroad. They started, and for the 100 or so years since, two bridge piers remain on McNair Island, a reminder of both the ill-fated attempt and of the power of the river.

Trainmen's Hand Lanterns

To those of us who remember watching trainmen walk around and use their swinging hand lanterns, we generally

thought, “How neat!” An article in a 1917 Canadian Government Railways Employees Magazines, brings homes some of the industry’s view on the hand lanterns. They were looking at some of the accidents resulting from not being careful with hand lanterns. In one incident, 23 box cars, along with a portion of a station platform were heavily damaged to the tune of $65,000 when a lantern was placed too close to a leaking can of leather cement. In another, while no mention is made about the type of alcohol, there was a $7,300 fire blamed on mixing some of it with a hand lantern. And as a kid, we thought these lanterns were neat!