

THE CPR COMES TO TOWN

The Perth Car Shops

Every year for more than two decades, a thousand or more railcars came off the production line of the Canadian Pacific Railway (CPR) manufacturing facility at Perth; rolling stock that transported men and material west to build the transcontinental railway, then carried settlers and their goods into Manitoba and the Northwest Territories¹, and, in time, hauled their wheat and beef back to eastern markets or onward to the Pacific coast.



Perth joined the railway age in January 1859, when a locomotive of the Brockville & Ontario (B&O) Railway, pulling a single passenger car, struggled into town after a seven hour odyssey through a blizzard from the Grand Trunk Railway (GTR) junction at Brockville via Smiths Falls. The B&O extended its line to Almonte later that year and onward to Arnprior and Sand Point in 1864. In 1878 it merged with the Canada Central Railway (CCR), operator of a line connecting Carleton Place to Ottawa, and in 1881 the CCR was bought out by the CPR. Between 1882 and 1884, the Ontario & Quebec Railway (O&Q), a CPR subsidiary, laid track connecting Perth to Toronto². As that project got underway the CPR chose Perth as the location for a plant to produce the rolling stock demanded by its expanding rail network that, when completed three years later, linked Canada from coast to coast.

The CPR was incorporated on February 16, 1881 specifically to build the transcontinental railway and that October, as part of the mega-project, began construction of the 'Car Shops' at Perth, one of its first railcar manufacturing facilities. Located on 20 acres of land along the northeast side of Chetwynd Street between Herriott and Craig Streets, the factory was built on property provided free of charge as a bonus paid by the municipality.

A siding has been built from the main line into the midst of the building site ... A reservoir to feed the boiler has been dug and a force of men are now engaged in digging a canal from this to the river, about one hundred yards away.³

... lumber for the shops is arriving daily, and progress is being made with the works. One building will be over 200 feet in length, with four tracks running into it.⁴ Messrs. Graham Bayer & Co., of the Carleton Place machine works⁵ have been awarded the contract for the engine for the car shops. The engine will be about 140 horsepower and will cost about \$1,500. The boiler will be provided by the company themselves.⁶

¹ The Northwest Territories became the Provinces of Saskatchewan and Alberta in 1905.

² The first through train from Toronto to Ottawa via Perth rolled over the line on May 12, 1884.

³ *Perth Expositor*, November 12, 1881.

⁴ *Perth Expositor*, January 1882.

⁵ Not 'Graham Bayer & Company' but the 'Central Canada Machine Works' of 'Gillies, Beyer and Company', Carleton Place, founded in 1875 by John Gillies (1811-1888) and Ferdinand Beyer (1828-1884).

⁶ *Perth Expositor*, January 1882.

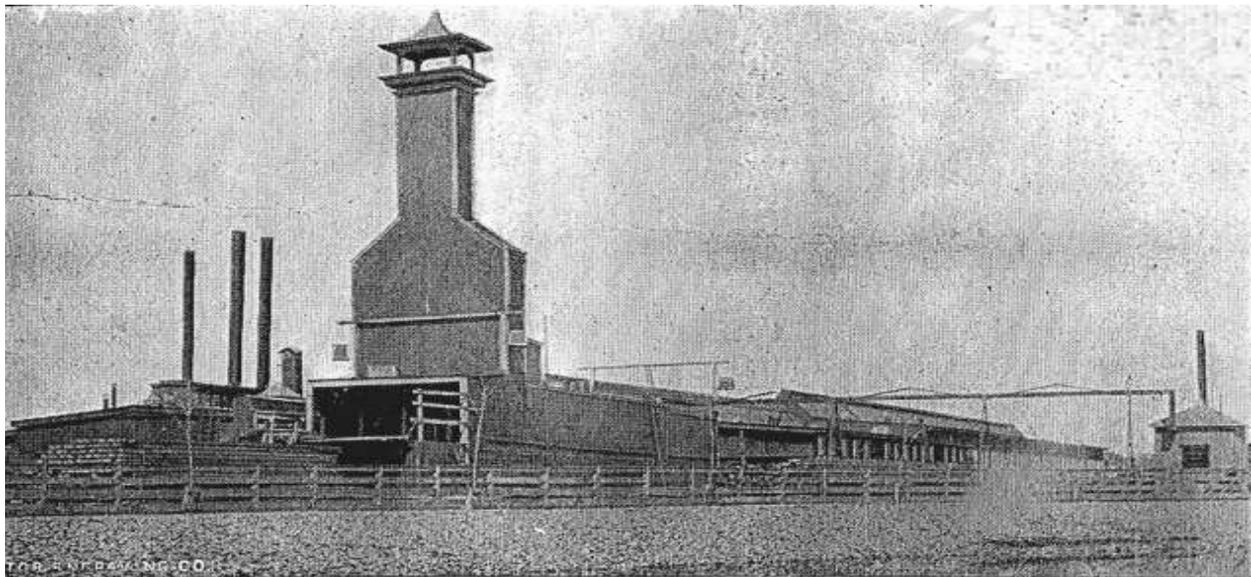
Even before the facility went into service, however, the length of the main building was extended by 100 feet, resulting in a structure 340 feet long, two additional railway sidings were installed, and track laid around the full perimeter of the site.

The premises will be pretty well honey combed with tracks. Carloads of machinery are arriving every day. These machines include hydraulic presses, trip hammers, bolt machines, pulleys, shafting &c. The machinery used in the car shops, formerly connected with the Central Prison, Toronto⁷, has been purchased and is arriving daily. It is about as good as new.⁸

As the summer of 1882 advanced, the complex neared completion with installation of the massive steam engine that would power the plant.

The flywheel and main pulley connected with it weigh over six tons. A vast number of car wheels have arrived, and additional machinery for the works has also been received.

The dry-kiln is almost finished and will be the most conspicuous object about the buildings on account of the wide steam chimney for carrying off the exhaust steam, sixty-five feet high. This chimney will be the full width of the building at the beginning and narrows by steps to half that at the top. The shops now look like a hive of industry, though no cars are manufactured yet.⁹



CPR Car Shops, Perth c1896¹⁰

⁷ Opened in 1873, the Ontario Central Prison at Toronto was designed and built as an industrial complex including a factory where prison labor briefly produced rolling stock for the Canada Car and Manufacturing Company. That venture went bankrupt after only 10 months, however, and the machinery moved to Perth was "about as good as new" because it had been sitting idle for eight years. The prison also operated a woolen mill, blacksmith shop, furniture shop, and bakery, all producing products for other prisons and the commercial market. Prisoners labored in these corporate enterprises under a barbaric regime of, long hours, bad food, routine beatings, and vicious punishments while the private sector businesses concerned paid the Government of Ontario a knocked-down rate for their labor. The Toronto Historical Association describes the Ontario Central Prison as "one of the most shameful parts of the city's history".

⁸ *Renfrew Mercury*, April 21, 1882.

⁹ *Renfrew Mercury*, June 30, 1882.

¹⁰ Photo courtesy of Perth Matheson House Museum.

The factory went into full operation in late July 1882 and by the end of September had turned out its first 100 flat cars. A year later 240 men were at work producing 15 freight cars per week, “besides others of a more refined and intricate nature”¹¹.

The CPR Car Shops at Perth encompassed more than a dozen buildings including two long fabrication sheds, an engine house, boiler house, water tower and waterworks, blacksmith shop, machine shop, forge, oil house, sawmill, dry-kiln, timber yard, warehouses, administrative and engineering offices, and an employee library and reading room¹², all interspersed and surrounded by tracks and multiple sidings.



Box Car



Conductor's Van



Refrigerator Car



Stock/Cattle Car

Over the next two decades the Car Shops produced thousand of railcars designed for nearly every conceivable purpose. The vast majority were box cars and flat cars, but included refrigerator cars¹³, grain cars, stock/cattle cars, horse cars and coal cars. In 1883 the Perth plant built a 10-car ‘workman’s train’¹⁴ consisting of sleeping cars, dining cars, a stores car and a kitchen car, and in 1898 a special order was filled for construction of “20 first-class passenger cars and 10 sleepers ... everything but the upholstery”¹⁵. At other times the Perth facility filled orders for conductors’ vans (caboose), dump cars (for filling the trestle work of bridges), gondola cars (with hopper bottoms), self-propelled pile drivers (equipped with Naismith steam-hammers¹⁶), at least one pay car (to deliver cash wages to remote work crews)¹⁷, and snow plows.

¹¹ *Ottawa Free Press*, November 5, 1883.

¹² Added in 1898.

¹³ Essentially a large ice-box on wheels.

¹⁴ For accommodation of work crews laying track in remote locations.

¹⁵ *Renfrew Mercury*, December 10, 1897.

¹⁶ Patented in 1842 by Scots engineer James Naismith (1807-1890).

¹⁷ Pay car No.132, the second such unit ever built.

Working in wood and iron the men of the Perth Car Shops produced both the car and the 'truck' that carried it, but the wheels and axels came from external suppliers such as John Brown & Company or Charles Cammell & Company of Sheffield, England, and Krupp Stahlwerke of Essen, Germany¹⁸.



Example of an Arch Bar Wood Beam Truck of the type manufactured at Perth¹⁹

According to the *Canadian Pacific Spanner*, a CPR newsletter of the 1950s, some of the Perth shop's earliest output was central to a seminal moment in Canadian history.

Forerunner of the tremendous troop movements of the later conflicts, the first Canadian Pacific troop trains were constructed at Perth, Ontario, and placed in service in 1884 [1885] to carry soldiers to the Northwest Rebellion on the prairies. These troop trains were the first over the line north of Lake Superior ...²⁰

The "troop trains" in question were not, however, specialized purpose-built coaches. Rather, they were standard Perth-built work train flat cars, adapted to military purposes on the then incomplete rail line between Dog Lake²¹ and Red Rock, Ontario²².

... rough boards [were] placed along the sides to a height of about six feet, held in place by upright stakes in sockets. There was no roof and the wind and snow flew in through the crevices between the planks. Rough benches ran lengthwise and here the men sat, each with his two issue blankets, packed tightly together, or huddled lengthwise on the floor.²³

¹⁸ The high quality Krupp wheels were exclusive to passenger cars. In the early years of the CPR the rails themselves were also imported from Europe.

¹⁹ Photo courtesy of Cumberland Model Engineering.

²⁰ Clippings from the *Canadian Pacific Spanner*, Canadian Pacific Railway Company 1948-1959, University of British Columbia Library.

²¹ Near present day White River, Ontario.

²² The incomplete section from Dog River to Red Rock totalled 287 miles (462 kilometers). The rail cars ran over two more-or-less completed sections totalling 169 miles (272 kilometers), but the men marched on foot through snow and mud over three incomplete sections totalling 98 miles (158 kilometers).

²³ *The Last Spike*, by Pierre Berton (1971).

The Perth manufacturing complex also converted flat cars into boxcars, produced snow fencing and built water tanks, including those required by the CPR's Ontario & Quebec Railway line from Perth to Toronto. In November 1883, the *Perth Courier* reported that,

On Tuesday evening Mr. Jas. K. Faulkener²⁴, tank builder in the Perth carshops, set out to put up the necessary tanks along the line of the Ontario & Quebec Railway, probably twelve or fourteen in all. The parts of these tanks have been under construction here for some time, under Mr. Faulkener's supervision, and his errand now is to put them together in their place. These tanks do not freeze up in winter, being provided with double bottom and hot air chamber, with a pipe twelve inches diameter running up through the water in the tank from a coal furnace below. A large number of tanks for the C. P. R. have been built at the Perth shops.²⁵

In addition to building a wide range of new railcars, the Perth Car Shops also repaired up to a thousand damaged cars annually.

... damaged box and flat cars at the rate of twenty-five a week arrive at the Perth shops for repairs. They come from all over the line, and the numbers sent to the shops here to be doctored up shows how numerous are the accidents on the railways that people never hear of, and how great the expense the railways are put to for this single item.²⁶

Over its first decade, output at the Perth Car Shops averaged about five new cars per day, six days per week. In 1897 new machinery and an expansion of the facilities increased output to an average of about eight cars per day, per six-day week. The plant did not, of course, always run at the same rate or at full capacity, but total output over its 22 years of production is estimated to have been in excess of 30,000 new units, plus conversions, repairs, and secondary production of items such as snow fence and water tanks.



Perth built water tank installed at Ardentale, Ontario
(Photo courtesy of Colin Churcher's Railway Pages)

Until the 1880s Perth's economy was almost exclusively based upon servicing the farms and logging camps of the surrounding townships and its role as seat of Lanark County's administration and law courts. Such wage employment as there had been came from small, proprietor owned establishments such as carriage builders, furniture makers, tanneries, mills (lumber, woolen, flour), distilleries, artisans (blacksmiths, carpenters, shoemakers) and merchant stores. Almost overnight the CPR Car Shops became the town's single largest employer, by far, and the community's first experience of an industry employing a large number of wage earners.

²⁴ James Keenen Faulkner (1832-1899).

²⁵ *Perth Courier*, November 2, 1883.

²⁶ *Perth Courier*, December 1889.

The factory attracted job seekers from Montreal, Toronto and beyond and, less than a year after operations began, the CPR found it necessary help meet Perth's housing short-fall by building six double tenements on Craig Street to house some of its employees. Between 1881 and 1887 the population of Perth grew from 2,467 to 4,101.



Approximate site of the CRP Car Shops 1882-1904, east of Chetwynd Street²⁷

The CPR's investment at Perth had significant economic impacts beyond direct employment. As a 100% wood car plant, the factory purchased quantities of saw logs and local farmers found *"that their timber pays much better as lumber than in cordwood"*²⁸. In the 1890s, when railcar self-couplers were introduced, the new equipment was fabricated, *"under contract at Mr. W. H. Frost's malleable iron works"*²⁹, at Smiths Falls ... *manufacture of these couplers is a very large business*³⁰. Many of Perth's traditional artisanal industries also benefited from the coming of the CPR, one example being that of saddler and harness maker William Farrell (1843-1918).

*Most of the harness used by contractors along the line of the Canadian Pacific Railway in this section came from Mr. Farrell's shop. Such was the character of his work that orders were sent him from the CPR construction department in and beyond the Rockies. He also shipped harness to private individuals in Manitoba and other points in the North-west.*³¹

²⁷ Image courtesy of Google Earth.

²⁸ *Renfrew Mercury*, April 13, 1883.

²⁹ Founded in 1878 by William Henry Frost (1847-1920).

³⁰ *Renfrew Mercury*, March 16, 1894.

³¹ *Toronto Mail*, 1887.

When the Perth Car Shops launched production in the summer of 1882 the local press reported that the plant employed 200 men and would soon provide jobs for 300 more. Maximum employment never exceeded 300 workers, however, and staffing levels were subject to wild fluctuation as driven by interruptions in the delivery of raw materials, demand for cars, and the state of the national economy.

In December 1884, just over two years after it opened, there were only 34 men working in the factory, although the job count soon climbed back to 225. In August 1894 there were just 12 employees, and in November that year the facility stopped production altogether for more than a week. By the following spring, the shops were limping along with 30 men employed just two days per week. Employment seems to have reached its peak in September 1897 when 305 men were on the payroll, but three months later 200 of those lost their jobs and staffing only returned to the 300 level in early 1899. With many lesser ups-and-downs over its two decade history, the CPR Car Shops at Perth employed between 150 and 200 men on average. The tenuous nature of employment at the shops seems to have mitigated against labor unrest. There were only two strikes in the history of the enterprise, in February 1883 and in April 1899, both of which lasted less than 24 hours.

Over its first decade, freight cars rolling out of the Perth plant were built to a capacity of 30 tons. In the 1890s, however, demand grew for ever bigger units and by the early 1900s, "*the cars, both flat and box, now turned out at the C.P.R. car shops ... have a net capacity of 80,000 lbs. each or 40 tons.*"³²

While the Perth Car Shops were an essential part of the rapidly expanding Canadian Pacific Railway, they were not the only such facilities operated by the company during its early years.

From 1881, when the CCR was amalgamated with the CPR, its locomotive maintenance and repair depot at Carleton Place continued to operate as a CPR facility. That plant, originally built by the CCR in 1876, comprised a large stone roundhouse³³ with adjacent support shops.

When the CPR took over the western division of the Quebec, Montreal, Ottawa and Occidental Railway in 1882 it acquired with it the Q.M.O.&O's shops at Hochelaga, a suburb of Montreal. Enlarged and re-equipped in 1890 the Hochelaga shops were, for many years, the CPR's principal non-freight car fabrication and repair facility, specializing in passenger coaches, baggage cars, sleepers, and colonist cars³⁴. The Hochelaga Car Shops operated in conjunction with the adjacent De Lorimier Avenue locomotive shops.

The CPR also operated manufacturing facilities at Farnham, in the Eastern Townships of Quebec, shops acquired when it leased the assets of the South Eastern Railway (SER) in 1887. Like the Perth factory, the Farnham facility was primarily a freight car plant, but, in the early 1900s, specialized in caboose production.

³² *Renfrew Mercury*, March 21, 1902.

³³ Now occupied by the Canadian Cooperative Woolgrowers Ltd.

³⁴ CPR colonist (or emigrant) cars were a type of passenger coach designed to provide inexpensive long-distant transportation for immigrants. Noted for their very spartan accommodation they were usually equipped with 14 rows of double wooden benches, pull-down upper berths (blankets and curtains available at an additional fee), a kitchenette, a ladies room at one end of the car and a combined men's room and smoking room at the other end.

The railcar manufacturing plant at Perth, stretching from the foot of Herriott Street along the east bank of the Tay Canal toward Craig Street, was constructed almost entirely of wood, produced rolling stock built mostly of wood, and warehoused large stocks of both construction and fuel wood, as well as coal, kerosene, lubricants, paint and tar. Close along side this highly flammable inventory was the complex of blacksmith forges, boiler furnaces and kiln heaters. From the outset, efforts to manage the ever present threat of fire (to the plant and to the town adjoining it) were a high priority. With construction still underway in 1882 the *Ottawa Citizen* reported that,

*The new railway buildings at Perth are protected from fire as perfectly as the best of apparatus can do it. There are double hydrants at the ends of each building and others within. A few days ago, a test was made before the town council and others ... four powerful streams being in action.*³⁵

Only a few weeks after that *Citizen* report, the Car Shops' internal fire fighting system proved its worth when, on the night of Saturday August 19, 1882,

*... an alarm of fire was sounded, and ... the danger proved to be at the car shops, to which speedily rushed half the town, and the two hand engines. The works have their own appliances for putting out fires, consisting of a pump connected with the engine, numerous hydrants, and plenty of hose; and in a short time, the spot was fairly deluged with water and the fire extinguished. The blaze was at the far end of the long building and made no headway before it was flooded out.*³⁶

The plant's fire-fighting capacity was challenged again in November 1883 when a potentially serious blaze in the oil house was extinguished before it spread to the rest of the factory. In 1899, the municipal waterworks were extended into the Car Shops and the fire protection system upgraded and expanded.

*The car shops will be gridironed with water pipes and well supplied with hydrants so that for the uses of the shop and the fire protection there will be an ample supply. The old water tank, now at the station, will be replaced by a bigger and better one, the stone foundation of the new one being much higher and stronger. It is calculated that at Perth the railway company will require 25,000 gallons of water per day.*³⁷

Nevertheless, despite the factory's internal fire-fighting capability and support from the town fire department, the Car Shops were extensively damaged in 1902 when fire broke out at about 4:00 a.m. on July 10th.

The blacksmith shop, machine shop, oil house, main offices, four box cars, together with a large amount of valuable machinery in the Canadian Pacific Railway car shops ... were totally destroyed by fire ...

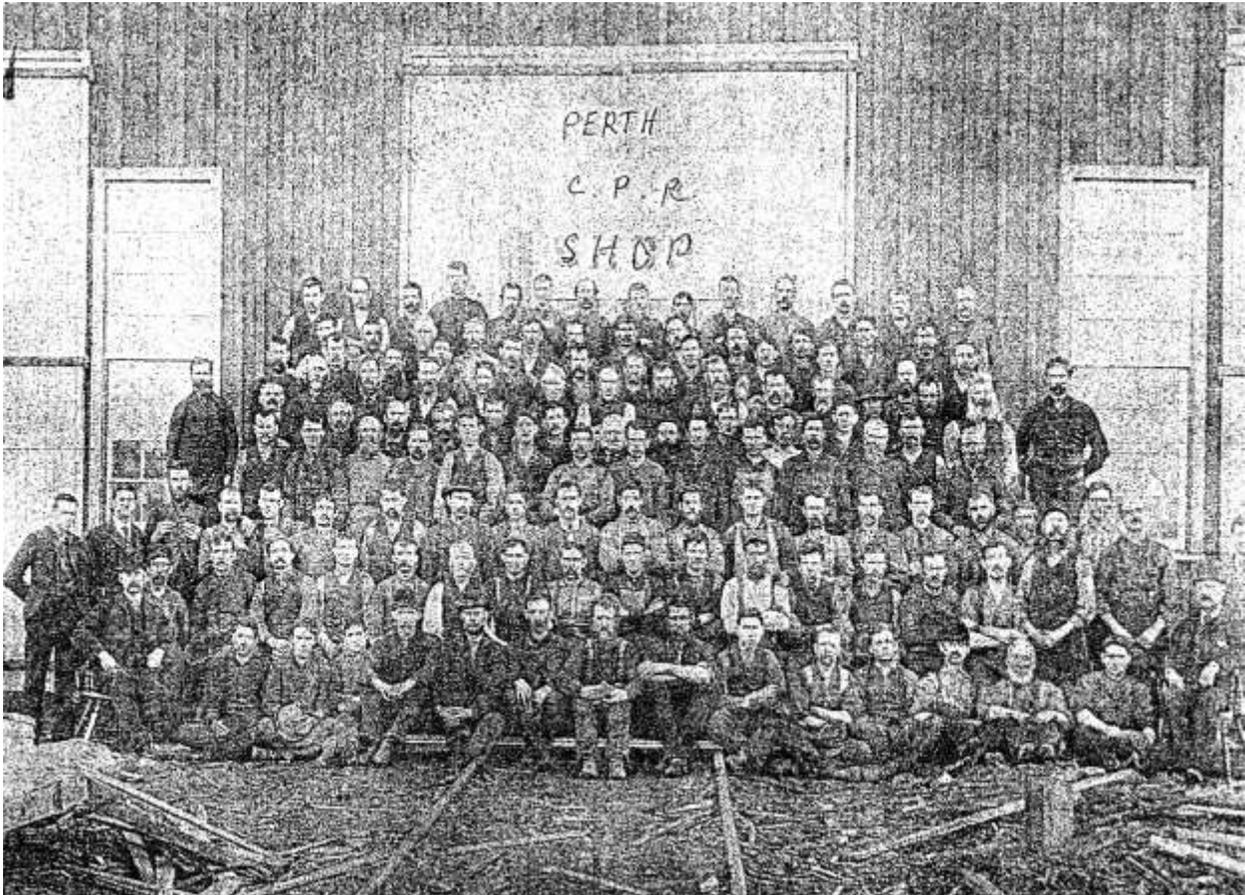
³⁵ *Ottawa Citizen*, June 26, 1882.

³⁶ *Renfrew Mercury*, August 18, 1882.

³⁷ *The Record*, Chesterville, August 11, 1899.

The fire was first noticed in the blacksmith shop and supposed to have started from one of the various furnaces in use. Alarms were immediately sounded and responded to by the firemen and several hundred citizens. About ten lines of hose were attached to the hydrants ... but the fire had gained great headway and ... the adjoining wood mill was in flames several times, but the firemen worked hard and finally had the fire under control, but not before the above mentioned property was consumed.

As a result of the fire 300 men are thrown out of employment.³⁸



Employees of the CPR Car Shops at Perth, c1900³⁹

As early as the 1890s there were frequent rumors that the Perth, Carleton Place, Hochelaga and Farnham Car Shops would be closed and fabrication of all CPR rolling stock and locomotives consolidated at a single facility. By the time flames partially destroyed the Perth shops in 1902, it was widely known that planning was well advanced for an amalgamated plant at Montreal. In the immediate aftermath of the fire, closure of the Perth factory seemed a certainty but, to the surprise and great relief of Perthite's, the ashes had hardly cooled when the CPR began reconstruction. Within just two weeks, new railcars were again rolling out of the damaged shops at a rate equal to any time in the venture's history.

³⁸ *The Record*, Chesterville, July 10, 1902.

³⁹ Photo courtesy of Gene Kirkham, Central Frontenac Railway Heritage Society (CFRHS).

*About 200 men are now employed at the C.P.R. car shops. A start is being made on an order for one thousand 40-ton boxcars, which order is expected to keep all hands busy for nearly all of the next four months.*⁴⁰

That November, when the pay car arrived from Montreal, it carried the largest payroll ever distributed at the Car Shops, or by any employer at Perth.⁴¹

*The total amount paid out to the workmen was over \$11,000. In some of the departments it is necessary for the men to work overtime to keep those in other branches supplied with material, and in consequence of this the men are earning large wages.*⁴²

The boom times could not and did not last, however. In 1904 the CPR opened its new 'Angus Shops'⁴³ in east Montreal and by October of that year the Car Shops at Perth were being stripped of their equipment.⁴⁴

*Much of the machinery used in the car shops at Perth has been taken to the big C.P.R. shops at Montreal, and many of the employees have removed from the county town to Montreal. It is now given out that the shops will not be totally removed from Perth but will be used as repair shops employing from 50 to 75 men permanently.*⁴⁵

That last hope of a diminished survival in the form of a repair depot was not, however, realized. Some work continued through November and December 1904 but at the end of the year operations ceased entirely.⁴⁶ In 1907 the Car Shops at Perth were torn down and the material used to expand the railway freight sheds.

- Ron W. Shaw (2020)

[With thanks to Brian Gilhuly & Philip Jago of the Bytown Railway Society, Ottawa; Graeme Roy of the Railway Museum of Eastern Ontario (RMEO), Smiths Falls; David Gagnon, Railway Historian, Kingston; Gene Kirkham, Central Frontenac Railway Heritage Society (CFRHS), Sharbot Lake; and Colin Churcher's Railway Pages - <https://churcher.crclm.org/>.]

⁴⁰ *Renfrew Mercury*, August 15, 1902.

⁴¹ The largest CPR payroll of the era distributed at Perth amounted to \$15,000 paid out in May 1883 to the combined employees of the Car Shops and the construction crews then building the Ontario & Quebec Railway line between Perth and Toronto.

⁴² *Perth Expositor*, November 21, 1902.

⁴³ The Angus Shops were named for banker, financier, and CPR executive Richard Bladworth Angus (1831-1922). The Angus Shops were the railroad's primary manufacturing, maintenance, and repair facility from 1904 until 1992.

⁴⁴ Perth native William Norman Dietrich (1872-1927), an employee of Ross and Holgate Engineers, Montreal, played a leading role in the design of the CPR's Angus Shops and later joined the CPR as Angus Shops Inspector and then Chief Electrical Engineer. See *Born At Perth: Making Their Mark* found elsewhere on the Perth & District Historical Society website.

⁴⁵ *Renfrew Mercury*, October 28, 1904.

⁴⁶ In the CPR Car Shop years Perth had been essentially a one-industry town but following its closure the town quickly attracted Henry K. Wampole Co. Ltd. in 1905, the Caldwell Taybank Woolen Mills (later Tayside Textiles) in 1911 and, in 1912, Andrew Jergens Co. Ltd. and the Perth Shoe Co. Ltd.