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# THE IRON ORE CARRIERS

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The search for and production of iron ore has had a profound effect on several of Ontario's railways, including the Central Ontario and the Kingston & Pembroke lines in the East and the Canadian Northern, the Algoma Central, and Canadian National railways in the North, to name but a few. Yet it was the shipping lines of the Great Lakes that were the greatest beneficiaries of the Industrial Age's hunger for iron ore, as they could provide the cheapest means of transportation to the blast furnaces of the industrial South. Railways became only the means of transferring the ore from the mine to the water's edge.

While many companies both here and in the United States were satisfied with this arrangement, others were not, choosing to develop what might be termed "integrated" mining companies who would mine, transport (by rail and water), and market their ore to the steel mills. In the United States, most of these companies operated out of mines located in northern Minnesota and Michigan, such firms as the Minnesota Iron Company, the largest American company of its kind operating at the turn of the century, which owned and operated the Minnesota Steamship Company and the Duluth & Iron Range Railroad Company; and the Cleveland-Cliffs Iron Company and its associated Cleveland-Cliffs Steamship Company and Lake Superior & Ishpeming Railroad Company.

Ontario, too, has had its "integrated" mining companies, the earliest dating back to 1866, when the Cobourg, Peterborough & Marmora Railway & Mining Company was formed out of the ruins of the Cobourg & Peterborough Railway.

### **The Cobourg & Peterborough Railway**

### **The Cobourg, Peterborough & Marmora Railway & Mining Company**

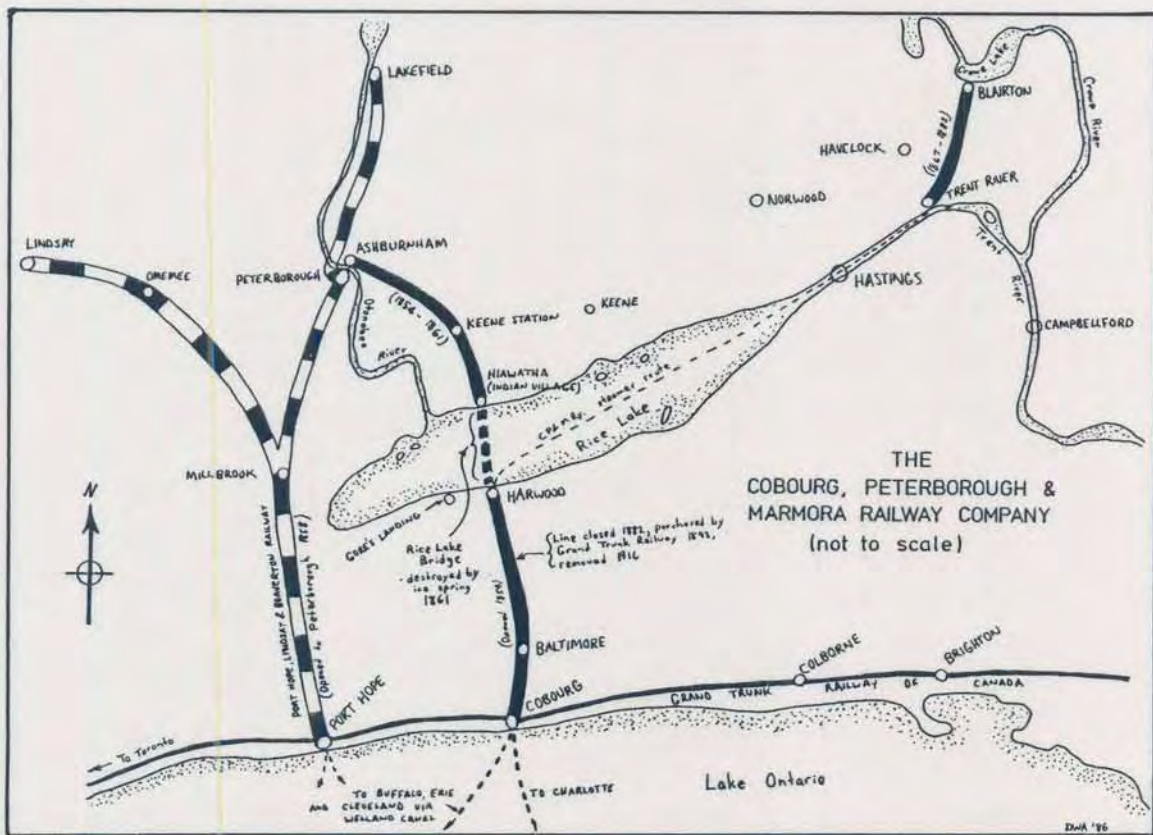
When railway fever swept the country during the 1850s, many bitter rivalries were sparked off between neighbouring communities as each fought the other for railway supremacy. Some fought over who would get a railway station and who would be left without, while others battled for control of territory through the construction of railway lines into underdeveloped hinterlands. Nowhere was this more true than the competition between the Lake Ontario ports of Port Hope and Cobourg in the push to build their respective railways north into Peterborough.

The citizens of Port Hope stood firmly behind the Port Hope, Lindsay & Beaverton Railway, first incorporated in 1846 as the Peterborough & Port Hope Railway, which reached Peterborough in 1858. The Port Hope railway was not just a favourite with Port Hope citizens, it received equally strong support from Peterborough as well. The people of Peterborough had no such love for the Cobourg project, which received absolutely nothing from the city.

Plans to build a railway north from Cobourg were made as early as 1834 and in their various incarnations ranged from plank roads to railroads. It was not until 1852 that plans were put into action with the incorporation of the Cobourg & Peterborough Railway, and by December 1854 the



Built in 1871 and purchased soon after by Henry Calcutt, the *Whistle-Wing* was the last privately operated steamer known to have provided regular passenger connections with the Cobourg, Peterborough & Marmora Railway on Rice Lake. Note the Masonic device on the vessel's paddle box, just above her name. This photo was probably taken in the late 1870s while the *Whistle-Wing* was on a passenger excursion. — Peterborough Museum & Archives



railway was opened to traffic between Peterborough and Cobourg, even if it was only temporary. The Cobourg & Peterborough had problems.

First of all, the railway was built on a very low budget, resulting in poor construction standards which were costly to remedy — much of the blame here rested on the shoulders of Samuel Zimmerman, primary contractor for the railway, who was notorious for his construction "shortcuts." But the biggest problem of all was the bridge over Rice Lake.

Unlike the Port Hope, Lindsay & Beaverton Railway, which possessed a dry-land route to Peterborough, the Cobourg & Peterborough was faced with Rice Lake, a large body of water running east and west in such a fashion as to either force the railway into a long and expensive detour around it, or into the construction of some sort of bridge or causeway across it. The railway chose to bridge the waterway, and so constructed a three-mile-long wooden trestle between Harwood on the south shore and Hiawatha on the north. The problem was not so much the bridge, but rather its terrible construction, which crumpled with the first ice of 1855, closing down the line. After a series of expensive repairs the bridge was reopened later that year, but it demanded continuous maintenance which ate into the railway's meagre revenues. In 1860 an attempt was made at filling in the trestle, but work was halted before the fill was completed, leaving much of the bridge exposed. During the following winter and spring, the ice and the lake finally had their revenge and the bridge unceremoniously "took its departure and sailed down the Lake." The railway had lost its connection with Peterborough and Peterborough could have cared less, for it was served by the superior Port Hope, Lindsay & Beaverton.

The Cobourg & Peterborough was in bad straits without its Peterborough connection, and so in 1863 it purchased the ten-year-old *Otonabee*, an 84-ton wooden side-wheeler, to provide a regular service between Harwood and Hiawatha initially, but by the end of the year the ship was making the passage all the way to Peterborough, up the Otonabee River. It was not enough, however, and the railway was sold in 1865 for \$100,000.

The buyers of the railway turned out to be a group of steel men from Pittsburgh, Pennsylvania, led by George K. Schoenberger, one of the richest men in the state, to whom the railway was the means to an end. They had just acquired the Marmora Iron Company at Blairton, some miles east of Rice Lake, and needed a way of shipping the ore out. The mines, established in 1820, were far from the railway, but the owners had a plan which would link the mines by railway to the Trent River, where connection with Harwood would be made by steamer, and thence to Cobourg for shipment to the United States. It was certainly a round-about route, but there were no other railways or suitable canals in the region, and there would not be for some time to come.

The next step came in the following year when the two companies were merged on August 15 to form the Cobourg, Peterborough & Marmora Railway & Mining Company. This permitted the owners to move into action. They soon commenced the construction of an 8½-mile line of railway from the village of Trent River Bridge on the River Trent, commonly referred to at the time as the "Narrows," to the Blairton mine site. The task was completed by the summer of 1867 and allowed the company to move its construction crews in to the Blairton mine on Crowe Lake. It had been many years since any ore had been mined and it was therefore necessary to relocate a suitable body of iron ore plus erect all of the necessary buildings, including the mine pit head, railway facilities such as the station and enginehouse, and 60 tenement accommodations for the workers. The company also owned part of the village of Marmora, where it built saw and grist mills as well as storage sheds. In all, although costly, the facilities were necessary when one considers the relative remoteness of the mining community, something almost all mining towns have in common. The mills also provided additional outgoing traffic, diversifying the company's revenue base.

For the handling of the iron ore, specialized structures and equipment were introduced. Bottom-unloading ore cars were built for the railway by the Cobourg Car Works in Cobourg, totalling 150 in all between 1867 and 1875. Similar to today's ore hopper cars, these wooden four-wheeled vehicles could be loaded from the top and were equipped to discharge their loads from a bottom hatch into waiting scows or ships. This was accomplished by means of trestles built over the water. At the Narrows, the trestle was erected to allow the scows used to move the ore to Harwood, to be positioned directly underneath the cars, which would discharge their ore through openings in

the deck of the trestle. A larger trestle resembling modern ore docks was erected at Cobourg, permitting the railway cars to use chutes to unload directly into waiting ships positioned alongside. In both cases, gravity did the work, but at Harwood it was necessary to transfer the ore from the scows up into the hopper cars for the trip south to Cobourg. Here a steam-powered elevator had to be used. All of these facilities were finished by 1869 or 1870.

Ready or not, the company began to ship ore out of Blairton in the fall of 1867, and shipping arrangements had to be made. On Rice Lake the steamer *Otonabee* was taken off the Peterborough run and teamed up with eight scows to provide the needed link between Trent River Bridge and Harwood. At the Cobourg end the railway possessed no such vessel and had to advertise for ships. The following appeared in the *Toronto Globe* of 1 July 1867, Dominion Day:

Office of the Cobourg, Peterborough  
and Marmora Railway and Mining Company.

Cobourg, June 25, 1867

Proposals will be received until 5th prox, for the transportation of Iron Ore, during the season of 1867, from Cobourg C.W., to Charlotte, Buffalo, Erie and Cleveland, U.S.

Bids may be made for either port, or for any quantity up to 400 tons per day.

Address

J.H. Dumble,  
Cobourg.

By 1870 transportation on Lake Ontario was in the charge of the company's own steamship *Otonabee (II)*, running regularly between Cobourg and Charlotte, New York, the Port of Rochester. Most of the ore made its way to Pittsburgh by rail from Charlotte.

Rice Lake services also underwent a change. In August 1869 the old *Otonabee* was sold and replaced by the newer 63-ton steamer *Enterprise*, but it only lasted until 1871, when it too was sold. It was later rebuilt as the *Clyde*. For two years chartered vessels filled in, until the paddle-steamer *Isaac Butts* was constructed for the company at Peterborough in 1873. A 132-ton wooden ship, the *Isaac Butts* was named after the Cobourg, Peterborough & Marmora's president and entered service either late in 1873 or in the following spring. By this time ore shipments from Blairton were in excess of 300 tons per day, making the mines the most productive in Canada at that time, greatly enhancing the company's profits.<sup>1</sup> The big steamer did much to further the company's gains, but its size did cause one problem. The locks at Hastings, located between Trent River Bridge and Rice Lake, were too narrow to allow the *Isaac Butts* passage and, as a result, the locks had to be rebuilt at considerable expense.

In 1876, while docked at Harwood, the *Isaac Butts* was severely damaged when the *Clyde* caught fire while lying alongside. The *Clyde* was destroyed, but enough of the *Isaac Butts* was saved that the company was able to rebuild her the following year, altering the ship's layout and increasing its gross tonnage to 199 tons.

By the end of the decade, the company was running out of ore to mine, and because of the availability of cheaper American iron ore, the Cobourg, Peterborough & Marmora's management saw no point in making any further explorations for ore. The last major shipments of ore were made in 1878, and in 1879 the mine was shut down entirely. Between 1879 and 1881 no iron ore shipments were made from Blairton. In an attempt to recoup something from the venture, the management decided to move out what remained of the firm's stockpile of ore at Blairton in 1881, a task completed by the following year. A tragic incident took place at Trent River Bridge during this period and was described in a newspaper dated 9 August 1881: "The third and last victim [at the Blairton Mine] was Samuel Bray, an old pensioner of the British Army, who took pride in showing

many scars received in fierce engagements in six years, his last being the taking of Alma Heights in the Crimea War. Bray was drowned at the dumping ground at Trent Bridge. The track over the piers and dump openings was raised to allow the scows to go under and so receive the ore dumped from the cars. The train in question was nearly unloaded, and the boy, who was firing, made several useless attempts to push the loaded cars to the dumping. The engineer, who was amusing himself a few rods away, became angered at the necessity of being disturbed, took charge of the engine and, with language too unsavory for your columns prefacing the expression 'I'll put them up,' put on fearful speed knocking away the guard construction and plunging five empty cars over the outer pier."<sup>2</sup>

With the cars went old Samuel Bray, but if there is anything to be gained from the accident, it is worth noting that it was the article above that prompted Arthur Dunn, a professional engineer, to search for the five cars in 1979. In 1980 he and his associates were rewarded when, through their efforts, Parks Canada lifted four of the five cars out of the river, the fifth and most complete being left pending future preservation. It was truly a remarkable find.

During the mine's last years, the *Isaac Butts* continued to operate carrying freight and passengers only when there was no ore to move, finally taking the last of the ore out in 1881 and 1882. With the last shipment from Trent River Bridge, the ship's days were numbered, and on 22 July 1882 the *Isaac Butts* was laid up at Harwood, ultimately being scrapped in the fall of 1886. There is no record as to the disposition of the *Otonabee (II)* and it can only be assumed that the steamer was sold or scrapped sometime around the beginning of the decade.

Ore traffic provided the bulk of the Cobourg, Peterborough & Marmora's revenues, and without it the company was unable to keep the trains running. By the late 1880s the railway had fallen into disuse, and despite attempts to reactivate the company, no further trains were operated. In 1893 the property was acquired by the Grand Trunk Railway. In 1916 the rails between Cobourg and Harwood were removed and sent over to Europe for use by the Canadian Army's railways during the First World War.

During the 1870s passenger service was still maintained by the Cobourg, Peterborough & Marmora, even though the company was concentrating its efforts on the iron ore traffic. In 1875 the railway provided four trains each day, two northbound and two southbound, for the convenience of its passengers along the 14½-mile Cobourg to Harwood line as follows:

Northbound				Southbound	
A.M.	A.M.			P.M.	P.M.
9:00	6:30	lv.	Cobourg	ar. 3:00	6:00
9:20	6:50		Baltimore	2:40	5:40
9:45	7:15		Summit	2:15	5:15
10:00	7:30	ar.	Harwood	lv. 2:00	5:00

At Harwood passengers could transfer to either the company's own *Isaac Butts* for the Blairton Mines or onto Henry Calcutt's steamer *Whistle-Wing* for Hastings, Keene and Gores Landing. Calcutt purchased the railway's steamer *Enterprise* in 1871 but replaced her soon after with the *Whistle-Wing*. Steamboat connections could also be made for Peterborough, but in general all of these routes catered chiefly to local traffic, especially from points on Rice Lake, with little being derived from Peterborough. It is these steamer connections which partially explain why all northbound trains left in the morning for Harwood, returning in the afternoon, in co-ordination with steamer runs into and out of Harwood. As the Cobourg, Peterborough & Marmora only had two "second-class" coaches, each train must have had only one passenger car, perhaps suggesting that trains were mixed with freight cars.

The importance of the ore traffic can best be shown by a survey of the railway's revenues and expenditures of 1869 as outlined in Trout's *Railways of Canada*:

Receipts

Received from sales of Iron Ore .....	\$72,960.00
Received for carriage of lumber .....	17,757.89
Received for carriage of grain and flour .....	983.10
Received from miscellaneous freight .....	2,283.89
Received from rents .....	700.00
	Total: \$94,684.88

Expenditures

<u>Permanent Improvements</u>	
Fifty iron ore dumping cars .....	\$12,500.00
Elevated Dock at Cobourg .....	3,000.00
Wharf Extension at Harwood .....	600.00
Steam Elevator at Harwood .....	500.00
Tanks and Telegraph Line .....	500.00
McDougall's and Campbell's Sidings .....	2,000.00
	Total: \$19,100.00

Operating Expenses

Mining Ore .....	\$21,000.00
Operating Road .....	10,000.00
Staff Salaries .....	4,000.00
Lake Freights on Ore .....	12,000.00
Duty on Ore .....	4,800.00
Handling Ore .....	2,400.00
Harbour Tolls on Ore .....	1,200.00
Rice Lake Transportation .....	3,100.00
	Total: \$58,500.00

Interest

One year's Interest on Bonds .....	\$10,984.00
Bank Interest .....	2,780.00
	Total: \$13,764.00

Total Expenditures \$91,364.00

On the positive side of the operation, we can see that revenues from iron ore sales made up a clear 77 percent of total receipts, with lumber traffic contributing only 19 percent of the company's revenues, making the transportation of lumber more of a sideline than a mainstay.

The expenses also say a lot about the importance of the iron ore traffic. With the exception of the sidings installed to McDougall's and Campbell's lumber mills, and the water tanks and the telegraph lines, all of the permanent improvements made were made expressly for the iron ore business. And if we accept that the water tanks and telegraph lines were installed for the overall improvement of railway operations, including ore trains, 90 percent of improvement expenses were made to facilitate the iron ore traffic. Operating expenses are even more conclusive, showing that most of the costs to operate the company went toward the production, transportation and sale of the iron ore, 36 percent of the cost being devoted just to the mining of the ore.

Perhaps the biggest surprise about the Cobourg, Peterborough & Marmora in 1869 was its profit of just over \$3,300 following years of losses. There is no record on the railway's performance

through the 1870s, but based on its 1869 showing, the company must have done well until it was finally put under by cheaper American ore.

As a final note on the importance of ore traffic, it should be stated that the railway never made the change to standard gauge. Since all of the ore was shipped south by boat from Cobourg, the company had no reason to worry about interchanging traffic with other railways, especially the Grand Trunk, which passed through Cobourg. With ships, trains and mines all devoted to the iron ore trade, it can truly be said that the Cobourg, Peterborough & Marmora Railway & Mining Company was an integrated company.

## **The Algoma Central & Hudson Bay Railway**

Almost a century ago, an American of modest beginnings came to Sault Ste. Marie, Ontario, and changed the face of that community forever. His name was Francis Hector Clergue, and despite his own lack of capital, he used his persuasive powers to attract money from financiers south of the border. By 1896, only two years after his arrival in Sault Ste. Marie, he was in control of the hydro-electric utility, the Lake Superior Power Company, and had opened up the Sault Ste. Marie Pulp & Paper Company, one of the largest mills of its type when built. The entire key to Clergue's growing empire was the exploitation of the natural resources that surrounded the city. Electricity was produced from the St. Mary's Rapids, forming the nucleus of his developments, which in turn supplied power for the pulp mill, which also used the water plus timber cut from the shores of Lake Superior to the north. Further acquisitions included the Gertrude and the Elsie nickel mines in Sudbury, along with the Manitoulin & North Shore Railway Company, later to become the Algoma Eastern Railway.

Possibly the most important purchase made by Clergue, however, was that of the Helen Mine, the site of which was discovered by a gold prospector in 1897. It was essentially a large hill of hematite, a high-grade iron ore, located on Wawa Lake north of Sault Ste. Marie. Clergue was quick to grasp the significance of the find, for in it he foresaw the development of the steel industry at the Sault. And so it was that in 1898 he acquired the rights to the mine.

It would seem that the future of steel-making at Sault Ste. Marie was assured with the Helen Mine, at least in the mind of Francis Clergue, but the remoteness of the mine required more than just vision, it needed a way to transport the ore. The logical solution was the construction of a railway north from Sault Ste. Marie which would connect the mine with a proposed steel mill in the city and also serve to bring timber down to the pulp mill. The result was the Algoma Central Railway Company, incorporated by act of Parliament on 11 August 1899 to build a line north from Sault Ste. Marie to a point on the Canadian Pacific main line which would later be named Franz. Time would be an important factor, for the railway was to be built through some of the roughest terrain in the province, making heavy rock cuts and expensive bridges the rule rather than the exception.

Clergue was in no position to wait, and while the railway was under construction, he had to find an alternative method of shipping ore out of the Helen. Fortunately the mine was located only ten miles away from Michipicoten Harbour, a sheltered bay open to navigation eight months of the year. It was one of the best natural harbours on Lake Superior, and it was therefore decided to construct a line from Michipicoten east to the Helen Mine (an open-pit mining operation), and from there, carry on to the route of the main line a further 17 miles east. Thus when Michipicoten Harbour was made ready, it would not only serve the ore traffic, but it would also provide a supply route to the railway construction inland, much as had been done from that same location during the building of the Canadian Pacific 25 years before. Construction of the Michipicoten branch commenced in 1899 at around the same time as the main line from Sault Ste. Marie was started. By July 1900 the branch was opened to the mine site, 12 years before the mine would obtain direct rail access to the Sault.

Along with the branch line, Michipicoten Harbour also needed work if it was to be of any use, particularly dredging in order to accept the free passage of freighters. By the time the railway was opened to the mine in 1900, dredging was completed, along with 4,000 feet of dockage, under the personal supervision of Francis Clergue. Facilities included an elevated iron ore dock built of wood and containing 12 ore pockets for the transfer of ore from railway hopper cars into ships

## Railway Iron Ore Docks

### e) **Cobourg, Peterborough & Marmora Railway & Mining Company**

**Cobourg:** built 1869, wood, pocket trestle type.

**Harwood:** built 1869, wood, steam-powered "elevator" for transferring ore from scows to rail cars.

**Trent River Bridge:** built 1869, wood, trestle type, ore dumped directly from rail cars into scows beneath trestle.

### f) **Grand Junction Railway**

**Belleville:** small quantity of ore shipped by Grand Junction Railway through its general freight dock at Belleville.

### g) **Grand Trunk Railway (CNR)**

**Point Edward:** Canada Steamship Lines dock, "whirly" cranes used to unload ore from ships into rail cars for shipment to the Hamilton steel mills, operation lasted from 1915 until 1932, when the present Welland Canal opened.

## **CHAPTER FIVE - NOTES**

- 1) Donald M. Wilson, *Lost Horizons* (Belleville, 1983), p. 162.
- 2) Arthur D. Dunn, "In search of history (1) — The Trent River ore cars," *CIM Bulletin* (Montreal), May 1981, p. 142.
- 3) Mick Lowe, "Wawa's 'dream' may thrive again," *Globe & Mail* (Toronto), 3 October 1983.