From Boom to Bust: John E. Burton And the Northern Wisconsin Iron Mines, 1885-1887

By Gillian M. Krezoski

Senior Capstone For Professor Robert Gough May 11, 2006

Copyright for this work is owned by the author. This digital version is published by McIntyre Library, University of Wisconsin Eau Claire with the consent of the author.

Abstract

Since the industrial revolution, occurring prior to the turn of the 19th century, the United States has had a fascination with iron. Iron ore is a main component of steel, which built transportation systems, cities, and even empires. This paper studies one man, John E. Burton, who was involved in the Gogebic Range in northern Wisconsin. This writing argues that this man was a major influence in bringing investors, tourists, and money to northern Wisconsin. This, in turn, helped to speed the development of the northern part of the state. Railroads cut through the wilderness and shipping yards were built on Lake Superior. Overall, John Burton was a small-scale iron baron who entered the market at the wrong time. His vision was to be a success on a small scale, while the nation was looking to the start of corporations to supply large-scale needs. Burton, though not successful as an iron baron, still played an integral part in shaping the history of northern Wisconsin.

Table of Contents

Table of Figuresi	V
Introduction to Iron and Entrepreneurship	1
The United States Steel Industry	3
The Gogebic Iron Range	6
John E. Burton	9
John E. Burton's Diaries, 1885 and 18861	2
Mining and Investments1	6
Influences of the Gogebic on Northern Wisconsin	8
Burton's Iron Failure2	23
The Gogebic Lives On	:6
Conclusion	9
Appendices: A, Detailed Map of Lake Superior Ores3	1
B, Popular Tourist Destinations of N. Wisconsin3	32
C, Railroad Cargo Statistics33	3
Annotated Bibliography3	34
Appendix D, Original Map of Range by John Burton 3	37

Table of Figures

Iron ranges of Lake Superior	6
Capt. N. D. Moore	8
John E. Burton	9
Iron Miners on the Gogebic Range	16
Birds Eye View of the Colby Mine	17
Ashland Iron Ore Docks	22



Introduction to Iron and Entrepreneurship

The concept of iron barons in America is not new. Iron and its wealth has affected our history for centuries, from the Iron Age to today's steel making processes. The state of Wisconsin contains a rich vein of iron ore, today called the Gogebic Range, that sparked new interest in the heavily wooded, and previously unnoticed, north during the late nineteenth century. Industries that formed around this vein of iron ore include railroads, shipping, and tourism.

Monographs about the iron industry were published around the time frame of the 1950's through the 1970's. Through these books, the reader can learn that the iron industry and its subsequent history mattered greatly to Americans during those times.

One can also learn that the use of iron was considered central to creating an empire, or a successful country. The use of iron and its location was paramount for both the United States and other developing countries.

Along with this rekindled interest in the iron industry, the Cold War played a part in the reason why many of these sources were published during the mid-1900's. Iron ore, as a component to create steel, was also a measure of which empire was the strongest in the world. The Soviet Union and the United States both felt that if they had iron, they would have the key to the steel industry, and in turn the key to military and social success.

Today, Americans are no longer interested in the pursuit of iron ore because most of today's steel is recycled. We have also discovered that it takes more than iron to build an empire. Since the Cold War's demise, there is also less competition for resources, and

the stress and worry that comes from trying to understand where the resource will come from has been greatly lowered. Monographs today on the iron industry are scarce and relatively specific on small areas of the field. The topic was so extensively covered during the mid-1900's that there is no need, as of yet, to repeat the process.

Entrepreneurship has since become America's new fascination. How one small person can rise through the ranks of society and become successful is an age-old concept that interests us today. Bill Gates is an example of a modern entrepreneur who became one of the world's richest men. During the turn of the century, men like John Rockefeller and Andrew Carnegie rose through the ranks and became what is known today as 'iron barons,' controlling much of the industry, including the mining, shipping, and processing of iron ore to create steel.

Small business competition is a result of the capitalistic world that we live in today. The challenge for small businesses is staying afloat next to their larger competition. During the turn of the century, the iron barons possessed control over much of the iron industry. Small entrepreneurs, like Lake Geneva resident and Milwaukee businessman John Burton, struggled to stay afloat in the fast-paced, high risk environment that goes along with small business. Small businesses have earned the respect of many Americans for competing, and in some cases evolving into large commercial enterprises.

Americans in general are interested in the study of small business, entrepreneurship, and the economics that go along with these two subjects. Many American's dream about becoming successful against all odds. Some achieve this goal, while others fall behind. This paper examines how the risky business of iron speculation

during the 1880's mixed with the entrepreneurship of a small-time investor led to early success, then later failure.

John E. Burton played a integral role in mine speculation, and secondarily the economic development of northern Wisconsin. The development of the Gogebic range extended the railroads into northern Wisconsin, created an influx of cargo to the Ashland shipping industry, and created a demand for housing. Miners flocked to the area, investors poured money into the projects, and businesses flourished. Overall, the Gogebic Range created new interest in the previously unexplored and uneconomical north, and Burton, as a proprietor of the range, played a small, yet involved role.

The United States Steel Industry

In order to understand why the iron ore in the Gogebic Range was important to United States history, one must study the evolution of the business. The end of the 19th century marked a great expansion in industry for America, called the Industrial Revolution. In northern Wisconsin, iron was shipped to two docks, one at Superior and the other at Ashland. The ore was loaded onto freighters and shipped throughout the Great Lakes to processing plants located in Pennsylvania and Ohio. Iron ore is a major component of steel, and thus a major component of buildings, railroads, and shipping.

The Great Lakes connect the heartland of America to the eastern United States, as well as the rest of the world. Shipping on the Great Lakes was an easy and cheap means of moving goods, especially heavy ores. Most Midwestern ore traveled east to be heated and used for the Bessemer steel-making process. Many of our largest cities were built with iron ore from the Midwest. Studying, understanding, and moving iron ore became

America's focus during the turn of the 19th century, and when the two World Wars called for many resources. With the completion of the locks in Sault Ste. Marie, Michigan, in the 1860's, ore was shipped from Lake Superior to eastern processing plants.¹

Railroads were the main conveyor of iron ore from the mines to the ships. During the late nineteenth century, railroads carried ore, agriculture, and people. At one point in time, it was the largest mode of transportation in the United States. The Gogebic range used railroads to transport its ore to Ashland, Superior, and Marquette where it could be transported elsewhere for smelting and other uses. The Milwaukee, Lake Shore, and Western railroads were the main lines that traveled through Gogebic country. Railroads were a main conveyer of iron ore, and thus played a large role in the iron industry. Monopolies and entrepreneurs became rich due to the great dependence on railroads as cross-country transportation. ²

The steel industry was a large player in the demand for iron ore. Before the Bessemer process for smelting strong steel was discovered, America dealt with only crude steel-making processes, including using 'pig iron'. After the Bessemer process was brought to America in 1865, the steel industry boomed. No longer were Americans dependent on other countries.³ The iron business expanded and created many new millionaires in the process.

During this time period, small frontier businesses, like the Gogebic iron mines, attracted the eye of many large businessmen that had visions for economic success.

¹ Jacques LesStrange, *Lake Carriers: The saga of the Great Lakes fleet- North America's fresh water merchant marine.* (Seattle, Washington: Salisbury Press, 1977).

² Alfred D. Chandler, (ed) *The Railroads: The Nations First Big Business*. (New York: Harcourt, Brace, & World, Inc, 1965).

³ Peter Temin, *Iron and Steel in Nineteenth Century America: An Economic Inquiry*. (Massachusetts: The M.I.T. Press, 1964). And William T. Hogan, *Economic History of the Iron and Steel Industry in the United States*. Vol 1-5. (Massachusetts: D.C. Heath and Co, 1971).

These men bought many of the components of the steel industry, from shipping to railroads, to steel processing plants. Later, they began creating monopolies by controlling large portions of each component. Thus, the time of the small businessman ended during the turn of the century, and the rule of corporations and iron barons began.⁴

After Burton's rise and fall in a boom and bust economy of mining speculation, the Gogebic Range continued to be economically successful, and soon became the property of iron barons Andrew Carnegie and John D. Rockefeller. By studying why and how Burton failed, and why the industry eventually converted to big business, one can understand how iron barons did, or did not, succeed in our capitalistic economy.

⁴ John N. Ingham, *The Iron Barons: A Social Analysis of an American Urban Elite, 1874-1965.* (Connecticut: Greenwood Press, 1978).

"Surely a country so fertile, so healthy, so well watered; the waters abounding in fish, the woods abounding in fur-bearing animals; a country, withal, so easily accessible by water navigation and by railroad communication cannot much longer remain a wilderness."

> Increase A. Lapham Milwaukee, Wis., November, 1858

The Gogebic Iron Range

Iron Range is located in northern Wisconsin, about 40 miles southeast of Ashland.⁵ The 50 mile long range spans the Michigan-Wisconsin border, and was originally called the Gogebic in Michigan, and the Penokee in

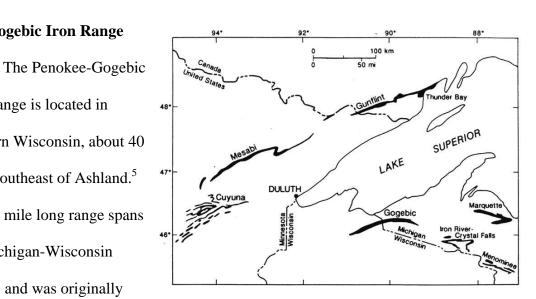


Figure 1. Map showing location of iron ore around Lake Superior. From Michigan State University Webpage, http://www.geo.msu.edu/geo333/iron.html.

Wisconsin. The range was productive from 1884 until the early 1960's, producing millions of tons of ore.⁶ The iron ore from the Gogebic Range was highly popular around the turn of the century for its low phosphorous and high iron content. Indeed it was one of the richest veins of iron ore in North America. By 1890, ores from the Gogebic and the four other Lake Superior ranges constituted over 56% of the nation's ore supply. Ore docks were built in Duluth, Minnesota; Ashland and Superior, Wisconsin, and

⁵ Please see Appendix A for a complete map detailing location of ranges, iron ore railroads, and

⁶ Patrick C. Dorin, *The Lake Superior Iron Ore Railroads*. Washington: Superior Publishing Co. 1969.

⁷ Rhinehart J. Lintonen, Discovery, Speculation, and Development in the Gogebic Iron Mining Boom in Northern Michigan and Wisconsin, 1848 to 1897. (The University of Wisconsin, Whitewater: Master's Thesis, 1988), 105.

Escanaba, Michigan. Railroads also expanded throughout upper Wisconsin, Minnesota and Michigan, connecting the iron ranges with the shipping industry. Iron ores in Wisconsin played a small role in Wisconsin mining history. The 'Badger' state was originally named after lead miners in southwestern Wisconsin who dug 'burrows' in the bedrock for shelter. However, iron and the Gogebic range did play a role in national mining history. This role began over 140 years ago, when the range was first explored in the wilderness of northern Wisconsin.

On September 6th, 1858, state geologist Increase A. Lapham set off on an expedition from the developing city of Ashland in northern Wisconsin to study a range rumored to have abundant mineral wealth. His trek took him approximately thirty miles along a rugged trail, past "pine tree[s] measure[ing] thirteen feet in circumference at the base" over rugged terrain to the foot of the range. Over and over Lapham mentioned the apparent wealth of the range, citing geological evidence as well as his own conclusions. Overall, Lapham praised the nearness of the range to a natural waterway, the Montreal River, for energy, as well as the abundant forests that could be used in the smelting process.⁹ Other explorers, such as Dr. Douglass Houghton, Dr. Arthur Randall and Raphael Pumpelly also surveyed the Gogebic range area and reported on its wealth to various geological and corporate entities.¹⁰

-

⁸ Wisconsin State Legislature, "State Symbols," http://www.legis.state.wi.us (accessed May 10,

<sup>2006).

&</sup>lt;sup>9</sup> Increase A. Lapham, "Mountains of Iron Ore" in *The Milwaukee Evening Wisconsin*, Feb 21,

^{1887.} lintonen, 6-13.

Thirty years later, this land was traversed once more by a man interested in more than geology. This man, Captain Nathaniel Drummond Moore, who was later designated the "Pioneer of the Gogebic," was born on October 27, 1847 in Glenoe, Ireland. Moore began his business training as a clerk and at age 18, bought his uncle's store in Glenoe. A year later, Moore decided to sell the store and headed to America. He was first



Figure 2. Captain N. D. Moore, From the Gogebic Iron Tribune, Hurley, Wisconsin. 29 Aug. 1886.

employed through a tea company, and later worked in the Victoria lead mines in New York. After some time in the Union Army, Moore traveled around the Midwest and Canada to work in the mines.

It was during his employment at the LaPointe Iron Company that Moore made a famous traverse across the Gogebic Range. The trip, over 110 miles long, was completed to scout out new ore for his company. Upon reaching the

Gogebic, Moore noticed his compass was no longer pointing to the correct north and he ascertained that there was iron present in the subsurface. Unfortunately, the LaPointe Company abandoned its plans for the Gogebic and Moore was left unemployed, however he continued to explore the Gogebic Range on his own. At one point, Moore discovered a large section of land that had been cleared by a tornado. Moore claimed he could see

clean hematite ore exposed on the surface. ¹¹ Another man was also attributed to helping Moore discover iron ore. Richard Langford, a north-country hermit reportedly made test pits in a later mine site and showed the ore to Moore. It was possible that Moore stole the find from Langford and claimed it for himself. ¹²

Nevertheless, Moore was able to claim the find as his own and to carry ore samples around the state. In order to be able to secure financial backing to open an iron mine, Moore needed to find investors, however he was weak at making convincing arguments. He realized that he needed someone to help him advertise the wealth and prosperity of the potential mines. On a trip to Milwaukee, Moore met insurance salesman and former schoolteacher John E. Burton. The men became fast friends, and Moore was able to secure an ally in the iron business. ¹³

John E. Burton

John Edgar Burton was
born in New Hartford, New York
on October 19, 1847. At the age of
sixteen, he attempted to enlist in
the Union Army during the Civil
War, however his father followed
him and forced him to come back
home. Burton later completed his



Figure 3. John E. Burton. From the LaRue County Herald, Hodgeville, Kentucky. 2 Aug. 1906.

¹¹ John E. Burton, "Pioneer of the Gogebic" in *Gogebic Iron Tribune*, Aug 29, 1886.

¹² Lintonen, 19

¹³ John E. Burton, "Pioneer of the Gogebic" in *Gogebic Iron Tribune*, Aug 29, 1886.

advanced studies, including commercial and scientific courses and a year at a seminary during the late 1860's. John Burton continued his career with teaching, first in Cazenovia, New York, later in Richmond, Illinois, and then in Lake Geneva, Wisconsin. In 1870, Burton became the head of the Lake Geneva public schools for three years.

On December 7th, 1869, Burton married Lucretia Delphine Johnson, whom he fondly refers to in his diaries as "Dell". After Burton's brief sojurn as head of schools, he became manager of the *Geneva Herald*. In 1874, he bought the paper and sold it again in 1876. Burton promptly moved onto another interest: real estate. He dabbled in properties both in Chicago and Lake Geneva. His interest in mining was first piqued from 1879 to 1881 when he worked with the sale of silver mines in Colorado. At one point during the mid 1870's, Burton made some bad business decisions that left him almost bankrupt. Thanks to Dell's father, who loaned him \$5,500 (around \$115,000 today), and the sale of his own extensive coin collection, Burton was able to avoid bankruptcy.

After his brief financial scare, Burton entered into the insurance business with partner A.T. Parish and began to manage the Equitable Life Insurance Society of New York for the State of Wisconsin. John Burton was first and foremost an insurance salesman during 1885. Throughout his diaries, he records to whom he sold life insurance, how much the policy was for, and what the interest rates and premiums were: "Closed Joseph Oliver for \$10,000 premium 450.30 for which we got cash." These informal records are important because they archive insurance transactions completed during the 19th century.

¹⁴ John E. Burton Diaries, (January 17, 1885).

During his time as an insurance salesman, Burton met Captain Nathaniel D.

Moore of Ashland. In February, 1885, Burton first mentioned Captain Moore and his life insurance purchase. Burton demonstrated his goodwill toward Moore by giving him a gift in addition to the insurance policy and recording the event in his diary. "Wrote Capt' N.D. Moore of Ashland for \$50,000¹⁵ on the 20 yr. Endout. 20 yr. Tontine. Premium \$2523.50. Presented him with my fine large oil painting & frame. Returned home on evening train feeling very jubilant over my success." ¹⁶ Burton insured Moore's life, and afterwards they became close friends and business partners. Moore introduced Burton to his ore samples and the potential for mining in northern Wisconsin, and explained how he lacked the skills to convince other businessmen to invest in the mines. Hearing that Burton was a noted orator, as well as a former schoolteacher trained to communicate with and teach others, Moore convinced Burton to join him in promoting and investing in the Gogebic Range. Together they set out to convince the rest of the world of the ore's worth. ¹⁷

This brief biography demonstrates Burton's past experiences with financial success and failure. His abundant interests and quick career changes show that he was eager to take chances, and to throw himself headlong into them. This type of thinking must have influenced his decision to enter into the speculative mining business in the Gogebic range; it contained high risk, easy fortune, and a new and interesting challenge for an energetic businessman.

_

Moore bought two life insurance policies from Burton, the second transaction occurring on June 26, 1885, in which Moore became the first man in Wisconsin insured for \$100,000. This sum in 1885 equals over 2 million dollars today.

¹⁶ John E. Burton Diaries, (Feb 21 1885).

¹⁷ C. R. Lathrop, "A Remarkable Career" in *Republican*, April 9th, 1886.

John E. Burton's Diaries During 1885 and 1886

Burton's diaries outline his day-to-day transactions and activities. Through short statements made almost daily, Burton left behind a thorough, if not detailed record of his life during the years of 1885 and 1886. Main aspects covered in the diary discuss his insurance business, his family, mining and investing, as well as social activities. These records are important to Wisconsin's history because they provide the reader with an example of how businesses and finances were once run in Wisconsin.

Burton, though a shrewd businessman, was overall a kind man. One example was recorded on February 17, 1885, when a client who owed Burton for an insurance payment gambled away all of his money. The man cried and pleaded, and Burton was "sympathetic enough to trust him once more to go to work at Sheboygan and try and redeem his account. Bought him new shoes, a R.R. ticket & game <sic> him \$10, & wished him well." Another example can be seen with his treatment of his dog. "Our dog 'Kizer' followed me four miles & I gave her away...unbeknownst to the family. This I did out of sympathy for the dog who was to be shot this week." These small actions attest that Burton had a kind character that unfortunately would play a part in his economic downfall two years later.

Throughout his diaries, Burton mentioned various family members, including his wife, Dell. Burton had one brother, Niles, that lived near Lake Geneva near their mother. Niles also had a family, including a new baby in 1885. His sister, Mary, also lived

¹⁸ John E. Burton Diaries, (February 17, 1885).

¹⁹ Ibid., (February 3, 1885).

nearby. Burton also mentioned his children, though never by name in these diaries.

Burton and Dell also had family members 'back east' and would pay them visits throughout the year for long periods of time.

First and foremost in Burton's heart was his wife Dell. During the beginning of 1885, she traveled east to visit her old home. Burton showed his worry for her when he stated "God bless her... may they go & return to me in safety." He also showed his love for her by buying her very expensive perfume while she was away: "Purchased for my dear good absent wife four 18 ounce bottles of Wrights best perfume of Avery, \$22.00." ²¹

Burton also mentioned his brother, Niles, and their mother, typically in conjunction: "Mother was visiting at Lot's with Niles' baby Louie." Burton also involved family members with his mining business, often talking them into investing hundreds, or even thousands of dollars. "Rec'd \$225 of Niles and Mother with which to purchase 100 shares stock in Vaughn & Aurora." His sister, Mary, became very involved in the mining business toward the end of 1885 and throughout 1886. Mary bought thousands of stock in Burton's various mining ventures. As in one example, on January 7, 1886 Burton wrote: "Mary & I pleasantly closed our deal... amounting to \$15,855...."

Though family was very important to Burton, he still spent the work week away from them in Milwaukee. Burton would also take trips to visit the mines for weeks at a time. During 1886, Burton made eight trips to northern Wisconsin, one occurring almost

²² Ibid., (April 21, 1885), Lott is also quite frequently mentioned in Burton's diaries, typically in conjunction with visiting Burton's wife Dell. Ultimately she plays the role of family friend.

²⁰ John E Burton Diaries, (March 5, 1885).

²¹ Ibid., (March 18, 1885).

²³ Ibid., (May 2, 1885), The Vaughn & Aurora was a mining company formed by Burton and Moore during 1885. The two names signify two actual mines built in the Gogebic.

²⁴ Ibid., (January 7, 1886).

every month. Often, he would only see his family on the weekends. Dell would also travel to New York for long periods of time, increasing the time she spent away from her husband. She did occasionally make trips to Milwaukee to enjoy a show or dinner with Burton. On Friday, May 21, 1886, Burton wrote "Dell came up on the 5:40 train. In the evening went & saw 'Fantasma.'"²⁵ Over the next few days the couple shopped, dined, and enjoyed music with friends.²⁶

During the week, Burton had a very active social life, again demonstrating his willingness to spend large amounts of money by dining at expensive restaurants, viewing plays and other entertainments, and drinking and playing billiards until very late in the morning. John Burton lived a lifestyle equivalent to a very rich man. During the time of the iron mines, that is in fact what he was. Throughout his diaries, Burton documented that hundreds of people invested thousands of dollars in mining companies that he formed with Moore and a few other central businessmen. A man having this much money thrown at him at once will take advantage of the lifestyle he can afford. On January 8, 1886, Burton excitedly recorded: "Spent a rather tedious day alone on the train; figuring up my past year's remarkable profits... which I find are fully \$200,000, cash basis." 27

Burton spent many nights of his week in Milwaukee drinking, playing pool, and spending money going out to eat four out of five nights a week. Burton bragged: "...we played 9-pins ...and took in a \$21.00 champagne dinner. In the evening I invited the whole party to the theatre..." Burton also bought his family gifts, socialized with many doctors, military men, businessmen, and even politicians, and stayed out late at night.

²⁵ 'Fantasma' was an opera.

²⁶ John E. Burton Diaries, (May 21-May 22, 1886).

²⁷ John E. Burton Diaries, (January 8, 1886).

²⁸ John E Burton Diaries, (May 15, 1885).

"Went with Capt. in the evening & had supper with the same crowd... Got in at 2 a.m."²⁹ Burton mentioned new acquaintances and friends daily in his diaries, seeming to have met endless amounts of people on the train rides home, stopping by his office, and at evening social gatherings. At one point, Burton spent a quiet day at home and exclaimed to himself: "For the first day in many months I did not have any visitors come home with me and spent a comparatively quiet day being disturbed only by the usual callers amounting to 15 or 18 persons."³⁰ A man with this many friends and acquaintances was in an ideal place to spread the word about mining interests in northern Wisconsin.

Burton's biography showed a man with many changing interests. From his business interests to his changing social plans and late night excursions, we see a very energetic man that liked to socialize extensively. We see in his diaries that this belief is true, in that Burton enjoyed life to its fullest. He tried new things often, even while staying busy with his business matters. Burton was a man who liked to be involved in many activities at once, and who never sat still.

In 1886, his evening exploits seemed to slow as his workload expanded with mining interests. His diaries recorded less play, and much more work. On Wednesday, May 12, 1886, Burton recorded simply "Busy at the office all day." The next day he reported: "Busy. Busy." A day later, he continues "Never busier in my life." Burton would soon face even busier and harder times in 1887 when stocks on the range plummeted and he tried in vain to save his companies.

²⁹ Ibid., (May 12, 1885).

³⁰ Ibid., (October 17, 1886).

Mining and Investing

Burton had become interested in investing in the mines after meeting Captain Nathanial Moore in February of 1885. Burton continually mentioned Moore as a friend and business partner. From there after, Moore accompanied Burton on many of his late night



Figure 4. Photograph taken by Burton of a group of northern Wisconsin Miners. From the Wisconsin Historical Society, John E. Burton Collection. Milwaukee SC190

revelries in Milwaukee. Moore convinced Burton to invest in the mines of northern Wisconsin, and used his verbal skills as a former teacher to inform others about the benefits of investing in the Gogebic Range.³¹

The Gogebic range opened in 1884 with the first shipment from the Colby mine, an open-pit mine begun by Moore on the Michigan side of the range.³² Only around 1,000 tons of iron ore was shipped that year, however this number increased to over 195,000 tons in 1885 and even higher to 753,000 tons in 1886 with over one million tons of ore shipped by 1887.³³ Soon after the opening of the first mines in the range, miners, speculators, and 'wildcatters', flocked to the area in an attempt to get rich quick.

³¹ John E. Burton, "Pioneer of the Gogebic" in "Gogebic Iron Tribune" Aug 29, 1886.

³² Lintonen, 28.

³³ Lintonen, 106.

³⁴ 'Wildcatters' was a term used in Lintonen to refer to a speculator that held fake claims or ran a fake company that gullible investors foolishly sank large amounts of money into.

In his diaries, Burton began to mention his involvement in the Gogebic Range after February of 1885. He mentioned several trips to northern Wisconsin: "... left on the



Figure 5. Figure 5. Birds Eye View of the Colby Mine, 1880's, from the University of Wisconsin Electronic Reader (WER) page, http://www.library.wisc.edu/.

6:45 train, Lake Shore & Western RR for Bessemer to again examine the mines."
Burton discussed the mines he was most interested in: the 'Germania,' 'Ashland,' 'Norrie,' 'Aurora' and 'Vaughn.' After viewing these sites, Burton stated: "we saw everything at its best and all were well impressed." Burton and Moore had

Aurora mines.³⁶ They were successful, and after he visited his investment, Burton lobbied heavily for his friends and family to invest in his mines.³⁷ "Spent the evening at Dell Wood's office & sold him 1,000 shares Vaughn and Aurora stock."³⁸ Indeed Burton was so successful he boasted about his salesman capabilities, as evidenced by his journal entry from second week of May, 1885: "Over 14,000 in cash has been rec'd by me this week to purchase stock in the Vaughn and Aurora Iron Mining Co."³⁹

Burton became very successful in the ranges of northern Wisconsin. He made thousands of dollars with his first few investments, and traveled back to southern Wisconsin to tell others about the wealth the range held. By 1887, Burton owned the

³⁷ Ibid., (April 1- May 12, 1885).

³⁹ Ibid., (May 16, 1885).

17

³⁵ John E. Burton Diaries, (May 6, 1885).

³⁶ Ibid., (March 28,1885).

³⁸ Ibid., (April 9, 1885) Dell Wood was a boyhood friend of Burton's that lived in Elgin, Illinois who made his money in the cheese business.

"Iron King," "Bonnie," "First National," "Blue Jacket," and "Valley" mines. 40 He, along with Moore, who owned the "Kakagon," "Nimikon," "Atlantic," Bourne," "Moore," "Prospect Hill," "Bessemer," "Sunday Lake," "Iron Chief," "Oro," and "New York" mines, were among the two most well known and wealthiest men on the range.⁴¹

Influences of the Gogebic on Northern Wisconsin

The Gogebic Iron Range, and investors like Burton, brought thousands of dollars into a part of the state that would normally have held little interest. Prior to Increase Lapham's study, this area had been thought of only as a timber resource. The mines inspired railroads to be built, connecting the range with both Milwaukee and Ashland. These railroads facilitated the spread of populations to northern Wisconsin, and shipped ore away from the mines. The shipping industry also received a large portion of money for moving the iron ore to the smelting factories in the East. These industries helped bring wealth to the area, and investors like Burton aided in this process.

Tourism was also an important factor that increased due to the mines. People wanted to come see the endless supply of iron ore about which prospectors bragged. This in turn created a demand for railroad service and hotels. Sources show that a popular destination in northern Wisconsin on the Milwaukee, Lake Shore & Western Railroad

18

⁴⁰ Lintonen, 50. ⁴¹ Ibid., 150.

was for Hurley on the iron range.⁴² Indeed, business demanded a place for travelers to stay, so Burton actually opened a hotel, the Burton House, in Hurley.

Evidence for Burton's influence in the Gogebic Range can be found in both his diaries as well as statistics of when northern Wisconsin truly developed. Also, publications of the time attest to Burton's character and dedication to bringing investors into northern Wisconsin.

Burton's diaries not only showcased transactions completed in his insurance business and with selling stocks, but also recorded purchases of property in the Gogebic, building of multiple housing plots, and creation of new corporations and banks. One passage that reflected his helping to develop Hurley occurred on Tuesday, March 9, 1886: "Closed the contract... to build me 24 houses in Hurley." Burton also built the expensive and luxurious Burton House hotel. In October of 1886, he traveled to Hurley with many notable politicians, including Governor Jeremiah Rusk to celebrate its opening. "Office full of men all day preparing for the excursion to Hurley in honor of the Governor & the opening of the Burton house." The party was greeted in Hurley with a "cornet<sic>" band and a crowd of over one thousand people. The governor spoke, and a banquet was held after the ceremony where an acquaintance of Burton's gave a speech that was "tender and sympathetic, which nearly broke [Burton's] heart." Celebrations lasted until after 3 in the morning. Burton used this opportunity to gain support and

_

⁴² Ray Specht, "Bulletin No. 121, The Railway and Locomotive Historical Society." (The Railway & Locomotive Historical Society, Inc. Boston, 1969.), 67. Please see Appendix A for statistics on popular desitnations in Wisconsin for the years 1890-1893.

⁴³ John E Burton Diaries, (March 9, 1886)

⁴⁴ Governor Rusk held office in Wisconsin from 1882 to 1889.

⁴⁵ John E. Burton Diaries. (October 18-21, 1886).

publicity by showing the governor around the mining properties, as well as the ore docks in Ashland.⁴⁶

John Burton recorded that he later voted for Rusk, a Republican, in the November 2nd election of that year, which Rusk won. On March 4, 1885, Burton cursed the Democratic party and their celebrations over the inauguration of President Cleveland: 'Damn the present democratic Southern Oligarchy....'⁴⁷ Based on his comments, his close friendship with Rusk, as well as his friendship with the lieutenant governor at the time, Sam S. Fifield, Burton showed he supported the Republican party, and was involved in politics. Indeed on June 19, 1886, Burton wrote: "[had] a confidential talk with Lieut. Gov'r, Sam Fifield where I put in two hours on political plans for the fall." Also, on October 12, 1886, Burton further shows his involvement and influence with politics: "... attended assembly convention as a delegate and made the nominating speech for Dr. J.C. Reynolds & saw him nominated on the 6th ballot." Based upon his influence and participation in politics, one can see that Burton was an influential man in Wisconsin during the 1880's. This gave him the position to use his influence to further support and advertise the mines of northern Wisconsin.

Burton was a gifted orator who was invited to give many speeches throughout the Midwest. Burton mentioned giving a Soldier's Decoration Day speech at a celebration in Richmond, Illinois to a crowd of 600 on May 30, 1885. Later, he was informed that he had been nominated to give a speech at the General Grant funeral ceremonies on August 8th, 1885. "...The open air ceremonies were held in Ford's Opera House which was

⁴⁶ John E. Burton Diaries, (October 30, 1886).

⁴⁷ Ibid., (March 4, 1885).

⁴⁸ Lieutenant Governor Sam Fifield held office from 1881-1890.

⁴⁹ John E. Burton Diaries, (June 19, 1886).

⁵⁰ Ibid., (October 12, 1886).

packed. [I] gave one of my best efforts & with satisfaction."⁵¹ In September of 1886, Burton was again asked to give another oration at a G.A.R (Grand Army of the Republic) reunion. Again notables in attendance were Governor Rusk and General Fairchild, a former Wisconsin governor from 1865-1871. According to Burton, over 3,000 people were in attendance.⁵²

It was because of his skills as a great orator that Captain Moore first sought out Burton's help in promoting the iron range. Burton was able to use his skills to gain investors in the Gogebic range. On Saturday, March 13, Burton writes an example of how he used his speaking abilities to educate investors about the Gogebic range: "Met 330 men in the Opera House & talked the Gogebic Iron Mines.... Sold \$18,000 worth of stocks to various persons." These investors poured thousands of dollars into the range, and created a demand for railroads and shipping in the area.

Burton played a role in writings about the Gogebic range. Northern Wisconsin boasted many newspapers reporting about the Gogebic range. Burton, as former editor and owner of the *Geneva Herald*, also played a part in advertising about the range through the written word. On February 4, 1886, Burton wrote: "Closed contract with Frank Hand to build a new block & put in a newspaper to be called the 'Gogebic Iron Tribune,' Co."⁵⁴ Burton also released a "Burton's Bulletin" in 1887 discussing his properties and urging shareholders to hold on to their stock.⁵⁵

Burton also played a part in business development in Hurley, not only with real estate, but with creating banks and securing railroad charters. On August 19, 1885 Burton

⁵¹ John E. Burton Diaries, (August 8, 1885).

⁵² Ibid., (September 2-3, 1886).

⁵³ Ibid., (March 13, 1886).

⁵⁴ Ibid., (February 4, 1886).

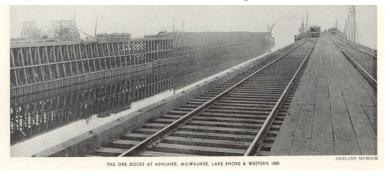
⁵⁵ John E. Burton, "Burton's Bulletin" in *Milwaukee Sunday Telegraph*. 22, May 1889.

wrote: "... closed arrangements for opening a Bank at Hurley, Wis. Capt. [Moore] to be Vice Pres. & I a director."⁵⁶ Also, on November 27, 1886."Spent the day at the bank... figuring on a charter for a railroad from Hurley to Lake Superior." ⁵⁷ Prior railroads had connected either to Bessemer, Michigan⁵⁸ or Mellen, Wisconsin. In 1884 and 1885, 'rumors' of iron ore in the Gogebic redirected construction of the Milwaukee, Lake Shore, & Western Railroad from its original path to the copper country in the Keewenaw Peninsula. The road built many extensions along the range, including lines to individual mines, and began to haul stockpiled ore to docks being built in Ashland. The largest ore dock in the world, "the mammoth ore dock," cost \$300,000 to build. 59 The Milwaukee, Lake Shore, & Western Railroad experienced an increase of over one million tons of freight between 1884 and 1887. There was a slight lull during the economic downturn in 1887, however, freight levels continued to rise as the Gogebic became more and more profitable and productive.⁶⁰

John E. Burton

played a role in creating interest in the mines of northern Wisconsin. In 1886, he and Moore traveled to New York to attempt to create offices

Figure 6. Iron ore docks in Ashland, owned by the Milwaukee, Lake Shore & Western Railroad. From Specht, 53.



⁵⁶ John E. Burton Diaries, (August 19, 1885).

22

⁵⁷ Ibid., (November 27, 1886)

⁵⁸ Ibid., (August 15, 1885)

⁵⁹ Specht, 54. See Appendix B for statistical chart on increase in freight of the Milwaukee, Lake Shore, & Western Railroad ⁶⁰ Ibid., 64.

and a place in the stock market for Gogebic stocks. On Saturday, January 2, 1886, Burton, then in New York, wrote: "Went over Brooklyn Bridge with Capt. and talked over the matter of opening a New York office on Wall St. & center the Gogebic Iron range interests around us as far as possible." Though this idea was never completed, it shows the extent that Burton was willing to go to gain investors in the Gogebic Range.

"It is not necessary to say that Mr. Burton has been foremost among all of the bright, energetic, driving men who have made the Gogebic Range famous."

-Anonymous, Milwaukee, May 22, 1887⁶¹

Burton's Iron Failure

Burton's downfall occurred at the end of the 1887 when the bottom fell out of the Gogebic Range and the speculation ended. Great Lakes iron ore carriers had gained a contract with grain producers, and therefore had little capacity for hauling iron ore eastward. Because of the high demand, they were able to raise their prices and charge the mines a high price for shipping. Also, the market for steel fluctuated highly during this technological time period. The Bessemer process had recently been introduced, creating a demand for high-grade ore, which the Gogebic Range provided. The economy, however, was precarious and many of the ships hauling ore from the Gogebic sat in docks in eastern ports for long periods of time with their loads unpurchased. Based on the high volume of stock investments, the rocky market, and high operating costs, the boom of the Gogebic soon became a bust.⁶²

⁶¹ John E. Burton, "Burton's Bulletin" in *Milwaukee Sunday Telegraph*. 22, May 1889

⁶² Lintonen, 145-170.

23

Moore's large group of mining companies felt the strain first. Burton's soon followed, with miners striking because they had not been paid in months. ⁶³ Both businessmen attempted to form iron syndicates with their many mines, attempting to secure investors from New York and Cleveland to help allay rising costs. Burton even published a bulletin urging investors to hold onto their stocks, saying that it was normal that iron industries rose and fell with demand. Unfortunately, despite their best efforts, both businessmen lost the boom and bust battle.

Investors saw their stocks begin to fall. With the recent strikes, the unstable market, and the fact that there had been many fake companies which people had previously lost money, confidence in the Gogebic Range was low. The aforementioned bulletin printed by Burton tried to make light of the issue. "Let no one be disturbed seriously because the past month has been dull. The pendulum will swing to and fro on the Gogebic the same as it has on all other speculative stocks, the world over... Now is the time for all true friends of the range to exercise good common sense." Burton goes on to warn that if people begin to get rid of their stocks, "there will be as much money lost during the next three years as has been made during the past three years." ⁶⁴

Moore was rumored to have both made and lost 1 million dollars, while Burton had made and lost 2.5 million dollars. Moore quietly disappeared into the background, moving to Canada, and then later trying his luck with the newly forming Mesabi Ore Range in northern Minnesota. Burton, on the other hand, was an honest and kind man who had guaranteed his investors that they would see their money come back to them (in the form of a profit from his mines). When his mines went under, he still felt an

⁶³ John E. Burton, "Burton's Bulletin." in *Milwaukee Sunday Telegraph*. 22, May 1889.

⁶⁴ Ibid

⁶⁵ 2,500,000 in 1885 equals more than 50 million dollars today; a sad sum to lose.

obligation to pay his business partners back. He took out mortgages on many of the properties he owned in Hurley totaling over \$300,000. Unfortunately, the downhill spiral continued and before he was able to get his affairs in order, investors were demanding their money. Soon after, the bank foreclosed on his mortgage payments on over fifty of his properties in Hurley.⁶⁶ Burton had tried to save his reputation and business, however he ended up bankrupt with a questionable reputation.

In a later interview for the *Milwaukee Journal*, Burton was painted as a sad and lonely, decrepit former businessman who was bitter at being represented poorly by previous writing sources. No longer was he viewed as a lucky and popular man with success and money to boost his image. The *Milwaukee Journal* referred to his past glory days and looked at the formerly successful prospector as a bankrupt failure. Burton admitted in this interview that he should have been more realistic with profits for the small-scale investors. He had guaranteed them that if their investment did not pay off, he would refund them their money. This proved tragic to his career and savings. ⁶⁷

The iron depression and subsequent failure of the mining area led to Burton's downfall, however his influence in bringing investors and their money to Northern Wisconsin forever changed the Northwoods. As one unknown author puts it,

"...his efforts have resulted in...making known one of the richest sections of the whole west, if not of the whole country. They have resulted in calling to Northern Wisconsin...hundreds, if not thousands of capitalists...who have invested... result[ing] in giving remunerative employment to thousands of men; in building up villages; in extending railroads... in adding many millions of dollars to the wealth of the state."

⁶⁷ "Mining King's Ups and Downs" in Milwaukee Journal, 1898.

⁶⁶ Lintonen, 162-163, 167.

⁶⁸ "Mr. John E. Burton: One of the Gogebic Range Millionaires" in *Milwaukee Sunday Telegraph*, May 22, 1887. 2.

Burton continued to remain active in various mining pursuits, traveling to Mexico in 1889 to try his hand at silver mining,⁶⁹ and to Alaska in 1904 to try the tin industry.⁷⁰ He continued to collect antique books, and was noted for his fine collection in two newspaper articles from 1893.⁷¹ Burton also continued to collect original Abraham Lincoln relics, which were auctioned in October of 1915 by Burton himself in New York.⁷² A copy of the Emancipation Proclamation brought in \$515 dollars at the auction.⁷³ All of this indicates John Burton was able to continue with his interests, create new hobbies, and move on with his life after the bust of the iron mine.

The Gogebic Lives On

John Burton's pendulum continued swinging in the Gogebic Range. In 1855, a sixteen year old clerk worked at the Tuttle, Oglebay, and Company, the corporation that later managed many of the former Burton and Moore mines in the late 1880's. This clerk grew into a businessman whose attention was caught by the Gogebic Iron mines. In 1885, the businessman invested in some of the mines, and saw his profits increase during the early 1890's. This businessman, John D. Rockefeller, eventually bought many of the formerly bankrupt companies that Burton and Moore left behind, and re-opened many mines for even more profits. Rockefeller also became interested in the northern Minnesota and Michigan mines as well, along with his competitor Andrew Carnegie.

_

⁶⁹ John E. Burton Diaries, 1889.

⁷⁰ John E. Burton Diaries, 1904.

⁷¹ "Fine Private Libraries" in *Milwaukee Sentinel* Feb 26, 1893. and "A Great Library" in *Lake Geneva Herald*, April 21, 1893.

⁷² "Relics of Lincoln to be Auctioned" in *Milwaukee Sentinel*, Oct 25, 1915.

⁷³ "Historic Document Copy Brings \$515" in *Milwaukee Sentinel*, Oct 29, 1915.

Together these two men created monopolies of the steel industry, from the initial mining of iron ore, to railroads, shipping, and steel processing in the eastern United States.⁷⁴

This successful running of the Gogebic continued until 1965, when the last shipment of iron ore was made to Ashland from the range. Today the mines, and Ashland, sit empty, even though there is still a viable deposit of ore remaining.⁷⁵

Compared to these men, one might ask, how could Burton fail? Rockefeller and Carnegie moved easily in to the range and created expanding profits. Burton also easily moved in to the range, he owned houses, hotels, banks, and even tracts of railroads. To John Ingham writes about American Urban Elite from 1874- 1965. In his writing, he classifies a typical iron baron, as compared to a model completed in five average American steel cities. Ingham found that iron barons typically came from average, native-born backgrounds. Most iron barons were white, Anglo-Saxon Protestants that were raised in middle-class society, and came from British, Welsh, Irish or Scottish roots. Most of their businesses did not start off right away in corporations, but as a high number of small, successful businesses. According to this description, John E. Burton was, like Carnegie and Rockefeller, an iron baron.

Burton, however, was unlucky in the timing of his participation. He entered the market of a booming iron range that experienced 'wildcatters,' that caused unknowing investors the loss of thousands of dollars. Burton even acknowledged the presence of these fake companies, and warned that they should not shake investors confidences in the

⁷⁴ Lintonen, 170-175.

⁷⁵ Dorin, 115.

⁷⁶ Lintonen, 160

⁷⁷ Ingham, The five cities mentioned were Pittsburgh and Philadelphia, PA, Cleveland and Youngstown, OH, and Wheeling, WV.

⁷⁸ Ingham, 13-40.

range. "... too many mining companies formed the past few months, the tendency of which is to bewilder the public, and confuse legitimate Iron stocks with stocks of no value whatsoever." Burton entered the market during a shift in American economy from small, localized businesses to a national business. Steel was needed during our industrial revolution for national railroads, shipping, and infrastructure. Therefore, many small businesses were bought by large corporations between 1874 and 1900, and America became the land of big business. This trend continues today, as many large businesses, like cell phone companies, energy plants, and cable companies control majorities of the market.

During Burton's time in the Gogebic Range, the business was still too rocky to allay investor's fears. Costs were too high; the range had not yet become a stable economic area. The men who first invested did not have a stable income other than what they were making through the mines. Carnegie and Rockefeller had a stable financial base from previous purchases to fall back upon and from which to draw cash reserves. These iron barons already controlled railroads, steel manufactures, and shipping. Their new interest in vertical management was iron mines. Thus, we see that Burton entered the market at a bad time, with the demise of the small-scale iron baron and the entrance of large-scale corporate iron barons.

Burton had a personal interest in the mines. He guaranteed his fellow investors their money, and when things got rough, he lost most of what he had. Because of his personality, Burton was able to interact with politicians and urban elite, and gain their interest and support in the mines. His vision was of small-scale success on a state-wide

⁸⁰ Ingham, 13-20.

28

⁷⁹ Burton, John E. "Burton's Bulletin" in *Milwaukee Sunday Telegraph*. 22, May 1889

level, while the rest of the nation demanded a national infrastructure. Based on Burton's amicable character, his personal guarantee of success, and his ability to be one-on-one friends with his investors, Burton differed from iron barons like Carnegie and Rockefeller in one aspect that led to his downfall: he deeply cared about his business.

Burton had invested and involved himself in a business that still had too many kinks. The later investors, such as Carnegie and Rockefeller, came upon a market that had already been established. The railroads had already been built, ships had already been made, the market had already been created. All the later investors had to do was to re-organize the system, invest a small sum to get business back on line, and sit back while the profits rolled in.

Conclusion

John E. Burton was important to Wisconsin history because he was willing to take risks and invest in a precarious business. His direct participation in the iron mines brought new wealth and publicity to the previously unexplored northern Wisconsin.

Though he was an important investor, he was also an insurance salesman, family man, and traveler. Burton played a part in many people's lives, including his clients, friends, and family. Despite his monetary downfall at the end of the first two years, the short boom and bust of the industry created a niche for long term legitimate mining to continue and grow in the Gogebic Range.⁸¹

Burton was an iron baron as John Ingham described, he was born in America, and was a white, middle-class male. He was a small-scale investor, however his timing on

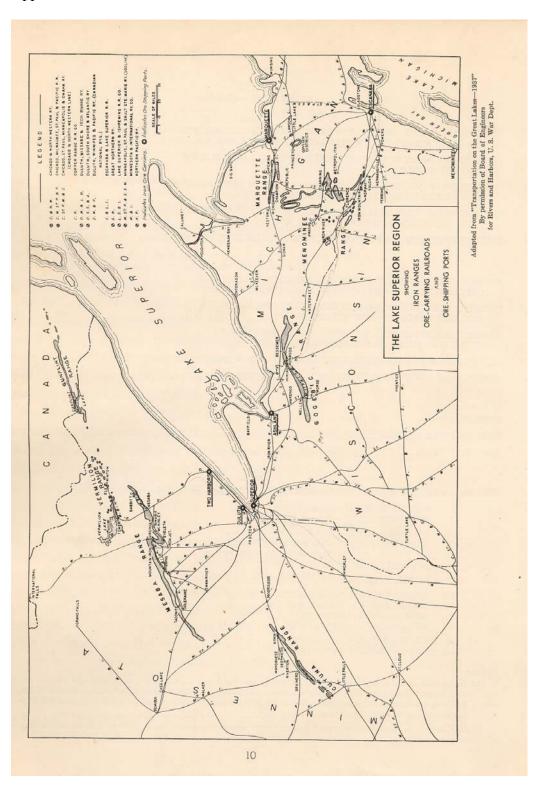
⁸¹ Henry E. Legler, *Leading Events of Wisconsin History* in "Milwaukee Sentinel" 1898. 310-315.

entering the range was poor. The United States was developing at a fast pace and needed large suppliers to help build railroads, and large cities. According to Ingham, the transition from individual to corporation occurred between 1874 and 1900.⁸²

John E. Burton recovered from his speculative failure by continuing with his interests in mining, book collecting, and real estate. He was a tenacious and energetic businessman who kept busy, remained dedicated to his goals, and helped northern Wisconsin expand and develop as a viable economic center. By being social, Burton advertised the range to friends, family, acquaintances, and even a governor. Because of his tenacity and enthusiasm, John Burton was able to bring money and investors to the mines, and played an integral role in the development of northern Wisconsin.

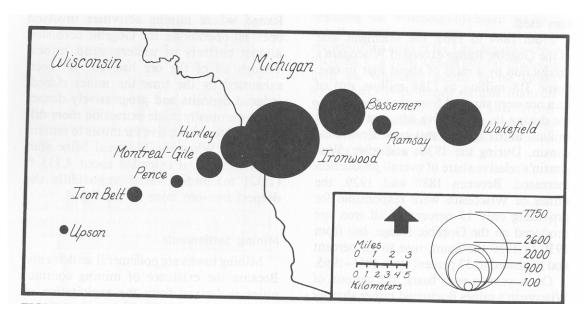
⁸² Ingham, 1-40.

Appendix A:

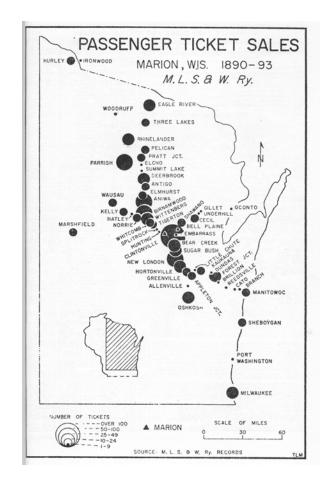


Map showing ports, railroads, and iron ranges around Lake Superior, From the Lake Superior Iron Ore Association, 10.

Appendix B: Population Increase in Gogebic

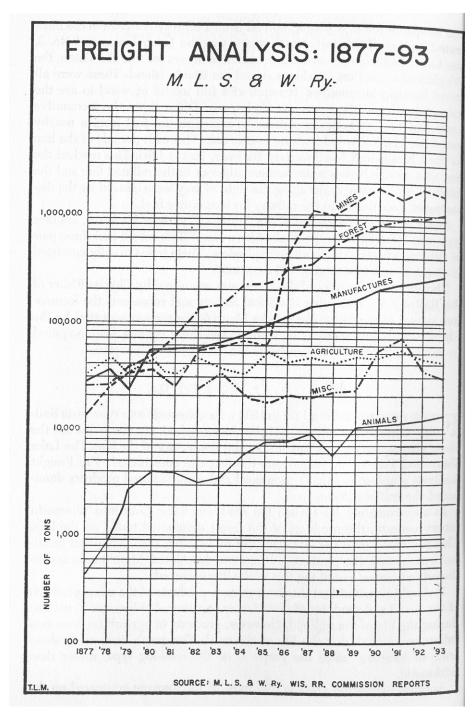


Population of Gogebic Range towns in 1980, mirroring populations from a century before. From Vogeler, 100.



A box of ticket stubs found in Marion, WI was analyzed. These results show the popularity of destinations from the years 1890-1893. From Specht, 67.

Appendix C:



Graph showing increase of freight from mining, note large increase after 1885. From Specht, 64.

Annotated Bibliography

Primary Sources:

- Burton, John E. Diaries, 1885-1886, 1890, 1904, 1990. Typed transcripts of diaries kept by John E. Burton, also includes a letter (1990) of Burton's granddaughter that identifies many of the names mentioned in the diaries. Milwaukee Area Research Center, Milwaukee, WI. Original diary owned by Alice B. Hackett, Sturgeon Bay, WI.
- Burton, John E. "Burton's Bulletin." (Milwaukee) *Milwaukee Sunday Telegraph*. 22, May 1889.

 Bulletin released by Burton urging investors to hold on to their stocks, and that the economic slow-down was because of winter and too many fake companies.
- Burton, John E. "Pioneer of the Gogebic." (Hurley) *Gogebic Iron Tribune*. Aug. 29, 1886.

 Interview and slight biography of Captain Moore, written by his good friend John Burton.
- Burton, John E. *Map of the Gogebic Iron Range*. Milwaukee, WI: The Milwaukee Litho and Engr. Co. 1886. Found in American Geographical Society Collections, University Of Wisconsin, Milwaukee.
- Lapham, Increase A. "Mountains of Iron Ore." (Milwaukee) *Milwaukee Evening Wisconsin*. Feb 21, 1887.

 Article written by Lapham describing his trip during the 1850's.
- Lathrop, C.R. "A Remarkable Career." *Republican*. 9 April, 1886.

 Interview and article written about Burton during the Gogebic boom.
- Legler, Henry E. "Leading Events in Wisconsin History." (Milwaukee) *Milwaukee Sentinel*. 1898.

 One in a collection of works by Legler describing Wisconsin memories.
- "A Great Library." (Lake Geneva) *Lake Geneva Herald*. 21 April, 1893. Article describing Burton's great libraries.
- "Fine Private Libraries." (Milwaukee) *Milwaukee Sentinal*. 26 Feb, 1893.

 Article about libraries, showing Burton still liked being in the news and was relatively still respected.
- "Historic Document Copy Brings \$515." (Milwaukee) *Milwaukee Sentinel*. 29 Oct, 1915. Description of the auction of Lincoln Relics, the Emancipation Proclamation brought in \$515.

- "Mining Kings Ups and Downs." (Milwaukee) *Milwaukee Journal*.18 November, 1898. Article written after the Gogebic depression. Describes Burton in his lonely, dark, empty office as a man who once was a success, but is now a failure.
- "Mr. John E. Burton: One of the Gogebic Range Millionaires" (Milwaukee) *Milwaukee Sunday Telegraph*. 22 May, 1887.

 Newspaper article praising Burton for his great contribution to the Gogebic range and its success
- "Relics of Lincoln to be Auctioned." (Milwaukee) *Milwaukee Sentinel*. 25 October, 1915.

 Burton owned many Lincoln Relics and auctioned them off in October of 1915 for the benefit of the country. Congress, however, did not buy any artifacts.

Secondary Sources:

Chandler, Alfred D. (ed) *The Railroads: The Nations First Big Business*. New York: Harcourt, Brace, & World, Inc. 1965.

This reading provides the reader with maps and describes the railroad's impact on agriculture, commerce, industry, and the economy in general during the late 1800's and early 1900's.

- Dorin, Patrick C. *The Lake Superior Iron Ore Railroads*. Washington: Superior Publishing Co. 1969.

 Brief history of railroads serving the Lake Superior region, covers all five iron ranges.
- Hogan, William T. *Economic History of the Iron and Steel Industry in the United States*. Vol 1-5. Lexington, Massachusetts: D.C. Heath and Co. 1971. Hogan describes the evolution of the steel industry from 1860 to 1970. He states that the Bessemer process, created in 1860, was the beginning of the new age of steel. He analyzes production or raw and finished materials (ore and steel) and distribution and sales throughout the United States. Hogan also compares the United State's steel industry with competition from around the world.
- Ingham, John N. *The Iron Barons: A Social Analysis of an American Urban Elite, 1874-1965*. Westport, Connecticut: Greenwood Press. 1978.

 Ingham describes how investors like the Carnegies helped to shape the iron investing industry. He mentions that small-scale businessmen, like John Burton, had a profound impact on the steel industry right after the discovery of the Bessemer steel process. Small investors built the framework that larger iron barons, like the Carnegies, could base their industry upon. This source as a comparison to the smaller-scale John Burton will be a helpful source to find out what iron barons did, and how they did it.
- Lake Superior Iron Ore Association. *Lake Superior Iron Ores*. Cleveland: the Lake Superior Iron Ore Association, 1938.

 Statistics on iron ore: production, shipments, and usage.

- LesStrange, Jacques. Lake Carriers: The saga of the Great Lakes fleet- North America's fresh water merchant marine. Seattle, Washington: Salisbury Press. 1977.

 Describes the evolution of a wooden lake carrier, used for shipping ore and wood, into today's massive barges.
- Lintonen, Rhinehart J. Discovery, Speculation, and Development in the Gogebic Iron Mining Boom in Northern Michigan and Wisconsin, 1848 to 1897. Masters Thesis: University of Wisconsin Whitewater, Aug. 3, 1988.

 Masters thesis on the Gogebic range, from its discovery, inception, development, to the 1887 slow-down. Also discusses how Carnegie and Rockefeller moved into the area.
- Specht, Ray. *Bulletin No. 121, The Railway and Locomotive Historical Society*. Boston: The Railway & Locomotive Historical Society, Inc., 1969.

 Brief history of the Milwaukee, Lake Shore & Western Railroad. Outlines when and where lines were built, where funding came from, and who bought and combined the railroad.
- Temin, Peter. *Iron and Steel in Nineteenth Century America: An Economic Inquiry*.

 Cambridge, Massachusetts: The M.I.T. Press. 1964.

 This book provides an in-depth history of steel-making processes, and supports the concept of iron ore as a huge money-making business
- Vogeler, Ingolf. *Wisconsin: A Geography*. Boulder, Colorado: Westview Press, Inc. Co. 1986.
 - Provides a survey of geographic history in Wisconsin
- Wisconsin State Legislature, "State Symbols," http://www.legis.state.wi.us (accessed May 10, 2006).
 - Website for the Wisconsin State Legislature.