

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

[Compiled and Transcribed by William J. Cummings]

## BRIER HILL MINE

Section \_\_\_\_, Town \_\_\_\_, Range \_\_\_\_  
Menominee County [Dickinson County]  
Norway, Michigan

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 486*

**Brier Hill Mine.** – The property of this mine embraces eighty acres on the forty adjoining the **Curry Mine**.

The **Lumberman's Mining Company** first undertook to develop this mine, but failed of success. In 1881, it became the leasehold property of the **Brier [sic – Briar] Hill Iron & Coal Company**, of Youngstown, Ohio, who resumed work under the supervision of **S.P. Saxton**.

The trend of the formation is east and west, the ore dipping about seventy-five degrees to the south, and the pitch being forty-five degrees to the west.

There is one main shaft down to a depth of 190 feet. At the first level, there are thirty feet of ore from east to west. It is estimated that about eight thousand tons of ore are now in sight, and the mine gives promise of becoming a paying investment to the leasers.

## CALUMET MINE

SW ¼ of NE ¼ and SE ¼ of NW ¼ of  
Section 8, Town 41, Range 28  
Menominee County [Dickinson County]  
Felch Mountain Range, Michigan  
Work Commenced: Summer of 1881

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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**Calumet Mine.** – Work was commenced on the Calumet in the summer of 1881, and about four thousand tons of ore have been raised to the surface from the shafts and drifts, and preparing the stopes in the first level. The deposit seems to be a continuous vein of ore, as proved by exploration with the diamond drill, with no sign of exhaustion at either end. Four shafts have been sunk, covering a distance of 550 feet, which show the general formation of the bed to be in two lenses. Shipping facilities are not yet supplied, but the railroad will reach the mine this season in sufficient time to make this season's delivery 10,000 tons.

The property embraces the southwest quarter of the northeast quarter and the southeast quarter of the northwest quarter of Section 8, Town 41, Range 28, and adjoins the Hecla mining property on its west forty. It is held under lease by the **Calumet Iron Company**, of which the

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officers are: President, **A.B. Cornell**; Secretary, **G.H. Cornell**; Treasurer, **Robert McCurdy**; Superintendent, **John R. Wood**.

## CHAPIN MINE

S ½ of SW ¼ and SE ¼ of SE ¼ of  
Section 30, Town 40, Range 30  
Menominee County [Dickinson County]  
Iron Mountain, Michigan  
Discovered: July, 1879  
by Henry A. Chapin

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1880	34,556
1881	169,077

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**Chapin Mine.** – The Chapin is conceded to be the greatest iron mine on the Upper Peninsula in magnitude of deposit and the sure promise of immense products in the future.

It is located in the **village of Iron Mountain**, and embraces the south half of the southwest quarter and the southwest quarter of the southeast quarter of Section 30, Town 40, Range 30.

The fee is owned by **H.A. Chapin**, of Niles, Mich., who discovered the mine in 1879. It is now the leasehold property of the **Menominee Mining Company**, Mr.

Chapin receiving a royalty of 50 cents per ton on all the ore shipped. Explorations were commenced by Mr. Chapin in July, 1879, and a short time after the company secured its proprietary interest, and the first shipments were made in June, 1880, in which year the total shipments amounted to 34,556 tons.

The mine workings, all of which are underground, lie in the north face of a hill, which gradually slopes away to the north and west from an elevation at least two hundred feet above the railway level. The original discovery was at a point about four hundred feet west of the east line of the company's tract. At this point an exploration pit was commenced on the foot-wall, the top of which is on Section 31, and was carried down through fifty feet of surface and thirty-two feet of ore, the vein being apparently only about four feet in width.

Some idea of the extent of the deposit may be inferred from the fact that it is now opened up over a length of 2,350 feet, and that over this great length the ore body carries a width varying from thirty feet in the narrowest place to 127 feet at the widest – the largest and most uniform clean deposit ever yet developed in the Upper Peninsula. The approximate size of the ore body, as when by the workings, when it is stated that the ore still continues in both the east and west, with the new **Ludington** 1,320 feet distant, and in direct line with the trend of the Chapin formation, and about three hundred feet remaining to be opened up in the east end of the **Walpole** line, what the large probabilities for the future may readily be inferred. The formation, which at first appeared to have a nearly east and west trend, swings around the northeast near where the break spoken of in our last annual review occurs, and to the northwest in going in an opposite direction from the same point, the original and most easterly

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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workings being close up to the line between Section 30 and 31, and the most westerly shaft 450 feet north of it. The developments at the Ludington, a quarter of a mile farther west, taking it for granted that they are in the same ore body, indicate a still sharper curve to the northwest, and rather tend to corroborate the theory which has been advanced, that we have here a huge ore basin similar to that at Ishpeming.

During the past year, two new shafts have been sunk in the west end, making a total of nine working shafts, and other new developments consist of new and extensive trestle works and a saw mill for preparing the timber used in timbering the mine, the system used being a modification of the Nevada system originated by **Capt. Rundle**, which seems to prove successful in its workings. **The mine gives employment to 900 men, 500 of whom are miners.** Shipments commenced this year from stock piles aggregating 100,000 tons, and the daily average product at the present time is 800 tons. The shipments for 1880 were 34,556 tons, 1881, 169,077 tons, and the estimated product for this year will be 200,000 tons. **Among the new buildings erected are a new hospital, reading room and two churches, Methodist and Lutheran.**

## CHICAGON LAKE MINE

West ½ of  
Section 26, Town 43, Range 34  
Marquette County [Iron County]  
Chicagon Lake, Michigan

**Discovered:**  
**Work Commenced:**

**Production Record**

<u>Year</u>	<u>Tons Produced</u>
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**Chicagon Lake Mine.** – This mine is yet undeveloped. It is located on the west half of Section 26, Town 43, Range 34, and it is reported showing a remarkably fine ore deposit.

Explorations are now being conducted by **N. Boardman**, of Fond du Lac, Wis.

## COMMONWEALTH MINE

SW ¼ of  
Section 34, Town 40 North, Range 18  
East  
Florence County  
Commonwealth, Wisconsin  
Discovery: 1859 by Col. Charles  
Whittlesey  
Work Commenced: Spring of 1880

**Production Record**

<u>Year</u>	<u>Tons Produced</u>
1880	9,643
1881	97,410

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# MENOMINEE RANGE HISTORY – IRON MINES – *HISTORY* OF THE UPPER PENINSULA OF MICHIGAN – 1883

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*Etc.*, Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, pages 505-506

The **Commonwealth Mine** is the property of the **Commonwealth Iron Company**, the workings of which are on the southwest quarter of Section 34, Town 40 north, Range 18 east, though the company owns a compact estate of 3,000 acres in the immediate vicinity. The officers of the company are: President, **Alex Nimick**, Pittsburgh; Vice President, **W.U. Masters**, Cleveland; Secretary and Treasurer, **W.H. Harvey**, Cleveland; General Manager, **H.A. Tuttle**, Cleveland; Superintendent, **William E. Dickinson**; Sales Agents, **Tuttle, Masters & Co.**, Cleveland.

Iron ore was first discovered on the land now owned by the company by **Col. Charles Whittlesey**, of Cleveland, Ohio, in 1859, from whose minutes they were entered by **H.B. Tuttle**, Esq., in 1867. In 1875, **Prof. Charles E. Wright**, while engaged in making a geological survey, found some loose ore under the upturned roots of a fallen tree on Section 34, which fact he mentioned to **H.D. Fisher**, Esq., who in the following year sunk some test pits near the locality indicated, and found the solid ledge. When Mr. Fisher reported his discovery, very few people were willing to credit his statement as to the apparent great extent of the deposit, but the work that has since been done on the property proves that he did not in the least exaggerate the simple truth, either in regard to the extent or quality of the ore. For some time after the value of the property had been demonstrated beyond all question through the exploration pits and trenches dug by Mr. Fisher, no further work was done, at least not until after the speedy extension of the **Menominee River Railway** west of the river became a reasonable certainty. Active mine work was

not commenced till the spring of 1880, the first shipment from the mine being made about the middle of the October following, the total output up to the close of navigation being 9,643 tons.

The trend of the ore belt is east and west, with a slight dip to the south. The present workings are on the summit of a high ridge, along the north base of which, at no great distance, is the branch railroad track. A tramway connects the mine with this branch track, there being the usual high trestle work and accompanying docks and pockets for loading the ore directly into the railway cars, and for stocking the winter's product. The ore is of the red specular variety, though not so hard as those of the Marquette Range, and averages about 65 per cent of metallic iron; it is, however, too high in phosphorus for Bessemer steel. It is noticeable, too, that the ore grows harder as greater depth is attained.

The workings now consist of four open pits, the main one of which, the Taylor, was the only one wrought during last year. Some important improvements have also been made during the past year; new buildings have been erected and new machinery put in, so that everything now gives evidence of the mine's becoming one of the more important on the range. **It gives employment to 400 men, and the average monthly product for the season was about ten thousand.**

The shipments of the past are as follows: 1880, 9,643 gross tons; 1881, 97,410 gross tons; total, 107,053 gross tons.

**H.A. Tuttle**, of Cleveland, Ohio, retains the position of General Manager, and Capt. **W.E. Dickinson** is Superintendent.

*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron*

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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*and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 506*

**HORACE A. TUTTLE**, general manager of the **Commonwealth Iron Company**, was born in Cleveland, Ohio, July 17, 1851; obtained a liberal education, and, at the age of seventeen, entered the banking house of E.J. Farmer & Co., of Cleveland; remained in the bank one year, and then entered the employ of H.B. Tuttle & Co., of the same city, commission dealers in iron ore and pig iron; remained as a clerk for three years, at the end of which time was admitted as a general partner January 1, 1873, at the age of twenty-two. This co-partnership continued until the death of his father April 9, 1878. The business was carried on by the surviving partners, George H. Ely, F.L. Tuttle and H.A. Tuttle, until the fall of 1879, when F.L. Tuttle and H.A. Tuttle dissolved with Mr. Ely and succeeded to the business of the old firm, under the firm name of Tuttle & Co. The firm was in existence until January 1, 1880, when W.U. Masters was admitted to the firm, and the name changed to Tuttle, Masters & Co., which firm is now carrying on a general commission business in iron ore, pig iron, rail, copper, tin, lead, spelter and babbit metal. This firm is now doing one of the largest commission businesses in the city of Cleveland, handling property each year to the amount of between three and four million dollars; besides this immense business, the company have [*sic – has*] other interests of various kinds, prominent among which is the interest in the Commonwealth Iron Company above mentioned. The land for the company was originally purchased by **H.B. Tuttle**, on minutes furnished by **Col.**

**Charles Whittlesey**, of Cleveland, Ohio, who at that time was making a geological survey of this county. H.B. Tuttle associated with himself Col. Whittlesey and Mr. Harvey, of Cleveland, their interests finally passing to the sons. In 1878, Horace conceived the idea of exploring the lands, which, being agreed to by the other owners, the work was started, and, in June of that year, he came up here in company with **H.D. Fisher**, who was employed by them to sake [*sic – take*] charge of explorations on company lands. While carrying on this work, the ore was found on the site of the present workings. This work was carried on at an unusual cost, and to great disadvantage, as they were obliged at that time to travel or team their supplies from Menominee, Mich., ninety miles, through the woods. They were compelled to break and cut several miles of the road in order to reach the property. After the development of ore in the winter of 1876-77, this was put into a stock company of the above name, and **H.A. Tuttle** was chosen President of said company, and, in 1877, after an expenditure of about \$10,000 in developments, induced the Chicago & North-Western Railway to join them in the expense of making a preliminary survey, with a view to the extension of the **Menominee River Branch**, which was that year being constructed to Quinnesec. This survey was made during the winter of 1877-78, and the extension to this section of the country was begun, and finished in 1880, in the fall of which year the company shipped the first ore, which, after a trial, was found to be a very acceptable ore to the trade. In 1881, the company operations were on a large scale, and, in that year, shipped to the market 98,000 tons of ore, and up to September 1, 1882, have mined and shipped 95,000 tons; the mine is now fully equipped with machinery and buildings, and enjoys the advantage of being well situated

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for handling its material cheaply; it is located in the midst of a very fine farming and hard-wood [*sic – hardwood*] country, and enjoys the reputation of being one of the largest and best managed mines of the Upper Peninsula. The company owns 3,700 acres in fee simple; the company is capitalized for \$500,000, the stock of which sells at the rate of a million. The controlling interests in it are owned by **F.L. Tuttle**, **A.H. Tuttle** and **H.A. Tuttle**, principally by F.L. and H.A. The officers of the company are as follows: President, **Alexander Nimick**, of Pittsburgh, Penn.; Vice President, **F.L. Tuttle**, of Cleveland, Ohio; Secretary, **William H. Harvey**, of Cleveland, Ohio; Treasurer, **F.L. Tuttle**, of Cleveland, Ohio; General Manager, **H.A. Tuttle**, of Cleveland, Ohio. The work at the mine is under the direction of **W.E. Dickinson**, who enjoys the reputation of being one of the most competent mine superintendents on the Upper Peninsula, and, for many years, was connected with the **New York Mine** of Ishpeming. The company is just opening up a new mine, which, at the present state of development, promises to be one of the largest bodies of ore ever found in this region. The management has this year developed another course of ore two miles west of its present workings, which is of such grade as to admit it for use in the manufacture of iron for steel purposes. This vein is from fifteen to twenty feet wide, and is developed 350 feet in length on the surface. The company are [*sic – is*] now endeavoring to get an extension to this part of the property, so as to ship this ore the coming season.

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*Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, pages 506-507*

**GEORGE R. TUTTLE**, manager of [*the*] Commonwealth Mine store, was born in New York State in 1839; went to Ohio in 1842; was brought up at Cleveland, and graduated at public high school; took electric scientific course at Oberlin College; learned the drug business, and began to read medicine. At the breaking out of the war, had charge of the Transportation Department in the State Quartermaster General's office; was after transferred to the field under Capt. Hortt, United States Quartermaster; served as Brigade Forage Master under Gen. Robert C. Schenck, in Fremont's Division; was called home by the death of a younger brother; was offered a lucrative business position which he accepted; followed this for several years; was actively engaged in the Lake Superior iron and ore trade as junior partner of H.B. Tuttle & Son. In 1868, went into business for himself, engaging in the same line, but adding to it mining and shipping coal, owned by him in Ohio. During his connection with H.B. Tuttle & Son, he gave great attention to the transportation of ore and its cost, which resulted in the evolution of the plan now almost universally practiced, and known as the steam barge consort system of handling freight. In 1868, in company with B.L. Penington, a prominent ship owner, the new plan was demonstrated by the building of the steam barge H.B. Tuttle, and her consort, the schooner George H. Ely. Although this was not the first pair, it was the first pair planned and constructed for the iron ore trade, and was the direct outcome of the original idea. He continued in business, and amassed a comfortable fortune until 1874, when,

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because of Jay Cooke's failure in 1873, he was compelled to give up business, since which time he has been engaged more or less with ore and iron; came to Corinth, Wis., in 1881, and engaged in his present business. Took part in the agitation for a new county, and assisted in its organization. Is Clerk of the Circuit Court of Florence County, Wis. Was married in 1863, to Miss Catherine Thayer, of Cleveland, Ohio.

commenced under his superintendency in the month of January, 1881. The deposit lies in the south side of a high bluff on the north side of **Lake Antoine**, and the general direction of the ore formation is from northwest to southeast, depressing about seventy degrees to the southwest. The shipments of the first year amounted to 34,471 gross tons, and its total production aggregates 42,557 tons. The mine is now lying idle for some reason, operations having wrought an unfavorable change in the mineral resources.

## CORNELL MINE

NE ¼ of  
Section 20, Town 40, Range 30  
Menominee County [Dickinson County]  
Near Iron Mountain, Michigan  
Discovered: Fall of 1879  
by John R. Wood  
Work Commenced: January, 1881

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1881	34,471

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**Cornell Mine.** – The location comprises the northeast quarter of Section 20, Town 40, Range 30, and is held under a lease by **R.A. Wright** and **A.B. Cornell**. Ore was discovered by **John R. Wood** in the fall of 1879, and active mining operations were

## CRYSTAL FALLS MINE

Lot 3 in  
Section 20, Town 43, Range 32  
Marquette County [Iron County]  
Paint River District  
Crystal Falls, Michigan  
Discovered: By John N. Armstrong  
Work Commenced: Fall of 1880

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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**Crystal Falls Mine** is in the **Paint River District**. This mine is the joint property of the **Crystal Falls Iron Company** and the **Youngstown Iron Mining Company**. It was discovered by the veteran explorer,

# MENOMINEE RANGE HISTORY – IRON MINES – *HISTORY* OF THE UPPER PENINSULA OF MICHIGAN – 1883

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**John N. Armstrong**, while in the employ of **Edward Breitung**, who held the first option from the original owner of the fee, **T.M. Davis**. The property includes Lot 3 in Section 20, Town 43, Range 32.

**W.F. Swift** and **Messrs. Coon and Maltby** next purchased the option to the property, retaining it till the spring of 1881, when it passed from their hands into the control of the present owners of the lease. The work of exploring was commenced under the superintendency of **Capt. George Runkle** in the fall of 1880, who remained in charge till the fall of 1881, being succeeded by **Capt. F.P. Mills**. Under the charge of these gentlemen, tests pits were sunk, and active mining operations commenced, and the first shipments were made during the month of June, 1882, upon the completion of the railroad to Crystal Falls.

The workings consist of a single shaft located on the west bank of the **Paint River** at the foot of the falls, sunk to a depth of eighty-five feet, with short drifts from the bottom east and west. The mine is not yet sufficiently developed to comment upon its actual value. Up to this time, 1,500 tons of ore have been raised, some of which are very rich in metallic iron.

The officers of the **Crystal Falls Iron Company** are: President, **N.K. Fairbanks**; Vice President, **J.H. Howe**; Secretary and Treasurer, **F.H. Head**; Superintendent, **F.P. Mills, Jr.**

## CURRY MINE

W ½ of NE ¼ of  
Section 9, Town 39, Range 29  
Menominee County [Dickinson County]  
Norway-Vulcan, Michigan  
Work Commenced: Spring of 1879

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1879	12,803
1880	21,851
1881	17,534

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*The Curry Mine* is located on the west half of the northeast quarter of Section 9, Town 39, Range 29, only a short distance west of the most westerly openings of the **Vulcan**. The tract is held under a lease from the **canal company**, issued to **Solomon S. Curry** March 6, 1879, by whom it was transferred to the **Curry Iron Company**, which executed and filed articles of incorporation on the 15th of May, the same year. In the following August, Messrs. **Curry** and **Swift**, who were the owners of three-fourths of the stock, sold out their entire interest to **J.H. Outhwaite, Esq.**, of Cleveland, Ohio, that gentleman being at the time the owner of the greater part of the other quarter interest. The officers of the company are: President and Treasurer, **J.H. Outhwaite**; Vice President, **C.P. Leland**; Secretary, **D.Z. Norton**. The first shipment was made in July, 1879, since which time the product has been as follows: 1879, 12,803 gross tons; 1880, 21,851 gross tons; 1881, 17,534 gross tons; total, 52,188 gross tons.

The old No. 1 Shaft, which was believed to be the main deposit of the ore bed, was recently found to be a large pocket, which,

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having been exhausted, has been permanently abandoned.

Further explorations with the diamond drill have revealed an abundance of good ore, and a new shaft, recently sunk, 210 feet west of No. 2 Shaft, reaches the ore at 100 feet from the surface, developing a sufficient body of ore to give the mine a new lease of life, and it is estimated the annual output in [the] future will soon exceed the largest shipments in past years.

## CYCLOPS MINE

Section \_\_\_\_, Town \_\_\_\_, Range \_\_\_\_  
Menominee County [Dickinson County]  
Norway, Michigan  
Work Commenced: 1878

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1878	6,028
1879	46,158
1880	14,368
1881	12,644

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**Cyclops Mine.** – The Cyclops is located on the same tract of land as the **Norway**, and is the property of the **Menominee Mining Company**, under a lease for a term of years. It is located near the **village of**

**Norway**, on the hill rising in the background.

The mine was opened in 1878, and gave great promise of becoming one of the largest mines in the range a short time after its opening, the daily average product reaching 150 tons. This was maintained some months, and, though a fair product was attained during the second year, at the close of the season of 1879 the ore deposit seemed nearly exhausted. The product for 1880 was merely nominal, while that of 1881 was very small. The annual output since work was inaugurated has been as follows: 1878, 6,028 gross tons; 1879, 46,158 gross tons; 1880, 14,368 gross tons; 1881, 12,644 gross tons; total, 79,198 gross tons.

The original opening was made on the southeastern slope of the hill, but the ore seemed comparatively exhausted at a depth of fifty feet.

Explorations revealed the fact that the trend of the ore formation curves around from east to northeast a short distance from the old workings. This was also exhausted after a short time, to all outward appearances, but explorations under the direction of **Capt Olliver** [sic – Oliver] revealed new deposits of ore closely adjoining that of the old bed, and to this new discovery the company is now directing its principal operations, which holds out a sanguine hope of regaining the hitherto good character of the mine.

## FAIRBANKS MINE

Section \_\_\_\_, Town \_\_\_\_, Range \_\_\_\_  
Marquette County [Iron County]  
Paint River District  
Near Crystal Falls, Michigan  
Discovered: Fall of 1880  
Work Commenced: Early 1882

# MENOMINEE RANGE HISTORY – IRON MINES – *HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883*

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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 398*

**Fairbanks' Mine** [*sic – Fairbanks Mine*] is in the **Paint River District**. The discovery of this mine occurred in the fall of 1880, and the first test pits were sunk during the following winter. **Messrs. Sloan and Coon** held the original option, which they transferred to the **Crystal Falls Iron Company** in the spring of 1881.

In March, 1881, **Capt. William H. Morrison** took charge of the property and conducted further explorations, and one year later active mining operations were commenced, under the superintendency of **J.H. Elmore**. The workings consist of one large open pit, from which about 3,000 tons have been mined showing an analysis of metallic ore having a quality from 55 to 66 per cent. The end of the formation is nearly east and west and the dip apparently to the south. The mine gives a good showing for the work thus far done, and its development is well assured.

## FLORENCE MINE (EAGLE MINE)

N ½ of SE ¼ and NE ¼ of  
Section 20, Town 40 N, Range 18 E  
Florence County

**Florence, Wisconsin**  
**Discovered: October, 1873**  
**by Hiram D. Fisher and Nelson Halsey**  
**Work Commenced: 1878**

## Production Record

<u>Year</u>	<u>Tons Produced</u>
<b>1880</b>	<b>14,143</b>
<b>1881</b>	<b>100,501</b>

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**Florence Mine.** – The location of the Florence Mine is on the north half of the southeast quarter and the northeast quarter of Section 20, Town 40 North, Range 18 East. The fee is the joint ownership of the **Menominee Mining Company** and **H.D. Fisher**. The former owns three-fourths of the property and holds the remaining one-fourth under a lease from Mr. Fisher, who receives a royalty of 10 cents per ton on all the ore mined. The company owns in the same relative connection with Mr. Fisher other valuable properties adjoining the mining location, including the site of the town of Florence.

This deposit of ore was discovered by Mr. Fisher in company with **Nelson Halsey** in the month of October, 1873, while on an exploring tour over the range, and the land was entered at the land office in Menasha during the same month by H.D. Fisher and **Abel Keyes**. Mr. Fisher conducted further explorations until his means were

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

*[Compiled and Transcribed by William J. Cummings]*

exhausted, and succeeded in bringing it to the favorable notice of outside parties in 1878. During this year, the Menominee Mining Company sent their mining engineer, **Dr. N.P. Hulst**, to examine the property, who made such a favorable report that the above mentioned transfer was made; the company taking the original option in the fall of 1878. At this time the mine was known as the **Eagle**, a name accorded it by its discoverer in honor of **Spread Eagle Lake**.

The company commenced active mining operations during the season of 1878, and changed its name to **Florence**, in honor of the Christian name of **Mrs. Dr. N.P. Hulst**.

The trend of the ore belt is from southeast to northwest and the dip slightly to the north.

The work of stripping was actively commenced in the winter of 1879-80, but the railroad was not completed to the mine until October, 1880, in the second week of which month the first shipments were made, the output during the remainder of the season footing up to 14,143 tons.

Work was commenced on the north side of the hill, the highest point at which the ore was uncovered being 100 feet above drainage. At first the ore was stripped on the highest point of the deposit, taking up a stope from the hanging-wall side, being depressed at that point to such an extent as to render the approach to the upper part of the ore bed an easy task. After the ore had been mined out at this point down to the level of the cut, work was continued by sinking into the ore and taking up stopes in the opposite direction. The mine is now being wrought on the underground plan in lifts of eighty feet, leaving a roof of twenty feet for the support of the walls, which gives stopes sixty feet in height, work now being done on the second level. The total length now open on the upper level is 494 feet,

and the greatest width between walls is ninety feet, with an average over the whole distance of sixty-six feet. Shafts No. 1 and 2 are down to the second level, while 113 from the west end of No. 3 Shaft has been sunk to the ore deposit. No. 4 Shaft is 650 feet northwest of No. 3, and is down to the ore ledge. There is a vast amount of ore in sight, and the quality has developed sufficient to bring it up to the standard of first-class ore in every respect, save as to phosphorus. Some small "horses of rock" occur in the workings, but the ore body is in main uniformly clean, and but little selection is necessary. The mine is a very large one, and for some time past the work of changing the plan of mining from open pit to underground mining and sinking and putting in skip-roads has regarded the output of ore. This change fully effected, the annual product will necessarily increase. The estimated output for 1882 is 150,000 tons. **The mine gives employment to 350 men, of which number fifty are employed on the surface.**

It is under the management of **Alexander Kempt**, Superintendent, with **Capt. Buddle** in charge of the underground work.

Since the first shipment was made, less than two years ago, the output has been as follows: 1880, 14,143 gross tons; 1881, 100,501 gross tons; total, 114,644 gross tons.

## **GARFIELD MINE**

**NW ¼ of NW ¼ of  
Section 13, Town 39, Range 28  
Menominee County [Dickinson County]**

### **Production Record**

<u>Year</u>	<u>Tons Produced</u>
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# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 487*

The **Garfield Mine**, so called, is in the northwest quarter of the northwest quarter of Section 13, Town 39, Range 28. Some work of a desultory character has been done on this property, but as yet no well-directed effort has been made looking to the development of a mine. The ore-bearing formation certainly crosses the tract from east to west, and it is the generally expressed opinion that the property itself is not to blame for the absence of a fairly well-developed and remunerative mine. It certainly has never had a fair test, and the fact that the little work done discovered indications of a promising character seems to justify the openly expressed belief that the mine is not one that will develop into a paying investment.

## GREAT WESTERN MINE

East ½ of SE ¼ of  
Section 21, Town 43, Range 32  
Marquette County [Iron County]  
Paint River District  
Near Crystal Falls, Michigan  
Discovered: June, 1882, by S.D.  
Hollister and Capt. George Runkle  
Work Commenced:

Production Record

Year

Tons Produced

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The **Great Western Mine** is in the **Paint River District**. The honor of the discovery of this mine belongs to **S.D. Hollister** and **Capt. George Runkle**. The date June, 1882. Since its discovery, the work of putting down test pits and making preparations for mining has been vigorously carried out. The work shows an ore deposit of excellent quality.

The property lies in the east half of the southeast quarter of Section 21, Town 43, Range 32, the east half of which is owned by the **canal company** and the other half by **Guido Pfister**, Trustee. The officers of the company are: **Stephen C. Hall**, President; **Julian M. Case**, Vice President; **S.D. Hollister**, Secretary; **George Runkle**, Treasurer and General Superintendent.

## HECLA MINE

N ½ of NE ¼ of  
Section 8, Town 41, Range 28  
Menominee County [Dickinson County]  
Felch Mountain Range, Michigan  
Discovery: 1881

Production Record

Year

Tons Produced

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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**Hecla Mine.** – The Hecla is located in the north half of the northeast quarter of Section 8, Town 41, Range 28, and is under a lease to the Hecla Iron Company, of which **Edward Breitung** is President and Treasurer, and **Byron D. Jones**, Secretary. The ore of this mine is a soft blue specular, high in metallic iron, and low in silica and phosphorus. Explorations were commenced in 1881, and test pits dug, exposing clean blue ore at intervals over a length of 1,200 feet. The diamond drill has been used to advantage in testing the extent of the ore deposit, and the work of opening the mine has commenced. This gives promise of becoming a very rich mine.

## HANCOCK MINE

**S ½ of SE ¼ of  
Section 30, Town 41, Range 27  
Menominee County [Dickinson County]  
Felch Mountain Range, Michigan**

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron*

*and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, pages 487-488*

**Hancock Mine.** – This is a leasehold, and embraces the south half of the southeast quarter of Section 30, Town 41, Range 27, the **Hancock Iron Company** being the lessee. From all the writer can learn, he is inclined to believe that the company has a very promising show of ore, and that its prospects for the development of a paying mine are most flattering.

## ILLINOIS MINE

**NW ¼ of  
Section 26, Town 40, Range 30  
Menominee County [Dickinson County]  
East of the Indiana Mine near  
Quinnesec, Michigan**

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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**The Illinois Mine.** – This mine is located in the northwest quarter of Section 26, Town 40, Range 30, and joins the Indiana

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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property on the east. **Hon. Edward Breitung** is the owner of three-fourths of the fee and one-eighth of the lease; also holds the office of President of the company. Work was first inaugurated by an association styling itself the **Scandia Iron Company**. This company sold out to parties who took a new option from the owners of the fee, and organized the **Illinois Iron Company**.

This mine gave but small returns, and but little prospect of becoming a paying mine until within the past few months, when a regular vein of ore was discovered, that leaves but little doubt as to the great value of the property. The ore is of the finest quality, and its future development is assured.

## INDIANA MINE

N ½ of NE ¼ of  
Section 27, Town 40, Range 30  
Menominee County [Dickinson County]  
One and One-Half Miles Due North of the  
Village of Quinnesec, Michigan  
Work Commenced: 1880

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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**Indiana Mine** is the property in leasehold of the **Indiana Iron Company**, and is located about one and one-half miles due north of the **village of Quinnesec**, in the north half of the northeast quarter of Section 27, Town 40, Range 30. Work was commenced on the west forty of the company's tract some time in 1880, in an outcrop of lean ore or banded ore and slates, but nothing of absolute value was found till early in the following year. An exploration shaft just south of the banded ore formation struck clean blue ore, which at a depth of forty-five feet appeared to carry a width of something over twenty feet. In sinking further, however, the foot wall came in very rapidly, and seemingly narrowed the lens down to a small compass. A drift east from this shaft was made on the forty-five foot level, and along what appeared to be the foot wall, 100 feet in ore, where a second shaft was raised to the surface. At this point, the ore was found to be covered by only a few feet of drift. This second shaft was then carried down fifty feet farther, and as at No. 1, the rock appeared to come in from the foot wall, and either cut the ore out or else shoved it abruptly over into the hanging.

There is a large amount of ore in sight, and the mine is now in shape to mine and hoist 100 tons per day. The trend of the formation is due east and west, the ore dipping to the south and having an easterly pitch. It is estimated that 10,000 tons of ore are in sight at this time of a uniform first-class quality containing 69.3 per cent of metallic iron. It is very low in phosphorus, and appears to belong to the **Chapin** belt of ores. There is little doubt as to the existence of a large body of ore, and the Indiana will soon take a place in the front rank of the mining industries of the range. It is just supplied with shipping facilities by a branch line of the **Chicago & North-Western Railway**, which leaves the main

# MENOMINEE RANGE HISTORY – IRON MINES – *HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883*

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line a half mile east of the village of Quinnesec. Shipments commenced about the 1st of September from a stock pile aggregating 5,000 tons. As soon as the preparatory work of the mine is completed, the average daily output will necessarily increase. The estimated produce of the present year is 12,000 tons.

The officers of the company are: President, **John A. Kruse**; Treasurer, **D.W. Irwin**; Secretary, **R.C. Flannigan**; General Manager, **R.P. Travers**.

## IRON RANGE MINING COMPANY

NE  $\frac{1}{4}$  of NE  $\frac{1}{4}$  of  
Section 14, Town 39, Range 29  
Menominee County [Dickinson County]  
Near East Vulcan Mine, Michigan

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**The Iron Range Mining Company** has a leasehold of forty acres – the northeast quarter of the northeast quarter of Section 14, T. 39, R. 29. This may be considered in view of its close proximity to the **East Vulcan**, and the promising character of the developments now being made upon it, a most valuable property. The underground workings of the East Vulcan pit are gradually being extended eastward to the corner post, the trend being north of west to south of east, and the ore dipping to the

south. That it extends across the line upon the **Iron Range Company's** tract is proved by the fact that no true hanging wall has yet been found in the East Vulcan, and that the same blue ore has been found 200 feet east of the line between the two properties, where a shaft is now going down partly in clean and partly in mixed ore.

It is believed that this mine in a short time will become one of the active mining properties of the range. The diamond drill has revealed a good deposit west. On the second level it lengthens out to fifty-five feet, and the third level to eighty feet. At this point the lens is twenty feet wide, and there is a perceptible gain in thickness along its whole length.

Shipments will commence when the side track now building is completed, form a stock pile of about eight thousand tons. A trestle work 400 feet in length connects the shaft house with the pockets at the side track, over which the ore is conveyed in tram cars. **About one hundred and eighty men are employed, of whom thirty are miners.**

The mine is in charge of **W.H. Mack**, Superintendent, and **Thomas Williams**, Mining Captain.

## IRON RIVER MINE

W  $\frac{1}{2}$  of NW  $\frac{1}{4}$  and W  $\frac{1}{2}$  of SW  $\frac{1}{4}$  of  
Section 36, Town 43, Range 35  
and  
E  $\frac{1}{2}$  of NE  $\frac{1}{4}$  of  
Section 35, Town 43, Range 35  
Marquette County [Iron County]  
Iron River District  
Near Iron River, Michigan

Discovered:

Work Commenced:

Production Record

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 399*

**Iron River Mine** is in the mining district of that name. This mine is the leasehold property of the **Iron River Iron Company**, the fee of the tracts embraced in the lease belonging to **L. Stegmiller**, of Escanaba, **Dr. Cyr**, of Negaunee, and others. The officers of the company are: President, **John Stambaugh**; Vice President, **George Boyer**; Secretary and Treasurer, **R. McCurdy**; **James N. Porter**, Superintendent. It is one of the new discoveries in what is known as the **Iron River District**, and embraces the west half of the northwest and the west half of the southwest quarters of Section 36, and the east half of the northeast quarter of Section 35, Town 43, Range 35 the present workings being on the first-named subdivision of the section. The work of exploration shows a very large body of ore which can be traced for a distance of nearly one mile and a half from northwest to southeast following along the face of the hill, which gradually rises to an elevation of 100 feet at its highest point above the east bank of the Iron River. The test pits show the ore belt to be at no place less than 100 feet, with no foot ball in sight.

Transportation facilities are supplied by the **Iron River Branch of the Chicago & North-Western Railway**, just completed to **Iron River**, an extension ten miles north of

**Florence**, and the mine promises to develop into one of the most important mining industries of the **Menominee Range**.

## KEEL RIDGE MINE

SE ¼ of  
Section 32, Town 40, Range 30  
Menominee County [Dickinson County]  
East of Iron Mountain, Michigan  
Discovered: before January, 1880, by  
John McKenna, John O'Callaghan,  
William McCartney  
Work Commenced: 1880

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1880	11,496
1881	19,011

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**Keel Ridge Mine.** – The location of the Keel Ridge Mine is on the southeast quarter of Section 32, Town 40, Range 30, and is the property in fee and leasehold of the **Emmet Mining Company**.

The property was originally explored and the ore found by **John McKenna**, Esq., who had associated with him **John O'Callaghan** and **William McCartney**, the three selling out their interest in that part of the section on which the Keel Ridge is

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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located, in January, 1880, to the present owners. The lease under which the company is operating includes the whole of the south half of the section, though the mine is situated on the southeast quarter, of which last the company owns an undivided one-third.

The trend of the formation is from southeast to northwest, and the workings are in the south side of a hill, the summit of which has an elevation of at least one hundred feet. The mine was opened by running an adit into the side of the hill from a point about fifty feet above the branch track, thus tapping the deposit at some distance below the outcrop. On this level, and for a depth of seventy-five feet below it, there were two kinds of ore – one red and the other blue – with from twenty to forty feet of rock lying between. In working, however, on and a short distance below the adit level, the blue ore apparently became exhausted; but in drifting north from the first or seventy-five-foot level, the same quality of ore was struck at the end of forty-five feet, and the drift continued twenty feet in blue ore of the very best quality. At this writing, the underground workings cover a length of 276 feet, the ore body being lens-shaped and narrowing down to a point in the east, and being cut squarely off by a horse or crossing of rock at the point of its greatest width, at the west end. East of the shaft, which is located a little to the east of the center of the workings, the ore body varies from eight to fifteen feet in thickness, while on the west side it averages not less than forty feet.

At the beginning of operations, the mine was wrought from three shafts, numbered respectively Nos. 1, 2 and 3. During the present year, a new double shaft, with upright self-pumping, balance skip-road, has taken the place of the old No. 2 Shaft, and through it the entire product of the mine is raised. It is a most perfect piece of work,

and the only one of its kind in this region. This shaft is down 220 feet from the collar to the present working level, which is under preparation for stoping.

The mine is wrought on the Nevada system, and is in charge of **E.P. Foster**, General Agent, and **J.P. Jones** [*sic* – *J.T. Jones* – *John Tyler Jones*], Superintendent; **John Wicks**, Mining Captain.

Since work was commenced, the annual product of the Keel Ridge has been as follows: 1880, 11,496 gross tons; 1881, 19,011 gross tons; total, 30,507 gross tons.

## LAKE MARY MINING COMPANY

NW  $\frac{1}{4}$  of  
Section 5, Town 42, Range 31  
Florence County  
Near Florence, Wisconsin  
Work Commenced: Fall of 1882  
and  
W  $\frac{1}{2}$  of SE  $\frac{1}{4}$  of  
Section 16, Town 42, Range 32  
Near Florence, Wisconsin  
Work Commenced: 1882

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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The **Lake Mary Mining Company** was organized in August, 1882. The incorporators are **Geo. M. Wakefield, Gordon H. Gile** and **James Tobin**. The property on which they are now operating is situated on the northwest quarter of Section 5, Town 42, Range 31. The ore is a rich, soft hematite, and as far as ascertained is very extensive. The vein carries a uniform width at present of thirty feet. The wall is slate and the foot wall is micaceous schist. The length of the deposit has been determined for over 1,000 feet. The formation comes very near the surface, and two open shafts have been sunk in the ore for a distance of over forty feet. The ore is improving as depth is attained, and it also seems to be freer from foreign substances toward the east end of the mine. The property is held under lease. On the west half of the southeast quarter of Section 16, Town 42, Range 32, the same parties are now operating on property which they own in fee simple. They have found a very rich vein of brown hematite, which is at present only six feet wide, but as the depth increases seems to be expanding, and as they are only about thirty feet from the surface it is entirely presumable that in common with veins of a similar character it will widen out to respectable dimensions. The length at present is conjectural, but it is thought to be extensive. A recent analysis of the ore shows 62 per cent of metallic iron, with minimum traces of sulphur and phosphorus.

## LUDINGTON MINE

South ½ of  
Section 25, Town 40, Range 31  
Menominee County [Dickinson County]  
Joins the Chapin Mine on the West  
Iron Mountain, Michigan  
Work Commenced: 1880

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1880	8,816
1881	3,374

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**Ludington Mine** is located in the south half of Section 25, Town 40, Range 31, and immediately adjoins the Chapin on the west. It is the property of the **Lumberman's Mining Company**.

Work was originally commenced and carried on in a small lens about half a mile west of the **Chapin** line, which at one time gave promise of developing into a mine of permanent value, but which was completely exhausted the second year after being opened, the shipments from it having been as follows: 1880, 8,816 gross tons; 1881, 3,374 gross tons; total, 12,190 gross tons.

Then followed a systematic and thorough exploration of the company's tract, which was perforated in every direction with diamond drill holes without favorable result, until the last available piece of ground was reached, and that, being north of the apparent trend of the **Chapin** belt, was attacked with little hope of successful issue. Here, near clean blue ore, into which a shaft, at the time of the writer's visit, had been sunk forty-five feet. From the bottom of this shaft, which is 100 feet west of the **Chapin** line, a drift south passed through

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

[Compiled and Transcribed by William J. Cummings]

forty-eight feet of clean ore to the foot-wall, which is a mixed ore and jasper, conformable to the lean ore foot-wall formation of the **Chapin**. A drift was likewise being driven west from this shaft in ore. West of this shaft, a large area of ore has been exposed by the removal of the drift covering, while from the bottom of a shaft which is thirty feet in ore, drifts north and south show seventy feet of clean ore without exposing either foot or hanging. This No. 2 Shaft is 250 feet west of No. 1, while the stripping still farther west shows a continuous run of ore 500 feet in length, measuring from the **Chapin** line, with which belt it is undoubtedly continuous.

The mine is being opened in a systematic manner, and shipments were commenced. **George E. Stockbridge** is Superintendent, and **William Bice**, Mining Captain.

## MARYLAND MINE (BREEN MINE)

Section 22, Town 39, Range 28

Menominee County [Dickinson County]  
Waucedah, Michigan

Discovery: 1866 by Thomas and Bartley  
Breen

Work Commenced: Summer of 1877

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1877	5,812
1878	4,694
1879	1,463
1880	5,359

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*the Counties, Cities, Towns and Villages, Their  
Improvements, Industries, Manufactories;  
Biographical Sketches, Portraits of Prominent  
Men and Early Settlers; Views of County Seats,  
Etc., Chicago, Illinois: The Western Historical  
Company, A.T. Andreas, Proprietor, 1883, page  
489*

**Maryland Mine.** – This is the historic name of the **Menominee Iron Range**, and the first shipping mine opened in this region. Till recent date it has been known as the **Breen Mine**, but is now under a new name and ownership, it now being the property in leasehold of the **Maryland Iron Mining Company**, officered as follows: **C.L. Anderson**, President; **W.L. Ross**, Secretary; **Fred Beckstrom**, Superintendent.

The mine was discovered by **Thomas and Bartley Breen** during the season of 1866. Some of the work of exploration was done previous to 1871, but active mining operations were not fully inaugurated till the **Chicago & North-Western Railway Company** completed their branch line from **Powers** to the **Vulcan Mine**, in the summer of 1877. Having the command of railroad and shipping facilities, the mine rapidly developed, as well as the entire region.

The property consists of a tract of 120 acres, located on Section 22, Town 39, Range 28, and the fee was formally owned by **Messrs. Saxton, Ingalls, Thomas and Bartley Breen**, with other citizens of **Menominee**. The deposit outcrops on the south side of a ridge, which has an elevation of about eighty feet above a meadow at its base. The first work was done in 1870, by **S.P. Saxton**, who sank several test pits, and cut long trenches across the formation, developing such favorable indications that the **Milwaukee Iron Company** entered into a contract for a lease, and continued further explorations. A large amount of money has been expended upon this mine to successfully

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

[Compiled and Transcribed by William J. Cummings]

develop it, by several companies, who have each in their turn surrendered their lease, having met with indifferent success. The **Menominee Mining Company** obtained a lease, and, after expending a large amount of money, abandoned the enterprise as unprofitable, surrendering its lease in 1878. Subsequent to this time, operations were conducted by the **Breen Company**, with like success, till it finally passed into the hands of the **Emmet Mining Company** as lessee, and, still later, into the management of the present owners in leasehold. It still holds out hope of becoming a workable and profitable body of ore. The annual shipments from the Breen have been as follows: 1877, 5,812 tons; 1878, 4,694; 1879, 1,463; 1880, 5,359.

## MANHATTAN MINE

NE ¼ of  
Section 13, Town 42, Range 33  
Marquette County [Iron County]  
Paint River District  
Near Crystal Falls, Michigan  
Discovered:  
Work Commenced:

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 403*

The **Manhattan Mine** is in the **Paint River District**. This mine is the property in leasehold of the **Manhattan Iron Company**, the officers of which are as follows: President, **Edward Breitung**; Secretary and Treasurer, **J.H. Outhwaite**.

The tract, which is the northeast quarter of Section 13, Town 42, Range 33, is owned by **S.L. Smith** and **T.B. Brooks**. It adjoins the **Mastodon Mine** on the south, and, although nothing of particular value has yet been found, it gives good promises of developing into a paying mine.

## MASTODON MINE

SE ¼ of NE ¼ of  
Section 13, Town 42, Range 33  
Marquette County [Iron County]  
Paint River District  
Near Crystal Falls, Michigan  
Discovered: 1879 by John N.  
Armstrong  
Work Commenced:

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 403*

**Mastodon Mine** is in the **Paint River District**. The site of the Mastodon presents the appearance of a small island protruding above the level of a swamp, by which it is

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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surrounded. The ore outcrops at this point, and was discovered by **John N. Armstrong** in 1879. The ore of this mine is a hard red hematite, and about three thousand tons have been mined.

The work thus far done warrants the belief that the deposit is a very large one, and the mine is fast developing into one of the more important ones of this locality. It is located in the southeast quarter of the northeast quarter of Section 13, Town 42, Range 33, and the fee belongs to the **Canal Company**, the **Mastodon Iron Company** holding a lease for a term of years.

## METROPOLITAN MINE

**Tract of Land Embracing 520 Acres in  
Sections 32 and 33, Town 42, Range 28  
Marquette County [Iron County;  
Dickinson County]  
Felch Mountain District  
Near Felch, Michigan  
Discovered:  
Work Commenced:**

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan  
Containing a Full Account of Its Early  
Settlement; Its Growth, Development and  
Resources; An Extended Description of Its Iron  
and Copper Mines: Also Accurate Sketches of  
the Counties, Cities, Towns and Villages, Their  
Improvements, Industries, Manufactories;  
Biographical Sketches, Portraits of Prominent  
Men and Early Settlers; Views of County Seats,  
Etc., Chicago, Illinois: The Western Historical  
Company, A.T. Andreas, Proprietor, 1883, page  
403-404*

The **Metropolitan Mine** is in the **Felch Mountain District**. The location comprises a portion of the estate of **A. Campbell**, and

**Dr. McKenzie** and others, and is held under a lease by the **Metropolitan Iron & Land Company**, which covers a tract of land embracing 520 acres, in Sections 32 and 33, Town 42, Range 28.

The officers of the company are: President, **S.P. Burt**; Secretary and Treasurer, **R.C. Hanna**; Superintendent, **Jefferson Day**.

The original discovery was made on the north half of the northeast quarter of Section 32, and, although not enough work has been done to determine the extent of the deposit, sufficient exploration has been made to prove that a large and valuable deposit exists here, with a trend bearing very near east and west, in Section 33, and in a directly opposite direction, in what is called the **New Find**, on Section 32.

The ore in the main is a clear blue hematite, giving, on analysis, from 64 to 68 per cent of metallic iron, very low in phosphorus. The ledge has been exposed over an area of 50x100 feet, and the best shafts show that the deposit is of good depth.

The work at present is being confined to what is known as the **New Find**, in stoping and preparing to mine.

About eight thousand tons of ore are now in the stockpile, and shipments will commence as soon as the **Chicago & North-Western Branch** is completed to the mine.

## NANAIMO MINE

**W ½ of SW ¼ of  
Section 26, Town 43, Range 35  
Marquette County [Iron County]  
Iron River District  
Two Miles Northwest of Iron River,  
Michigan  
Discovered:  
Work Commenced:**

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

[Compiled and Transcribed by William J. Cummings]

## Production Record

Year                      Tons Produced

*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 404*

The **Nanaimo Mine** is in the **Iron River District**, located in the west half of the southwest quarter of Section 26, Town 43, Range 35, about two miles northwest of the **Iron River** location. The fee is owned by **D.C. McKinnon**, and the mine is being opened by the **Nanaimo Mining Company** – **John S. McDonald**, President and Treasurer; **John Spence**, Secretary. Work has been actively commenced, that proves the deposit to be a very large one, and having a formation similar to that of the **Iron River Mine**. Four test pits now sunk show 140 feet of clean ore, the trend of the formation being from northeast to southwest. The company is making extensive preparations for shipping as soon as a branch road shall be completed to the mine, and hope [sic – hopes] to ship a daily product of 800 to 1,000 tons.

## NORTHWESTERN MINE

N ½ of NW ¼ of  
Section 32, Town 42, Range 28  
Marquette County [Iron County]  
Felch Mountain District  
Near Felch, Michigan

Discovered:  
Work Commenced: 1881

Production Record

Year                      Tons Produced

*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 405*

The **Northwestern Mine**, in the **Felch Mountain District**, is in the north half of the northwest quarter of Section 32, and **adjoins the Metropolitan** on the west and north. The tract is owned in fee by the **Beaver Iron Company**, by whom it has been leased to the **Northwestern Iron Company**, of which last the officers are as follows: President, **W.D. Rees**; Vice President, **Edward Breitung**; Secretary and Treasurer, **J.N. Glidden**. In 1881, when work was inaugurated at this mine, it gave promise of developing into a rich and valuable deposit of blue hematite, but further developments did not carry out the expectations of its lessees. Explorations are still in progress, and the company are [sic – is] confident of finding a paying deposit of ore.

## NORWAY MINE

Section 5, Town 39, Range 29  
Menominee County [Dickinson County]  
Norway, Michigan  
Work Commenced: 1878

# MENOMINEE RANGE HISTORY – IRON MINES – *HISTORY* OF THE UPPER PENINSULA OF MICHIGAN – 1883

*[Compiled and Transcribed by William J. Cummings]*

## Production Record

<u>Year</u>	<u>Tons Produced</u>
1878	7,276
1879	73,619
1880	198,165
1881	137,077

*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 489*

**Norway Mine.** – The Norway is the property of the **Menominee Mining Company**, and is located on Section 5, Town 39, Range 29.

This mine has done a vast amount of open-pit mining, but is gradually being changed into the underground plan of working, from necessity. It is one of the largest hematite mines on the range, and is now in the fifth year of its existence, having mined and shipped an annual product as follows: 1878, 7,276 gross tons; 1879, 73,619 gross tons; 1880, 198,165 gross tons; 1881, 137,077 gross tons; total, 416,137 gross tons.

The company own [*sic – owns*] the property in leasehold from the **Portage Lake & Lake Superior Ship Canal Company**, the lease embracing all the land of the section except 200 acres in the north. The first work was done in August, 1878.

The workings cover a total length of something over two thousand feet on the ore-bearing formation, the trend of which is from northwest to southeast, with southerly

dip. There are four working shafts, numbered 1,2,3 and 5, respectively, and five pits – 4, 6, 7, 8 and 9 – the first four being large open cuts, while the last, though partially open, may more properly be called an underground working.

These workings consist of a labyrinth of drifts and chambers, and immense open quarries, extending for fully three-quarters of a mile, that disclose an immense body of ore, practically inexhaustible. The mine presents an excellent appearance, causing the visitor to wonder at the vast resources of mineral wealth displayed. The estimated product of the mine for the present season is 150,000 tons. **A miners' hall and reading room is a most commendable feature at this location, and one which might be copied with advantage at all the large mines in the Upper Peninsula. The building, a very neat and commodious two-story structure, was built and presented to the miners' club by the company. The hall is leased to the Odd Fellows and Temple of Honor, the rents being devoted to the purchase of books and periodicals for the reading room.**

The Norway gives employment to **about four hundred and fifty men**, and, notwithstanding **Capt. Oliver's** estimate, can safely be relied upon, if necessary, for a largely increased product, as compared with the output of 1881.

## PAINT RIVER MINE

E ½ of SE ¼ of  
Section 30, Town 43, Range 31  
Marquette County [Iron County]  
Paint River District  
Near Crystal Falls, Michigan  
Discovered: Winter of 1880-1881 by  
John McKenna and Dr. Bond  
Work Commenced:

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

*[Compiled and Transcribed by William J. Cummings]*

## Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 406*

**Paint River Mine** is in the east half of the southeast quarter of Section 20, Town 43, Range 31, and **adjoins the Fairbanks Mine** on the west. The owner of the fee is **Edward Breitung**, and the property is under operation or lease to the **Paint River Iron Company**, officered as follows: President, **Max Wineman**; Secretary and Treasurer, **Joseph Austrian**; Directors, **Edward Breitung, Max Wineman, Joseph Austrian, John McKenna** and **Dr. Bond**. This is one of the mines lately opened, near **Crystal Falls**, and is a property that gives large promise. It was discovered by two of its principal Directors, **John McKenna** and **Dr. Bond**, during the winter of 1880-81, who sunk the first test pits at this time. The existence of ore was fully proved about the 1st of June, 1882, through the development of the **Fairbanks**. **C.Y. Roberts**, Superintendent.

## PERKINS MINE (SAGINAW SECTION 4 MINE)

(SAGINAW SECTION 4 MINE)

SW ¼ of

Section 4, Town 39, Range 29

Menominee County [Dickinson County]

Adjoins the Norway Mine on the East

Norway, Michigan

Work Commenced: Winter of 1878-1879

## Production Record

<u>Year</u>	<u>Tons Produced</u>
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1879	13,465
1880	49,196
1881	60,406

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**The Perkins Mine**, formerly known as the **Saginaw Section 4 Mine**, is on the southwest quarter of Section 4, Town 39, Range 29, and adjoins the Norway on the east. The tract is owned by the **Hamilton & Merryman Lumber Company**, by whom a lease was given to the **Saginaw Mining Company**, under whose auspices the mine was originally opened in the winter of 1878-79. Subsequently, the lease was transferred to the **Cleveland Rolling-Mill Company**, and the name of the mine changed to Perkins, in honor of **Capt. John Perkins**, the Superintendent.

About twenty-five thousand tons were raised between the close of navigation and May 1, and the Superintendent estimates that he will be able to mine and ship this year a product as large as that reported for

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

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1881 in the following table: 1879, 13,465 gross tons; 1880, 49,196 gross tons; 1881, 60,406 gross tons; total, 123,067 gross tons.

The deposit of this mine partakes of the character of a well-defined vein, the inclosing walls being less broken than at most of the other mines in the range.

The vein was at first opened up over a length of about three hundred and fifty feet in an open cut, to a depth of perhaps sixty feet; this open cut has since been roofed over with heavy timbers securely lagged, and the workings are now entirely underground. The ore is of the same general variety so far characteristic of the range, though more compact, and partaking more of the character of the hard ores of the **Marquette Range**. An occasional horse of rock and mixed ore runs through the vein for a considerable distance east and west. In the earlier stages of its development, an occasional horse of rock was found, but these have entirely disappeared, while the ore deposit, as a whole, has gained in thickness, rather than diminished.

It has three hoisting shafts in active operation, some of the old shafts having been abandoned during the past year. It is also noticeable that the ore has improved in quality, and that there is now nothing but clean ore between the walls. New shaft houses have been erected, at Shafts No. 1, No. 2 supplied with skip-roads. Employment is furnished to a force of 160 men.

## QUINNESEC MINE

Section 34, Town 40, Range 30  
Menominee County [Dickinson County]  
Village of Quinnesec, Michigan  
Discovery: 1873 by John Lane Buell  
Work Commenced: 1878

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1878	25,925
1879	41,954
1880	52,436
1881	43,711

*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 490*

**Quinnesec Mine.** – The Quinnesec is also the property of the **Menominee Mining Company**, and was discovered by **John L. Buel** [*sic* – *Buell*] in 1873.

It is located at the **village of Quinnesec**, the tract comprising Section 34, Town 40, range 30. Mr. Buel [*sic* – *Buell*] is one of the pioneers of the **Menominee Iron Range**, and to his perseverance and pluck the development of the range in its early history is largely due. His explorations on the property in 1873 consisted in putting down several test pits, proving the existence of the ore deposit. **He also demonstrated the working quality of the ore by a practical test in the Menominee Furnace, transporting the ore in sleighs.**

The development of the mine was delayed until 1878, on account of a lack of transportation facilities, some time after the value of the property had been proved.

In the meantime, the **Menominee Mining Company** secured its lease and began stripping the vein preparatory to

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

[Compiled and Transcribed by William J. Cummings]

opening the mine. The railroad reached it in the winter of 1877-78, and the following spring, the first shipments of ore were made. Mining operations were first commenced on the open pit plan, entering the hill on the east side, but now the work is prosecuted on the underground system of mining. The mine occupies a position 449 feet above Lake Michigan, and 118 feet above the railway station at Quinnesec. **The ore is all raised to the surface, where it passes down a double incline tramway, so arranged that the loaded cars going down draw the empty cars up, and dump into the pockets or stock pile, as desired.**

The formation is a peculiar one. The ore dips about seventy degrees to the north, the overlying rock being a sandstone, immediately under which there is a thin stratum of ore of no market value. The deposit is of variable width, the average being probably twenty feet. The walls, particularly the hangings, are of such a character as to require a large amount of timbering, but so far they have been most skillfully and amply secured, the record of the mine showing little, if any, loss of life or limb to the employes [*sic* – employees] since the beginning.

No new machinery has been added during the past year, though the engine house was destroyed by fire in July, and was replaced with a new one, 30x70, which was erected, and the machinery repaired and again set in motion, in the short space of seventeen days. **The mine furnishes employment to a force of about two hundred and fifty men, with Capt. Elisha Morcom** still exercising the most efficient supervision of mining operations.

The present season at the mine opened under the most favorable auspices, and shipments commenced from a stock pile of 22,000 tons that had been raised during the

winter. The product for 1882 is estimated to be largely in excess of that of 1881.

Since the mine was opened, the annual output has been as follows: 1878, 25,925 gross tons; 1879, 41,954 gross tons; 1880, 52,436 gross tons; 1881, 43,711 gross tons; total, 164,026 gross tons.

## STEPHENSON MINE

NE ¼ of the SW ¼ of  
Section 4, Township 40, Range 29  
Menominee County [Dickinson County]  
Norway, Michigan

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 490*

*Stephenson Mine.* – This property embraces the northwest quarter of the southwest quarter of Section 4, Township 40, Range 29. The southwest corner of this forty is about one hundred and fifty feet northeast from No. 2 Shaft of the **Norway Mine**. The strike of the formation is north seventy degrees west, and the dip high to the south. The vein of ore at the surface of the ledge crossed the west line of the Stephenson about one hundred and thirty feet north of the southwest corner, and the south line 500 feet west of the same point.

# MENOMINEE RANGE HISTORY – IRON MINES – *HISTORY* OF THE UPPER PENINSULA OF MICHIGAN – 1883

*[Compiled and Transcribed by William J. Cummings]*

This, with the southerly dip, rapidly exhausted the quantity of ore as they went down into the deposit. There are now only a few thousand tons of ore remaining in their present workings, which will be mined out early this season. I am still of the opinion that north of these workings, and within the limits of this property, will yet be found a vein of ore with a northerly dip. The **Stephenson and Ludington Mines** are owned by the **Lumberman's Mining Company**, the officers of which are: Pres. Hon. **H. Ludington**, Milwaukee, Wis.; Vice President, Hon. **S.M. Stephenson**, Menominee, Mich.; Treasurer, **Isaac Stephenson**, Marinette, Wis.; secretary, **Joseph Fleshiem**, Menominee, Mich.; General Manager, **George E. Stockbridge**, Quinnesec, Mich.

## STURGEON RIVER MINE

E ½ of the SW ¼ of  
Section 7, Town 39, Range 28  
Menominee County [Dickinson County]  
Two Miles East of Vulcan, Michigan  
Work Commenced: Early in 1881

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, page 490*

**Sturgeon River Mine**, [sic] is located two miles east of the most easterly point of the **Vulcan**, on the east half of the southwest quarter of Section 7, Town 39, Range 28. It is the property in leasehold of the **Sturgeon River Mining Company**. **John M. Douglas**, President; **G.C. Benton**, Secretary and Treasurer. Work was commenced early in 1881, at a point near the west line of the company's tract, where a shaft was sunk twenty-five feet in blue ore. From the bottom of this shaft a cross-cut was made north seventeen feet, and twenty feet south, all in ore. A drift fifty feet west also shows a large deposit of ore. The shaft was then sunk a further distance of twenty-five feet, where a cross-cut shows eighteen feet of ore. About one hundred feet south, another shaft has been sunk to a depth of 100 feet. The general trend of the formation is of clean blue ore, and its development into a paying mine is only a question of time.

## UNION MINE

N ½ of NW ¼ of  
Section 31, Town 43, Range 32  
Marquette County [Iron County]  
Paint River District  
Near Crystal Falls, Michigan  
Discovered: 1881 by J.F. Shafer  
Work Commenced: Fall of 1882

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent*

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

[Compiled and Transcribed by William J. Cummings]

*Men and Early Settlers; Views of County Seats, Etc.*, Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, pages 409-410

**Union Mine**, in the **Paint River District**, is located in the north half of the northwest quarter of Section 31, Town 43, Range 32, and operated under a lease by the **Union Iron & Steel Company of Chicago**. The property is owned by the representatives of the **Ransom Shelden** estate and **J.F. Shafer**.

**Shafer** discovered the mine in 1881, and explorations were commenced during the fall of this year. Active mining operations were commenced shortly after, in a lens of ore having an average width of twenty feet, which has been worked out to a depth of about fifty feet, and a total length of 150 feet.

The company expect [*sic – expects*] to ship about twenty thousand tons of ore this season. The trend of this deposit is from northeast to southwest, depressing to the northeast. The ore is a hard hematite, assaying about 60 per cent.

Shipping facilities are afforded by a spurr [*sic – spur*] track to **Crystal Falls**, two miles in length. **W.H. Waters** is the agent of the company, and **Capt Bartle**, Superintendent.

## VULCAN MINE (BREITUNG MINE)

Section 10, Town 39, Range 29  
Menominee County [Dickinson County]  
Vulcan, Michigan

Discovery: 1873 by Dr. Nelson Powell  
Hulst

Work Commenced: 1877

### Production Record

<u>Year</u>	<u>Tons Produced</u>
1877	4,593
1878	38,799
1879	56,975
1880	86,976
1881	85,274

*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc.*, Chicago, Illinois: The Western Historical Company, A.T. Andreas, Proprietor, 1883, pages 490-491

**Vulcan Mine**. – The **Vulcan** was discovered by the veteran explorer, **N.P. Hulst**, in 1873, and was the first deposit of good ore found on the range. It is located eighteen miles distant from the junction of the **Menominee River Branch** with the main line. It was originally known as the **Breitung Mine**, the first opening having been made on a tract of land in which the Hon. **Edward Breitung** owns, or did at the time own, an interest. This was in Section 10, Town 39, Range 29, where work was commenced in 1873, very little being done, other than in the way of exploration, until after the building of the branch railway was assured, in the spring of 1877. The track reached the mine in August of that year, since which time the shipments have been as follows: 1877, 4,593 gross tons; 1878, 38,799 gross tons; 1879, 56,975 gross tons; 1880, 86,976 gross tons; 1881, 85,274 gross tons; total, 272,617 gross tons.

The **Vulcan** is the most easterly of the mines belonging to the **Menominee Mining Company**. The workings cover a length of nearly two miles, on the line of the ore-

# MENOMINEE RANGE HISTORY – IRON MINES – HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883

[Compiled and Transcribed by William J. Cummings]

bearing formation, in Sections 9, 10 and 11, town 39, Range 29 – the most easterly pit being on the line between Sections 11 and 14, and the most westerly in the north half of Section 9, the trend of the formation being from southeast to northwest. The workings in Section 11 are known as the **East Vulcan**, and those in 9 and 10 as the **West Vulcan**, each group having a Mining Captain of its own, though all under the direct management of one agent or Superintendent. **Capt. John Curnow**, a miner who has had years of experience in the largest copper and silver mines of the country, is in charge of the underground work at the **East Vulcan**, and **Capt. Enoch Roberts**, formerly with **Capt. Pascoe**, at the **Republic**, occupies a similar position at the west end pits. **Hon A.C. Davis**, one of the pioneer Mining Superintendents of the **Lake Superior Copper District**, is the General Superintendent, under whose direction some important and valuable changes have been made in the general mining plan.

There are three pits at the **East Vulcan**, numbered 1, 2 and 3 respectively. There are, or have been, at this point, two distinct lenses of ore – the **Lowell** vein of red ore, and what is or was known as the chimney of blue ore – the latter being of exceptionally fine quality, and the other rather below the grade of first-class.

At the **West Vulcan** there are four working shafts in operation – Nos. 1, 2, 3 and 4 – in what are now known to be two distinct and separate veins or lenses of ore, lying parallel with and lapping each other. The trend of these lenses, which are about five hundred feet distant from each other, is nearly east and west, with southerly dip, the pitch of the south lens being to the west, and that of the other to the east.

The mine is now being wrought on the **Nevada system of mining and timbering**, similar to the work done at the **Chapin**

**Mine**; for this purpose a new saw-mill has just been completed near the old No. 2 Pit for supplying the mine with square timbers, plank, etc.

The mine gives employment to a force of 500 men at this writing. Shipments began this year from stock piles aggregating 30,000 tons, and we look for an increased product, notwithstanding the fact that most of the preparatory work, commenced since the first of the year, is yet far from being fully completed. Altogether, the mine is a most promising one, and, under the new system, it promises a great improvement over its record already achieved. When the new shafts are completed and the new system is fully inaugurated, an annual product of 100,000 tons is estimated as the minimum capacity.

## YOUNGSTOWN MINE

E ½ of SE ¼ of  
Section 19, Town 43, Range 32  
Marquette County [Iron County]  
Paint River District  
Near Crystal Falls, Michigan  
Discovered: Fall of 1881 by Capt. Dan  
Bundy  
Work Commenced: Spring of 1882

### Production Record

<u>Year</u>	<u>Tons Produced</u>
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*History of the Upper Peninsula of Michigan Containing a Full Account of Its Early Settlement; Its Growth, Development and Resources; An Extended Description of Its Iron and Copper Mines: Also Accurate Sketches of the Counties, Cities, Towns and Villages, Their Improvements, Industries, Manufactories; Biographical Sketches, Portraits of Prominent Men and Early Settlers; Views of County Seats, Etc., Chicago, Illinois: The Western Historical*

# MENOMINEE RANGE HISTORY – IRON MINES – *HISTORY OF THE UPPER PENINSULA OF MICHIGAN – 1883*

[Compiled and Transcribed by William J. Cummings]

Company, A.T. Andreas, Proprietor, 1883, page 411

**Youngstown Mine** is in the **Paint River District**. The original option of this mine was held by **Messrs. Coon & Swift** early in 1881. In the fall of 1881, the agent of the **Briar Hill Iron and Coal Company** took an option from them, and commenced explorations with a party of six miners under charge of **Capt. Dan Bundy**. Their labors disclosed a vein of ore fifty feet in width, and further explorations showed that the deposit extended over a length of 1,200 feet, with an average width of forty-five feet. During the spring of 1882, the work of stoping was inaugurated at the point where test pits showed the full width of the deposit, and the diamond drill has since revealed the fact that there are two separate and distinct veins of ore lying parallel with each other.

This deposit is thought to be one of the largest on the range, and promises to develop into a mine of immense proportions. With the advent of the **Crystal Falls Branch of the Chicago & North-Western Railway**, shipping facilities were furnished and operations are now fully insured. Superintendent **T.P. Mills, Jr.**, expects to ship fully 15,000 tons of ore during the present season.

This property embraces the east half of the southeast quarter of Section 19, Town 43, Range 32, the fee of which is owned by **Guido Pfister, August Smith** and others, of Milwaukee, from whom the **Briar Hill Iron and Coal Company** hold their lease.