



# The Mitten

A Publication of Michigan History magazine

APRIL 2005

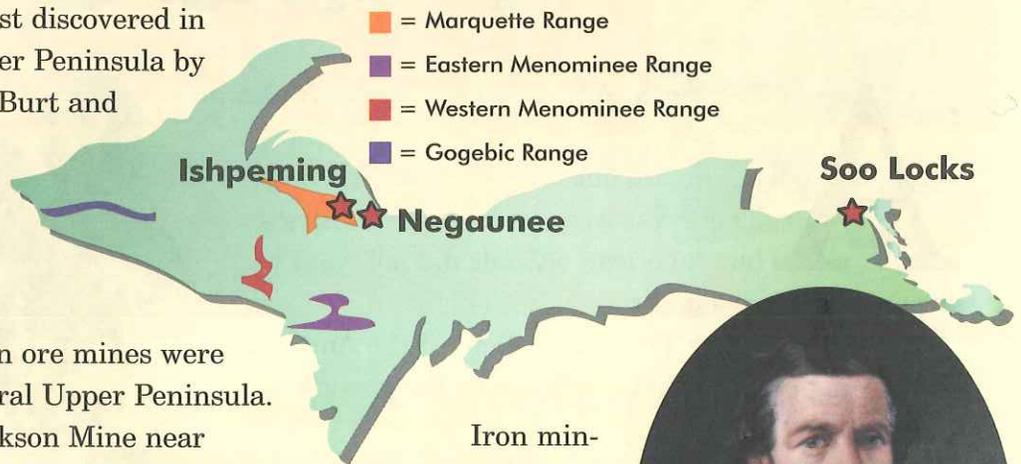
**I**ron ore was first discovered in Michigan's Upper Peninsula by William Austin Burt and his surveying crew on September 19, 1844, near present-day Negaunee.

Within a few years, iron ore mines were opening all across the central Upper Peninsula. The first mine was the Jackson Mine near Negaunee. Early mines faced an unfriendly environment and transportation problems. When the Soo Locks opened at Sault Ste. Marie, shipping iron ore became easier.

The iron mines were located in areas known as ranges. The Upper Peninsula's biggest range was called Marquette. Two smaller ranges were known as Menominee and Gogebic.

Michigan produced more iron ore than any other state between 1880 and 1890. Although production continued to increase, the state fell from first place because bigger mines opened elsewhere in the country.

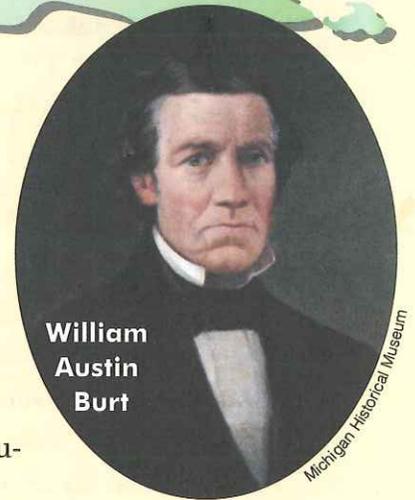
Michigan iron ore fueled America's Industrial Revolution. It built factories, skyscrapers, railroads, farm machinery, and bridges. Iron ore was used in the state's auto industry. Iron also built tanks, trucks, and jeeps and helped make Michigan the Arsenal of Democracy during World War II.



- = Marquette Range
- = Eastern Menominee Range
- = Western Menominee Range
- = Gogebic Range

Iron mining attracted many immigrants to the Upper Peninsula, especially the Cornish, Irish, Swedes, and Finns. They settled in communities near the mines. According to one observer, "the visitor to this mining country finds it the most cosmopolitan society he has ever entered." The proud immigrant mining experience is still present in towns like Iron Mountain, Ironwood, and Ishpeming.

Today, all the mines on the Menominee and Gogebic Ranges have closed. Yet, iron mining remains important in Michigan. Two mines on the Marquette Range—the Empire and Tilden—produce about one-quarter of the nation's iron ore.



William Austin Burt

Michigan Historical Museum

# IRON ORE

# POWDER

# TO PELLETS

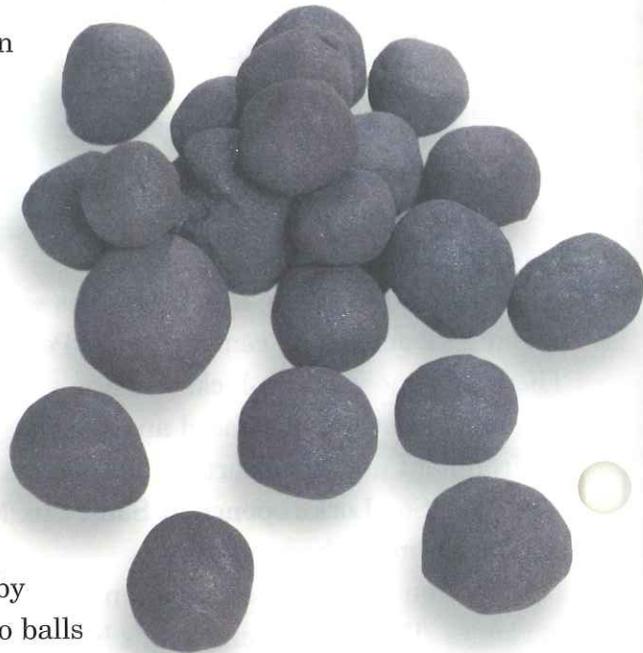
**A**fter World War II ended in 1945, American officials feared that the United States might run out of high-grade iron ore. There was iron ore in other countries, but American officials did not want to depend on those sources.

President Harry Truman challenged the American iron ore industry to find a solution to the possible future shortage.

The solution was iron ore pellets.

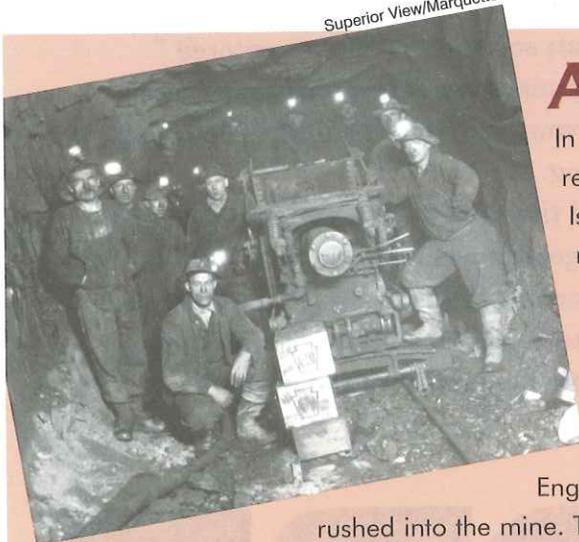
Iron ore pellets are made from taconite, a low-grade iron ore. When the taconite is separated from waste rock (called silica) it is like baby powder. It cannot be shipped in that form. After experimenting by mixing taconite with water and clay, then forming it into balls in large drums, the industry created iron ore, or taconite, pellets.

Today, almost all iron ore used to make steel in this country is in the form of pellets.



**Iron ore pellets (shown here actual size) are made at the mine.**

Superior View/Marquette

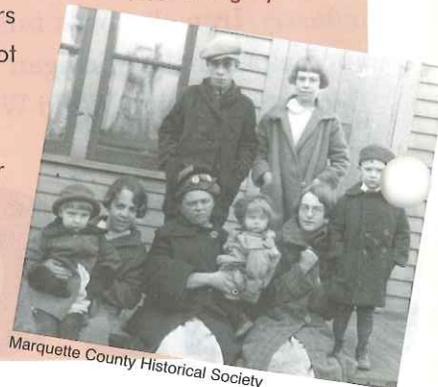


William Tippett (kneeling) and Peter Mongiat (far left) died in the Barnes-Hecker cave-in.

## A MINING TRAGEDY

In the early morning dawn of November 3, 1926, the day-shift workers reported to the Barnes-Hecker Mine near the Upper Peninsula town of Ishpeming. Opened in 1922, the mine produced more than 400,000 tons of iron ore. Efforts were made to keep water out of the mine, but it remained a constant problem. The miners who traveled down the mine's 1,000-foot vertical shaft came from many different countries, most notably Finland and England. Suddenly, in the late morning, water rushed into the mine. The tragedy left 51 men dead. Michigan's worst mining accident, the Barnes-Hecker disaster, left 132 young children (most under 15 years old) fatherless. Forty-two wives lost their husbands. The mine was never reopened.

The Trudell family lost their 44-year-old father in the Barnes-Hecker tragedy.

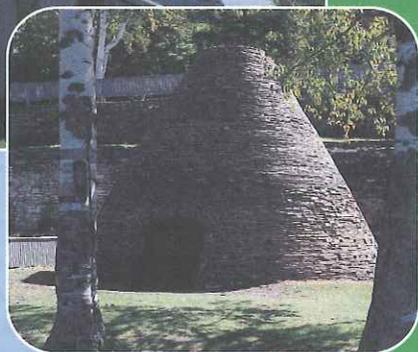
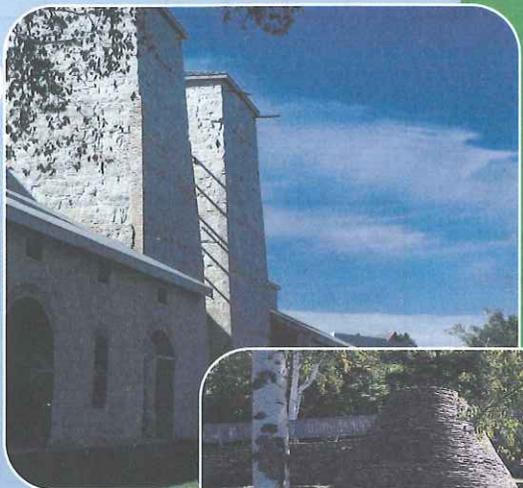
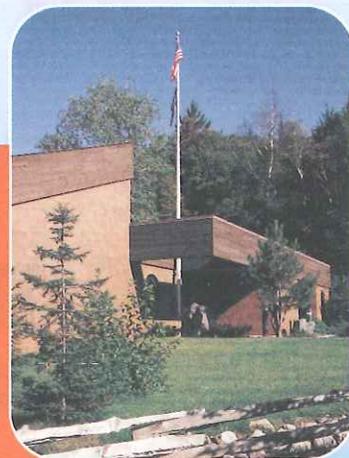


Marquette County Historical Society

# Where to Take Your Family

**Michigan Iron Industry Museum**  
73 Forge Road  
Negaunee, MI 49866  
(906) 475-7857  
[www.michigan.gov/ironindustry](http://www.michigan.gov/ironindustry)

The **MICHIGAN IRON INDUSTRY MUSEUM** tells the stories of the people who mined the iron ore that built America's railroads, skyscrapers and automobiles. Walk through a mine tunnel and see miners' hats and mining tools. Outside the museum, follow the Landlooker Interpretive Trail and imagine what it was like to be an explorer looking for iron ore.



**FAYETTE HISTORIC TOWNSITE** is one of Michigan's coolest historic places. In 1867 the Jackson Iron Company built a community on the Garden Peninsula to separate iron ore from rock (called smelting). They named the town after the company manager, Fayette Brown. For more than two decades, Fayette was a beehive of activity. Iron ore was mixed with charcoal and dolomite and placed in a red-hot furnace. After the rock melted, the iron flowed out into molds and cooled. The iron was shipped to foundries to make everything from railroad rails to frying pans. Fayette's furnaces closed in 1891 and the people left. In 1959 the site became Fayette

**Fayette Historic Townsite**  
13700 13.25 Lane  
Garden, MI 49835  
(906) 644-2603  
[www.michigan.gov/fayette](http://www.michigan.gov/fayette)



State Park. Today, the town's furnace complex and buildings help us remember what it must have been like to live in a nineteenth-century industrial town.



# What Did You Learn?

## ACROSS

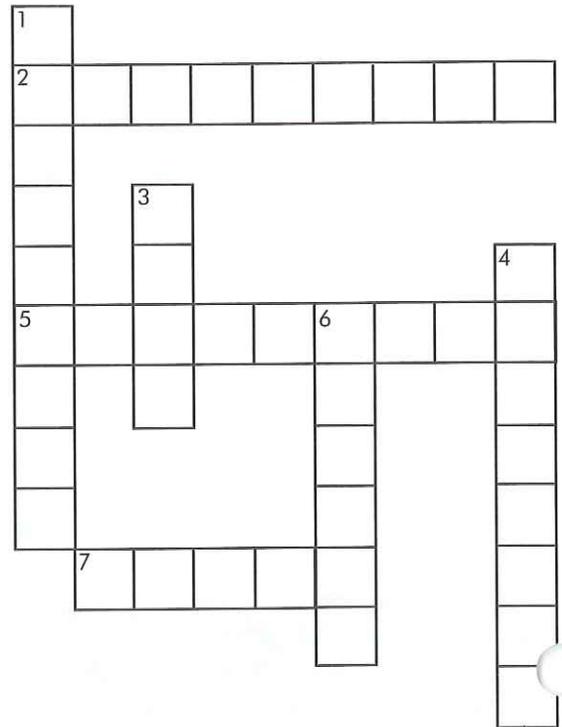
2. Iron ore was first discovered in the Upper Peninsula on \_\_\_\_\_ 19, 1844.
5. The Upper Peninsula's biggest iron range is the \_\_\_\_\_ Range.
7. At the Barnes-Hecker Mine, 51 men died when \_\_\_\_\_ rushed into the mine.

### Word List (in random order)

BURT  
SEPTEMBER  
NEGAUNEE  
MARQUETTE  
ISHPEMING  
EMPIRE  
WATER

## DOWN

1. The Barnes-Hecker Mine was located near the city of \_\_\_\_\_.
3. William Austin \_\_\_\_\_ and his surveying crew found iron ore in the Upper Peninsula.
4. The first mine in the Upper Peninsula was the Jackson Mine near the present-day city of \_\_\_\_\_.
6. Iron ore is still mined on the Marquette Range at the Tilden and \_\_\_\_\_ Mines.



## Vocabulary

**Iron ore:** rock or material from which iron can be mined

**Cosmopolitan:** made up of people from many parts of the world

**Immigrant:** a person who leaves one country to settle in another country permanently