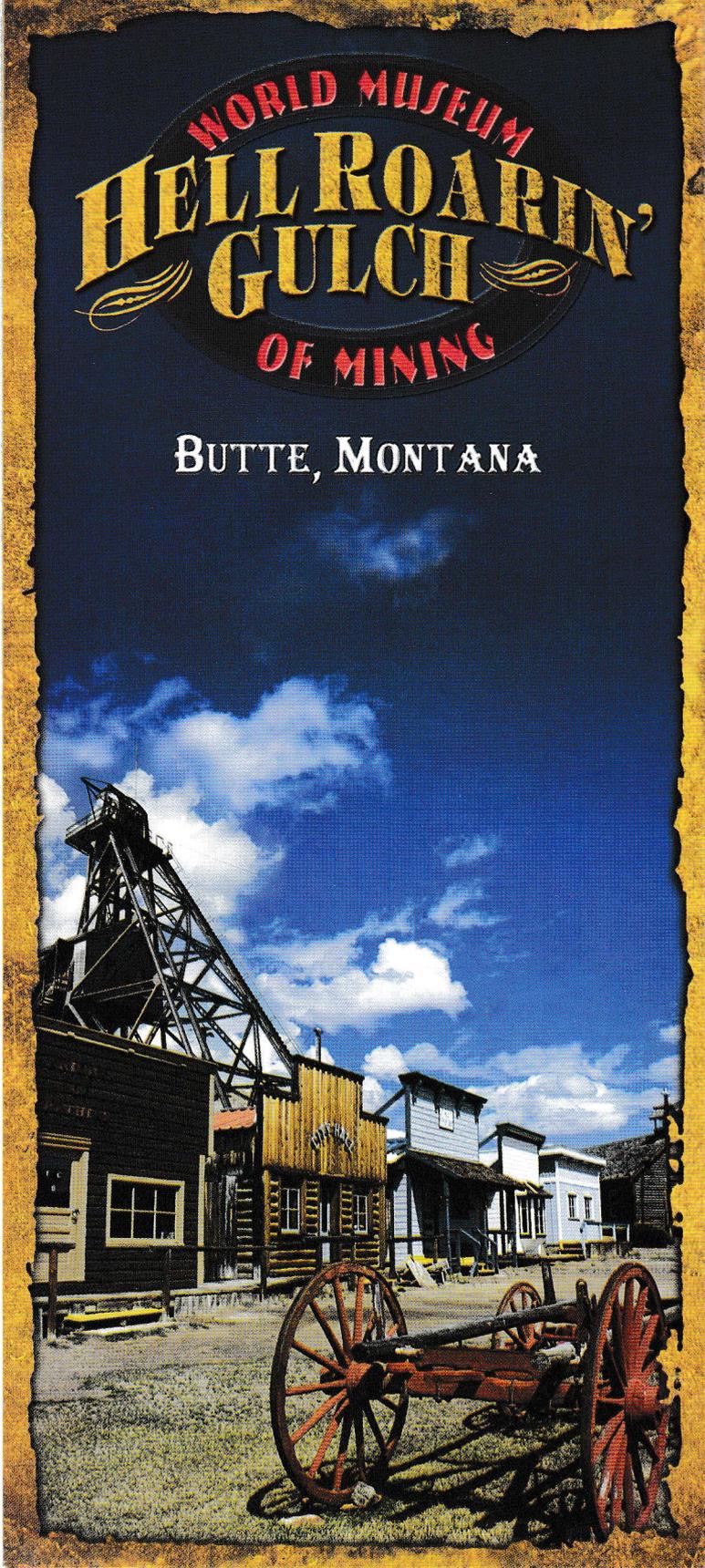


WORLD MUSEUM
**HELL ROARIN'
GULCH**
OF MINING

BUTTE, MONTANA



WELCOME!

A National Historic Site preserving the mining, ethnic and social history of Butte, Montana.

The World Museum of Mining also includes Hell Roarin' Gulch, an 1880's mining camp, built on the site of the original silver and zinc mine, the "Orphan Girl." Thousands of visitors come each year to see the exhibits and walk through the 'Gulch.' Their initial reaction is one of amazement at such a comprehensive and extensive museum.

From the Orphan Girl Mine and headframe, to the Hard Rock Mining Exhibit and Mineral Collection, to the more than 50 buildings that make up this replica of a 19th century mining camp, visitors can spend a couple of hours to an entire day lost in the history of Butte and Montana.

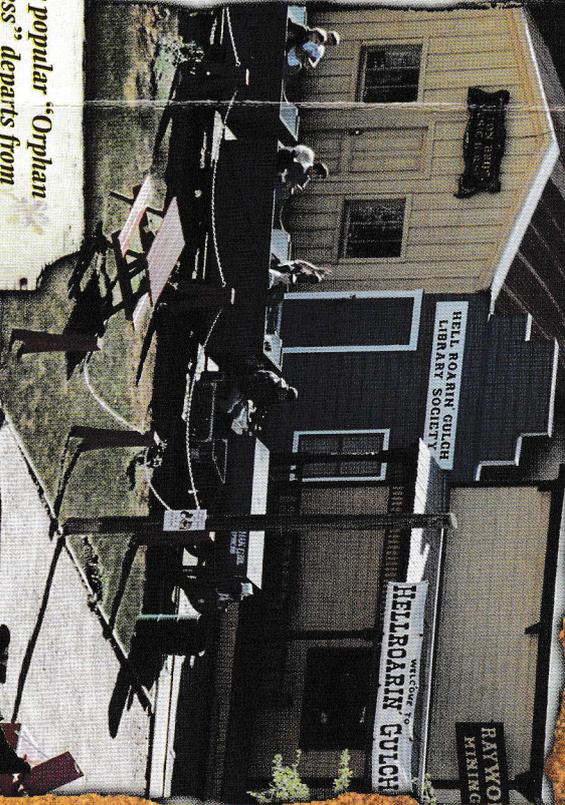
Take a step back in time as you stroll through the cobblestone streets, the mine yard and the displays that uncover Butte's early culture and society. Experience the history of the mining companies and owners, the unions, politics, newspaper, schools, churches, architecture, night life, businesses and recreation; all intertwined with Butte's diverse ethnic population.

Take home a souvenir from our unique gift shop that offers mementos, copper items, rocks, minerals and books of historical Butte and Montana.

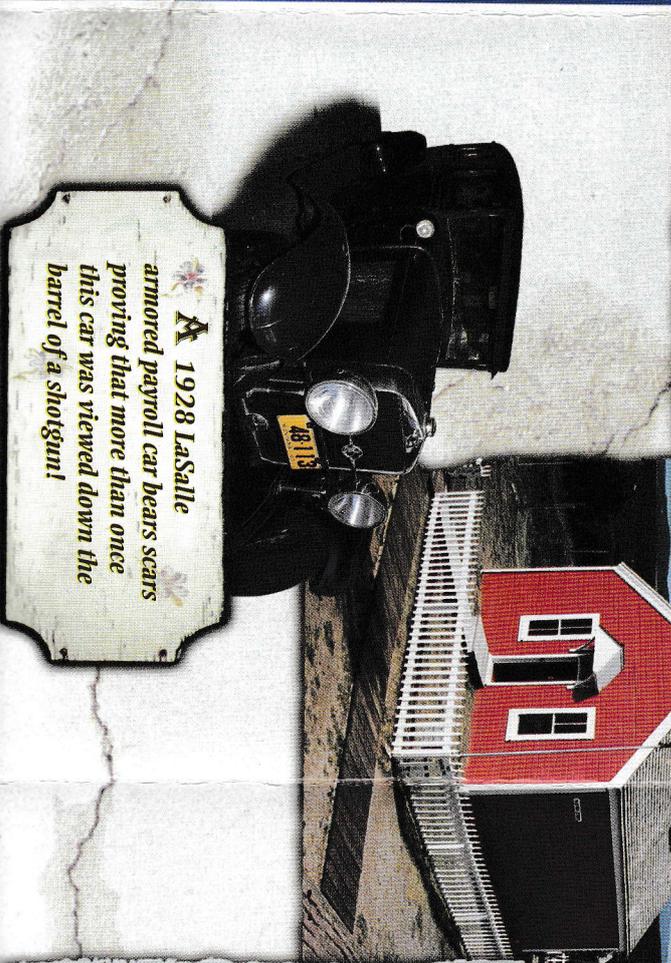
A memorable experience for the whole family!



The popular "Orphan Girl Express" departs from Durant Station in Hell Roarin' Gulch on the half-hour every day in July and August.



In 13 languages, this sign symbolizes the diverse ethnic background of those who worked in the mines and made up the community of Butte.



A 1928 LaSalle armored payroll car bears scars proving that more than once this car was viewed down the barrel of a shotgun!

NO SMOKING, MATCHES OR OPEN LIGHTS

DANGER

Боржигондотой ИРЭНТЭ	АМЕРИКАН ДЭМЭГЭЭ АНГЭРГАЙ
КАДЫЛ БИРЭВЧӨӨДӨӨ	НИСЭЭ АХУЙСЫН ДЭМЭГЭЭ
ТЭГЭС А ХОЛГАВЧЫС	ХАМГААГАХ АХУЙСЫН ДЭМЭГЭЭ
НИСЭЭ ТӨДӨӨНӨӨН ГЭНГ	НИСЭЭ АХУЙСЫН ДЭМЭГЭЭ
ВІСНІКІ ЗІАГІСНІКІ	НИСЭЭ АХУЙСЫН ДЭМЭГЭЭ
Эсэл Пролибидо Лунар	НИСЭЭ АХУЙСЫН ДЭМЭГЭЭ
NEVALE RUKYT	НИСЭЭ АХУЙСЫН ДЭМЭГЭЭ



MAP

World Museum of Mining Butte, Montana

Welcome to the World Museum of Mining, including Hell Roarin' Gulch, an 1880s mining camp, built on the site of the Orphan Girl Mine.

The Orphan Girl headframe and engine room, also known as a hoist house, are in their original locations. The "Girl," as she was sometimes called, operated from 1875 to 1956 down to a depth of 3,200 feet. The mine produced respectable amounts of silver, zinc, and lead and had an underground temperature of about 55-65 degrees Fahrenheit.

The name Orphan Girl comes from the fact that this mine's location was far from the other mines on the Butte Hill.

Originally owned by Marcus Daly, one of the copper kings, the mine was later bought and operated by the Anaconda Company. An Orphan Boy Mine was once located to the west of the Girl. Over time the two Orphans' workings were incorporated.

World Museum
of Mining
P.O. Box 33
Butte, MT 59703
406 • 723-7211



Orphan Girl Mine Yard Equipment Guide

The best way to use this guide is to look at the number painted on the item and then refer to this list. The mine yard has been reorganized several times, and so, often the numbers are not in sequence as to the position of each item.

1. 1880s Air Compressor

Used on the surface to power underground drills. First powered by a steam engine, later by electricity.

2. 1890s Lilly Hoist Controllers

Invented by a Butte man, these control the speed, limit the travel of the hoist engine, and are still used today.

3. Tumble Bug

Horse-drawn scraper. One step above a pick and shovel.

4. Air Compressor

5. 1870s Steam Engine

6. Sluice Box

Used for separating gold from other material.

7. Automatic Bit Sharpener

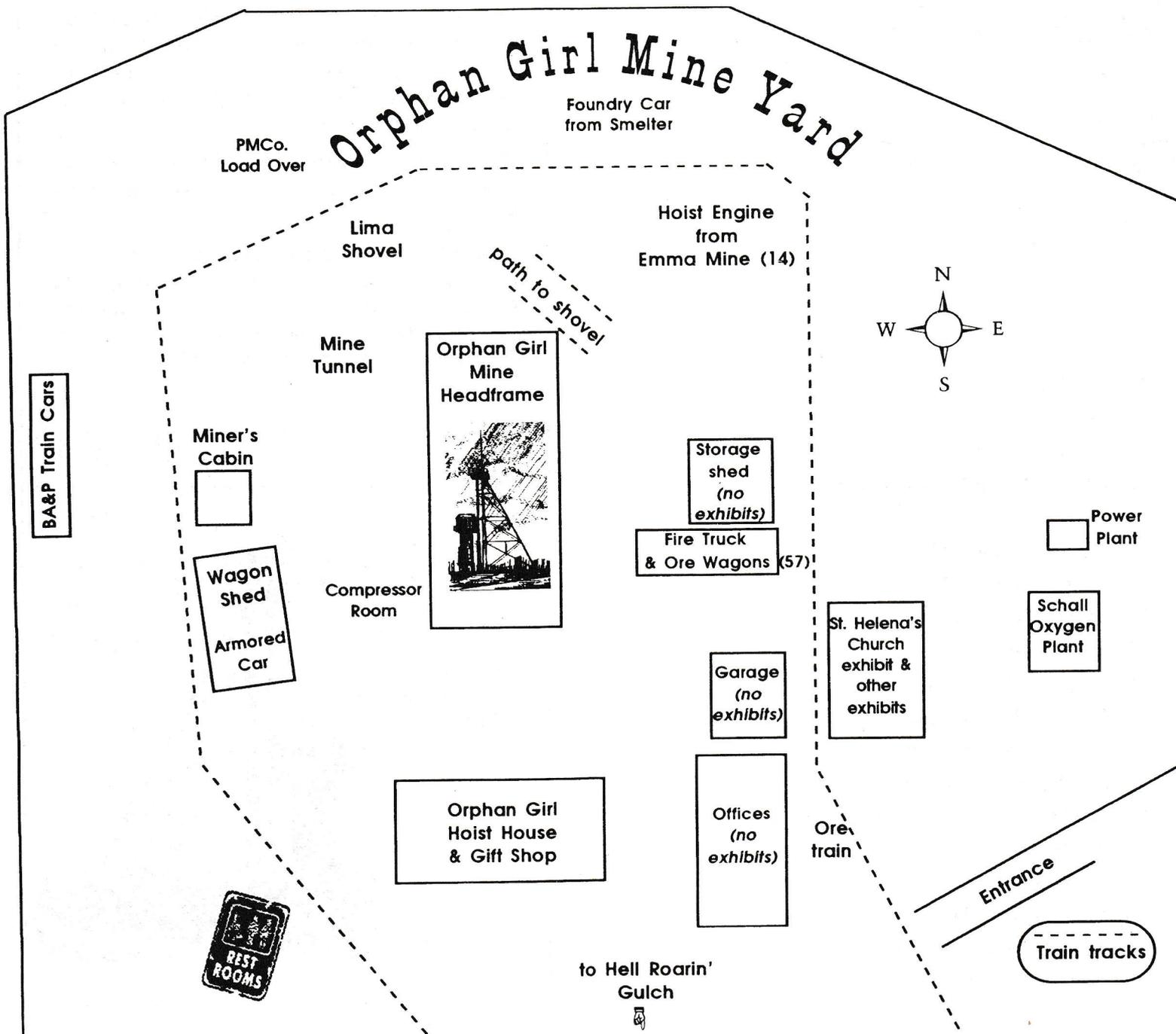
For sharpening steel drill bits for use underground.

8. Ore Wagon

Hauled up to Three Tons.

9. 1960s L.H.D (Load-Haul-Dump)

Located behind headframe, near shovel. Used to load ore in underground mines.



- 10. Pipe Threader**
Used to thread steel pipe.
- 11. Cleaning Trough**
Used to clean flat hoist cable.
- 12. Flat Cable Repair Bench**
- 13. Flat Cable Repair Bench**
These benches were used to sew flat hoist cable.
- 14. The Emma Hoist**
Used at the Emma Mine which was in Uptown Butte. The area is now Emma Park. This hoist, exhibited at the St. Louis World Fair in 1904, used flat cable to raise and lower men, equipment, and ore in and out of the mine. Most older hoists on "The Hill" used flat cable, because it did not kink in mine shaft wrecks, like round steel cable. The flat cable is still visible on the reel. Of the thousands built, only a few of these machines remain. The Emma hoist was powered by a Corliss steam engine and used soft brake shoes for stopping. One reel hoisted while the other lowered, balancing the load.
- 15. Conveyor Belt** for moving ore
- 16. Concentrator Tables**
Used to separate heavy gold from waste material.
- 17. 1940s Caterpillar Loader**
One of the first hydraulic loaders. The loader was made separately by Trackson company.
- 18. Drive Pulley with Clutch**
Used to start and stop machinery powered by a steam engine. Wooden pulleys were common on the frontier since they could be built locally rather than freighted in.
- 19. 1880s Self-Contained Steam Hoist**
The boiler moved with the hoist engine.
- 20. Gasoline-Powered Generator**
Used to supply electricity beyond power lines.
- 21. 1920s Portable Air Compressor driven by engine.**
- 22. 1940s Portable Air Compressor**
- 1940s Compressor Room**
(below and just west of headframe)

Typical of a small mine during this time period.

a. *Hand Pump* — Used to pump water.

b. *Drill Sharpener* — Used to forge drill bits from hot steel. Used bits were re-forged so they could be re-sharpened.

c. *Electric Mine Lamp Charger*

d. *Motor-Generator* — Used to charge batteries on underground locomotives like #37.

e. *Cupel Maker* — Used to press bone ash into cups to separate gold and silver from lead in the assay process

f. *Air Receiver* — Stored air from the compressor.
- 23. Shaft Bailer**
Used to remove water from vertical shafts when a pump was not available.
- 24. Air Tugger**
Powered by compressed air, used to lift timber, etc.
- 25. Wooden Timber Cars**
Used to haul supplies
- 26. Jim Crow**
Used to bend rail for mine tracks.
- 27. 1840s Joy Coal Loader**
Used to load coal in Red Lodge, Montana.
- 28. Home-made Cross Cut Saw**
"Poor man's buzz saw"
- 29. Horse Whim**
Used as an early hoist, powered by horse walking in a circle. (See #61)
- 30. Home-made Welder** (Located behind log cabin)
- 31. 1920s Indiana Truck with Chum Drill**
Used for drilling water wells, blast holes, and exploration holes
- 32. Steam Donkey Engine**
Used to unload supplies.
- 33. A Lorry Car**
Used to transfer ore in a mill or smelter.
- 34. Vertical Steam Engine**
Approximately 1 HP.
- 35. Screw pontoons**
Used to convert a Fordson tractor to a snow machine, found in Cooke City, Montana.
- 36. Electric Motor driving a DC Generator**
Use of the apparatus on the east end is unknown.
- 37. Mancha Trammer**
1 1/2 Ton battery-powered train. This model is still used underground today.
- 38. Shaft Bailer**
Used to remove water from shaft.
- 39. Submarine Car**
Used to bring water to the working face for drilling.
- 40. Sheave Wheel**
Used as a pulley wheel on top of the headframe on all the gallows frames (headframes).
- 41. Row of Mine Cars**
From right to left, Timber Cars, Honey Cars (Toilet Cars) Timber Car.
- 42. Slag Ladle**
Used in smelter to move molten slag and metal.
- 43. Conical Bullion Mold**
Used to make bullion bars. Molten metal is poured into the mold to cool.

Continued on the other side 

Equipment Guide *Continued from other side*

44. **Timber Skip**

Used for hoisting supplies from main level to a work area (stope).

45. **Blake Jaw Crusher**

Used in the first stage of crushing 2- to 12-inch rock

46. **Hand Winch**

47. **Donkey Winch**, steam-powered

48. **Powder Car**

Used for moving explosives underground.

49. **Ellis Mill**

Used to grind ore. This is a modern version of the Chilean Mill across the road behind you. (See #67)

50. **1920s Gasoline-Driven Hoist**

51. **Gasoline Drive Hoist**

52. **Donkey Engine**

53. **Hoist Engine with Drive Pulley**

The steam engine could be used to power other equipment when not hoisting.

54. **Anaconda Timber Hoist** (Behind #52)

Made in the Anaconda Foundry in Anaconda, Montana. Thousands were made from the early 1900s and were still in use in the 1970s.

55. **Homemade Wooden Mine Cage**

Used to raise and lower men and equipment in a vertical shaft.

56. **Nineteenth Century Buckboard (Wagon)**

57. **Nineteenth Century Ore Wagons, 10-Ton**

58. **Grinding Stone**

Used to sharpen tools.

59. **Slip Scraper**

Pulled by horses to scrape up dirt and move it somewhere else to dump.

60. **Steam Forging Hammer**

Used to form red hot steel. The base (or anvil) sits beside it.

61. **Working version of Horse Whim Hoist**

A horse pulled the wooden arm in a circle to raise the bucket from the shaft bottom.

62. **Wooden Bottom Dump Ore Car**

62. **Mine Cage**

On the Museum grounds are several mine cages, used to bring miners and equipment up and down the mines' vertical shafts.

64. **Bottom Dump Ore Car**

65. **Hand-made Wooden Ore Car on Wooden Rails**

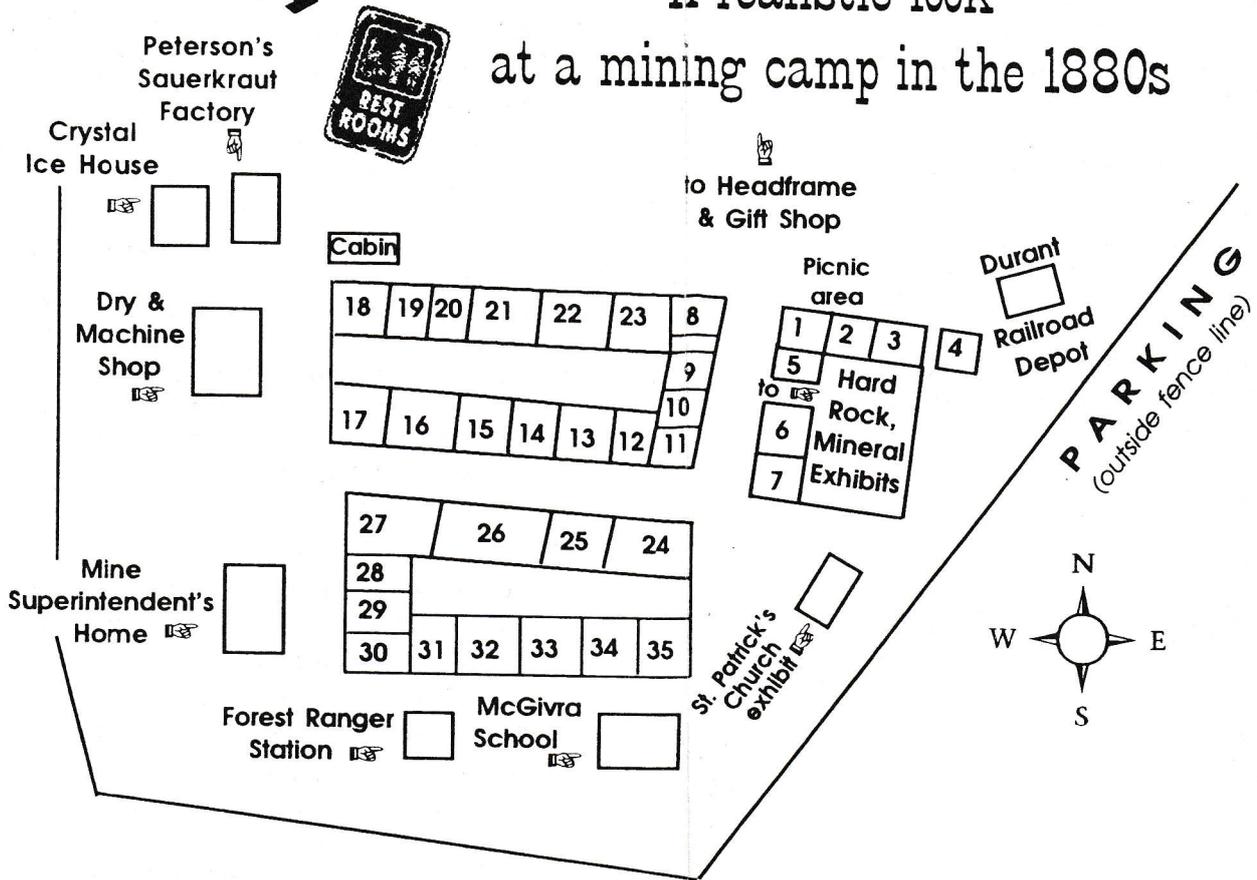
This was carved from logs and poles.

66. **Rail Drill**

Used to make bolt holes in the rail when connecting railroad tracks.

Hell Roarin' Gulch

A realistic look
at a mining camp in the 1880s



1. Rayworth Mining Co.

2. Hell Roarin' Library Society

3. Orton Bros. Music House

4. Hell Roarin' Gulch Post Office

5. Rocky Mountain Telephone & Telegraph

6. Pawn Shop

7. Fire Hall & Engine

8. Mrs. E. McDonal, Millinery

9. Lawyer

10. Dr. S. L. McGuire, M.D.

11. Dr. Ironside, Dentist

12. Union Hall

13. Saloon

14. Blacksmith

15. Barbershop & Bathhouse

16. Assayer

17. Jail

18. Quong Fong Laundry

19. A. Quon Herb Co.

20. Tack Shop

21. J.E. Allen's Livery

22. J.P. Mondloch Carpenter Shop

23. Tobaccos

24. First National Bank

25. Optical Parlor

26. General Store

27. Drug Store

28. Nugget Cafe

Victoria's Rooms above

29. Ancient Order of Hibernians' Hall

30. Jos. Richards, Undertaker

31. Knights of Pythias Hall

32. City Hall

33. Repair Shop

34. Zubick Art Studio

35. Hell Roarin' Print Shop