UTAH MINING ACCIDENTS 1896 - 1916

By Gerald E. Sherard (October 2007)

During the earth's Caboniferous Geologic Period, 250 to 400 million B.C., material was deposited that eventually transformed to coal. At that time most of Ohio was a flat, hot, moist plain covered with steaming swamps thick with tall trees and wide spreading ferns. In North America, the Hopi Indians during the 1300s in what is now the U.S. Southwest used coal for cooking, heating and to bake pottery. Commercial coal mines started operation in the 1740s in Virginia..

In the United States, the first reported mine explosion was in 1810 in Virginia. Prior to 1920, mining was an unhealthy and dangerous occupation. There were no rules to ensure safety in the industry, whether in the mine, mill, or smelter. In the early 1900s, laws to improve and monitor mine safety were enacted by both states and later by the federal government. It took many years for the companies to implement regular reporting of the accidents, but the number that were reported were impressive. In the early 1900s, over an eighteen month period, a mine worker's chance of being crushed, asphyxiated, burned, blasted, drowned, or similarly maimed or killed was more than one in a hundred. If you worked in the mines for twenty years, your overall risk increased to more than one in five. Since 1900, more than 104,000 miners have died in accidents in the U.S. with most of these fatalities occurring from 1900 to 1978. The peak year for U.S. fatalities was 1907 with 3,242 fatalities. In addition many more miners suffered disabling and life long injuries in nonfatal accidents.

Accidents sometimes occurred on the way to and from work. Once the maniner got to the mine, he was lowered down a poorly lit shaft in an ore bucket or cage, often several hundred feet, to his working level. How would you like to ride up an ore bucket or wait for a ride if you and your co-workers had to suddenly escape from a mine shaft several hundred feet down? Once down to his working level, the miner had to contend with moving tram cars, steam lines, electric wiring, machinery of various types, and the heavy, hot, and massively vibrating drills. Supporting timber if poorly positioned, or if the wood became water-soaked and rotten, or with minor shifts in the earth's crust, tons of rock would suddenly fall, trapping or crushing the miners. The mine's structures and supports were wood, and fire was a constant threat.

Coal mines were often filled with odorless and tasteless methane gas. Canaries, birds that were easily stressed and sensitive to toxic gases such as carbon monoxide and methane, were used up until the 1980s when they were replaced by hand held electronic detectors. Coal mine explosions due to methane gas have continued to the present. As many, perhaps more, men have died from gases and lack of oxygen (known as "after -damp") than have been killed by the blast and heat. Mine explosions often are caused by a combination of factors, including concentration of methane in air, formation of clouds of dust, and the presence of a flame or spark.

The worst U.S. coal mine disaster occurred December 6, 1907, at the Monongah Nos. 6 and 8 Mine at Monongah, West Virginia, in which an explosion killed 362 miners. This disaster compelled Congress to create the U.S. Bureau of Mines in 1907.

1910 was the year of the largest number of major mine disaster events in the United States overall (19 coal, 6 metal/nonmetal). Also in 1910, the Pullman Company made the first mine rescue railroad cars for the U.S. Bureau of Mines. The cars were former Pullman sleeping cars which had been remodeled. The chief work of station and car personnel was to investigate as quickly as possible the cause of a mine disaster, assist in the rescue of miners, and give first aid; and as ordinary routine, to train miners in safety, in rescue- and first-aid equipment and methods, and to examine safety conditions at mines and recommend improvements. The cars continuously visited mining centers in all States to present demonstrations, lectures, and training. When a mine disaster occurred near a station, the employee in charge, with available help and equipment, proceeded at once by train or other transportation to the mine. When a rescue car was used, it was moved by a special locomotive or connected to the first appropriate train available. In the initial 5 years, 300 mine accidents, including explosions, fires, and cave-ins, were investigated. In approximate totals, 290,00 people visited the stations and cars; 230,000 attended lectures or demonstrations; 34,000 were given training in rescue- and first-aid methods, and 11,700 training certificates were issued, increasing continuously from 509 in 1911 in 4,258 in 1915 (ten districts).

In general, early mine accidents were blamed on God or carelessness of the miner. Such attitudes on the part of the mine owners, the courts, and government agencies continued well into the twentieth century. In the year 2004, over 6000 miners died in accidents in China. This attitude still persists in some parts of the world. In the U.S., coal mining today is far more safer than it was 100 years ago. Only 22 miners died in the United States in the year 2005. There are more people killed in farming accidents in the U.S. today than in coal mining accidents.

The major mine accidents in Utah which resulted in a large number of fatalities at one time were usually caused by fire or gas and dust explosions in underground coal mines. Utah's major mine accidents, their causes, and number of men killed are as follows:

- May1, 1900, Winter Quarters No. 1 & 4 Mine, Scofield, UT, explosion of black powder or blown-out shot, 200 killed.
- July 15, 1902, Park-Utah Mine, Park City, UT, fumes from powder smoke in metal mine, 34 killed.
- September 17, 1914, Centennial-Eureka Mine, Eureka, UT, gold mine cave-in, 11 killed.
- March 8, 1924, Castle Gate Mine, Castle Gate, UT, gas ignited upon safety lamp relighting, 171 killed.
- February 6, 1930, Standard Mine, Standardville, UT, gas explosion ignited by open-type mining machine, 23 killed.
- May 9, 1945, Sunnyside No.1 Mine, Sunnyside Mine, UT, gas explosion, 23 killed.
- August 27, 1963, Cane Creek Sulhur Mine, Grand County, UT, gas explosion, 18 killed.
- August 28, 1963, Cane Creek Sulfur Mine, Moab, UT, gas explosion, 18 killed.
- December 19, 1984, Wilberg Mine, Orangeville, UT, fire ignited by overheated compressor, 27 killed.

Most fatalities resulted from accidents involving one or two people. During the period 1914 through 1916, Utah incurred 53 miner workers killed and 97 seriously injured, an average per year of 18 killed and 32 injured.. Usually those killed or injured were miners. Drivers (roadmen), runners, timberers, and trappers also incurred many injuries.

Mining has many unique terms. A glossary of these terms is found in Bibliography References 3 and 4 below. Some of the more common terms are:

Afterdamp: The mixture of gases that remain in a mine after a mine fire or an explosion of combustible gases. It consists principally of carbonic acid gas and nitrogen, and is therefore irrespirable because there is little oxygen.

Anthracite: The hardest type of coal with a very high heat value, used for home and industrial heating.

Bituminous coal: Medium-hard coal with a high heat value, used to generate electricity and to make coke which is used in the steel industry.

Boss: Any member of the managerial ranks who is directly in charge of miners.

Brattice worker: A worker who constructs ventilating partitions of fabric, board or plank lining in mine passages to confined the air and force it into working places.

Breaker: Mechanical equipment into which coal is dumped from cars or conveyers and the coal is broken up and screened.

Cannel Coal: A variety of bituminous coal with no stratification , a greasy luster, and a high percentage of volatile matter which makes it ignite easily.

Coal: A black rock consisting primarily of carbon formed from remains of trees, ferns and other plants that died and were compressed under heat and pressure from ice during the Ice Age and from the buildup of earth deposits.

Coke: Bituminous coal in which the volatile constituents have been driven off by heat as high as 2000 degrees Fahrenheit. Used as a fuel and as a reducing agent in blast furnaces.

Colliery: British name for coal mine.

Culm-driver: Worker who removes the anthracite fines that will pass through a screen with 1/8-inch holes.

Door Tender or Door Boy or Trapper: One whose duty it is to open and close a mine door before and after the passage of a train of mine cars. The doors are located intermittently throughout a mine to isolate dangerous gases and explosions.

Drift: An entry driven horizontally into a coal seam on the slope of a hill.

Footman: A laborer who adjusts the height of the gate in the chute leading from the crusher by means of a lever, to regulate flow of crushed coal into vibrating screens that separate coal into various sizes prior to shipment or refining.

Frog: The point of intersection of the inner rails, where a train or tram crosses from one set of rails to another. The frog is in the form of a V.

Headman: The hoist operator in a mine shaft.

Inundation: A flood of water.

Jig boy: A person who connects and disconnects the link or coupling connecting tubs (cars).

Rib: The side of a pillar or the wall of an entry. The solid coal on the side of any underground passage.

Runner: A person who accompanied moving tubs (cars) for transporting coal on its way to the shaft.

Sinker: A person who sinks mine shafts and puts in supporting timber.

Skip: An elongated iron or steel self-dumping bucket or car equipped with small wheels usually running on guide rails used to haul ore through the mine. Skips can be used to haul ore at ground level or can be hoisted up a shaft.

Slate-picker: Worker who removes a compact, fine-grained metamorphic rock that possesses slaty cleavage and hence can be split into slabs and thin plates. Most slate was formed from shale.

Sub-bituminous coal: Coal that contains less moisture than lignite and is mostly used to produce steam for electricity generation.

Tipple: Originally the place where the mine cars were tipped and empted of their ore, and still used in that same sense, although now more generally applied to the surface structures of a mine, including the preparation plant and loading tracks.

Tommy Box: A metal container in the shape of a slice of bread used to store sandwiches.

Trapper: see Door Tender or Door Boy

Wheeler: A laborer who pushes loaded mine cars on tracks from underground working places to haulage roads where they are hooked up to a locomotive and hauled to the surface, shaft, or slope bottom for hoisting. A pusher may, at bituminous mines, shift empty and loaded cars in and about the tipple, where coal is prepared for market.

Boys often started working in the mines and advanced to more responsible positions with age and experience. The job progression sometimes was from "Breaker Boy" to "Door Boy" to "Driver" to "Runner or Laborer" and finally to "Miner."

The pioneer, miners of the 1860s and 1870s were mostly native Americans or immigrants from northern Europe - - Irish, English, Scotch, Welsh, German, French, and Belgian. After 1880, however, more and more miners came from southern and eastern Europe - - mainly Italians, Bohemians, and Poles. In Utah in 1909, 2983 workers were employed in mining work, and the breakdown of nationalities was as follows:

Americans 37%
Greeks 23% (increased to 31% in 1912)
Italians 13%
Australians 13%
Finlanders 7%
Japanese 5%
Others 2%

If you know which mine your ancestor worked and they were United Mine Workers of America (UMWA) members and you have the Social Security number you might be able to get their work records from:

UMWA Health and Retirement Funds
4455 Connecticut Avenue
Washington, DC 20008
Attention of Records Manager

Mine safety monitoring today is a major responsibility of the United States Mine Health and Safety Administration (MHSA), U.S. Department of Labor. In 1995, the MHSA replaced the U.S. Bureau of Mines which became active in 1910. A central depository and archive for the mining information they collect is the

Technical Information Center and Library
National Mine Health and Safety Academy
1301 Airport Road, Beaver, WV 25813-9426
email: MSHALibrary@dol.gov
fax 304-256-3372
Phone 304-256-3267 or -3229
http://www.msha.gov/training/library/library.htm

This MSHA library has a fatality archive database of accident investigation files for the United States mining industry: http://www.msha.gov/TRAINING/LIBRARY/FatalRecordsSearch.asp

As of April 2004, there were 23,500 reports in this database with 32,767 names, but the collection is expanded on a regular basis. Most of the fatalities are after 1900. Nationally the database appears to list about 25% of all reported fatal accidents. By knowing the "Location of Archive Report" one can obtain a copy of the official federal report. The official federal reports are much more lengthy and detailed than the reports found in the state annual reports.

In 1998 (Reprinted 2001), the Mine Safety and Health Administration published a three volume index, *Historical Summary of Mine Disasters in the United States:*

Volume I - Coal Mines - 1810 - 1958, 280 pages
Volume II - Coal Mines - 1959 - 1998, 137 pages
Volume III - Metal and Nonmetal Mines - 1885 - 1998, 71 pages

These publications contain listings of both fatal and nonfatal accidents by date, name and type of mine, location, number killed or injured, and nature of the accident. Names of miners are not provided. However for the fatal accidents, there usually is provided a summary from the official federal accident report. These books usually only cover major fatal accidents claiming three or more lives and do not cover most nonfatal accidents. These books were initially issued as nine microfiches and are available at large libraries in the **Government Publication Reference section under Call Number L 38.2:H 62/SUM./V.1-3**.

Beginning about 1886, annual mine reports were prepared by the Utah Coal Mine Inspector. To find these reports go to a state historical society library, state archive, a large library, or a mining university or college library Internet web site and do a search on the key words of "report mine inspector Utah". To find these university and public libraries throughout the U.S., do a search on WorldCat (www.worldcat.org) through your local library web site. These Utah reports are usually found under Library Call Number TN805.U8 A3. In the state of Utah, the best sources for these reports are: The Utah State Historical Society Library in Salt Lake City or the J. Willard Marriott Library at the University of Utah in Salt Lake City. These reports may not only contain names and details for fatal and non-fatal accidents, but also cover strikes, details of mining operations at specific mines, location of the mines, production and operation details for specific mines, names of inspectors, pictures, certification for shot firers and inspectors, names of specific mine personnel, etc.

Information provided in these reports for fatal and nonfatal accidents was date of the accident, name, age and nationality of the victim, whether the accident was fatal or nonfatal, name of the mine, and a brief detailed description of the accident. Fatal and non-fatal accidents were reported 1886 through about 1916. Because 97% of Utah's coal was produced in Carbon county, it is in Carbon county where most of the mine accidents occurred.

The information (fatal and nonfatal accidents) in the attached database was taken from the Annual Reports. The following is a summary of the types and years of publication:

1896 through 1916 *Report of the Coal Mine Inspector for the State of Utah*

If you have difficulty finding the record in the referenced report in the attached database, do not have access to the referenced report, or are interested in helping add data to the database, contact Jerry Sherard, 429 South Moore St, Lakewood, CO 80226-2629 (include SASE) or email: shepard224@hotmail.com.

Below is an alphabetical index by miner's name for fatal and non-fatal mine accidents in Utah for the years 1896, 1899 - 1904 and 1907-1916. Note that the annual reports for the years about 1904 through about 1915, cover periods December 1st to November 30th of the following year, with the annual report year being the following year. December 1st through December 31st dates are always found in the future years annual report, and January through November 30th dates are always found in the annual report year. For example, an accident dated December 8, 1906, would be found in the 1907 annual report. An accident dated April 2, 1907, would be in the 1907 annual report.

Given in the index is: **the name of the victim, date of the accident, victim's age, the mine name (residence), whether fatal (F) or non-fatal (N), page and reference source, and report year** from which the information was extracted. Date died is indicated by a "d" following the date. Often, the date of accident was also the date died for fatal accidents. In Appendix I is a listing of mines with the county and mine location.

References:

1. Sherard, Gerald E., *Researching An Ancestor's Mining Accident*, published 2006, 43 pages, 1934 records, sort by city; state, mine name, and accident date given.

2. http://www.msha.gov/TRAINING/LIBRARY/FatalRecordsSearch.asp "Mine Safety and Health Administration"

3. http://www.eia.doe.gov/cneaf/coal/page/gloss.html "Coal Mining Glossary"re

4. http://xmlwords.infomine.com/xmlwords.htm "Dictionary of Mining"

5. http://www.carbon-utgenweb.com/story.html "Coal Mining Towns of National Consumer & Sweets"

6. http://www.carbon-utgenweb.com/others.html "Other Utah Mining Fatalities"

7. http://www.gendisasters.com/ut/ "Utah Mining Accidents and Explosions"

8. http://www.rottsweb.com/~wvcoal/saltlake.html "Winter Quarters Mine Disaster"

9. http://www.carbon-utgenweb.com/cgminera-l.html "Miners Killed in the Castle Gate Mine Explosion"