

# *Sutter Creek Community Benefit Foundation*

May Newsletter, 2023

## **The Most Dangerous Job in the Mines**

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What do you think would qualify for the title “Most Dangerous Job”? Would it be the guy who sets explosive charges?



How about your average hard rock miner – always running the risk of cave-ins or underground fire?



Possibly the cable drum operator? After all, if that heavy cable were to break, the sudden release of tension turned that cable into a deadly guillotine.

To be sure, every job in a deep hard rock mine was extremely dangerous, but one job stands out as particularly life threatening. That was the job of “Fireman”. This was not the guy who heroically fought deadly fires deep underground. The “Fireman” in a mine was some poor soul who was thought to be relatively expendable. He was wrapped in water-soaked burlap and given a long pole – the longer the better – with a candle on the end.





*Eight foot fireman's pole with candlestick holder on the end.*

His job was to crawl on the floor, arms outstretched, with the candle as far away as possible. The candle would ignite a (hopefully small) pocket of explosive methane gas before it had a chance to accumulate into a larger deadly pocket. This operation did not always go according to plan and some explosions far exceeded expectations.



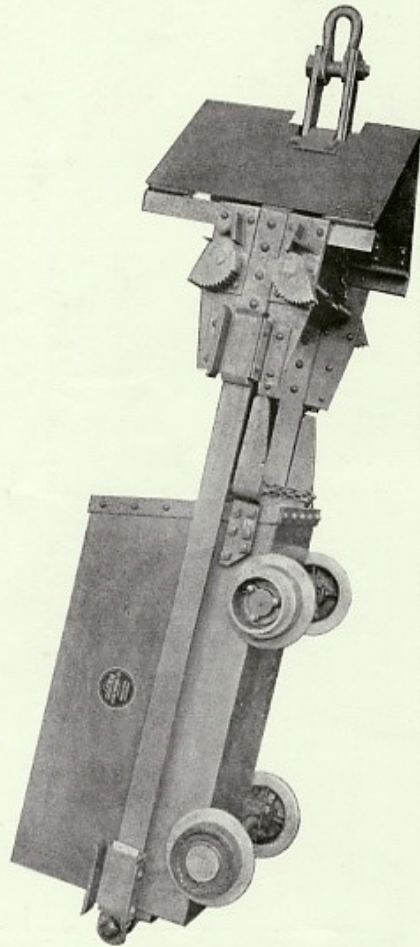
These jobs were sometimes offered to convicted criminals as a means of earning a parole. The survival rate was low and received little notice or publicity.

Another important and potentially dangerous job was that of lift operator. The lift operator, sometimes called a “skip tender”, was the fellow who ran a giant winch-like drum which was wrapped with a heavy steel cable.



This cable, which in some cases was over a mile in length, was usually attached to a large iron box called a “skip”.

# MINE SKIPS <sup>A<sub>N</sub>D</sup> CAGES



We design and build skips to suit the exact conditions at the mines.

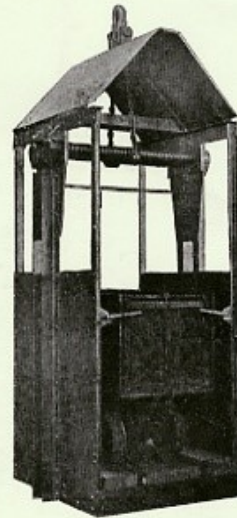
The skip shown in the cut is entirely automatic in its operations.

Extended dumping treads on the upper wheels engage dumping arches and the skip is automatically unloaded.

The body is mounted on Timken Bearing wheels and axles.

A one-piece hoisting yoke is used.

Positive safety dogs and springs insure absolute safety.

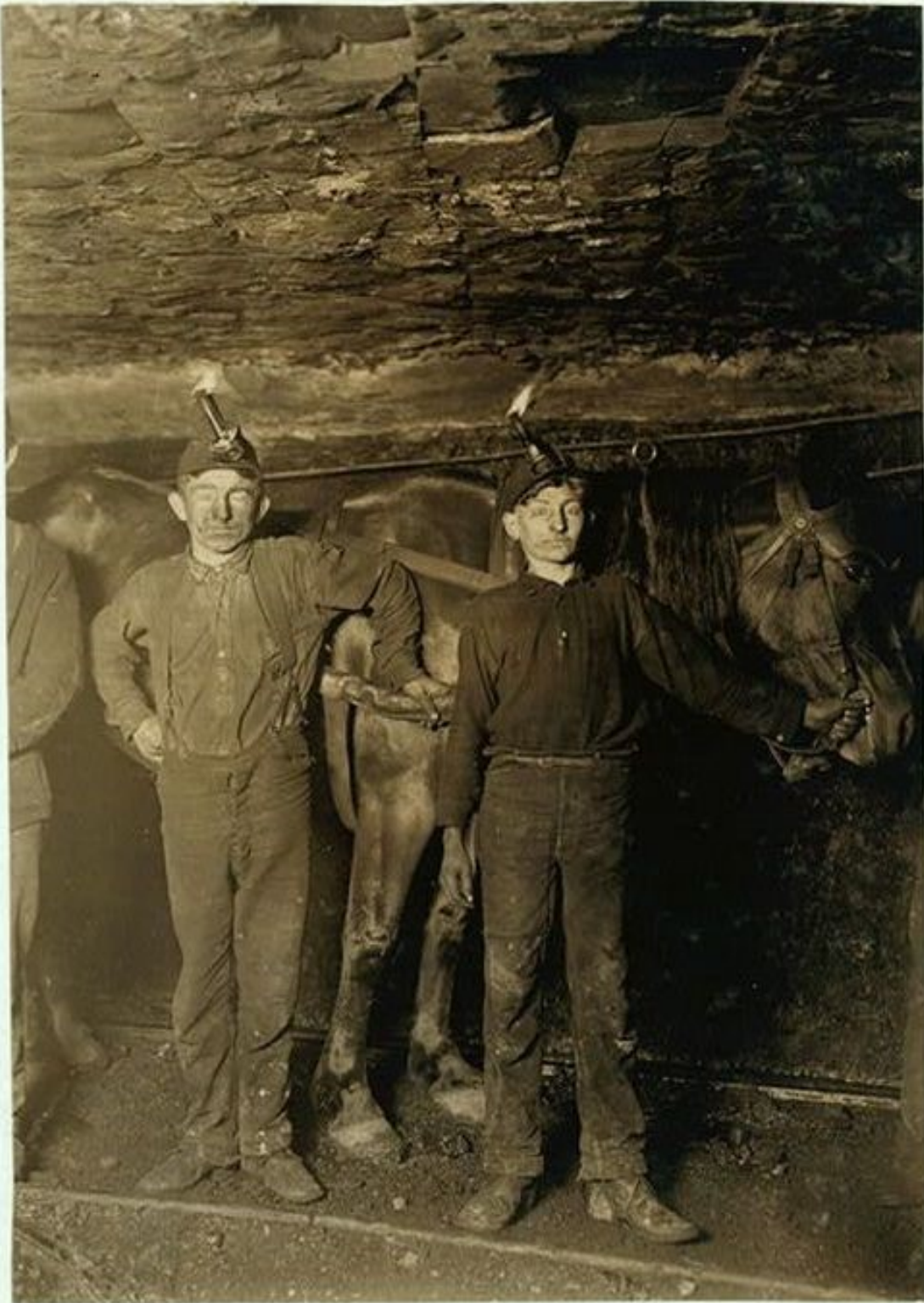


This Standard Single Deck Cage is rigidly built throughout.

It is equipped with safety dogs, and safety doors are also furnished for use when hoisting men.

**OGDEN IRON WORKS CO.**  
OGDEN, UTAH

This skip raised and lowered practically everything into, or out of, the mine. Skips could transport machinery, tool, various supplies, animals (such as mules), and the miners themselves, to different levels.



They also brought up waste rock and sometimes were even used to bail water. They were equipped with small iron wheels, much like ore car wheels, and ran up and down on rails similar to train tracks.



The rails went down at an angle so the weight of skip would hold it on the track. Lift operators frequently marked the cable to keep an eye on the amount of stretch. Cables of these lengths raising and lowering a two-ton skip would sometimes stretch several inches to several feet, so the operators had to know exactly where that skip was in order to ensure the safety of the miners.

Communication with the lift operators by stations at various levels was imperative. The crews underground needed to signal the surface when a skip was needed, as well as to be advised when one was coming.

A system of bell rings was devised which also signaled emergencies, end of the day, another shift arriving, and which level was using the skip.

MINE BELL SIGNALS		
<b>BELLS</b>		
2 - 1	TO HOIST ROCK.	(State Law)
1	TO STOP IF IN MOTION.	(State Law)
1 - 2	TO RELEASE SKIP.	(State Law)
2	TO LOWER.	(State Law)
3 - 1	MAN ON; RUN SLOWLY; MEN TO BE HOISTED.	(State Law)
3 - 2	MAN ON; RUN SLOWLY; MEN TO BE LOWERED.	(State Law)
7	AND REPEAT, ACCIDENT.	(State Law)
3 - 3 - 1	HOIST CAUTIOUSLY.	(State Law)
3 - 3 - 2	LOWER CAUTIOUSLY.	(State Law)
3 - 2 - 1	READY TO BLAST IN THE SHAFT.	(State Law)
	AFTER SIGNAL "READY TO BLAST" ENGINEER MUST GIVE HIS SIGNAL HE IS READY BY RAISING SKIP 2 FT. AND THEN LOWER IT AGAIN.	(State Law)
2 - 2	LOWER FROM STATION TO CHUTE.	
2 - 2 - 1	HOIST FROM CHUTE TO STATION.	
4 - 1	HOIST TO NEXT LEVEL ABOVE.	



4 - 2 LOWER TO NEXT LEVEL BELOW.  
 4 CHANGE DUMPS.  
 5 COLLAR OF SHAFT.

**SKIP CALLS**

Level	Bells
1	2-1-1
2	2-1-2
3	2-1-3
4	2-1-4
5	2-1-5
6	2-2-3
7	2-2-4
8	2-2-5
9	2-4-1
10	2-4-2
11	2-4-3
12	2-4-4
13	2-4-5
14	2-5-1
15	2-5-2
16	2-5-3
18	2-5-4
19	2-3-1
20	2-3-2
21	2-3-3
22	2-3-4
24	2-3-5
25	2-3-6
26	2-3
27	2-4
28	2-5
30	2-6
31	3-4
33	3-5
34	3-6
36	4-3
37	4-4
39	4-5
39 PUMP	4-6
40	5-1
42	5-2
43	5-3
45	5-4
46	5-5
48	5-6
49	6-1
51	6-2
52	6-3
54	6-4
55	6-5
57	6-6

**PHONE CALLS**

	Bells
HOIST	1 LONG
TOP	2 LONG
SKIPTENDER	1 SHORT - 1 LONG - 1 SHORT
MAIN OFFICE	1 LONG - 1 SHORT
FOREMAN'S OFFICE	2 SHORT - 2 LONG
MASTER MECHANIC	1 LONG - 2 SHORT - 1 LONG
WAREHOUSE	2 LONG - 1 SHORT
5700 SAFETY CHAMBER	7 BELLS

**5500 Level Auxiliary Shaft**

**SKIP CALLS**

Level	HOIST STATION	Bells
5550		
5700		6-6
5800		7-1
6000		7-2
6150		7-3
6300		7-4
6450		7-5

**PHONE CALLS**

Bells
1 SHORT - 3 LONG
2 LONG - 3 SHORT
3 LONG - 1 SHORT
3 LONG - 2 SHORT
3 LONG - 3 SHORT
3 LONG - 4 SHORT
3 LONG - 5 SHORT

**RULES**

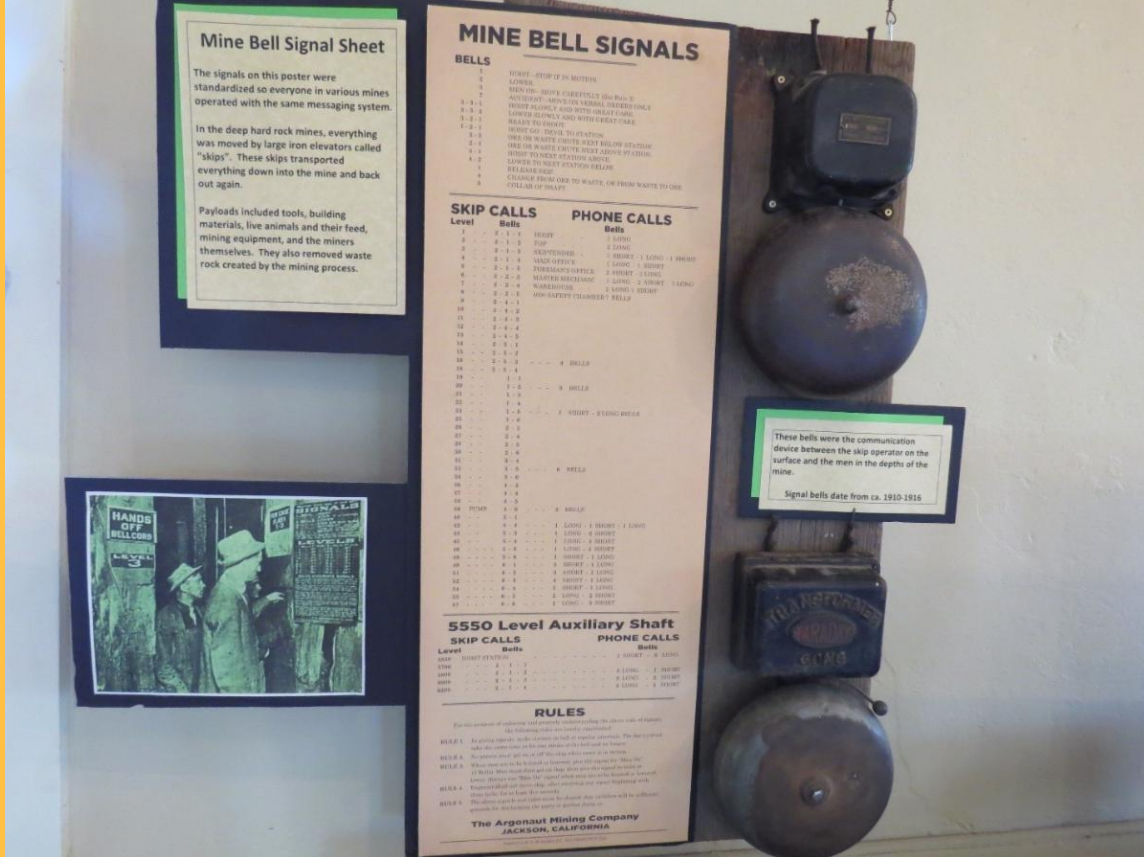
For the purpose of enforcing and properly understanding the above code of signals, the following rules are hereby established:

- RULE 1.** In giving signals, make strokes on bell at regular intervals. The bar (-) must take the same time as for one stroke of the bell and no longer. (State Law)
- RULE 2.** No person must get on or off the skip while same is in motion. (State Law)
- RULE 3.** When men are to be hoisted or lowered, give the signal for "Men On" (3 Bells). Men must then get on skip, then give the signal to hoist or lower. Always use "Men On" signal when men are to be hoisted or lowered.
- RULE 4.** Engineer shall not move skip, after receiving any signal beginning with three bells, for at least five seconds.
- RULE 5.** The above signals and rules must be obeyed. Any violation will be sufficient grounds for charging the party or parties doing so.

45954

The Argonaut Mining Company, Ltd.  
 JACKSON, CALIFORNIA

These bells were similar to school bells in size and loudness.



This bell system became standardized so that a miner or crew from the Central Eureka could be loaned to the Argonaut without having to learn the “code” all over again.

As mentioned, all jobs at a mine site had an element of danger, and many, many men lost their lives to accident, carelessness, or equipment failure.





On a positive note, these miners supported local businesses, educated their children, and contributed to the economic growth of their County and State. Their labors and sacrifices helped make Amador County the place we all love today. We celebrate the legacy and history of these important Amador miners.

AMADOR COUNTY



CALIFORNIA

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**Do you know someone who would like to receive our monthly newsletter?  
Send contact information to [info@sccbf.org](mailto:info@sccbf.org) to be added to our  
distribution list.**

The Historic Sutter Creek Grammar School is rich in Gold Rush history. This beautiful building is California's second oldest two-story brick schoolhouse. The Sutter Creek Community Benefit Foundation has restored the first and second floor making it a wonderful rental for any occasion. There are four rooms within the Historic Grammar School that can be rented.



Contact the City of Sutter Creek for information on rates and availability - (209) 267-5647 ext. 230 or email [info@cityofsuttercreek.org](mailto:info@cityofsuttercreek.org)

*Whether it's a love of our heritage, a special connection to our town's diverse, deeply rooted cultures, or a desire to improve your community, every donor's passion for Sutter Creek is unique. A donation to Sutter Creek Community Benefit Foundation is the perfect way to fund your passion and watch it prosper. By connecting people who care with causes that matter, we help ensure a stronger, healthier tomorrow. We provide a simple, powerful and highly personal approach to giving.*

**SCCBF is a nonprofit 501(c)(3) - Tax ID #87-1825043**

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