

The Allen-Liversidge carbide lamp received Great Britain Patent 27,308 on November 27, 1912. The patent was granted to Thomas Gaskell Allen, Engineer and Allen-P.B. Liversidge Portable Acetylene Company Ltd., Manufacturers, of 106 Victoria Street, Westminster, London.

In my opinion, these are two of the most unusual and interesting carbide cap lamps I have seen. There are no American carbide cap lamps like them and I am not aware of any other European manufacturer who made a cap lamp of a similar configuration. The workmanship on these lamps is excellent.

\* Issue 20 of Eureka (Fall 1996) Authors: Dave Johnson, Manfred Stutzer, Peter Appleton and Mick Corbridge



*(left) Back view shows "Bull's Horn hook which screws into threaded casting.*

# Miner's 1880's Tricks Of The Trade

*by Ted Bobrink*

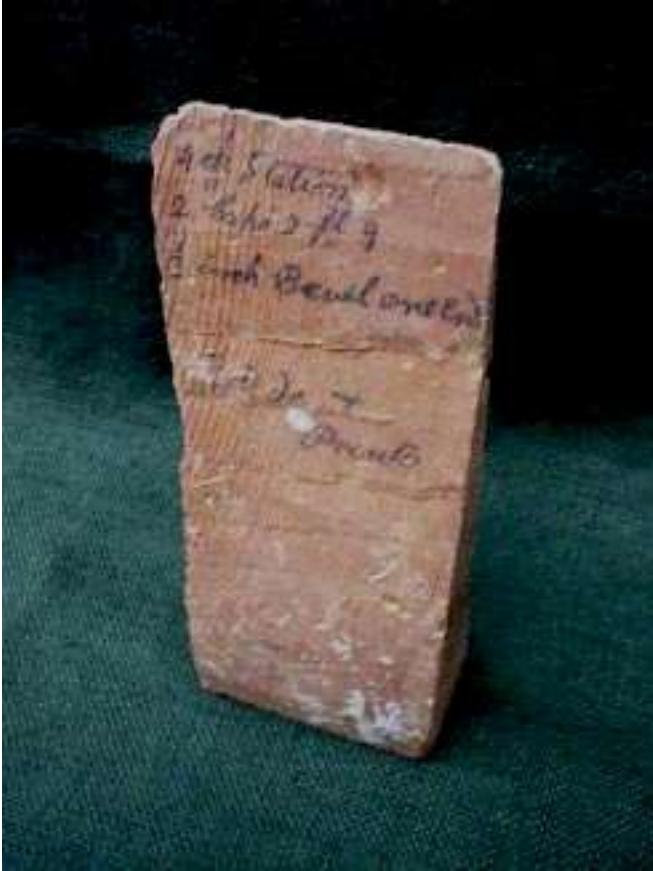
I have been exploring old abandon mines for over thirty years now, and I have read many books about the old time miners. One of the most exciting things I have learned about underground mining in the 1880s are some of the tricks of the trade that one would only discover underground, and never read about in a book. Miners just like carpenters, plumbers or any other construction worker had little tricks of their trade that they used every day at work to make their job quicker or easier. Miners tricks of the trade are things that are passed on from one miner to another. Sometimes things change and miners have to change with the times. When that happens those tricks are forgotten and the knowledge is lost forever. When the air drill was invented and utilized underground. All of the tricks of the trade of hand drilling died with the miners that drilled that way. I'm sure their were many tricks about drill steel and singlejacks that are gone forever.



*Gunsite Mine, California*

I have been fortunate over the years to discover a number of these "Miners 1880s Tricks Of The Trade" and I am going to share them with you for the first time. Some of this information I hope is unique, and to be able to share it with you is exciting. For me, sharing and preserving this great mutual interest of ours is what collecting is all about.

## Sending Messages...

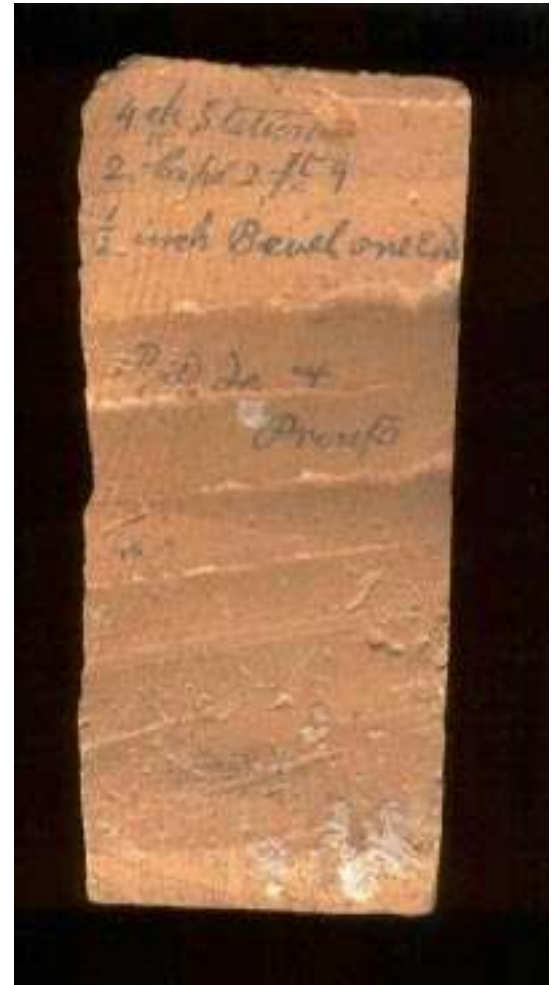


We all know that miners used mine bell signs to communicate with the surface above, But what if you needed to send a message that wasn't covered on the mine bell sign. Well, about five years ago my son David and I were exploring a new level in the Waterloo Mine at Calico, Ca. That level had been worked in the late 1880s and we were pulling out some candle box ends behind some lagging. I reached up and pulled out a stull wedge and noticed some hand writing on it. It was a note telling someone on the surface to cut him some caps a certain size. The original message was most likely sent up to the surface in the shaft bucket and the cut timber sent back down the same way. A cap is the large piece of support timber usually 8x8 that goes across the drift or tunnel and is supported by two post.

This note said "4TH STATION--- 2 CAPS 2FT 9 --- 1/2 INCH BEVEL ONE END --- P D ?? --- + PRONTO"

I am not sure what the forth line says and maybe someone who reads this article can guess. I thought the word PRONTO was cool because it is a slang word. I do know that the 4th station was level 4 of the Waterloo and it had the most workings. On a recent trip to that same area of the mine. David and I found two other notes written on wedges and I will include photos and captions with this article.

It is my belief that these wedges with the notes on them were sent back down into the mine to be used, and that is why we found them preserved underground. Reading notes like these also tell you what kind of words they used and believe it or not... I found a long note written in the 1880s on a powder box end that used the F word. I had no idea that that slang word was used that long ago as you would never read it in any of the books written that long ago.



## Lighting Safety Fuse...



My next trick of the trade was found in the famous Silver King mine in Calico, Ca. Ever wonder how the miners lit the fuse and had enough time to get away ??? I always thought they just used a longer fuse if they needed more time. Well that wasn't always the case.

We were exploring a never before found area on level 5 and having a hay day. There were candle boxes, cap tins, bottles and you name it laying every where. After we picked up the easy to see stuff, I was cleaning out an ore chute when a candle stub came flying out. When I bent down to pick it up I noticed that it

had safety fuse wrapped around it with one end sticking out. At first Jim Steinberg and I thought it was some kind of candle holder. After looking more closely you could tell the fuse was wrapped around the candle in a way that made it into a delayed fuse lighter. The fuse was tied into a knot with the end bent into the side of the candle. When the candle burned down it lit the end of the safety fuse.

For that delayed fuse lighting devise to come out of that explosion in one piece is a miracle. It is one of my favorite mining artifacts, and if not for that miracle. I don't know if this unique trick of the miners trade would have ever come to be known.



## Getting Away From The Blast...



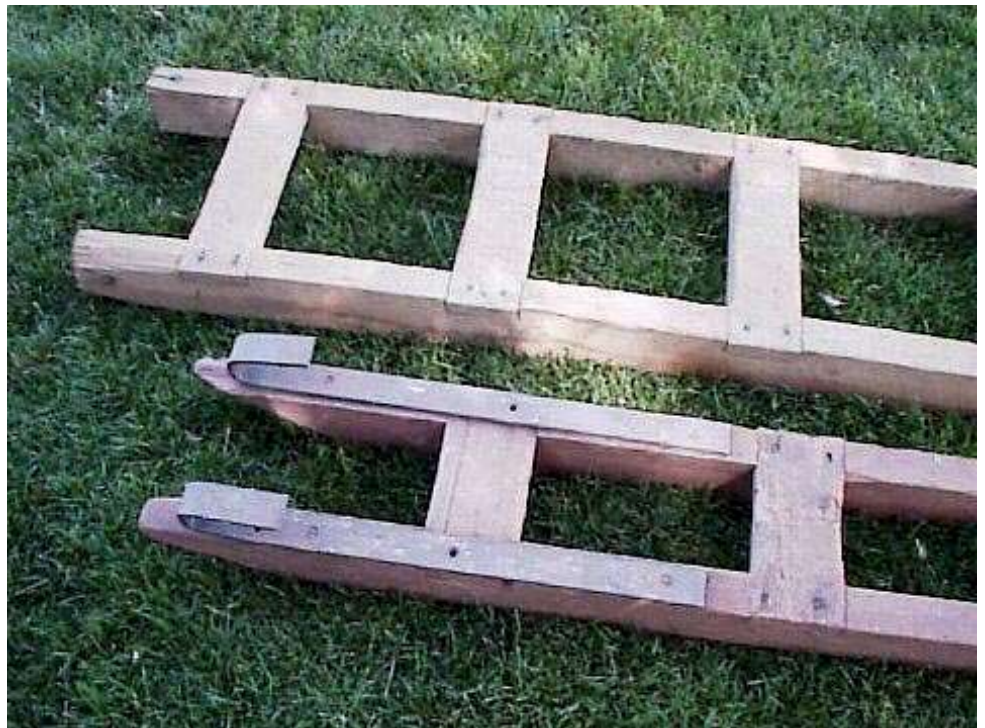
*(left) The ladder on the left is the shaft sinking ladder and you can see how narrow it is compared to the standard ladder on the right. The shaft sinking ladder came from the 3rd level of the Silver King Mine in Calico, California. The standard ladder came from the 4th level Waterloo Mine, Calico, California*

My next trick of the 1880s miners trade is somewhat related to the last trick. Ever wonder how the miners got away from the blast while sinking a shaft. If you guessed they used a ladder, you are right, but not just any ladder.

While exploring the 3rd level of the Silver King mine in Calico with Jim Steinberg and Mark Bohannon one day. I dropped down a 60' shaft, and at the very bottom I found a very unique looking ladder. The first thing I noticed was it's narrow size and two iron hooks attached to one end. It is so narrow that you can only put one foot on a rung at a time. When I got the ladder home I noticed that it fits perfectly inside the standard ladders they used in Calico. It became ap-

parent that this was a very special hand made shaft sinking extension ladder. By sliding the narrow ladder inside the standard ladder. You can adjust the length by hanging the hooks on the rungs of the standard ladder. This allows you to pull the narrow ladder up and out of the way of the blast without pulling the ladder all the way out of the shaft.

*(right) This photo shows the hanger assembly made out of standard flat strap mine rail.*





*(left) This photo shows the sinking ladder attached to the standard ladder. Note that the ladders have the rungs on the inside. This was done in all shafts where a mine bucket was used. The mine bucket would ride on the two rails and the pegs on the side of the bucket would keep it from turning. The sinking ladder has the top of the rails beveled so the bucket wouldn't hang up going down the ladder.*



*(right) This photo shows the beveled rails on the sinking ladder.*



Mine ladders are usually toe nailed into the cross stulls, but sometimes they were installed with special metal hangers like the ones in this photo. The two outside hangers are simple U-shaped spikes that were pounded into the cross stulls in the main shaft of the Waterloo Mine in Calico, California.

*(left) The elaborate hanger in the middle was hand forged by a blacksmith and used in the upper levels of the Runover Mine in Calico, California.*

## Holding The Dynamite...



Here is a photo of the hand made tamping bags we found in the 5th level Waterloo Mine square sets. The three bags at the top were found wrapped up in the 1890 news paper at the bottom.

Not all shafts are drilled from top to bottom. Some have to be drilled from the bottom to the top, and this called a raise. Drilling up pre-

sents a problem for keeping the dynamite in the hole before it goes off. Ever wonder what they used before the powder company's manufactured tamping bags ???

The miners made their own tamping bags out of news papers and we found out about this trick on our last exploring trip to the Waterloo Mine in Calico. My friend High Grader Jim Malouf found three unused hand made tamping bags wrapped up in some news paper in



the corner of some large square set timbering. The bags were formed from regular news paper and filled with sand. All of the joints were sealed with miners candle wax so they wouldn't come apart. One end of the bag is folded two sided, while the other end is folded in a circle like a roll of coins. My guess is the flat tapered end went in first and the circled end was tamped. Again this is another item that was intended to be blown to bits and never to be found. If not for Jim finding them unused, I doubt if anyone would have ever known about them.



## Short Handles...

When I first started exploring old mines, one of the first things I noticed was that every shovel I ever found underground had a short handle. I would find the little 6 to 8 inch handle ends all over the place. I doubt if you would ever read about it in a book, but I'm sure one of the first tricks of the trade a newbe young miner would learn was to cut the end off of his new shovel. This of course was done to make it easier to use the shovel in the tight surroundings of the mine while driving the narrow 5 X 7 drifts and cross-cuts.

To fill an ore car at the face of a drift, you have to turn from front to back and swing the shovel in the narrowest 5' part of the working area. This practice I'm sure caused a lot of bare knuckle strawberries, especially with an uncut handle. I even found one of these shovel ends with blood all over it, and it no doubt served as a good lesson for some poor young miner.

*(above) This photo shows two 1880s mining shovels. Most of the shovels I find underground are cut down like the one on the right. The cut down shovel was found on the 2nd level of the Burning Moscow Mine in Calico, California The standard shovel was found in the Santa Rosa Mine in Keller, California.*



If you explore old mines and have found a unique trick of the mining trade... Let us know.

*This photo shows two shovel stubs. We find these all the time underground. Note the blood stains on the bottom stub. Ouch !!*