

Lake George Gem & Mineral Club

Club News

August, 2021



LGGM Club Memberships

The period for club membership applications (January 1 through March 31st) is now closed. Although both members and non-members are welcome to attend the presentations at our monthly club meetings, only members may attend club field trips.

LGGM Club Meetings & Programs:

Our next monthly meeting will be held on Saturday, August 14 at 9:00 a.m.. Layout for the LGGM Show grounds will commence immediately after the meeting rather than having a Program of the Month.

Meetings are held on the second Saturday of each month at the Lake George Community Center (39141 US-24). Meetings will begin at 9:00 a.m. from April through September, and at 10:00 from October through March. Programs at meetings usually begin as soon as the monthly business meeting is completed.

Upcoming LGGM Club Events:

SCHEDULE OF LGGM CLUB EVENTS			
Date(s)	Event Title	Event Summary	Event Leader(s)
Sa 8/7/21 9:00 a.m.	Blue Moon Claim Field Trip	Collect amazonite, smoky quartz, etc. near Lake George	Karen Vogl and Gary Cline
Sa 8/14/21 9:00 a.m.	August Meeting Lake George Community Center	No Program Layout of show grounds immediately after the meeting.	Richard Kawamoto (Pres.)
F 8/20/21 – Su 8/22/21 9 a.m-5 p.m.	LGGM Show Lake George, CO	Annual Gem, Mineral and Jewelry Show	Coordinator Carol Kinate 719-648-9015 (call/text)
Sa 9/11/21	Meeting 9:00 a.m. Program 10:00 a.m.	Corral Bluffs – Rise of the Mammals	Bob Baker
W 9/15/21	Corral Bluffs Hike 1	Guided hiking tour (no collecting)	NEED LEADER or cancelled
Sa 9/18/21 9:00 a.m.	Calumet Mine Field Trip	Collect epidote, quartz, magnetite, etc.	Katie Sleboda 570-220-7804 And John Rakowski
F 9/24/21 9:00 a.m.	Sweet Home Mine Tour	Volunteer Appreciation Event (Tour only – no collecting)	Dave Alexander (303) 641-5567
Su 9/26/21	Corral Bluffs Hike 2	Guided hiking tour (no collecting)	NEED LEADER or cancelled

Additional Presentations, Classes and Field Trips will be added after they are confirmed.

2021 Lake George Gem & Mineral Show

Our annual **Lake George Gem & Mineral Show** will be held Friday August 20 through Sunday, August 22 on the south side of Highway 24 between the Lake George Post Office and the Granite Canyon (formerly Starkey's) store. Enter from the Post Office parking lot (37370 US-24, Lake George, CO 80827) and exit toward the Granite Canyon Store (east side of the show grounds.)

21st Annual Lake George Gem & Mineral Show



photo: Pinnacle 5 Minerals

AUGUST 20-22, 2021

9:00 am - 5:00 pm

Free Parking • Free Admission

Hwy 24, Lake George, CO 80827

www.LGGMclub.org

Annual Show Volunteer Sign-up: Please contact **Carol Kinate** at or kinatec@aol.com if you would be available to assist with the following tasks:

- assist with layout of the show grounds after the meeting on August 14
- organize the sign-up and scheduling of parking attendants
- direct parking during the show (2 hour shifts)
- tend the LGGM Club booth
- assist with children's "rockhounding" activities

We also need donations of small rocks for children attending the show.

Additional Gem & Mineral Shows

Aug 12-15 **Buena Vista Contin-Tail Rock, Gem & Mineral Show**

For more information, check <https://bvrockshow.com/>.

Location: Buena Vista Rodeo Grounds (1 mile south of Buena Vista, CO)

Aug 18-21 **Woodland Park Rock, Gem & Jewelry Show** <http://woodlandparkrockandgemshow.com/>

Sept 10-18 **Colorado Mineral and Fossil Denver Fall Show**

Location: Crowne Plaza DIA Convention Center, 15500 E. 40th Ave., Denver 80239

Lake George Gem & Mineral Club

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- Sept 10-19 **Denver Coliseum Mineral Fossil Gem Show**
Location: Denver Coliseum, Denver
- Sept 10-19 **Denver Mineral, Fossil, Gem & Jewelry Show**
Hours: 10 a.m. -6 p.m. Location: National Western Complex
- Sept 16-19 The 2021 **Denver Gem & Mineral Show** (formerly located at the Denver Merchandise Mart) will be held in conjunction with the Hardrock Summit, to be held at the Colorado Convention Center (located in downtown Denver at 700 14th Street). Visit hardrocksummit.com/ and denvershow.org/ for more details
- Oct 1-3 **Pikes Peak Gem, Mineral, & Jewelry Show**, at the Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs. Sponsored by the Colorado Springs Mineralogical Society; see <https://pikespeakgemshow.com>. This is the gem & mineral show normally held around June 1.

COMING EVENTS OUTSIDE THE LGGM CLUB: (Nearby gem, mineral, fossil and geology events that you may enjoy.)

Meetings of Nearby Geology Clubs

- **Cañon City Geology Club** www.canoncitygeologyclub.com/ccgc-programs.html 2nd Monday of each month (August 9th) at 6:00 p.m. (program TBA)
- **Columbine Gem & Mineral** <https://rockaholics.org/about/> Meetings 2nd Thursday of every month at 6:30pm MT (location TBD).
- **Colorado Springs Mineralogical Society** <http://www.csms1936.com/>
 - General Assembly – 3rd Thursday 7pm,
 - Crystal Group and Faceting Group – 4th Thursday, 7pm
- **Pueblo Rockhounds** <http://www.pueblorockhounds.org/> Cancelled until further notice.

Online Events

- **Florissant Scientific Society** For further information see: <https://florissantscientificsociety.co.education/>
- **Rocky Mountain Map Society** For further information see: <http://rmmaps.org/>
- **Western Interior Paleontological Society** (WIPS) See <http://westernpaleo.org/> for more info.
- **Denver Region Exploration Geologists Society** (DREGS) www.dregs.org/index.html

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LGGM Club News:

Field Trips:

We've been having a great field trip season so far and have a great lineup of events for the remainder of the season! Please forward any photos you have taken of the trips with photo captions to jerrolynnk@gmail.com so that we can add it to the newsletter.

Need for Volunteers:

Thanks to all the leader volunteers that have helped with making this season's trips great so far. We can't do it without you! We are looking for several folks that would like to assist with field trip coordination. This is different than leading field trips, which we also continue to need volunteers for. To keep up with our great field trip calendar, we need additional help coordinating these events. This includes coordinating a date and getting a volunteer leader (could be yourself), getting the

event onto our Field Trip site, entertaining questions about the trip, etc. These volunteers would shadow me to make the transition smooth and simple!

No-show on field trips:

Thank you to everyone that has been unregistering and communicating to me when you decide you can't make the trip. I very much appreciate it and so do other club members! That said, we are still having issues with no-shows. I'm trying to send reminders prior to the event and that is helping some, but there still is a significant number of no-shows on each trip. The club is working on a no-show policy with consequences due to this continuing issue so keep an eye out for more information here.

Thanks! Dave Alexander
(303) 641-5567

Time Assassin Field Trip: We will be doing a make-up trip for the Time Assassin likely in September.

Sweet Home Mine Tour: Many have asked about the Sweet Home Mine tour presented by Collector's Edge on Friday September 24. We have only 4 open spots for this exclusive trip and will be selecting folks to fill those slots with a lottery from the list of volunteer field trip leaders for this season. I wish there were more spots available, but that is all the mine owners would allow this year. I've heard it is an amazing 2-hour tour.

Lightning Safety Information for Field Trips:

During our summer field trips we often encounter thunderstorms. Pay attention to thunder and watch for lightning. If the thunder seems loud or nearby, or if you see lightning, head back to the on-site meeting place immediately, even if you have not heard the car horns honking or trip leaders calling out for you, and even if you haven't noticed that everyone else is leaving. Once you get back to the meeting point, the trip leader or mining claim representative may allow you to continue rockhounding nearby a little longer. If you are nearby, you can respond quickly should the trip end early.

YOU are the person who is ultimately responsible for your safety on field trips. On most trips, you can leave at any time for any reason. On those rare trips where the entire group must leave the site together, contact your trip leader or the mine owner about your concerns if you feel you need to leave earlier than the designated time. And remember to come back to the on-site meeting point if you are not sure whether the trip will be cut short due to weather. Do not wait until the planned exit time if weather may make it dangerous to stay. If you ignore potentially hazardous weather, you may jeopardize not only your own safety, but the safety of others on the trip, especially the trip leader and any mining claim representatives. This dangerous behavior may result in serious consequences such as trip leaders escorting other trip participants from the dig site, leaving you behind. On mining claims, the claim owner may even block you from attending any further field trips on their claims.

An excellent source for safety information about lightning can be found at <https://www.weather.gov/safety/lightning>. The highlighted comments below are excerpts from this source. Comments that are not highlighted are from other sources.

- Lightning often strikes more than three miles from the center of the thunderstorm, far outside the rain or thunderstorm cloud. "Bolts from the blue" can strike 10-15 miles from the thunderstorm.
- Immediately get off elevated areas such as hills, mountain ridges or peaks.
But don't go to the bottom of a ravine, Flash floods are common in our area and may bring enormous walls of water, debris or mud down on you in seconds (too fast for you to escape)
- Never shelter under an isolated tree
Lightning is attracted to tall trees. If there are clusters of small trees with an occasional tall tree nearby, you are safer standing among the smaller trees. If you don't have trees taller than you are,

run to the nearest place where you do. Crouching down in the open may not protect you from being struck by lightning.

- **Never lie flat on the ground**

Lightning can travel for miles through the ground. If you have rubber soles on your shoes, crouch so that only your rubber soles touch the ground. Rubber is a good insulator so much of the electricity from a lightning traveling through the ground may follow a more conductive path than through your rubber soles.

- Never use a cliff or rocky overhang for shelter. They are often hit by lightning.
- Immediately get out and away from ponds, lakes and other bodies of water. Water does not attract lightning, but conducts it very effectively.
- Stay away from objects that conduct electricity (mining machinery, barbed wire fences, power lines, windmills, etc)
- Most cars are safe from lightning, but it is the metal roof and metal sides that protect you, NOT the rubber tires. When lightning strikes a vehicle, it goes through the metal frame into the ground. Don't lean on doors or touch other metallic or conductive parts of a car during a thunderstorm.
- **After someone is struck by lightning, their body does not store the electricity. It is safe to touch them and to give them CPR or other medical aid if necessary.**

Field Trip Photos:

One of the first large topaz finds at the Dorris family's Topaz Mountain Gem Mine was this beautiful stone found by a young club member, Grayson Hochstetler. 0



Photo by M. Genova



Photo by Hochstetler



Additional topaz finds included those by Michael Genova, Kevin Sullivan and trip leader Steve Kahler.
Photos by J. Kawamoto

Links to Interesting Gem, Mineral & Paleontology Articles Online:

Bob Carnein sent us a link to an article about the cristalliers in the Alps and what they go through to collect fine quartz and fluorite crystals

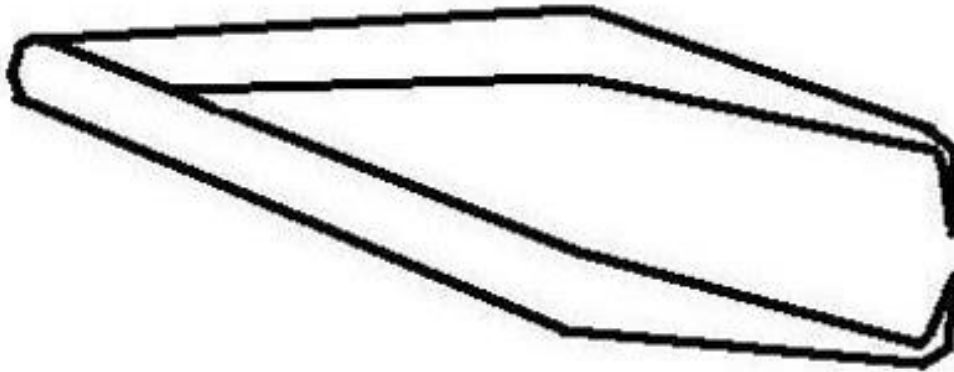
<https://www.outsideonline.com/2424416/crystal-hunters-chamonix-mont-blanc-france#close>

The latest installments of “**Bench Tips**” by **Brad Smith**

Smart Solutions for Your Jewelry Making Problems
www.Amazon.com/author/bradfordsmith

FIND THE BALANCE POINT

With odd-shaped pendants or earrings it's often difficult to find the right place to attach a bail or loop so that the piece is balanced and hangs straight. A quick way to make a tool for this is to modify a set of tweezers. Any set of tweezers will work. Spread the tips, sharpen them with a file, and bend the tips at a right angle to point towards each other. To use the tool, suspend the pendant or earring between two sharp points to see how it will hang.



DRILL BREAKAGE

Using a small drill is difficult for a beginner, especially if it is hand held in a flexshaft or Dremel. They are easily broken if you push too hard or if you tilt the drill while it's in the hole. Most problems, however, are the result of buying cheap drills that suffer from poor quality steel and/or inaccurately ground cutting edges. A good drill from jewelry supply companies is well worth the price.

Remember that drilling always goes easier with lubrication. A little wax or oil is all you need. Almost anything will work - Three and One, beeswax, mineral oil, injection wax, car oil, olive oil, or one of the commercial cutting waxes. The lubricant helps to move chips out of the hole and reduces friction of the drill against the side of the hole, keeping the drill cooler.

Happy hammering,

- Brad Smith
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Keeper of Cripple Creek Light: the Miners' Candlesticks

By Steven Wade Veatch

Miners in the Cripple Creek mining district once drilled, blasted, and mucked deep underground by the light of a candle. Not only did these candles illuminate their work areas, but they also provided shadows for Tommyknockers to hide in.

In Cripple Creek, as in other mining districts, mine owners supplied miners with candles; however, they required miners to buy the holders for the candles. Miners called these holders “candlesticks.” Most candlesticks were mass-produced and sold through mining supply stores and catalogs—even Sears and Roebuck sold miners’ candlesticks. These generally had similar designs, but there were a large number of patented variations.

To make it easier for miners to replace damaged or worn out candlesticks, a purveyor of these basic devices visited Cripple Creek and other mining towns and peddled them directly to the miners.



Figure 1. A man, next to the donkey in the right side of the photo, is selling candlesticks to miners at a mine in the Cripple Creek mining district. Candlesticks are piled on the back of one burro (right side of photo) for display. A group of miners, some carrying lunch pails, gather around him. The photo, by an unknown photographer, is dated November 12, 1897. From the Olla D. Burris collection. Photo courtesy of the Cripple Creek District Museum.

An entire industry developed producing mining candles made from stearic acid and paraffin wax. The stearic candles used in Cripple Creek had many benefits: They emitted little smoke and were suited for some of the poor ventilation found in underground mining. These candles gave a steady source of light and were not easily blown out in a draft. Candles were easy to handle and simpler to transport than oil lamps. Mine owners viewed candles as less of a fire risk than oil lamps. A miner could easily put out a candle that tumbled over before it set mine timbers on fire. If a miner knocked over an oil lamp its destructive flames spread rapidly.

Candle manufacturers set the standard diameter of candles at 0.75 inches. Candle lengths varied, but averaged about 9 inches (Bartos, 2010). Manufacturers wrapped candles in sets of six and packed them into boxes of 120 or 240 candles. The cost of a 240-unit box was between \$3 and \$5 (Bartos, 2010). Miners went through three or four candles per day (Bartos, 2010).

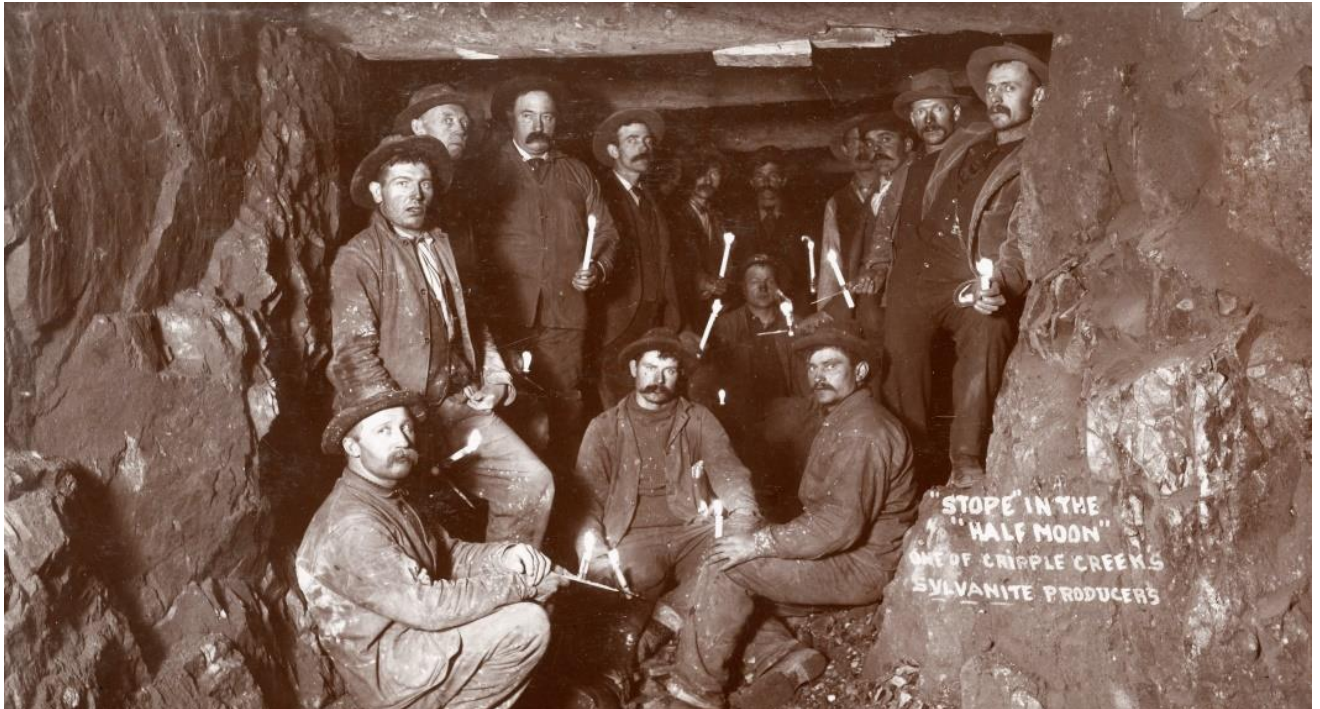


Figure 2. Miners with burning candles in their candlesticks take a short break while in a stope in the Half Moon mine. Unknown photographer and date. From the Olla D. Burris collection. Photo courtesy of the Cripple Creek District Museum.

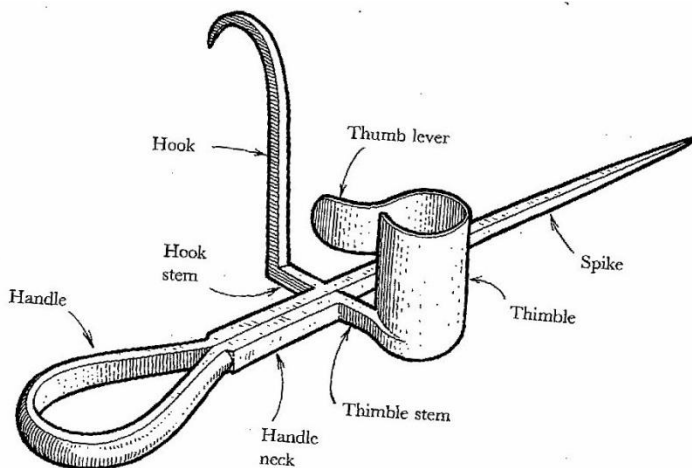
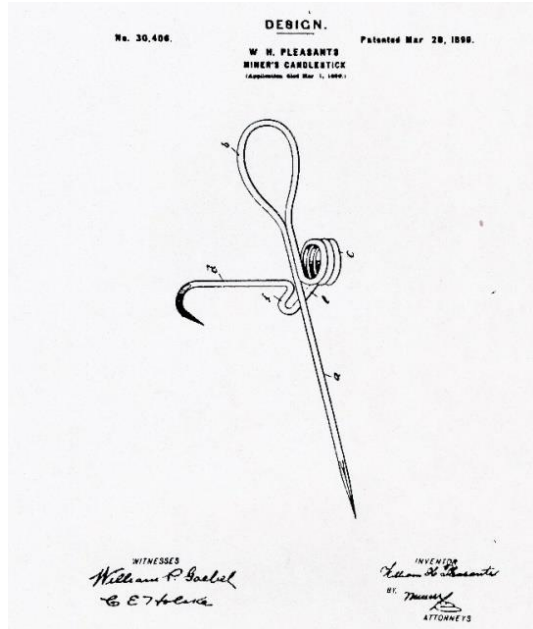


Figure 3. Diagram of a typical miner's candlestick. (Wilson, and Bobrink, 1984).

Candlesticks used in metal mining began to appear in California in 1860 and were used in mines throughout the American West (Bartos, 2010). The traditional miners' candlestick was simply an iron spike, about one-quarter inch in diameter, averaging 12 inches in length. Miners hammered the iron spike on candlesticks into a mine timber or a fracture in a rock surface (Weicksel, n.d.). A miner with a burning candle in a candlestick could put it close to where he needed light to work. At the end opposite of the candlestick's point is a loop that acts as a handle (see figure 3).

A circular holder (thimble) near the handle or center of the spike holds the candle perpendicular to the spike. Next to the candleholder is a hook to hang the candlestick on rocks when the miner could not find any mine timbers or rock cracks to drive the spike into. It was also used to attach the candle to his cap.



Candlesticks came in many varieties and sizes: Some were handmade by a local blacksmith, homemade by a miner, manufactured, unpatented or patented (table 1 shows candlestick patents held by Pikes Peak area inventors). Some candlesticks folded up around a central pivot point, allowing a miner to slip it into his pocket as he walked into the mine (Pohs, 1989). Others were simple in their design (see fig. 4).

Figure 4. The March 1899 patent design for William Pleasants' candlestick. Pleasants was a resident of Víctor (Ramsdell and Wagner, 1982.)

Table 1. Miner's Candlesticks Patents

As applied for by residents of the Cripple Creek Mining District, Colorado Springs, and Colorado City, Colorado.

Applicant	Residence	Date	Patent Number
William Lincicum and Charles F. Lewis	Colorado City	Nov. 1895	549,925
William H. Pleasants*	Victor	Mar. 1899	D-30,406
William H. Pleasants	Victor	June, 1899	D-30,991
Amede Bernier	Victor	Aug. 1899	631,270
Christopher Peacock*	Altman	Aug. 1900	656,209
Charles Cornell and Felix John Troughton	Victor	Jan. 1901	665,067
John B. Lindahl*	Colorado Springs	Oct. 1905	801,465
Harry D. Pelham and Charles P. Kaba*	Colorado Springs	Aug. 1913	1,069,170

*Known to have been manufactured. Source: compiled by Ed Hunter from Ramsdell and Wagner.

The LINDAHL Improved MINERS' CANDLESTICK

(PATENT APPLIED FOR)



**ADJUSTABLE
REVERSIBLE
INTERCHANGEABLE**
Length 11 3/4 Inches

**DRY MATCHES
ALWAYS AVAILABLE**

**MATCH BOX HANDLE
IN BRASS
ALL OTHER PARTS
FINE TOOL STEEL**

**MINING MEN FIND IT
VALUABLE ALSO AS A
PROSPECTING TOOL**

**YOUR MONEY REFUNDED
WITHOUT QUESTION
IF UNSATISFACTORY**



PREPAID ANYWHERE IN UNITED STATES, FOR \$1.00
LINDAHL MANUFACTURING CO., 1643 CHAMPA ST., DENVER, COLO.

Figure 5. Advertisement for the Lindahl candlestick patented by John Lindahl in 1905. Lindahl lived in Colorado Springs. The candlestick was adjustable, reversible, interchangeable, and featured a case containing matches that replaced the loop handle in this model. From the S.W. Veatch postcard collection.

The two largest candlestick manufacturers were Nathan Varney of Denver and the Ludlow–Saylor Wire Company of St. Louis. A 1911 catalog advertised Varney candlesticks that cost six dollars per dozen (50 cents each). More elaborate candlesticks advertised in *Mining Science* in 1914 cost \$1.50 each.

Candlesticks were simple, reliable, and easy to use. Cripple Creek miners used candlesticks for many years until carbide lamps and electric cap lamps made them obsolete in the early decades of the twentieth century.

Miners found other uses for candlesticks. Crafty high graders used a hollow area in the curved handles of specially made or modified candlesticks to conceal high grade gold ore with candle wax or mud before they went home (Pohs, 1995). With their sharp, piercing points, candlesticks were used as weapons to settle arguments in the heat of the moment (Gosling, 1969). In 1903, Colorado's governor James H. Peabody escaped being killed by an assassin at a meeting he was scheduled to attend. The assassin intended to use the spike of a concealed candlestick as the murder weapon. The governor skipped the meeting and instead enjoyed a football game at the Colorado School of Mines (Pohs, 1995).

Today, candlesticks can be found in private and museum collections. They are a symbol of the underground miner and the hard work he did.

Acknowledgments

I thank the Colorado Springs Oyster Club critique group for reviewing the manuscript, and Dr. Bob Carnein for his valuable comments and help in improving this paper.

References and Further Reading:

- Bartos, P., 2010, A light in the darkness: U.S. mine lamps, the early years—candlesticks, oil lamps, and safety lamps: *Mining History Journal*, vol. 17, p. 45-63.
- Gosling, E. M., 1969, Miners' Candlesticks: *Spinning Wheel*, vol. 25, Jan-Feb, p. 21.

Pohs, H. A., 1989, *Early Underground Mine Lamps: Mine Lighting from Antiquity to Arizona*: Museum Monograph No. 6, Tucson, Arizona Historical Society, p. 7-16.

Pohs, H. A., 1995, *The Miner's Flame Light Book*: Denver, Flame Publishing Company, p. 121-214.

Ramsdell, J. and N. S. Wagner, 1982, *Patents, Miners' Candlesticks*: Carson City, NV, privately published.

Weicksel, S., n.d., Mining Charity, Retrieved from <https://americanhistory.si.edu/fr/node/47976> on 5/18/2021.

Wilson, W. E. and T. Bobrink, 1984, *A Collector's Guide to Antique Miners' Candlesticks*: Tucson, The Mineralogical Record.

Monthly Mineral Quiz



Last Month's Mineral: Quartz var. Chalcedony, SiO₂.

Chalcedony is a fibrous form of silica, essentially composed of minute quartz crystals stacked parallel to their long (c) axes or parallel to the perpendicular (a) axes. In some cases, it is intergrown with another form of silica called moganite. Because of its fibrous structure and the presence of water, chalcedony's hardness (6 ½ to 7) and SG (2.6) are a little less than those of quartz. Its fibrous structure and common presence of impurities make it a good material for cabochons, and agate, jasper, chrysoprase, heliotrope, and many other opaque or translucent quartz "gems" are essentially chalcedony.

Monthly Mineral for August (Carnein photos and collection).



The monthly mineral for August is a favorite among collectors because of its often attractive colors and habits. It commonly occurs as botryoidal aggregates (see first two photos above), but a few localities (namely Tsumeb, Namibia; right, above) are known for fine crystals. Low hardness of 4 to 4 ½ and very good cleavage make this mineral a poor candidate as a gemstone. It's a common mineral in the oxidized zones of mixed sulfide (lead-zinc-copper) deposits. Eckel (1997) lists numerous Colorado localities, but most don't produce attractive specimens. For that, you need to travel to New Mexico or Mexico. What is this common secondary mineral?

Eckel, E.B., 1997, *Minerals of Colorado, Updated and Revised by R.R. Cobban, et al.*: Golden, Colorado, Fulcrum Publishing.



The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geography and history of the Pikes Peak/South Park area, Indian artifacts, and the great outdoors. The Club's informational programs and field trips provide opportunities to learn about Earth science, rocks and minerals, lapidary work and jewelry making, and to share information and experiences with other members. Guests are welcome to attend, to see what we are about!

The Club is geared primarily to amateur collectors and artisans, with programs of interest both to beginners and serious amateurs. The Club meets on the second Saturday of each month at the Lake George Community Center, located on the north side of US Highway 24 on the east edge of town, sharing a building with the county highway shops. **In the winter, we meet at 10:00AM. From April through October, we meet at 9:00AM, to allow more time for our field trips.**

Our organization is incorporated under Colorado law as a nonprofit educational organization, and is a member of the Colorado, Rocky Mountain, and American Federations of Mineralogical Societies. We also sponsor an annual Gem and Mineral Show at Lake George, where collectors and others may purchase or sell rocks, minerals, fossils, gems, or jewelry. Annual membership dues (Jan. 1 through Dec. 31) are \$15.00 for an individual (18 and over), and \$25.00 for a family (parents plus dependents under age 18). New memberships and renewals are only accepted Jan 1 through March 31 each year.

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