

EUREKA!

The Journal of Mining Collectibles

Issue 52 — July, 2021



Cover illustration: Harvey Harris silver ingot. See article by Wendell Wilson.

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Early Western Blasting Cap Tins

Douglas Miller

The earliest blasting cap tin used by Western Cartridge Company is identified by Andy Martin as a "Western, No. 6, Plain." Andy dates the tin to between 1930 and 1950. It is red with metallic gold edges and lettering. Andy's Blasting Cap Tin Catalogue states that the tin comes in both 100-count and 25-count examples, and he illustrates the tops of both tins in his catalogue. John Kynor tells me that plain 25-count tin also comes in a dark red.



WESTERN, No. 6, plain



WESTERN, No. 6, 25 CAPS, plain

I would love to find an example of the 25-count tin. Here's the 100-count tin from my collection.



The most distinguishing characteristic of this tin is its plain lettering and the fact that it contains no detailed warnings on the sides or ends. This early tin is quite desirable in my view, and it is hard to find in good condition.



When I first started collecting blasting cap tins, I was on the lookout for this tin because Andy said it was “rare.” I spotted this tin on eBay some years ago. From the photos, I could only catch a small glimpse of one end of the tin, but I suspected that this was the early tin I was looking for. This Western tin is analogous to the early, square Illinois tins I wrote about on April 18, 2021.



I noted that there are two versions of the early, red Illinois tins in my collection. One is bright red with gold lettering, the other is a darker red, brown-toned tin, also with gold lettering. The brown-toned tin in my collection is noticeably taller than the bright red tin. The Western tin in

my collection closely matches my bright red Illinois tin both in color and size. My early Western tin is 1 5/8 inches (4.1 cm) tall. The bright red Illinois tin in my collection is also 1 5/8 inches (4.1 cm) tall. The tops of the two tins also have identical dimensions, 2 1/2 inches (6.5 cm) by 2 1/8 inches (5.5 cm). John Kynor tells me that the Western 100-count tin also comes in the darker red color but is the same height as the bright red tin. John has written that both the Illinois and Western tins appear to have made by the same company, but the maker of the tins is unknown.

John Kynor has written that Western never used a round tin. Western did make an oval, 10-count tin. It is blue with white lettering and is extremely rare. As a result, it is represented in very few collections, although Jack Purson's collection is among them. The 10-count oval tin has warnings that are more similar to the later Western tins, so my guess is that it was produced after the Western, No. 6, Plain tins. Here's a photo of some of Jack's rare 10-count tins. The Western tin is on the left.



Western Cartridge Company was founded by Franklin W. Olin in 1898.¹ Olin had received his engineering degree from Cornell University in 1886. After working at powder mills in the eastern United States, he was one of several investors who, in 1892, established the Equitable Powder Company at East Alton, Illinois. Olin founded Western Cartridge Company to manufacture sporting powder and shotgun shells for settlers of the Great Plains. His shotgun shells used primers manufactured by large, eastern ammunition firms. In 1900, the firms with primer manufacturing facilities raised prices to reduce competition from independent manufacturers of shotgun shells, like Western Cartridge Company. In response, Western formed Union Cap and Chemical Company (U.C.C.Co.) as a joint venture with Austin Cartridge Company of Ohio. U.C.C.Co. manufactured primers, blasting caps, and .22 and .32 rimfire cartridges at East Alton. The Western ammunition bore a W.C.Co. headstamp and the product packaging bore a Maltese Cross as part of the company's trademark.²

¹ Much of this description is taken from the Wikipedia entry for Western Cartridge Company.

² The Cartridge Collector's Exchange, <https://www.oldammo.com/december17.htm>, visited June 5, 2021. The image of the early Western cartridge box and a portion of the description are taken from this website.



Union Cartridge and Chemical Company made blasting caps for sale under its own name, and used embossed tins bearing the Maltese Cross and the initials U.C.C.Co.



Although Western was primarily an ammunition manufacturer, the manufacture of blasting caps was natural for the company because the processes for drawing metallic cases for primers, rimfire ammunition, and blasting cap shells were quite similar. Moreover, the same chemicals used in cartridge primers were also used in blasting caps. In 1909-1910, Western Cartridge Company changed from the Maltese Cross trademark to a diamond with the Western name inside. John Kynor believes the earliest Western blasting cap tins with the plain logo and sides probably appeared after WWI. At some point, Western Cartridge Company also made blasting caps for Illinois Powder Company, which would explain the strong similarity over the years between the Western and Illinois blasting cap tins.

Gold and Silver Ingots! Bars of History

Wendell Wilson

As mining memorabilia goes, very few collectors can afford to specialize in antique gold or silver ingots from famous mining areas. They are too rare and generally way too expensive, often favored by deep-pocketed coin collectors. And yet they are gorgeous and historically rich...everything we like in a mining antique! So I thought it would be fun to assemble some examples for the *Eureka* readership to enjoy. We can always dream, even if we can't own.

The ingots pictured here are all currently in unknown private collections after having been put on the market through auction houses such as Holabird-Kagan, Stack's and Heritage (from which most of the accompanying text was extracted, especially from the descriptions written by Fred Holabird). Many ingots are known that carry only the name of the assayer and the weight and fineness; of particular interest to us, of course, are those that can somehow be associated with particular mines, mining areas or mining men. It is one thing to own a nice candlestick that was used on the Comstock, for example, but it's something else to own an actual piece of the silver that Comstock miners worked so hard to recover.

Consolidated Virginia Ingot

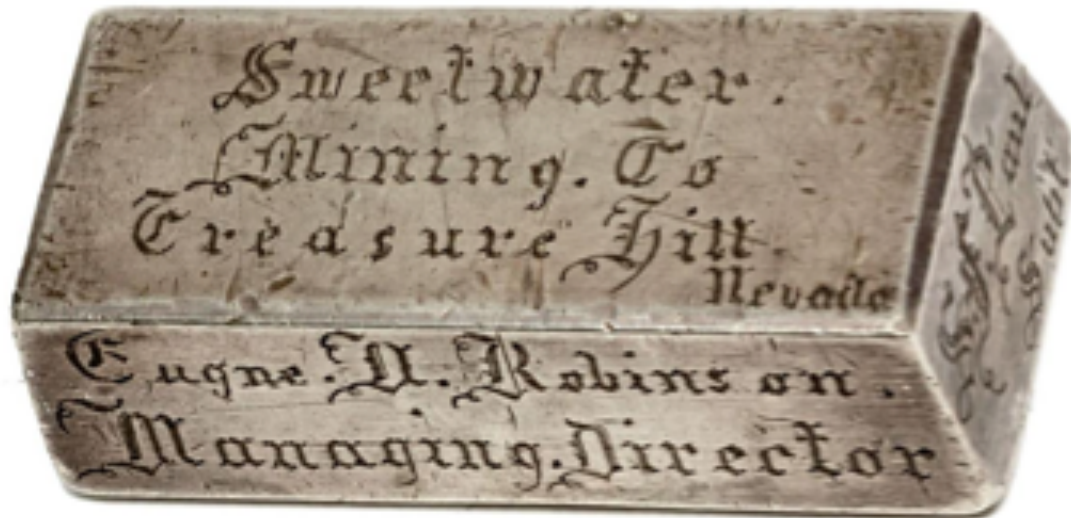


This large silver ingot is from the Comstock's most famous mine, the Consolidated Virginia. It weighs 27.85 ounces, and is 978 fine silver, 008 fine gold. The Con-Virginia was the second largest single mine producer on the Comstock, which ultimately produced over 250 million ounces of silver and 9 million ounces of gold. A major open pit mine is still in production there today, with reserves in the one million ounce gold-equivalent category (gold and silver combined). The original bullion punch for this ingot was donated to the Mackay School of Mines Museum decades ago, along with the bullion punches from many of the other major Comstock mines. Which is a good thing, as those punches could be have been used to create fake ingots that would be essentially undetectable. Date: circa 1900. Holabird Auction 2016; est. \$15,000 to \$25,000 (failed to sell).



Harvey Harris Ingot

This ingot is considered to be the finest and most desirable of all Nevada silver ingot, and is also from the Territorial period (an added plus for collectors). It is one of the best of the original ingots that were part of the John J. Ford collection of coins and Western assayers' ingots (auctioned by Stack's Auction house in 2007). It was made by a California Gold Rush assayer named Harvey Harris (1814-1894), a native of Denmark who moved to the Comstock in 1859. The stamping includes the "seeing eye" logo as seen on the Harris and Marchand gold bars recovered from the wreck of the *S.S. Central America*. It is one of only two known Harris silver ingots with this "seeing eye" emblem, and is by far the best of the two. It weighs 12.12 ounces and assayed 083 fine gold and 905 fine silver, the equivalent of \$34.97 at the time. The ingot has a lengthy history recounted in *The Rush for Gold* (2008, Holabird-Kagan Americana, p. 106-110). It carries two other names: M. W. Irvin (a resident of Gold Hill) and Mrs. Jane Jackson (a black woman, also a resident of Gold Hill), as indicated by the punch marks on the sides of the ingot. It is dated "AUGT. 1864," shortly before Nevada achieved statehood on October 31 of that year. Holabird Auction in 2016; est. \$55,000 to \$75,000 with a reserve of \$27,500 (failed to sell).



Sweetwater Ingot (ca. 1883-1887)

This silver ingot, issued by the Sweetwater Mining Company, was part of the Western Collections of Richard Gooding, a major Texas collector who passed away a number of years ago. He had important collections of guns, Wells Fargo memorabilia, silver ingots and mining ephemera, all now long distributed. This trapezoidal ingot is engraved on all six sides and burnished along the top edges. At 6 ounces, it measures 1 x 2 x 1/2 inch, and is marked as follows:

Top: Sweetwater Mining Co. Treasure Hill, Nevada

Front side: Eugene D. Robinson, Managing Director

Right end: S.F. Paul, Supt. [Superintendent]

Back side: Chas W Havemeyer, President (scratched through)

Left end: F. W. Bouton, Secy. [Secretary]

Bottom: 6.0zs

The ingot appears to be an exhibition ingot used for public display, since it is not presented to any one person, or made by an assayer for a specific mine. It is one of less than five ingots known from the White Pine region of Nevada. The Sweetwater Mining Company was formed around 1883, having purchased or leased mine properties from the British-funded Eberhardt & Aurora Company. The key mine in their holdings was the Original Hidden Treasure mine—one of the best mines in the district—but they also owned the Stafford and several other properties on the north end of Treasure Hill. Treasure Hill was one of two main mining camps in the White Pine region (the other being Hamilton) which were integral to the White Pine Rush of 1868-1869. The district was perhaps most famous for a “boom and bust” mentality, though production was nearly continuous for 100 years in different parts of the district.

British investors quickly tied up all of the key mines, which left little room for speculators staking claims on worthless ground. The Sweetwater Mining Company had working sites at the north end of Treasure Hill as early as 1884, and had 14 properties all together. From 1883 through the end of 1884 the Company had precious metal receipts of \$73,350. The Sweetwater Mining Company ran a 900-foot tunnel to the lower areas of the Hidden Treasure mine during 1883-1884, and planned another 450 feet in 1885. The tunnel was being driven to search for

deeper ore. The mine had been a winner for the Eberhardt and Aurora Mining Company, but the lack of near-surface ore, combined with fires at the mills in 1872, contributed to their temporary demise. Eberhardt & Aurora successfully found some deeper ore at the Ward-Beecher mine in 1875, but they gave up in 1885 after spending a reported \$5 million in exploration with little to show for it. They sold off or leased their various properties, including the Hidden Treasure mine, to outside investors that included Havemeyer, Robinson and others.

While the district produced a reported \$22 million from 1868-1885, little detail of the later period is discussed in Jackson's book *Treasure Hill* (1963). The district, however, never completely died. According to Roscoe Smith in *Mineral Resources of White Pine County* (1976), the mines at Treasure Hill produced a little ore all the way through 1966. Activity by the Sweetwater Company appears to have ceased by the end of 1887. Stock certificates are known from the Sweetwater Mining Company.

The men whose names are engraved on this ingot are a typical cross section of the 19th- century Nevada mining culture. One was a New York financier, one was a Nevada mining manager, another was an assayer, and another may have been a "corporate secretary."

Charles Havemeyer was a New York sugar merchant. He was part owner of a sugar refinery in New York City owned by his family. In the late 1870s, five different Havemeyers (brothers?) owned three different businesses on Wall Street, nearly all adjacent to each other, including Havemeyer, Estwick & Co., Havemeyer Bros., and Havemeyer & Elder. Charles lived on Long island. His scratched out name suggests that the ingot never belonged to Havemeyer, and that he may have left the company after the ingot was engraved.

Eugene D. Robinson, managing director. Robinson appears to have been a Western mining man. He owned a store in Hamilton, where he seems to have amassed some wealth, which was partially parlayed into mining properties. Robinson is credited with building a large mill at Seligman, near Treasure Hill, around 1886. (Seligman had originally been called Leadville.) Robinson's name appears on a number of Treasure Hill area stock certificates, indicating that he was a very active mining man locally.

S. F. Paul, mine superintendent, was born in Missouri in 1832. He was an assayer at Treasure Hill in the 1870s to 1880s, and by 1900, when the town of Hamilton was all but gone, he had moved to the new mining camp of Ely, Nevada and established himself as an assayer there. Paul was a county commissioner of White Pine in 1885 when the tragic and massive fire hit Hamilton and burned the court house. Paul was involved in a shooting on 31 March 1886: He shot and killed James F. Rielly, an old time merchant and postmaster in Hamilton, who was involved in a postal fraud scandal. Paul himself became Postmaster of Treasure City in 1879 and later of Hamilton in 1892.

F. W. Bouton, secty. Bouton may have been a lawyer in New York. He is not found in Nevada records, San Francisco records (where most of the western mining companies were headquartered), or other easily searched mining records. As a mining secretary, he would likely have been a broker or lawyer.

Holabird Auction 2012; Est. \$15,000 to \$20,000. Sold for \$11,000.



Vulture Mine Ingot

This extremely rare gold ingot is from the famous Vulture mine near Wickenburg, Arizona, probably cast shortly after Arizona became a state in 1912. Had it been made earlier it would have said “A.T.” or “Arizona Territory.” It is one of two ingots that were sold by an old Arizona family to an Arizona coin dealer in 2020. This one is the larger of the two. Fred Holabird ultimately acquired them both and had them analyzed at the American Assay Labs in Sparks, Nevada. The ingot shown here weighs 423.04 grams, and is 825 fine gold and 150 fine silver—almost exactly the same composition as the reported bullion values from the 1911-1914 period at the Vulture mine. The texture and markings are also consistent with other known Vulture mine ingots of similar and older vintage, suggesting that the ingot was cast around 1912 to 1914.

The Vulture mine was among the most famous gold mines in western Arizona. The deposit, situated within a large breccia pipe, was discovered in 1863 by Henry Wickenburg, one of the first prospectors in the area. The first mill was constructed on the Hassayampa River in 1866, at the site of the town later named for Wickenburg. The mine operated for at least 20 years before closing temporarily, then reopened around 1907, after two new wells were drilled to supply water for drilling and for the stamp mill operation. The Vulture Mining Company was formed in 1908, and major production followed.

Over 3000 feet of underground drifting was carried out for exploration and development of the orebodies. It turned out that the main orebody had been severed by a fault, and a portion had been down-dropped 300 feet. The lower ore zone ran a half ounce to 1.5 ounces of gold per ton. Production of ore in 1912 reached about 20,000 tons; 33,000 in 1913, and 36,000 tons in 1914. This was the period during which the ingot was produced and kept as a souvenir of a very successful mining operation. Production came to a halt during World War I, but exploration has continued into modern times.

Holabird Auction 2021; Est. \$25,000 to \$30,000; sold for \$31,000.



Slocum Ingot

This presentation silver ingot is engraved "From Geo. W. Cook to Col. J. J. Slocum Leadville Col June 1881 965 fine." It weighs about 23 troy ounces and measures 3 1/2 inches long and 1 1/8 by 13/8 inches across. No maker or assayer are indicated. It came to auction from a Boston family collection, and is one of only three known Western precious metal ingots with an engraved mountain scene on it.

George W. Cook (1851-1916) enlisted in the Indiana Voluntary Infantry at the age of 15, after running away from home. He served as a regimental clerk and drummer boy. After the war he went back to school, then moved to Chicago, where he took his first quality job with the Louisville & New Albany & Chicago Railroad. Somehow, that job led him to Leadville, Colorado, where he joined the Denver & Rio Grande Railroad as Division Superintendent. It was apparently there that he met up with J. J. Slocum (to whom he presented the ingot in 1881), an associate of railroad magnate Russell Sage. Cook became a popular man about town, and was elected Mayor of Leadville, serving from 1885 to 1887.

Cook was also an "agent" for a number of major companies doing business in and out of Leadville, probably including companies owned by Russell Sage. In 1888 he became a sales agent for the booming giant coal company of Colorado Coal & Iron. He was also appointed agent for the Missouri-Pacific Railroad in their Colorado-Utah district. That year, an Immigration Bureau was formed and he was appointed vice president. Cook was elected as a Republican Congressman for Colorado in 1906, serving 1907-1909.

In 1895, Cook was appointed an Assistant Manager of the Colorado Midland Railroad, which was moving an office to Leadville. He was also active in mining, particularly in the 1890s. He

capitalized on the demand for manganese in 1899, signing a contract with the Illinois Steel Works for 60,000 tons of manganese to be shipped from the Garden City mine in California Gulch at Leadville.

Col. Joseph Jermain Slocum (1833-1924), the recipient of the presentation ingot, was born in Syracuse, New York. He enlisted in the Union Army in 1862, and was commissioned as a Captain and Commissary of Subsistence by Abraham Lincoln, before being assigned to Gen. Ormsby Mitchell's staff. After the war he engaged in business with his wealthy brother-in-law, Russell Sage (owner of more than 40 railroad lines), and in 1891 narrowly escaped death from the explosion of a dynamite bomb in their office, set over a financial dispute.

Holabird Auction, 2021; Est. \$210,000 to \$25,000; sold for \$12,500.



Sargent Ledge Ingot

This unusual silver ingot (ex J. J. Ford Collection when it was sold in 2007) is in the form of a presentation plaque, with a hole for (presumably) carrying on a watch chain. It was made by engravers F.W. Schultz & Son, and is marked on the back "F. W. Schulz e. fil. VIRGINIA CITY," Nevada Territory. According to the inscription, it was presented to A. Bateman by his friends on Christmas Day of 1862, and is made of silver from the Sargent Ledge, Ferguson [sic] Company, presented in Buena Vista, Nevada. Weighing about 3 ounces, it measures 1.7 × 2.1 inches, and is about 5 mm thick.

The ingot was given by "mutual friends" to Abraham G. Bateman, owner of the only hotel in Buena Vista (an early name for Unionville, Nevada). Bateman was 27 years old at the time. He was born in rural Pennsylvania around 1833 to parents of German origin, and probably came west at the tail end of the California Gold Rush, or perhaps specifically to Nevada at the onset of the Comstock and other silver rushes near there, including Unionville. Bateman had sold his hotel in Buena Vista by 1864 and moved on to another mining camp. He probably wandered about for several years, since he did not register in any US Census except 1880, when he resided

in Alameda, California, listing his occupation as mine owner. He must have valued the ingot as a memento, since it has been carefully preserved.

Bateman may have loaned money or provided free lodgings to the "mutual friends" for a share in their Sargent Ledge claim. Such a loan, called a "grubstake," was a very common practice at the time. On Christmas day, December 25, 1862, the mine owners gave this ingot to Bateman in appreciation. "Buena Vista" refers to the small mining town where Bateman had his hotel.

The "Ferguson" (Ferguson?) Company may have consisted of several Ferguson brothers who were living in Virginia City at the time. According to the 1862 Territorial Census. W. N. Ferguson was foreman of the Poorman Gold & Silver Mining Company, while J. A. Ferguson was a bartender at the Nevada Saloon. The Ferguson group was still actively mining in May of 1863, reporting "rich assays" from the discovery of the Miami Ledge.

The Sargent Lode was located centrally in the Buena Vista mining district, and was among the first claims staked there in 1861. Within a year of its discovery, a public company of the same name was formed. In May 1863, the first meeting of the shareholders of the Sargent Gold and Silver Mining Company was held in Unionville. The mine and lode were named after Aaron A. Sargent, a California congressman who led the effort in "procuring the annulment in the Corporation Act of Nevada Territory." An active mining man, he was highly popular in Washoe County.

The mines at Unionville may have been discovered as early as 1859, according to the 1863 Territorial Directory, perhaps the result of prospecting on the heels of Pacific Railroad exploration. The first claims were staked in 1861 and the associated mining camps immediately sprang up. Towns were built and settled by the summer of 1862, when "there were probably 100 houses erected in three months." "This is without a doubt the richest mineral district yet discovered in Nevada Territory," wrote J. Wells Kelly, the author of the 1863 Nevada Territorial Directory.

Incidentally, one of the early claim stakers at Unionville in 1861-1862 was none other than Samuel Clemens (Mark Twain), who arrived there in the winter of 1861; he staked several claims and wrote about his adventure in *Roughing It*.

The Sargent mine, meanwhile, may have been purchased by the Minitowok claimants. All through 1863, the mine was shipping silver bullion. "The rock has yielded \$400 per ton on an average," reported a writer for the *Mining and Scientific Press*.

F. W. Schultze, who engraved this ingot, arrived there in late 1862, just missing the canvassing for the 1862 Territorial Directory. The ingot was probably made by Assayer Leopold Kuh or E. Ruhling, the two leading assayers in Virginia City at the time. By about 1870, Schultze had left the Comstock, and does not appear in any US or foreign census, before or after the Comstock.

Stack's Auction, 2007.



James Ingot

This ingot was engraved as a gift from J. and E. James of Leadville, Colorado, presented to their (or his) parents, commemorating the occasion of their 50th wedding anniversary on April 10, 1887. Thus the parents must have been wed in 1837.

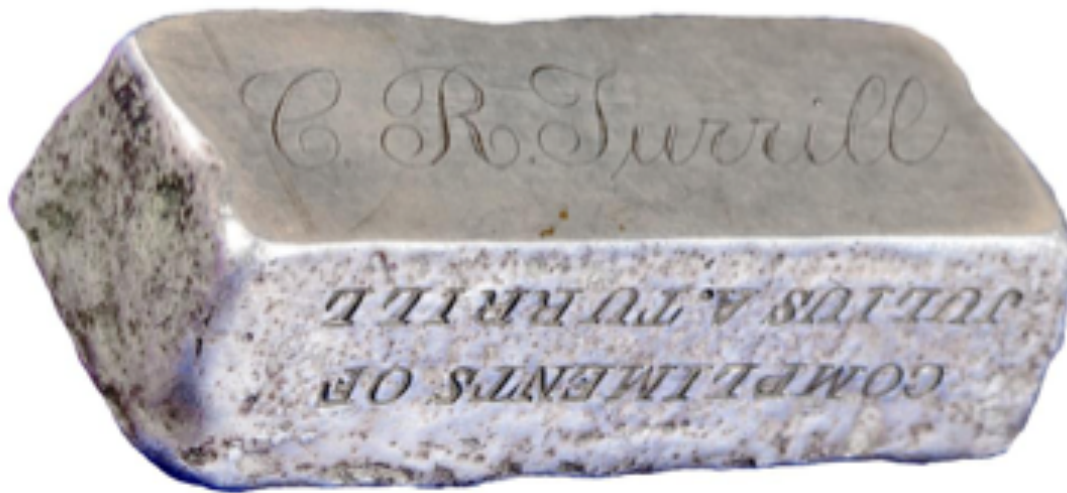
John Edward James (born 1848 in Wales) appears on the 1880 Leadville, Colorado census as a miner, along with his wife Emma (“J. and E. James”). John was the foreman of the Little Silver mine east of Leadville from 1882-1886, and continued as a miner or engineer well into the 1890s. Anyone in Leadville could probably have purchased an ingot of silver and had it engraved, but it seems probable that this particular bar came from the Little Silver mine.

Leadville, Colorado was founded in 1877. The Little Silver was one of a group of mines that were discovered on Fryer Hill during the height of the Leadville-Fryer Hill kerfuffle, when on September 19, 1879, competing miners filed more than seven mining claims on a previously overlooked spot on Fryer Hill. The great discoveries at Fryer Hill had taken place just two years earlier, when Horace Tabor and two grubstaking miners found rich ore near the surface. A rush had ensued, and soon hundreds of claims were staked, but the prospectors had missed a few areas, and the oversight was discovered in 1879.

The Little Silver mine was in peak production those first few years, and by 1881 had paid \$200,000 in dividends.

Weighing 5.82 troy ounces of silver, this ingot measures $\frac{3}{4} \times 2\frac{1}{2}$ inches and is decoratively engraved “From J and E James Leadville, Colo” on top and “To Father and Mother on their 50th Wedding Anniversary Apr 10th 1887” on side.

Holabird Auction 2012; Est. \$15,000 to \$25,000; sold for \$16,000.



Turrill Ingot

This silver ingot is engraved from Julius A. Turrill of White River, Nevada to his nephew Clayton R. Turrill of Burlington, Vermont, presented ca. 1874. It weighs 5.15 Troy ounces and measures $\frac{3}{4} \times 2$ inches wide and a half-inch tall.

Julius Turrill became involved in prospecting, mining and the mercantile business in an exceptionally remote section of central eastern Nevada—at a time when there was hardly any regional infrastructure or written historical records. He was born in Shoreham, Vermont in 1829, just 40 miles south of the big city of Burlington. A branch of his family remained in the area for decades, including his nephew, Clayton Turrill, a long-time Burlington resident. Julius never had children but developed a close relationship with Clayton.

Gold was discovered in California in 1848 and the rush began in 1849; silver was discovered in the Comstock Lode in 1858 and a rush took off there in 1859. In late 1868, prospectors hot off the Comstock and other discoveries found rich silver ore in a remote section of Nevada called “White Pine” about 140 miles east of Austin, Nevada and about 250 miles west of Salt Lake City. As the ensuing Rush to White Pine caught fire in the national press, the mining camps of Hamilton, Treasure City, Eberhardt, Shermantown, Chloride and others sprang up where hundreds of small mines were opened. Soon big bullion shipments were the news of the day.

Almost immediately, Clayton and Julius were caught up in the news, and sometime around early 1869, Julius decided to strike out West to make his fortune as a silver miner. Clayton stayed in Burlington and kept Julius supplied with newspaper and magazine articles about the latest discoveries in Nevada. Example:

March 22, 1869: White Pine County: Great Discoveries of Silver. ... The rush of adventurers to this region is said to be altogether unexampled, and the accounts warrant the belief that nothing so rich as the White Pine Mines has ever been found. ... Mr. (Ross) Raymond wrote officially and prosaically to the Secretary of the Treasury (about the) Eberhardt Mine. “Descending the shaft on rope,” says he, “we found ourselves among men engaged in breaking down silver by the ton. The light of our candles disclosed great black sparkling masses of silver ore on every side. The walls were silver,

the roof over our heads silver, the very dust which filled our lungs and covered our boots and clothing was a great coating of fine silver. ... Cities are rising there like exaltations. All around Treasure Hill, which is the most extraordinary of these silver deposits, shops, warehouses, lager beer saloons are going up..." (*Burlington Free Press* March 22, 1869.)

Julius Turrill appears on the 1870 Nevada census as a "miner" living in "White River." The Nevada 1875 mid-decade census lists Turrill as a resident of (rural) Lincoln County, which undoubtedly was White River or nearby. Turrill failed to make fortune mining, but he must have done fairly well. Sometime in the late 1870s he moved to Silver Reef, Utah, just over the Nevada/Utah border in Washington County, and had enough money to open a grocery and provisions store there.

In Nevada, Julius learned that small ingots were a type of a Western trophy, a miner's custom that went back decades if not more. Ingots were commonly given as presents. For example, the Burlington newspapers reported that the first infant born in the White Pine mining region of Nevada received several thousand dollars in silver bars as birthday gifts. With this custom in mind, Julius had a 5-ounce ingot made to give his nephew in the early 1870s, and had both their names engraved on it. The ingot was so rough in shape that one face had to be ground flat and polished for the engraving of Clayton's name.

Turrill died in 1889. His will is on file in the Salt Lake City digital records. At the time of death he owned stock in several Comstock mines, had \$2800 in the bank, had property worth \$17,150, and owned cattle valued at \$3000. He never married, and made Clayton his executor.

Holabird Auction 2021; Est. \$8,000 to \$12,000; sold for \$4,700.

Sharon-Dodge Ingot

Not many dinner place settings come with an engraved silver presentation ingot...complete with the dinner menu on the back side! The above example is one of several from a dinner held at the Palace Hotel in San Francisco on February 8, 1876, to honor William Sharon, hosted "by his friends on the Comstock Lode." It is engraved for the seating of George S. Dodge, and is the first of several Sharon ingots to surface publicly that involves a dinner participant of major importance in Nevada mining.

The Palace Hotel was the grandest establishment on the West Coast, built by California banker William Chapman Ralston. Sharon was Ralston's right-hand man, virtually running all of The Bank of California's operations on the Comstock. Sharon had succeeded Ralston as Bank president after Ralston's suicide a few months earlier. Just prior to that, Sharon had been elected to the US Senate, representing Nevada.

For the dinner, Palace Hotel Manager Warren Leland was told to spare no expense. The hotel was lavishly furnished and flowers were everywhere. The event was very private, though there were many who tried to attend. Twenty men were seated – Sharon and 19 of his closest friends. All 20 received an engraved and personalized silver ingot with their place setting. It was reported that all the attendees were all old friends of Sharon's, from long before their involvement with

the Comstock Lode. The list of attendees includes some of the West's and East's most prominent politicians, bankers, military men and businessmen.



To save the reader eye-strain I have transcribed the French menu and provide translations of the various courses, each paired with a particular wine:

MENU

Huîtres [Oysters]

Chablis

Consommé Royale

Sherry Isabella

Saumon sauce Hollandaise [Salmon with hollandaise sauce]

Sauterne

Boudin Blanc à la Richelieu [White boudins, Richelieu-style]

Chateau Latour

Filet de Bœuf à la Providence [Filet of beef, Provençale-style]

Champagne

Paté de Foies Gras [Duck or goose liver paté]

Chateau Ychem

Timbales de Volaille Americaine au Senateur [Tartlette of American poultry, Senatorial-style]

Clos du Vougeot

Cotelettes d'Agneau sauté au pointes d'asperges [Sautéed lamb chops with asparagus points]

Sorbet

Bécassines au Cresson [Waterfowl on cress]

Chateau Margaux

Salade à la Française [French salad]

Dessert

The ingots so excited the news media that they were fully described the next day in the *San Francisco Examiner*:

At each plate were glasses for eight different kinds of wine. The napkins were folded flat, and on each one a delicate bouquet. Beneath the napkin was a bill of fare engraved on solid silver, dug from the Comstock lode, and highly polished... Everybody went away from the dinner with an ingot in his hand.

George Sullivan Dodge, the recipient of the ingot shown above, was a decorated Civil War veteran, who was brought to the West Coast around 1871 to manage the big new silver company in Eureka, the Eureka Consolidated. The mine was so rich that it rivaled the best of the Comstock, ultimately producing over \$20 million from 1873 to 1906 alone. Dodge's office was in San Francisco, right in the center of the Montgomery Street business section where most of the financial dealings of the Comstock mining barons took place. Dodge was appointed the first president of the Company, with the attendant job of getting the mine into profitable and large scale production. He was in charge of hiring the best mining men and putting together a mining crew to rival the best on the Comstock. Within a decade, the Eureka Consolidated became one of the largest producing silver mines in the history of the West.

Holabird Auction; Est. \$15,000 to \$20,000; sold for \$12,500.



Candelaria Ingot (1885-1900)

The above ingot is inscribed from the "Candelaria mine, San Dimas, Mexico"; it dates from 1885 to 1900 and bears the fancy initials "DM," perhaps for the mining company president Daniel M. Burns. It weighs 6.6 ounces and measures $\frac{3}{4} \times 2$ inches. The main office for the mine was in San Francisco. At the turn of the century, ingots such as this one may have been given to a handful of company investors to create excitement and show the successful growth of the mine.

Paulson (1981; “The legal battle for the Candelaria mine in Durango, Mexico, 1890-1917,” *Journal of the Southwest*, **23** (3), p. 243-266) documented the long and difficult history of the

mine. The Candelaria deposit was first located in 1783 by a storekeeper named Juan José Zambrano. The mine was near San Dimas, a small town on the Guarisamé River. Zambrano built three tunnels to facilitate removal of the ore from veins 5 to 9 feet wide. During his lifetime, Zambrano is said to have recovered between 55 million and 100 million dollars in silver and gold. By the time of his death in 1807, Zambrano had millions in banks in England and owned a huge amount of property in Durango City.

The mine fell into disarray after Zambrano’s death, and Mexican politics changed after the 1810 revolution. Because the mine was inactive, Mexican law considered it to be abandoned and open to being claimed by others. Brothers Miguel and José Vicente Laveaga staked their claim and became the next owners of the mine, but they had trouble coping with water problems.

Mark Brumagim (later known as Mark Birmingham), a forty-niner, received a report in 1863 stating that the Candelaria mine had great potential. The ores consisted of gold, native silver and black “sulphuret of silver” (acanthite); assays ranged from \$200 to \$1,120 per ton in gold alone. Brumagim and some fellow investors from San Francisco decided to form a corporation and buy the mine. In July of 1863, Brumagim and friends incorporated the La Candelaria Mining Company of San Francisco after signing a “rehabilitation” contract with the Laveaga brothers, who sold them 23 of the 24 shares in the mine, along with the right to work 5,249 feet of the lode. Joseph G. Rice, Brumagim’s brother-in-law, was hired to manage the mine.

However, things did not go as planned, as the company had problems dewatering the mine. It also had to put money into modernizing its stamp mill. The company soon ran out of money and had to reorganize in New York as the Durango Silver Mining Company. Brumagim still held the Laveaga shares, and in 1865 he purchased their lone remaining share for \$5,500. Rice, however, made the purchase in his own name instead of Brumagim’s, and did not immediately transfer it to Brumagim.

In 1866, after the 5th of May defeat of the French in Mexico, the political environment once again became unstable. The new company had continued to spend money to rehabilitate the mine but it went into receivership in 1869; its assets were sold at auction to the major shareholders of the Durango Mining Company of New York, including Brumagim. In 1880, sixteen years after Americans took control of the Candelaria, the drainage tunnel was finally completed, but the mine was still unable to turn a profit. The disappointed investors negotiated a renewable three-year lease (with option to buy) with Columbus Waterhouse and Associates of San Francisco. They poured more money into the mine by adding several miles of compressed-air pipe for drilling and ventilation. Waterhouse also built a tramway, new crushing mills, and instituted a more efficient amalgamation process. By 1886, the mine had still not produced any profits for its investors, even though it was producing and selling bullion. It was at this juncture that Brumagim was swindled out of his ownership of the mine.

Otto Braunsdorf became the new mine manager after Rice. Waterhouse wanted to own the mine free and clear, so Braunsdorf suggested that the Waterhouse’s managing director, Henry Weil, “denounce” the mine—that is, declare it to be abandoned. Denunciating a fully operating mine was illegal under Mexican law, but Daniel M. Burns, Waterhouse’s general manager in the San Dimas district, decided to take direct action. He filed a petition with Ramon Castro, the local political chief and federal mining agent, denouncing the Candelaria, alleging that the mine and

its annexes along 3,200 meters of the lode had been abandoned. The New York company directors, upon Waterhouse's request, voted in May (without stockholder approval) to sell the

Candelaria to him. Castro promptly accepted the reports of two mining experts, both employed by Burns, confirming the abandonment of the mine, and officially recognized Burns as its new owner.

After learning about the swindle, Brumagim spent the next several years of his life trying to regain ownership of the mine and the profits it had finally realized. He started pursuing his case in the U. S. court system and went through both the civil and criminal court systems in Mexico. He appealed to foreign diplomats as well as the U. S. ambassadors to Mexico without much luck. His sister even signed an affidavit in her capacity as the administratrix of her husband's estate, saying that Brumagim was the true owner of the last Laveaga share. Nothing Brumagim did seemed to work, despite the fact that he had a good case.

Brugamim was still trying to pursue his day in court at the start of the 1910 Mexican Revolution, and died in 1914 without regaining ownership of the mine and the millions he was cheated out of. However, in 1917, the regime of President Venustiano Carranza nullified various decrees and decisions made between February of 1913 and September of 1914, including the decision to deny the Birmingham company possession of the property. In December of 1917 the Federal District Court in Mexico City finally declared the fraudulent denunciation null and void.

The Candelaria Gold and Silver Mining Company was authorized to take possession of the mine, but it refused, preferring instead to pursue its claim for losses against the Mexican government. For reasons that are not entirely clear, the claim was never adjudicated. It was pending as late as 1937, at which time the United States claims commissioner was attempting to locate the company's stockholders. As a result, the Candelaria remained in the hands of Burns and his Consolidated Candelaria Company.

Holabird Auction, 2012; Est. \$5,000 to \$10,000; sold for \$4,500. A similar piece sold at Stacks in January of 2001.



Candelaria 1902 Ingot

This one-of-a-kind presentation ingot from the Candelaria mine at San Dimas, Mexico (see the above entry for history) is inscribed "Compliments of Col. D. M. Burns, June 1902." Burns was the mining company president at the time. It probably commemorates the completion of the mill expansion in 1902, and may have been one of several made to give to San Francisco investors (though no others have turned up). It weighs 6.6 ounces and measures about $\frac{3}{4} \times 2\frac{1}{4}$ inches.

Heritage Auctions, 2008; offered at auction but failed to sell.



Monumental Mine Ingot

This presentation ingot from the Monumental mine in Grant County, Oregon, is dated Christmas 1880. It weighs 6.86 ounces, measures $\frac{3}{8} \times \frac{1}{4} \times \frac{2}{4}$ inches, and is accompanied by a suede pouch imprinted with the words “Compliments of the Bank of Oregon City.” Interesting that a bank was giving away silver; the circumstances of the give-away are unknown.

The Monumental mine was discovered in 1870 and had a total production of about \$100,000 in ore prior to 1928. Two other ingots are known from the same mine. The front side, in fancy lettering characteristic of the period, is engraved “Christmas 1880.” At the top of the back side is the Monumental mine hallmark in the usual sans-serif font.

Heritage Auctions, 2018; sold for \$4,080.



Booth-Corwin Ingot

This presentation silver ingot is engraved “E. Booth New York” on the top side, “from F. L. Corwin” on the front, “Pioche” on one end and “Nev.” on the other. It measures 1¾ inches long and a little over half an inch wide and tall. There are no markings for weight or fineness.

According to the 1870 census, Frederick L. Corwin was an agent for an unnamed Express Company in Hamilton, Nevada. He was born in New York in 1844, the son of William and Mary Corwin; the family moved to St. Louis Missouri, where William worked as a “hatter” (proprietor of a hat shop). He was not associated with Wells Fargo, whose agent at the time was Homer S. King, later a very prominent San Francisco broker. The only other express company operating at the time was the Hamilton, Eberhardt and Shermantown Express, followed in 1872 by the Hickox & Company Express, both of which advertised in the *White Pine News*.

Corwin is also not mentioned in Jackson’s *Treasure Hill*, Read’s *White Pine Lang Syne* or Patera’s work on *Hamilton and Treasure*. As an express agent, Corwin had the opportunity to meet all of the passengers coming and going from Hamilton, which was the center of the White Pine mining region. Fred Holabird’s hypothesis is that E. Booth was a woman, since her name is enclosed in two hearts. She may have been a passenger or an acquaintance from home.

Express agents in the Pioche/Treasure City/Hamilton region were taking on a risky job. Their mining camps were far from any other civilization, with perhaps Austin, Nevada the closest large mining camp; but the nearest city of substantial size was Salt Lake City. Stage robberies were a constant danger, and agents had to be careful with the many bullion shipments leaving daily. At times there were reported to be as many as ten stages a day entering or leaving Pioche or Hamilton.

This is the first silver ingot to surface from Pioche, a major silver mining camp in central eastern Nevada. Pioche produced \$133 million in bullion from the 1860s to 1958, a conservative estimate. The town was a major eastern Nevada mining camp in the 1870s, and today still retains much of its charm.

Holabird Auctions, 2012; Est. \$12,000 to \$18,000; sold for \$13,750.



St. Bernard Commandery Ingot, 1892

The Knights Templar held a national gathering in a prominent American city every three years, an event known as the Triennial Conclave. The 25th Triennial Conclave was held in Denver in August 1892 and was attended by Knights Templar Commanderies from throughout the United States. As the Silver Anniversary conclave, the 1892 meeting took on much added significance, especially because Colorado was legend for its silver mines.

The conclaves of the Knights Templar, as well as special gatherings of other fraternal organizations, were often great celebrations held in conjunction with a public parade. These parades featured the members in full formal regalia. The costumes of the Templars are among the most colorful and artistic of the many fraternal organizations. At their triennial conclaves, the host venue would create and present unique special awards to the commandery drill team that presented the best “Exhibition Drill.”

With the 1892 Conclave being held in Denver, it was natural that the Denver elite would create a memorable commemorative presentation piece that would capture the importance of Colorado’s silver mining industry as well as the symbolism of the Knights Templar. An engraved silver ingot was decided on as the perfect commemoration. With luck, it would endure for centuries. The Chamber of Commerce Committee probably secured the silver from its key mining member, Edward Eddy, General Manager of the largest smelter in Denver, the Omaha and Grant Smelting & Refining Company. The group arranged with one of the dozen or so Denver engravers to create the ornate scenes, vignettes and creative mastery shown by the ingot. A beautiful scene depicting the Mount of the Holy Cross (highly revered by the Templars), located in central Colorado near Leadville, is engraved on the front face of the ingot. This carried special significance because in the Middle Ages the symbol of the Templars was a Knight with a cross and a sword. Consequently the Mount of the Holy Cross was adopted as a symbol for the American Templars.



At **470.5 ounces** of silver (over 32 pounds!), the St. Bernard Commandery ingot ranks as the largest American 19th-century silver ingot extant. It is so heavy and important that it was carried in the procession in Denver on a litter held by four Knights in full uniform, as shown in the above newspaper illustration.

The St. Bernard Commandery drill team from Chicago, under the direction of Sir Adam Henry Johnson, gave an exhibition that outclassed their rivals. The Chicago drill team was so polished, that awards at the conclaves had been suspended because the Chicago Commandery always won. This created internal grumbling, but it was decided to once again open up the competition for the 25th conclave. As expected, the special award of the engraved silver ingot was presented to the Chicago St. Bernard Commandery, Number 35, by the Denver Chamber of Commerce, with the names of leading members engraved on the end of the ingot.

Normally the Templars shun publicity, particularly on an individual basis, but this event was well publicized in Denver newspapers including the *Rocky Mountain News* as well as in the *Daily Inter Ocean* in Chicago, home of the St. Bernard Commandery, No. 35. The Knights were usually composed of the leading citizens in their community and, although fairly secretive, their annual conclaves were quite public affairs, lavishly celebrated and accompanied with a generous amount of pomp and ceremony. The 25th Triennial Conclave was no exception, and some 35,000 visitors arrived in Denver for the festivities (on the first day alone!), with perhaps a quarter of them being Knights representing every major city in the United States. Two hundred eastern trains arrived in one day carrying participants and visitors alike. A special contract carried out by the Denver Consolidated Electric Company illuminated miles of Denver's streets with colored stringers and powerful searchlights.

The names of seven officers and directors of the Denver Chamber of Commerce Committee that presented the ingot are engraved on one end of the ingot. They are as follows:

William R. Harp (1847-1902), a founder and superintendent of the Royal Gorge Smelting Company, founded in Canon City in 1883. Born in Canada, he had moved to Leadville in 1895 to manage the Union Smelter, and he participated as the Grand Marshall of the Leadville Ice Palace Festival in January of 1896.

Edward Eddy (1840-1896) was born in Cornwall England and graduated from the Kensington School of Mines, then worked in the mines of Cornwall, becoming an expert in milling technology and sampling techniques. He arrived in Georgetown, Colorado in 1871 and built what was reputed to be the first successful concentrating plant in Colorado. Eddy partnered with William H. James in establishing the Silver Plume Sampling and Concentrating Works. He then moved to Leadville in 1878, setting up a sampling works (and mill?) by July, 1878. His business was so successful that he began buying up mines in Leadville, some with his friend and partner James, amassing a small fortune. In 1880, as production at Leadville boomed, he merged with James B. Grant's smelting company, and the duo became one of the most powerful regional smelters. Eddy stayed on as General Manager of the new company, the Omaha and Grant Smelting and Refining Company, which ultimately became the largest smelter in Denver, located where the Denver Coliseum stands today. This smelting company was one of the most successful in America, and became one of the original eleven principal companies purchased by the Guggenheim group in 1899, later becoming known as ASARCO. It is most probable that Eddy supplied the silver for the 1892 commemorative ingot. Eddy was one of the richest men in Colorado at the time of his death.

Edward Monash (1849-1920) was a German immigrant from Poland who came to the United States in 1865. At first he worked as a store clerk, eventually becoming proprietor of the Dollar Store in 1881. Later he was proprietor of the well-known Denver store "The Fair," the first department store in the city. An innovator in business practice, he built a mail-order trade that extended throughout Colorado. For years he was a member, as well as an officer, director and later President, of the Denver Chamber of Commerce and Board of Trade. His civic involvements were no less impressive. He was appointed as president of the board of Public Works in 1895, and Park Commissioner in 1897.

George Washington Cook (1851-1916) was Superintendent of the Colorado Midland Railroad and Mayor of Leadville from 1884 to 1887. He had settled there in 1880, becoming the Superintendent of the Denver & Rio Grande Railroad. By 1884 he had become agent for a competing rail line, the Colorado Midland Railroad. Cook moved to Denver in 1888 and became the general sales agent for the Colorado Fuel & Iron Company, a major Western mining company. Cook was active in the Denver Chamber of Commerce, and was elected as a Republican Representative to the Sixtieth Congress in 1907. A typical Westerner and Coloradan, Cook was very active in mining ventures.

S. (Silas) M. Allen (1836-1920) was a cashier for the Bank of Breckenridge, Colorado in 1880. He listed his occupation as "mining" in the 1903 Denver City Directory, and for many years he worked as an agent for the Northwestern Mutual Life Insurance Agency in Denver; he also served on the Board of Trade in Denver, and was manager of the Denver branch of R.G. Dun & Company, the mercantile credit reporting agency.

George W. Cook (1851-1916) was a well-known manganese ore contractor in Leadville and Denver. (See above under “Slocum Ingot).

Chas. (Charles) D. Cobb (1844-1914) was a well-known politician in Denver, where he ran a Fire Insurance business. The business, which covered Colorado, Wyoming, Utah and New Mexico, was born from his days as an Indian Trader at Fort Fetterman in Wyoming in the 1860s. He was nominated by the Democratic Party as its candidate for Mayor of Denver, but lost to William Scott Lee by a small margin. Cobb participated in the organization of the Commercial National Bank and became its Vice President. He was also the Grand Master of the Independent Order of Oddfellows, President of his Sunday School, and an organizer of the Chamber of Commerce.

Dr. W. W. Anderson (1850-?), a Canadian, studied medicine at the best medical colleges in Montreal and Quebec, then became assistant surgeon and demonstrator of anatomy at the University of Michigan. He moved to Denver in 1878 because of health problems. He was appointed Denver City Physician in 1881-1885, and became perhaps the best-known physician in the city, while also developing interests in mining and real estate. He attended Bat Masterson after he was shot in a barroom scuffle in October of 1886, and was known for attending and witnessing time-of-death at hangings.

Holabird Auctions, 2012; Est. \$75,000 to \$125,000; sold for \$87,000.

Bulldog Silver Mine

Al Winters



After reading Wendell's excellent publication on bullion bars from various old time mines and companies, I thought it appropriate to record the history of the first bullion bar produced at Homestake's Bulldog Silver Mine in Creede, Colorado. Today, most mine operations commemorate specific events by producing silver rounds with the company logo or other on the face rather than the bullion bars of the past. The small 4 oz silver bar shown below represents a portion of the first silver bullion produced from the Bulldog mine's Carbon-in-Pulp Plant completed in 1976. The plant, the world's first of its kind using the carbon-in-pulp process for silver, treated 400 tons per day of floatation mill tailings. The tailings were derived from the mill's daily production and from an abandoned tailings pond from past production. The tailings grade ran between 2-3 ounces of silver per ton.



As originally poured, the first bullion bar assayed approximately 70 percent silver with the main impurity being lead. The bar was shipped to Homestake's gold operation in Lead, South Dakota where it was upgraded to a fineness of approximately 970.

Homestake's seal was stamped on several small 4 ounce presentation bars and these were symbols of the plants first melt produced on December 20th, 1976. The number 1-3 on the small bar shown represents the third small bar from the first pour. The number 1-1 bar was presented to Mr. Paul Henshaw, President of Homestake Mining Company. Number 1-2 was presented to Mr. Don Delicate, Vice president of Operations and number 1-3 (the bar shown) was presented to myself, Al Winters, Manager of the Bulldog Silver mine.

Other small bars were sometimes produced for specific purposes and these were upgraded to 999 purity at Homestake's refinery in Lead, SD. Shown is one of these 10 oz bars produced in 1977. Also shown is a bullion sample for assay. This sample was taken from the 23rd pour at the Bulldog mine in 1977 and weighs 6.06 ounces. In general, the mine produced bars weighing 400 +/- ounces and shipped them through the US Postal Service at Creede.

The mine produced over 25 million ounces of silver principally in flotation concentrates during its 18 year life.



The Blasting Cap Tins of Union Cap & Fuse Company, Cleveland, Ohio

Doug Miller

One of the great mysteries for collectors of blasting cap tins has been the identity and history of Union Cap & Fuse Company of Cleveland, Ohio. Its tins are rare and beautiful, but until now, virtually nothing has been known about this company. Not long ago, I discovered some information about the company in, of all places, the records of Congressional hearings on tariff legislation.

At least three companies¹ known to cap tin collectors have used the name “Union” in their company names: Union Cap & Fuse Company of Cleveland, Ohio; Union Cap and Chemical Co. of East Alton, Illinois; and Union Explosives Co. of Clarksburg, West Virginia. The tins of all three companies are uniquely attractive, very rare, and highly desirable. From my research and my correspondence with other collectors, I’ve concluded that each of these companies was distinct from the other two. Further, none was a predecessor of or successor to either of the others.

This article discusses the Union Cap & Fuse Company in detail and the last two companies briefly.

1. Union Cap & Fuse Company of Cleveland, Ohio

Serious collectors of blasting cap tins have wondered for some time about the company known as Union Cap & Fuse of Cleveland, Ohio. The company apparently sold blasting caps in at least three strengths, 5X, 6X, and 8X. A red tin with gold lettering may represent a fourth strength, but since the tin lacks a lid, its strength is unknown. The 5X, 100-count tin is light green with gold lettering. Photos of the 5X tin, from an eBay listing, are shown below.



The 6X, 100-count tin is a dark, forest green with the same gold lettering. Each of the square 100-count tins has crimped sides. Not long ago, I acquired a beautiful example of the square 6X tin, which is pictured below. I purchased this tin on eBay on May 28, 2018, for a little over \$400.



Jack Purson has acquired two 8X, 100-count tins on eBay since 2012. Jack's 8X tins are dark blue with gold lettering. Curiously, the first tin Jack acquired has a paper label identifying it as a 100-count Illinois tin.



The paper label is for No. 6 caps and identifies the seller as Illinois Powder Mfg. Co. of St. Louis, Missouri, suggesting that at some point, Illinois Powder Mfg. Co. acquired Union Cap &

Fuse, or at least its inventory, and made use of Union's remaining cap tins. Illinois Powder was incorporated in 1907 and operated into the 1940s. Until just a few days ago, I was under the impression that Illinois Powder never sold a No. 8 blasting cap of its own. However, on June 13, 2021, Jack Purson sent me a photo of this Illinois tin in his collection. This is the first and only Illinois No. 8 tin I've ever seen or heard about. If other examples exist, I'd love to know about them.



This is the second of Jack's Union Cap & Fuse 8X, 100-count tins. This beautiful tin is of the style normally seen on tins from Union Cap & Fuse.



A wonderful round, embossed, Union Cap & Fuse 6X, 100-count tin is also known. Note the diamond shaped trademark and the use of the word "and" instead of an ampersand on the lid.



In addition to Union Cap & Fuse's 100-count 6X tins, two 25-count 6X tins are known, one in the collection of Jack Purson and another in the collection of John Kynor, Sr. The lids of these tins are plain, but both tins have paper labels for Union Cap & Fuse. The number for a 100-count tin has been over-stamped with the number 25.



I assume that the embossed and paper label tins predate the painted tins, but I have no way of knowing this.

As soon as I received my 6X tin, I immediately began searching for information about the company. Andy Martin's book has no information about Union Cap & Fuse but does have excellent black and white illustrations of both the 5X and 6X tins and detailed descriptions and measurements of each. Andy classifies the tins as "Very Rare," by which he means only three to nine tins are known to exist. Andy's book lists dates for the company of 1910-1940.ⁱⁱ John Kynor's book also describes the tins, noting that the 6X tin is shorter than most No. 6 tins, but the same size at an inch and a half as the early DuPont No. 6 tins with "scrolly" type and decoration. John's book contains photographs of the light green, dark green, and red tins in his collection, but sadly, the red tin has no lid, so we can't be sure what strength of blasting cap it contained. John speculates that the red tin may be a later version of the company's earlier 6X tin, but we can't know for sure unless or until a matching lid is found.ⁱⁱⁱ

John Kynor laments the fact that he was been unable to find any information about the company that used these tins. The exhaustive *History of the Explosives Industry in America* by Van Gelder and Schlatter, which was written for the Institute of Makers of Explosives and published in 1927, contains no information about the company.^{iv} Andy Martin speculates that the company was in business from perhaps 1910-40. But if that were so, one would think that Van Gelder and Schlatter would have written a page or two about the company. It's absence from their work leads John Kynor to speculate that the company was in business only for a very short time after the *History of the Explosives Industry in America* was written.

On the off chance that something more might have been discovered, digitized, and catalogued since Andy Martin and John Kynor published their books, I conducted an internet search for "Union Cap and Fuse" and "Union Cap & Fuse," using an ampersand in the second search instead of the word "and." Here's what I found in, of all places, Congressional testimony on early tariff legislation. According to the Encyclopedia Britannica:

From the beginning, tariffs were an important part of economic policy in the United States, as they initially provided the bulk of government revenue and protected American manufacturing. However, as the country's economy grew, the usefulness of such taxes was questioned. While the industrialized North favored protectionist policies, those in the agrarian South criticized the levies for raising the price of imports on which farmers depended. In addition, by the late 1880s tariffs were seen by some as contributing to the growth of monopolies. Over the ensuing decades, they became a source of great debate in American politics.^v

In 1913, the Ways and Means Committee of the United States House of Representatives held hearings on the extensive schedules of tariffs that were then in effect under the Payne-Aldrich Tariff Act of 1909. That act was passed in response to a call from Republican President William Howard Taft for lower tariffs. The House Ways and Means Committee sought testimony from those industries covered by the schedules of tariffs. One of these schedules, Schedule N (Sundries), Paragraph 437 (Ammunition), covered both ammunition and other explosives, including blasting caps, the tariff for which was two dollars and twenty-five cents per thousand. The Hearings took place between December 1912 and January 1913.

Among those offering written testimony regarding the tariff on blasting caps was Union Cap & Fuse of Cleveland, Ohio. The Manager of the company, Plumer Wheeler, provided the testimony. He wrote that the company had been incorporated under the laws of the State of New Jersey but gave the business address of the company as the Rockefeller Building, Cleveland, Ohio.



The Rockefeller Building in 1913^{vi}

According to Wikipedia, the Rockefeller Building is a historic high-rise office building in downtown Cleveland. It was built between 1903 and 1905 and sits at the corner of West 6th and Superior Avenue. The building rises 17 stories above the street and is named after John D. Rockefeller, founder of Standard Oil of Ohio. In 1973, the building was put on the National Register of Historic Places. The massive building acts as an entry point into the popular Warehouse District of Cleveland. The manufacturing or shipping facilities of Union Cap & Fuse may have been located in the Warehouse District.

Wheeler urged the committee not to lower the tariff on blasting caps below \$2.25 per thousand. He argued that foreign competition was unfair to U.S. manufacturers because of the relatively cheaper cost of labor and raw materials in other countries such as England, Germany, and France. In January 1913, Wheeler wrote:

We started our company only a few months ago in the belief that there is room for one more producer to operate in competition with existing United States manufactories, and while our investigation of possibilities in the venture are not extravagant, we have faith that we can pull our company through to a level of reasonable success.^{vii}

While Wheeler was willing to compete with other American manufacturers of blasting caps, he argued that without the tariff, Union Cap & Fuse would be at a serious competitive disadvantage as compared to producers in other countries. His testimony demonstrates that Union Cap & Fuse intended to manufacture its own blasting caps, not acquire and distribute the caps of others.

So now we have a starting date for Union Cap & Fuse of 1912 and confirmation that the company operated in Cleveland, Ohio. But significant questions remain: Was the company successful, and if so, how long did it operate? I have to believe that the company was not very successful and only stayed in business for a few years, perhaps going out of business by 1918.

Here's the evidence. First, although incorporated in 1912, the company may not have started to manufacture caps until later. Wheeler's 1913 testimony to Congress suggests that the company *intended* to manufacture its own caps from the raw materials but had not yet started to do so. Second, in 1915, a patent for an unusual package for blasting caps was granted to Plumer Wheeler. The application for the patent was filed in October 1913 and was granted on August 24, 1915. The patent, No. 1,151,076, was granted to "Plumer Wheeler of Alton, Illinois, Assignor of the Union Cap & Fuse Company of Cleveland, Ohio, a Corporation of New Jersey." For non-lawyers, the term "assignor" means that Wheeler assigned his patent to Union Cap & Fuse. The patent, while not conclusive, suggests that Union Cap & Fuse was a going concern in 1915. However, I've never seen an example of the package for which the patent was issued or any other mention of it. Instead, the company used traditional blasting cap tins, of which only a few examples exist. Third, there are two tax reports from the State of New Jersey that mention Union Cap & Fuse, one for the year 1915 and the other for the year 1917. Presumably, a report for 1916 exists, but I haven't found it. The State Board of Taxes and Assessments of the State of New Jersey prepared both reports. For some industries, New Jersey assessed a tax based upon the dollar amount of the outstanding capital stock of the companies taxed. The report for the year 1915 shows that "Union Cap and Fuse Company" had outstanding stock of \$5,000.^{viii} The report for the year 1917 shows that "Union Cap and Fuse Co." had outstanding capital stock of \$200,000 and paid a tax to New Jersey of \$200.^{ix} I could find no similar record for any other year. Fourth, the fact that no reference to Union Cap & Fuse or to Plumer Wheeler can be found in *History of the Explosives Industry in America* strongly suggests that the company was short-lived and relatively unimportant to the industry. If it had been, Van Gelder and Schlatter would almost certainly have written about it.

Finally, I found a few extremely interesting tidbits of information about Plumer Wheeler, the Manager of Union Cap & Fuse. Wheeler was born in 1878 in Dorchester, Massachusetts. He graduated from Harvard College in 1902, receiving a bachelor's degree in Chemistry, and a master's degree in 1904. He writes in a report to his 1902 Harvard classmates that, after receiving his master's degree, his first position was with E. I. DuPont De Nemours Powder Company. He left DuPont after six years – "to go into heavy chemicals in the United Zinc and Chemical Co., Kansas City, Kansas, and then back again to explosives — fulminate of mercury — in the Union Cap & Fuse Co., Cleveland, O[hio]. Finally, I landed with the American Cyanamid Co., New York, manufacturing acids and ammonia products." To me, this brief account hints that Wheeler's association with Union Cap & Fuse, while significant to him, was a short one.^x

Two other dead ends and rabbit holes should be mentioned. A website called "Greybeard Outdoors," which covers black powder cartridge rifles, loading, shooting, and reloading, contained a list of "Old Black Powder Companies," posted by "John Boy." The list includes "Union Cap & Fuse Co. – 1910-1940." However, I have no idea where the person who posted this list got his information, but for the reasons discussed above, if he is referring to Union Cap & Fuse Co. of Cleveland, Ohio, the dates he lists are wrong. My first search for "Union Cap and

Fuse” also yielded a reference to an article in the Alton Evening Telegraph (Alton, Illinois), dated August 2, 1913, briefly describing a minor explosion at the “Union Cap and Fuse department of the Western Cartridge Company.” This cannot be the same company as Union Cap & Fuse of Cleveland, Ohio. Instead, it is Union Cap and Chemical Co., of East Alton, Illinois.^{xi}

Let’s turn to the other two “Union” sellers of blasting caps.

2. Union Cap and Chemical Co. of East Alton, Illinois

Andy Martin writes: “This company was organized about 1903 by F. W. Olin. Union’s primary purpose was to make primers for the shotgun shells made by Olin’s Western Cartridge Co. However, Union Cap and Chemical Co. also made blasting caps.”^{xii} Western Cartridge Company formed Union Cap and Chemical Co. in 1900 as a joint venture with Austin Cartridge Company of Ohio to manufacture primers for its ammunition, blasting caps, and .22 and .32 rimfire cartridges at East Alton, Illinois. Western used the Maltese Cross as an early trademark on its ammunition boxes. A wonderful example of a round, embossed Union Cap and Chemical Co. tin is pictured below.



Examples of this tin can be found in the collections of John Kynor, Sr., Graham Living, and possibly one other collector.

3. Union Explosives Co.

Union Explosives Co. of Clarksburg, West Virginia, resulted from the merger of an explosives distributor and an explosives manufacturer and the later acquisition of another manufacturer. In their *History of the Explosives Industry in America*, Van Gelder and Schlatter write that Union Explosives Company came into existence in 1920 through the merger of Long Powder Supply Company and Empire Powder Corporation. Long Powder was a distributor of explosives and accessories. Empire manufactured explosives at a plant near LeRoy, New York, which was enlarged after the merger. Soon after the merger, Union Explosives Company also acquired control of the plant of Pennsylvania Powder Company near Emporium, Pennsylvania.^{xiii} It is not known which of these facilities manufactured the blasting caps that Union Explosives sold in its tins or whether Union Explosives distributed caps made by others, as seems more likely. An example of a 100-count, No. 6, Union Explosives tin from my collection is pictured below. John Kynor’s *Blasting Cap Workbook – Tins and Boxes* pictures three wonderful examples of the 100-count tin, including a red tin with white lettering. The company also sold No. 6 blasting caps in a 25-count tin.^{xiv}



Summary and Conclusions

To summarize: The available evidence indicates that Union Cap & Fuse was incorporated in New Jersey in 1912. Its business and manufacturing operations were located in Cleveland, Ohio. Its first and probably only manager was Plumer Wheeler of Alton, Illinois, a Harvard graduate with bachelor's and master's degrees in chemistry. The company started operations no earlier than 1913 and may have begun operating later. It probably manufactured its own blasting caps. It operated at least between 1915 and 1917. It was never an economically important member of the explosives industry. It remained in business only for a short time, possibly ceasing operations by 1918. As a consequence, it never caught the attention of Van Gelder and Schlatter when they prepared their 1927 *History of the Explosives Industry in America*. In the short time it existed, however, Union Cap & Fuse used some of the rarest and most beautiful blasting cap tins that any collector could want.

The Blasting Cap Tins of Union Cap & Fuse Company of Cleveland, Ohio

5X	Square, 100-count tin, crimped edges, painted light green with gold lettering
6X	Round, 100-count, embossed tin
	Round, 25-count tin, plain lid, paper label printed with the number 100, but over stamped with the number 25
	Square, 100-count tin, crimped edges, painted dark green with gold lettering
8X	Square, 100-count tin, crimped edges, painted dark blue with gold lettering
?	Square, 100-count tin, crimped edges, painted red with gold lettering

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- ⁱ Four, if you include Peerless-Union, which I do not do here.
- ⁱⁱ Martin, Andy. *Blasting Cap Tin Catalogue* (Tucson: Old Adit Press, 1991) 74-75.
- ⁱⁱⁱ Kynor, Sr., John C. *Blasting Cap Workbook – Tins and Boxes* (Belen, New Mexico: B.B.B. Ltd., 2008), 6 and Plate 2; 81 and Plate 16A.
- ^{iv} Van Gelder, Arthur Pine and Hugo Schlatter, *History of the Explosives Industry in America* (New York: Columbia University Press (1927).
- ^v “Payne-Aldrich Tariff Act”. Encyclopedia Britannica. Encyclopedia Britannica Online. Encyclopedia Britannica Inc, 2018, Web. 07, <https://www.britannica.com/topic/Payne-Aldrich-Tariff-Act>, accessed June 19, 2021.
- ^{vi} Source: Newberry Library, Curt Teich Postcard Archive Digital Collections, https://collections.carli.illinois.edu/cdm/singleitem/collection/nby_teich/id/3400, accessed June 19, 2021.
- ^{vii} “Tariff Schedules, Hearings Before the Committee on Ways and Means, House of Representatives, Vol. 5, Schedules M and N,” Doc. No. 1447, 62nd Cong., 3rd Sess., 5301 (1913).
- ^{viii} First Annual Report of the State Board of Taxes and Assessment of the State of New Jersey for the Year 1915, Division of Corporation Assessment (Trenton, N.J.: State Gazette Publishing Co., 1916), 216.
- ^{ix} Third Annual Report of the State Board of Taxes and Assessment of the State of New Jersey for the Year 1917, Division of Corporation Assessment (Somerville, N. J.: The Unionist-Gazette Association of State Printers, 1918) 511.
- ^x Source: <http://www.ebooksread.com/authors-eng/harvard-college-1780---class-of-1902/secretarys--report-vra/page-45-secretarys--report-vra.shtml>, accessed June 19, 2021.
- ^{xi} Martin, *Blasting Cap Tin Catalogue*, 74-75.
- ^{xii} Martin, *Blasting Cap Tin Catalogue*, 74-75. Further information about the relationship between Western Cartridge Co. and Union Cap and Chemical Co. may be found in my June 2021 article, “Early Western Blasting Cap Tins,” posted on the *Eureka Magazine* website, <https://www.eurekamagazine.net/MillTin.pdf>.
- ^{xiii} Van Gelder and Schlatter, *History of Explosives Industry in America*, 632-34.
- ^{xiv} Martin, *Blasting Cap Tin Catalogue*, 76-77; Kynor, Sr., *Blasting Cap Workbook*, 81 and Plates 27-28.