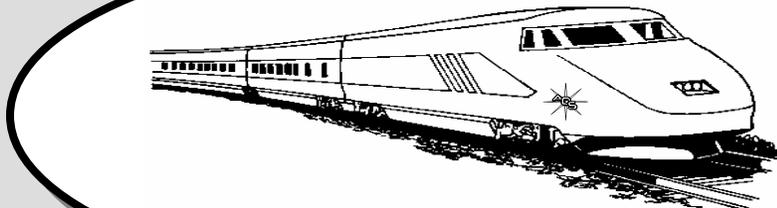


# The Opal Express

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## President's Message

*By Jim Lambert*

First and foremost, I would like to thank everybody for electing me as your President. I promise to do my best to fill the shoes of our recent past great Presidents - Walt Johnson and Gene LeVan. This will be no easy task but, with the assistance of an excellent support group (Board and General members), all tasks required to perform my Presidential duties should be no major problem. My goals will remain along the same lines as Walt and Gene.

Many years ago, Walt asked members, at a meeting, what they wanted the AOS to do for them. The general consensus and response indicated a desire for knowledge and education. As a result, a lecture series was created; and many fine speakers were scheduled to give presentations about Opals, Pearls, Diamonds, making Jewelry, and cutting/ polishing stones. Please let us know, if you know of any new speakers who may like to give presentations at our meetings. Although we usually have great attendance at our meetings, I would like to see even more people there. A good way to increase attendance at our meetings is to offer fantastic speakers, including a repeat presentations by past speakers. This month, we are fortunate to have Stan McCall give a presentation about his jewelry making methods. I consider Stan to be one of the foremost inlay artists in the United States.

One of his pieces was one of the top prizes at our last Opal and Gem Show. Hope to see you there!

## March Meeting Speaker – Stan McCall

Our new Vice-President Stan McCall will give a presentation on Advanced Stone Inlay. Stan is a local Southern California jeweler designer and artist known for his detailed inlay work. Stan will share some of his secrets on how he makes his amazing works of art.

## AOS Election Results

The AOS held elections at the last AOS General Meeting in Garden Grove. Jim Lambert was elected President and Stan McCall

was elected Vice-President. The new Board of Directors members are as follows:

New AOS Board of Directors	
President	Jim Lambert
Vice-President	Stan McCall
Treasurer	Russ Madsen
Show Chairman & Past Pres.	Gene LeVan
Newsletter Editor & Webmaster	Jim Pisani
CFMS Representative	Fran Todd
Member At Large	Pete Goetz
Member At Large	Dr. Walt Johnson
Member At Large	Jay Carey
Member At Large	Mike Kowalsky

## Members Only Website Password

To log onto the website's members only area at: [http://opalsociety.org/aos\\_members\\_only\\_area.htm](http://opalsociety.org/aos_members_only_area.htm) type: Name: "member" and Password: "hyalite".

## Last Month's Demonstrator – David Kramer

David Kramer gave an excellent hands-on demonstration last month on his techniques on cutting small, but valuable, opals. David allowed the audience to surround him as he worked to get a close-up view of his special methods. David even allowed audience members to try their hand on cutting opals on his unique lapidary machine. Thanks David, for your excellent presentation.



*David Kramer demonstrating cutting technique on his lapidary setup.*

# Opal Society Workshop

The American Opal Society's workshop is open in March, starting Jan. 7th. The shop is located at Ball Jr. High School and will occur every Monday from 7:00 to 9:30 p.m. The school is located at 1500 W. Ball Road in Anaheim. If you are traveling east on Ball Rd. the parking lot entrance you need to use is just before the railroad tracks Room 37 is in the center of the campus.

Instruction will be given in cutting opal, wax models, lost-wax casting, fabrication, and setting stones. The workshop will furnish machines to cut and polish stones as well as a centrifuge for casting and a kiln for burnout. Please bring a roll of PAPER TOWELS with you for clean-up as the room is a science lab and needs to be kept spotless.

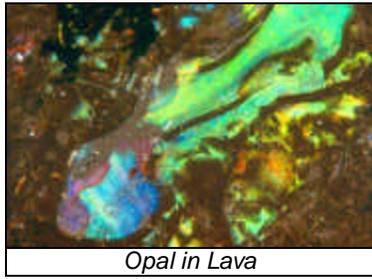
To attend, membership in the American Opal Society is a must due to insurance. A nightly fee of \$2 is asked to help keep the equipment in good running condition. Please contact Pete Goetz at (714) 345-1449 if you have any questions.

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## Opal Formation

### Formation Models

In general, opals are created when weathered silica seeps into cracks as a gel. The silica gel, containing large amounts of water, flows along faults and fractures within the rock. The water then begins to evaporate and the silica gel hardens. The rate of evaporation determines the opal's stability. Gem quality opals usually contain less than 10% water, meaning their water has evaporated more slowly.



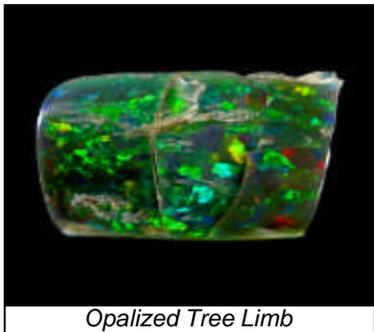
Opal in Lava

Fire opals are found in ancient volcanic regions that consist of rhyolite, a silica rich rock. They are formed when gas cavities in the host rock were filled with silica-rich solutions.

There are three specific models for opal formation.

#### 1) Deep Weathering Model

During the Tertiary period rocks experienced substantial weathering. With time, small amounts of silica were leached from sandstone by water which passed through more rock until



Opalized Tree Limb

it became trapped in underlying layers of claystone. Under the proper conditions, opal was produced from the trapped water left in porous areas. Faults would have served as a great path for silica to flow along.

#### 2) Syntectonic (Pecover) Model

Opal was deposited by heated water under pressure from the ground. This water flowed along faults, leaving opal nearby.

#### 3) Microbe Model

The claystone in which water and silica became trapped contained lost of fine fossilized organic matter. The feeding and waste production of these microbes created favorable conditions for opal formation.

### Places

#### Geological Events Leading to Formation

In Australia, erosion has removed sufficient amounts of the older profile



Hungarian Opal



Queretaro Region, Central Mexico

which allowed silica to collect and precipitate as opal within voids in the ironstone host rocks.

Geological processes such as folding and faulting that have occurred to the present have either completely removed the weathered profiles or left remnants of them as flat-topped landforms or low rises.

In regions such Virgin Valley, Nevada, canyon rhyolite was filled with layers of volcanic ash, like

sediments and debris from pyroclastic flows. Over time the layers were buried by forests and hot ground water was then able to seep through the layers of ash, picking up silica rich deposits and

permeated the buried wood. The carbon molecules were slowly replaced by the hydrated silica creating perfect opalized replicas of the original material.



Virgin Valley, Nevada

Occasionally, the silica gel would form in pools which completely immersed the wood, preserving it perfectly. Limb casts formed as the gel filled the cavities left by previously buried wood, long decomposed. Under the right conditions, some of

this opalized wood could develop into precious opal. This requires a stable, quiet environment which allows the cristobalite spheres to line up in formation. This unique alignment of the hydrated silica molecules creates reflection and refraction as white light passes through. This is the secret to the rainbow effect of the precious opal.

The entire area has been uplifted and eroded, exposing the opal deposits in certain clay beds of ancient volcanic ash. The precious opal bearing layers may be as much as 10-30 feet below the surface and

range in thickness from 2-12 feet. Common opal is abundant throughout the successive layers of clay and ash,



Australia

but only specific conditions produce the spectacular play of color which characterizes the precious opal.

Presently, opal is being mined from inland and arid environments.

From <http://users.wpi.edu/~tlufkin/Geology%20Website/formation.htm>

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### Southern California History

#### Lost Gold of the Ada Hancock

*By the Land Sea Discovery Group Staff*

In the 1860's Los Angeles Harbor had but two docks and neither the docks nor the harbor entrance were large enough to accommodate the deep draft of coastal steamers. A man named Timms located in the town of San Pedro owned one of the docks

and the other located in the town of Wilmington owned by General Phineas Banning. The latter was called Banning Dock. Banning had come to California from Delaware in 1851 and had set himself up in the freight and passenger business between his dock and Los Angeles. His dream was to develop San Pedro Harbor into the finest harbor on the west coast. The wreck of Ada Hancock almost cut his dream short.



*Phineas Banning.*

For years the steamers had to anchor a mile offshore and row their cargo and passengers ashore. Banning put together a small fleet of ships to alleviate this problem. One of these ships was the trim 65' Ada Hancock. This 85-ton double prop ship was once called the Milton Willis but a new coat of paint and its brass bright and shiny made it a proud member of the Banning Fleet. Ada Hancock's duties were to

transport cargo and passengers out to the anchored steamers.

On April 27, 1863 a coastal steamer named the Senator was anchored off Dead Man's Island in Wilmington Bay. The steamer was set to leave early that evening for San Francisco and was awaiting the arrival of its own Captain Seely who was on shore taking care of last minute details. Captain Seely had bumped into General Banning on shore and in the course of their conversation Seely agreed to assist in the transporting of a group of Banning's friends along with the other passengers to the deck of the Senator for a gala bon voyage party. Finally all were on board. Included on this last voyage were Captain Seely, General Banning and his family, many well-wishers for the party, and a Wells Fargo messenger named William Ritchie.

The ships papers, passengers' valuables, and the Wells Fargo messenger's gold were safely stored on the Ada Hancock's bridge for the short run out to the anchored Senator. Clouds hung over the harbor and it is said there was a chill in the air. The vessels lines were cast off and the ship had started to swing away from the pier when a late border ran up and demanded to be put on the ship. Some of the crew tossed out a line and by hand pulled the ship into the pier so the man could be boarded. Later a Mexican deck hand reported that the man was Louis Scheslinger, a man he knew well on the docks. The dockhand said that Scheslinger was very angry. It turns out that Louis Scheslinger was also a Wells Fargo messenger but not working at the time.

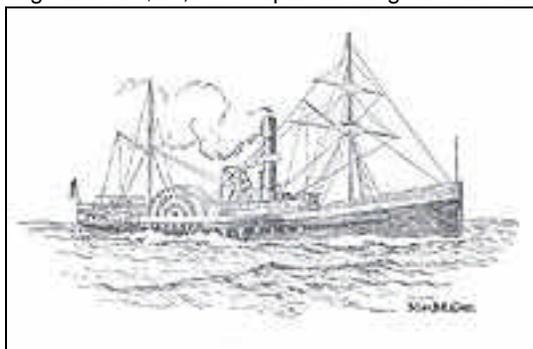
The Ada Hancock then turned away again and chugged its way out towards Dead Man's Island and the anchored Senator. About a thousand yards out, roughly half way to its destination the Ada Hancock suddenly blew up to the horror of all those who awaited her on the decks of the Senator. One of the passengers who saw the affair said that the ferry had cast off and then gone back in to pick up a passenger. When finally boarded the ship backed away from the dock and proceeded towards him. He watched for a short period of time and then he says he stepped back to let a crewmember pass and while his eyes were diverted he heard gunshots. When he looked again to the ship it exploded. Bodies and debris rose into the air as if in slow motion. One of the boilers had exploded, or was it the barrels of gunpowder that had been loaded on earlier that day and had not yet been off loaded. In either case the explosion blasted the deck house, wheel house, and valuables into the air and whatever didn't go straight up went forward through the crowd on the deck killing many of them including Captain Seely. General Banning and his family were thrown off the stern and injured but he lived long enough to realize a great portion of his dream for San Pedro Harbor.

After the explosion the ship sank right away. Bodies and flotsam were everywhere. A great wave rocked the Senator moments after the ship exploded.

When the Ada Hancock finally released its last gasp of air a huge bubble came up from its grave on the bottom of the bay. Twenty-six of the over fifty passengers were killed and all but two of the survivors were injured. It is also very unfortunate that around four in the afternoon, an hour before the explosion, the only communication between the waterfront towns and Los Angeles was a telegraph wire that was mysteriously cut at midway. Thus it was more than five hours before news reached Los Angeles. Luckily upon hearing the explosion, soldiers from nearby Camp Drum and others from the dock at San Pedro raced out in rowboats to pick up survivors. When they got there not much but debris remained. They gathered up the remaining survivors that had not been snatched up by the Senator and headed back to shore. They were then taken by wagon to Camp Drum where the camps medical officer attended them. When questioned most of the survivors agreed that there had been gunfire before the explosion but they could not agree whether it came from topside or below the decks. Many people also said the smell of gunpowder was heavy in the air after the explosion. Some said that the boiler had blown up. Much later a Banning employee said that the boiler was defective. Although it was a great tragedy, the Senator sailed for San Francisco that night.

The next day the news reached the Los Angeles office of Wells Fargo where they were very concerned due to Mr. Ritchie's disappearance along with a \$25,000 shipment of gold that was

destined for the mint in San Francisco. An investigation was launched and it was found out that Ritchie was indeed on that fateful last voyage across the bay. In fact three days later his badly mangled body washed up on



*Steamer Senator would take the transferred shipment of gold to San Francisco. Drawing by Jerry MacMullen.*

shore. An audit at the bank showed that Ritchie had indeed picked up the \$25,000 shipment but unexpectedly there was an additional \$100,000 worth of gold bullion missing. Wells' Fargo's gold reserves in Los Angeles had been wiped out! Investigators discovered Ritchie had met at least twice that day with Louis Scheslinger local loan shark and messenger for Wells Fargo. Scheslinger had in the days just prior to the 27th started selling off all his properties and loans discounting some as much as 50%.

On the morning of the 27th he withdrew his account with Wells Fargo in cash. Later in the day he was seen with Ritchie at a hotel and near the Wells Fargo office's, but then was not seen again until the deck hand saw him board the Ada Hancock. His body was never found. It was also noted that Ritchie had left on his assignment that afternoon from the Wells Fargo office by stage. The driver recalled there being three metal boxes all bearing the Wells Fargo seal. Officials say that one box was enough to hold the \$25,000 shipment. In conclusion the folks at Wells Fargo deduced that Ritchie may have been trying to double-cross his partner Scheslinger in the bank theft and at the last minute he had been found out. The ensuing gun shots may have been caused by them battling it out on the decks of the Ada Hancock and in some way set off the explosion, causing the death of twenty six. \$125,000 in gold went down to the bottom of the bay that day and was not recovered.

On old maps of the harbor area you can find the old Banning dock and Dead Man's Island. A mile off shore on a direct line between the two the wreck sits and waits. Both the dock and the

Island are gone now. Dead Man's Island which at one time was a beacon for ships was dredged away in 1928 in order to widen the channel. The debris of the island was deposited along the jetty to Terminal Island. It was dredged to a depth of thirty-five feet. A good ocean chart or an old salt should put you in the right direction.

From <http://www.LAFIRE.COM>

## The Great Diamond Hoax of 1872

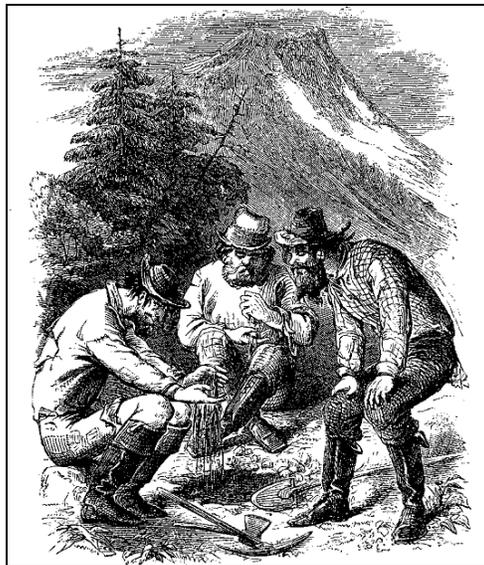
**How a Kentucky grifter and his partner pulled off one of the era's most spectacular scams until a dedicated man of science exposed their scheme**

*By Robert Wilson*

June 01, 2004

The rush for gold that began in California in 1848 and for silver in Nevada in 1859 filled the West with people hooked on the Next Big Thing. From grubby prospectors washing dirt in a thousand Western streams to bankers and speculators in San Francisco, New York and London, everyone, it seems, embraced the idea that the West's mountains and riverbeds held an abundance of mineral wealth there for the taking.

An announcement in the Tucson Weekly Arizonian in April of 1870 catches the mood of the moment: "We have found it! The greatest treasures ever discovered on the continent, and doubtless



"Indications, sure!"

the greatest treasures ever witnessed by the eyes of man." Located in the Pyramid Mountains of New Mexico, the "it" was a new mine dubbed the Mountains of Silver. Bankers hurried in, miners claimed stakes, investors sought capital in distant cities and surveyors laid out a town nearby. But in the end, the much-touted venture did not yield enough of the stuff for a single belt buckle.

At about the same time came news of a diamond rush in South Africa, the third major diamond find known to the world after one near the city of Golconda, India, and an 18<sup>th</sup> century site discovered by the Portuguese in Brazil. Stoked by the tall tales of early 19th-century trapper-guides like Jim Bridger and Kit Carson about diamonds, rubies and other gems that could be scooped right off the ground, avaricious dreamers were soon looking for precious stones in Arizona and New Mexico, where the terrain was said to resemble South Africa's. An odd diamond or two had actually turned up during the gold rush, especially near Placerville, California. In a report on the phenomenon, a state geologist helpfully recommended that "though it may not pay to hunt for diamonds, yet it always pays to pick them up when you do happen to see them."

And so the stage was set for the Great Diamond Hoax, a brilliantly acted scam by two Kentucky grifters that would embroil, among others, some of California's biggest bankers and businessmen, a former commander of the Union Army, a U.S. representative, leading lawyers on both coasts, and the founder of Tiffany & Co. Accurately described by the San Francisco Chronicle in 1872 as "the most gigantic and barefaced swindle of the age," the scheme was also noteworthy for the manner of its unraveling and its colorful characters. Not only did it propel to prominence a geologist

later befriended and admired by Theodore Roosevelt, it also gave a fed-up American public some hope that honest science could triumph, at least occasionally, over hucksterism and greed.

Swelled by the completion of the transcontinental railroad in 1869, the San Francisco of 1870 was a city of some 150,000 souls. One of them was Philip Arnold, a Kentuckian born in the same county as Abraham Lincoln. A poorly educated former hatter's apprentice, Mexican War veteran and gold rush forty-niner, Arnold had spent two decades working in mining operations in the West, making enough money to pay for periodic visits back to Kentucky, where he bought a farm, married, started a family and perhaps stashed a little cash. In 1870, he was working as an assistant bookkeeper for the Diamond Drill Co., a San Francisco drill maker that used diamond-headed bits. For a bookkeeper, Arnold, then just past 40, showed a surprising interest in the industrial-grade diamonds that kept the drills running. He even plowed through learned works on the subject.

By November of that year, Arnold had acquired a bag of uncut diamonds, presumably taken from his employer, and mixed them with garnets, rubies and sapphires that he likely bought from Indians in Arizona. He also had acquired a partner, John Slack, an aptly named older cousin from Kentucky who, like Arnold, had fought in the Mexican War and had gone after gold in 1849. Indeed, in the months ahead, as the two men hatched their scheme, Slack played the listless, taciturn foil to the voluble and cunning Arnold.

The first person the pair approached was George D. Roberts, the sort of businessman described in newspapers as prominent, but his was a prominence earned by moving fast and not asking too many questions. Arnold and Slack turned up one night at Roberts' San Francisco office, looking weather-beaten and clutching a small leather bag. Inside was something of great value, they said, which they would have deposited in the Bank of California except for the late hour. The two men feigned a reluctance to talk about what was in the sack until Arnold allowed himself to let slip the words "rough diamonds." But Arnold and Slack were more circumspect about where they'd found the jewels, mumbling something about Indian Territory, an answer that carried a certain truth, but not in the way Roberts took it.

The bag of diamonds sank the hook deep. "Roberts was very much elated by our discovery," Arnold told the Louisville Courier-Journal in December 1872, soon after their scheme had been exposed, "and promised Slack and myself to keep it a profound secret until we could explore the country further and ascertain more fully the extent of our discoveries." Like many able liars, Arnold had an intuitive sense of how others would react to his fictions. What better way to get Roberts to spread the word than to make him swear an oath of silence?



William Ralston

Almost before his office door banged shut behind the two miners, Roberts broke his promise. First he told the founder of the Bank of California, William C. Ralston, a legendary financier who built hotels and mills and invested in almost everything else, including the Comstock Lode and the completion of the transcontinental railroad when the so-called Big Four—Collis Huntington, Leland Stanford, Mark Hopkins and Charles Crocker—came up a little short. The banker had also put money into the Mountains of Silver venture, and in return, the nearby town of Grant had been courteously restyled Ralston, New Mexico. Then Roberts got word to the theatrically named Asbury Harpending, who was in

London trying to float a stock offering for the Mountains of Silver. Harpending swallowed the bait as hungrily as Roberts had. As Harpending, an even shadier businessman than Roberts, recalled 45 years later in *The Great Diamond Hoax and Other Stirring Incidents in the Life of Asbury Harpending*, his colorful and mendaciously self-serving memoir, he knew that “they had got something that would astonish the world.” He made his way to San Francisco “as fast as steamships and railroads would carry us,” arriving back home in May 1871.

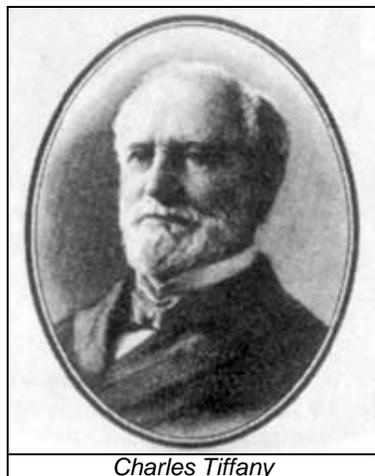
In the meantime, Arnold and Slack led Roberts to believe that they had made another visit to the diamond field and had returned with 60 pounds of diamonds and rubies said to be worth \$600,000. More convinced than ever, Roberts drew others into the trap with this second, bigger bag of jewels, which he claimed a local jeweler had authenticated. Roberts, Ralston, Harpending and now San Francisco mining entrepreneurs William Lent and Gen. George S. Dodge wanted to get Arnold and Slack out of the picture as soon as possible by buying out their interests. At first, the two prospectors appeared to resist a quick payday. But then Slack asked for \$100,000 for his share—\$50,000 now and \$50,000 after the two made what they claimed would be a third visit to the diamond field.

Once Slack got his first 50 grand, he and Arnold headed off to England to buy uncut gems. In July 1871, under assumed names—Arnold was Aundel and Slack used his middle name, Burcham—they bought \$20,000 worth of rough diamonds and rubies, thousands of stones in all, from a London diamond merchant named Leopold Keller. “I asked them where they were going to have the diamonds cut,” Keller later testified in a London court, but of course they never intended to cut the stones. Some would go to San Francisco as further evidence of the richness of their find. Others would be planted in the still secret field for their investors to discover.

Upon the pair’s return to San Francisco in the summer of 1871, Arnold and Slack offered to make one more trip to the diamond field, promising to return with “a couple of million dollars’ worth of stones,” which they would allow the businessmen to hold as a guarantee of their investment. Off the pair went, to salt the fields rather than mine them, and when that was done, Harpending met their train at Lathrop, California, a junction east of San Francisco. Harpending would later write of the encounter: “Both were travel stained and weather beaten and had the general appearance of having gone through much hardship and privation.” Slack was asleep but “Arnold sat grimly erect like a vigilant old soldier with a rifle by his side, also a bulky looking buckskin package.” The two claimed that they had

indeed happened upon a spot yielding the promised \$2 million worth of diamonds, which, they said, they had divided into two packs. But while crossing a river in a raft they had built, one pack was lost, leaving only the one Harpending now observed.

At Oakland, the swindlers handed the pack to Harpending, who gave them a receipt for it and carried it onto the ferry to cross the bay. “Arrived at San Francisco, my carriage was waiting and drove me swiftly to my home,” where the other investors were



Charles Tiffany

waiting, he wrote. “We did not waste time on ceremonies. Asheet was spread on my billiard table; I cut the elaborate fastenings of the sack and, taking hold of the lower corners, dumped the contents. It seemed,” Harpending wrote, “like a dazzling, many-colored cataract of light.”

As bedazzled as they may have been, Ralston and the others were not complete fools. Before risking more money, they decided to bring 10 percent of the latest bag of gems to jeweler Charles Lewis

Tiffany in New York City for appraisal and to hire a mining engineer to check out the diamond field. They also allowed a generous sampling of the stones to go on display in the window of San Francisco jeweler William Willis, feeding the city’s diamond fever—and potentially increasing the value of their future investments.

In New York City, Harpending, Lent and Dodge hired a corporate lawyer, Samuel Barlow, a Ralston friend, to handle their interests in the East. Sometime in October 1871, the group met at Barlow’s house on the corner of 23rd Street and Madison Avenue for the appraisal. Joining them were Charles Lewis Tiffany and two Civil War generals: George B. McClellan, who had commanded the Union Army and run against Lincoln for president, and Benjamin F. Butler, nicknamed Beast for his treatment of civilians in New Orleans during the war. McClellan was recruited to the venture in the hope that his name might attract other investors, and Barlow recommended Butler—by then a U.S. representative—as someone to help resolve any legal issues in Congress if the diamond field was revealed to be on federal land. Also present was Horace Greeley, editor of the New York Tribune (who was about to run for president himself), though his exact role is unknown.

Imagine the theatrical flourish with which Harpending must have opened the bag of diamonds before this august assemblage. Tiffany fussily sorted the stones, which also included some rubies, emeralds and sapphires, “viewed them gravely,” Harpending writes, and “held them up to the light, looking every whit the part of a great connoisseur.” Once he finished his inspection, he delivered a preliminary verdict. “Gentlemen, these are beyond question precious stones of enormous value.” How valuable he could not say until he had taken them back to the shop and let his lapidary have a look. Two days later he reported that the stones—only a fraction of those that Arnold and Slack had bought in London for \$20,000—were worth \$150,000. Harpending did a little multiplication and concluded that Arnold’s million-dollar sack must be worth at least \$1.5 million.

When word of the appraisal reached him, Arnold could not believe his luck. His little scheme now carried the imprimatur of the country’s most famous jeweler. (After the hoax had been revealed, it came out that neither Tiffany nor his lapidary had much experience with uncut stones.) Arnold quickly extracted another \$100,000 from the investors and scurried back to London, where he spent \$8,000 on more uncut gems from Leopold Keller, the better to further prepare the bogus diamond field for Henry Janin, a well-respected mining engineer selected by the San Francisco investors.

Because of cold weather, Janin did not visit the fields until June. Arnold and Slack, who by then had been paid his second \$50,000, met Janin, Dodge, Harpending and an English crony of Harpending’s named Alfred Rubery in St. Louis, where the group boarded a Union Pacific train to Rawlins, Wyoming. Though the spot that Arnold had picked to salt was closer to the Black Buttes, Wyoming, station, the swindler wanted to keep the exact location secret, so he led them on a confusing four-day horseback journey, often pretending to be lost and climbing hills to get his bearings. Harpending noted that “the party became cross and quarrelsome.” The six men finally reached the salted mesa at about four o’clock on the afternoon of June 4, 1872, and began at once to look for diamonds. Like a mother at a backyard Easter egg hunt, Arnold was extraordinarily solicitous in suggesting where they might dig. “After a few minutes,” Harpending would write, “Rubery gave a yell. He held up something glittering in his hand. . . . For more than an hour, diamonds were being found in profusion, together with occasional rubies, emeralds and sapphires. Why a few pearls weren’t thrown in for good luck I have never yet been able to tell. Probably it was an oversight.”

Within two days, even the mining engineer Janin, who in addition to his \$2,500 fee had been given the right to purchase 1,000 shares of stock in the new venture at \$10 a share, was, as Harpending later recalled, “wildly enthusiastic.” On the chance that the surrounding land might also yield gems, Janin got busy staking out 3,000 acres, although the area salted with diamonds amounted to barely more than one acre. In his concluding report Janin wrote that the proposed 100,000 shares of stock were easily worth \$40

each, and he would soon thereafter sell his shares at that price, netting \$30,000 above his fee and becoming the only nonswindler to profit from the scam. When the rest of the party finished up at the mesa, they left Slack and Rubery behind to guard the site. But the two men did not like each other, and within a couple of days they took off.

Slack was never to be heard from again. Arnold collected another \$150,000 that had been promised him after the Janin inspection and then quickly sold \$300,000 more in stock to Harpending, making his total take \$550,000, less expenses—about \$8 million today. He had more shares coming to him, but he must have sensed that his luck would only take him so far. He had already moved his family back to Kentucky from San Francisco in the spring of 1872, and by the time the affair was exposed, he, too, had left town.

What finally led to the hoax's collapse was a lucky encounter on an Oakland-bound train between Janin and members of a government survey team led by Clarence King, a Yale-educated geologist. One of a special breed of explorer scientists drawn to the trackless expanse west of the 100th meridian and east of the Sierra Nevada, King had come West in 1863 at the age of 21, traveling by wagon train with a friend and joining the California Geological Survey. He was the first man known to have ascended several of the highest Sierra Nevada peaks, and he gave Mount Whitney its name (after Josiah D. Whitney, leader of the California survey); another mountain in the southern Sierra would be named after him. At the age of 25, King convinced the U.S. Congress to fund and appoint him geologist in charge of his own federal survey, which would cover 80,000 square miles of mostly inhospitable land between the Rockies and the Sierra—an 800-mile-long rectangle that followed the route of the transcontinental railway in a swath 100 miles wide. By the early 1870s, King or the three dozen men under his command had surveyed, mapped and described the whole immense patch of the West within their domain, and the fieldwork for what was known as the Fortieth Parallel Survey was nearly done.

In his diary for October 6, 1872, one of King's men, geologist Samuel F. Emmons, wrote that "suspicious looking characters on the train are returning diamond hunters. Henry [Janin] shows us some of the diamonds—pretty crystals." King and his team had hardly been ignorant of the rising diamond fever, but most of the rumored discoveries had been in Arizona and New Mexico, outside the survey's purview. Now Janin's comments and other hints suggested that the spot was in the northwest corner of Colorado, not far from where Emmons had been working. The news was alarming. A major discovery of diamonds in the area by anyone other than King's men would call into question the thoroughness of their work and give ammunition to those in Congress who fought the survey's annual appropriations.

King and his men decided that they had better inspect the diamond fields as soon as possible. On October 21, 1872, Emmons and A. D. Wilson, a topographer on King's team, got on a train from Oakland east to Fort Bridger, Wyoming, where they had boarded some mules for the winter. King followed the next day.

A week and a half later, having gathered supplies at the fort, King, Emmons, Wilson and two packers set off on what would



*Slack and Arnold bought uncut diamonds in London, and planted them on this flat butte in northwest Colorado. The mountain in the background is still called Diamond Peak.*

become a bitterly cold 150-mile journey to the vicinity of Janin's site, which they had deduced from their own fieldwork and other clues. After five days of hard travel, they set up camp and immediately began looking around. Before long they saw a claim notice posted by Janin. According to Emmons' field notes, they followed other posted notices until they "came upon a bare iron-stained bit of

coarse sandstone rock about a hundred feet long. . . . Throwing down our bridle reins we began examining the rock on our hands and knees, and in another instant I had found a small ruby. This was indeed the spot. The diamond fever had now attacked us with vigor, and while daylight lasted we continued in this position picking up precious stones. . . .

And when a diamond was found it was quite a time before our benumbed fingers

could succeed in grasping the tiny stone." When they went to bed that night, they "dreamed," Emmons wrote, "of the untold wealth that might be gathered."

But the next day, King noticed that wherever he found a diamond, he also found a dozen rubies, too neat a scheme for a natural deposit. The men also realized that the stones were found only in disturbed ground. Rubies found in anthills, for instance, were not only surrounded by footprints but "beside the top hole by which the ants made their exit, there was visible in the side another small break in the crust." Anthills lacking footprints or broken crusts invariably also lacked rubies. "Our explanation," Emmons wrote, "was that some one must have pushed in a ruby or two on the end of a stick." The men spent the next two days doing more tests, which included digging a trench ten

feet deep in a gulch where diamonds should have been distributed well below the surface. But there were no diamonds in it.

On their fourth day at the site, King and his men were approached by a man on a horse, "a stout party, city dressed, and looking very much out of keeping with his surroundings." "Have you found any carats around here?" the stranger asked. One of King's men blurted out news of the fraud, which the man received with the response: "What a chance to sell short on the stock." He introduced himself as J. F. Berry, a New York diamond dealer who had followed King's party from Fort Bridger and had been watching them with a spyglass from the top of a nearby butte.



*Rough Diamonds*

In camp that evening, King decided, as he later wrote to his boss in Washington, "to go at once to San Francisco, and find out the status of the Company, and prevent if possible further transactions in the stock." King would also claim that he hurried off to prevent Berry from acting on the knowledge one of his men had blurted out. But it's even more likely that the self-assured young geologist didn't want this irritating interloper revealing the fraud before he could. In any event, King and Wilson left camp well before

dawn, riding the 45 miles to Black Buttes Station “across a pathless reach of desert and mountain,” arriving in San Francisco on November 10. King went at once to Janin’s hotel. “Through nearly all the night I detailed to him the discovery,” King later wrote, “and at last convinced him of its correctness.”

The next morning King and Janin met the duped directors at Ralston’s office at the Bank of California. There, King read aloud a letter he had written for publication asserting that the diamond fields were “utterly valueless” and that the directors had been the victims of an “unparalleled fraud.” He spelled out the tests his men had made on the site. The investors “w

ere astonished,” King would write, “and thrown into utter consternation.” Emmons later related that one of the directors, no doubt hoping to sell short himself, suggested that King might gain financially if he were to sit on the news for a few days. King supposedly responded: “There is not enough money in the Bank of California to make me delay the publication a single hour.” The board agreed to stop a planned sale of 100,000 shares of stock at \$100 a share; the directors then persuaded King to lead another party, including Janin and other company representatives, back to the spot. The group set out the next day and, upon arrival, made its inspection in weather so cold that one man’s whiskey was said to have frozen in the bottle. On November 25, inspection party member Gen. David Colton, who had become general manager of the company just three weeks before, reported back to the directors that he had seen rubies scattered on a bare rock, where “it would have been as impossible for Nature to have deposited them as for a person standing in San Francisco to toss a marble in the air and have it fall on Bunker Hill monument.” Upon receiving this and other reports from the latest inspection, along with a lame attempt by Janin to explain his failure to unearth the fraud months before, the directors voted to publish King’s letter and dissolve the company.

The San Francisco Chronicle on November 26 stacked headlines that began with “UNMASKED!” followed by “The Great Diamond Fiasco,” “THE MAMMOTH FRAUD EXPOSED” and “Astounding Revelations.” Because Arnold and Slack had long departed from the scene, reporters focused on the company’s gullible principals. The Chronicle chortled at “how the millionaires were victimized.” Janin the mining engineer was criticized for being so easily duped. Harpending came under suspicion as a perpetrator of the fraud because he was reported to have been in London at the time of one of Arnold’s diamond-buying sprees. General Butler was discovered to have received a thousand shares of stock for shepherding a mining act through Congress that had enabled the company to buy the federal land that held the bogus diamond fields. William Lent claimed in a lawsuit that he lost some \$350,000, and it was widely reported that Ralston lost \$250,000.

John Slack was assumed to have either fled the country or died soon after leaving the diamond fields with Rubery. But in 1967, Bruce A. Woodard, an accountant who had become obsessed with the hoax, asserted in his book, *Diamonds in the Salt*, that Slack had taken a job building caskets in St. Louis. Eventually, according to Woodard, Slack moved to White Oaks, New Mexico, where he became an undertaker, living alone until his death at age 76 in 1896. He left behind an estate of \$1,600.

In July 1872, according to court papers quoted by Woodard, Philip Arnold bought a two-story brick house in Elizabethtown, Kentucky, and moved his family into it. After acquiring some 500 acres nearby—all of the property was in his wife Mary’s name—he bred horses, sheep and pigs. A grand jury in San Francisco indicted Arnold and Slack for fraud, but the contents of the indictment were never revealed, and Woodard speculates that they were quashed by the investors to avoid further bad publicity. Arnold answered the news of the indictments by telling the Louisville paper that “I have employed counsel myself—a good Henry rifle.” But he eventually did settle out of court with William Lent for \$150,000, his only acknowledgment, though tacit, that he had planted any diamonds. In 1873, Arnold became a banker himself by putting an unknown amount of money into an Elizabethtown bank that had temporarily

closed its doors. An 1878 quarrel with another banker in town led to a shootout that injured three bystanders. Arnold took a shotgun blast in the shoulder, but was recovering when, six months later, he contracted pneumonia and, at age 49, died. Although he left his family comfortably off, several hundred thousand dollars have never been accounted for.

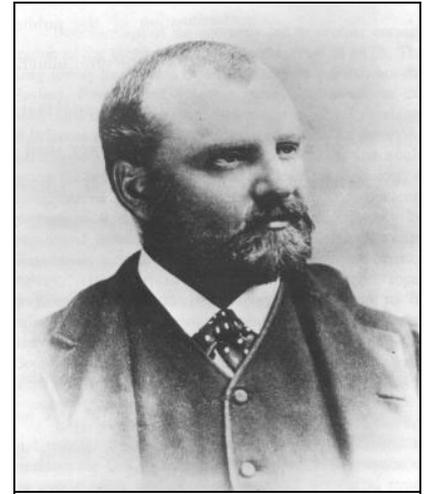
Even before the Diamond Hoax came to light, California had had more than its fair measure of frauds—from the routine salting of land with gold nuggets during the gold rush to faked reports of oil finds costing investors millions in the 1860s. “I see the Diamond Hoax as one in a long line of scams made possible by the fact that the United States truly was a land of opportunity,” says Patricia O’Toole, author of *Money and Morals in America: A History*. “Many a legitimate fortune seemed to be made overnight,” she adds, “so it was particularly easy for a con artist to convince a gullible American that he too could wake up a millionaire.” Moreover, as Jackson Lears, a professor of history at Rutgers University and the author of *Something for Nothing: Luck in America*, observes, “The 1870s was the golden age of gambling, due to an expanding post-Civil War frontier economy.” He is hardly surprised that such supposedly sophisticated investors were taken in. “In an unregulated laissez-faire economy,” he says, “licit and illicit risk were difficult to distinguish; only after it had turned out well did a speculation become an ‘investment.’ Playing the market could be just as shady an enterprise as running a three-card monte game on a steamboat or organizing a diamond swindle.”

No wonder, then, that press and public alike greeted King’s exposé so gratefully. The Chronicle editorialized that “We have escaped, thanks to GOD and CLARENCE KING, a great financial calamity.” Echoed the San Francisco Bulletin, “Fortunately for the good name of San Francisco and the State, there was one cool-headed man of scientific education who esteemed it his duty to investigate the matter in the only right way.” Many saw the unraveling of the hoax

as a welcome case of government acting on behalf of the people. Clarence King, says Lears, “looked forward to the 20th century, when management rather than morality became the chief idiom and technique of control. He was the sort of man (or pretended to be) that we like to think our government regulators can be today—expertly informed, incorruptible, calmly surveying the scuffle of self-interest from an Olympian perspective, one which protects him from the irrational exuberance of the clods who think they’ve struck it rich.”

King’s role in exploding the diamond hoax made him an international celebrity—the case was followed closely in newspapers in London and New York—and he dined out on his deed for the rest of his days. Earlier in 1872, he had published a series of sketches from his time with the California survey, called *Mountaineering in the Sierra Nevada*. The book was a popular success on both sides of the Atlantic, and even today it is considered a classic of American nature writing. He counted among his friends Henry Adams, John Hay and Henry James. In one chapter of *The Education of Henry Adams*, Adams wrote of King, “None of his contemporaries had done so much, single-handed, or were likely to leave so deep a trail.” Hay called him “the best and brightest man of his generation.”

Upon completion of the fieldwork for his survey in 1872, King returned East where, for the next six years, he oversaw the publication of a multivolume report of the survey’s findings,



Clarence King

culminating in his own work, Systematic Geology, published in 1878, which one critic called "the most important single contribution made to the scientific knowledge of the continent." But even as he was finishing the book and starting a two-year stint as the first director of the United States Geological Survey, King's attention was turning from one Gilded Age secular religion, science, to the other, the pursuit of money. He tried ranching, mining and, like Philip Arnold, banking, but he didn't have the knack for any of them. He lost more money than he made, and he lost the money of many of his friends as well, though both Henry Adams and John Hay remained loyal. And when, deep in debt, King died of tuberculosis in a small brick house in Phoenix in 1901, just shy of his 60th birthday, his old friend Theodore Roosevelt sent a wire of condolence from the White House. From <http://www.Smithsonian.com>

\*\*\*\*\*  
**March 2008 Gem & Mineral Shows**

- 1-2--ARCADIA, CA:** Show; Monrovia Rockhounds; Los Angeles Arboretum, Ayers Hall, 301 N. Baldwin Ave.; Sat. 9-4:30, Sun. 9-4:30; adults \$7, students and seniors \$5, children \$2.50; contact Jo Anna Ritchey, 224 Oaks Ave., Monrovia, CA 91016, (626) 359-1624; e-mail: j.ritchey@verizon.net; Web site: www.moroks.com
- 1-2--ESCONDIDO, CA:** Annual show; Palomar Gem & Mineral Club; Escondido National Guard Armory, 304 Park Ave.; Sat. 9-5, Sun. 9-4; contact Van Lynch, (760) 749-4164; e-mail: michelleandvan@hotmail.com
- 1-2--VENTURA, CA:** 46th annual show; Ventura Gem & Mineral Society; Seaside Park, Ventura County Fairgrounds, 10 W. Harbor Blvd.; Sat. 10-5, Sun. 10-4; free admission; contact Abe Bar-Shai, (818) 991-7735; e-mail: Barshai3@aol.com; Web site: www.vgms.org
- 7-9--DEL MAR, CA:** Show; Gem Faire; Del Mar Fairgrounds/Exhibit Hall, 2260 Jimmy Durante Blvd.; Fri. 12-7, Sat. 10-7, Sun. 10-5; \$5 weekend pass; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com
- 8-9--SAN MARINO, CA:** Show, "50 Golden Years of Rockhounding"; Pasadena Lapidary Society; San Marino Masonic Center, 3130 Huntington Dr.; Sat. 10-6, Sun. 10-5; free admission; contact Kevin Birnbaum, 121 S

- Chester Ave., Apt. #11; Pasadena, CA 91106, (626) 564-0935; e-mail: birnbaum@gmail.com
- 8-9--SPRECKELS, CA:** 61st annual show, "Parade of Gems"; Salinas Valley Rock & Gem Club; Spreckels Veterans Hall, 5th St. and Llano St.; Sat. 10-5, Sun. 10-5; free admission; contact Karin Salomon, 209 Wood St., Pacific Grove, CA 93950, (831) 375-5233; e-mail: kcbakes27@yahoo.com; site: www.salinasrockandgem.com
- 8-9--TURLOCK, CA:** Show; Mother Lode Mineral Society; Stanislaus County Fair Grounds, 900 N. Broadway; Sat. 10-6; Sun. 10-5; adults \$5, 12 and under; contact Bud or Terry McMillin, (209) 524-3494; Web site: www.motherlodemineralsociety.com
- 14-16--SAN FRANCISCO, CA:** Show; Gem Faire; Fort Mason Center/Herbst Pavilion, Landmark Building A; Fri. 12-7, Sat. 10-7, Sun. 10-5; \$5 weekend pass; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com
- 14-16--VICTORVILLE, CA:** 32nd annual tail gate; Victor Valley Gem & Mineral Club; Stoddard Wells, Stoddard Wells Rd.; Fri. 9-5, Sat. 9-5, Sun. 9-5; free admission; contact Jo Ann Beal, P.O. Box 873, Adelanto, CA 92301-0873, (760) 217-2628; email: e-mail: info@miningandmore.com; Web site: http://fosse.schema-root.org/wgmc/
- 15-16--VALLEJO, CA:** Show and sale; Vallejo Gem & Mineral Society; Solano County Fairground, 900 Fairgrounds Dr., County Bldg.; Sat. 10-5, Sun. 10-5; contact Phyllis Malicki, 380 West M St., Benicia, CA 94510, (707) 745-3255; e-mail: dncwolke@sbcglobal.net
- 22-23--ANGELS CAMP, CA:** Show and sale, "Jump for the Gold"; Calaveras Gem & Mineral Society; Calaveras "Frogtown" Fairgrounds; Sat. 10-5, Sun. 10-4; adults \$3; contact Tak Iwata, (209) 928-5579, or Tom Reeves, (209) 754-4863; Web site: www.calaverasgemandmineral.org
- 22-23--ROSEVILLE, CA:** 46th annual show, "Nature's Wonders"; Roseville Rock Rollers, Roseville (Placer County) Fairgrounds, 800 All America City Blvd. (off WA Ave.); Sat. 10-5, Sun. 10-4; adults \$5, seniors \$4, children 12 and under free; contact James Hutchings, P.O. Box 1181, Foresthill, CA 95631, (530) 367-5108; e-mail: jhutchings22@hotmail.com; Web site: www.rockrollers.com
- 29-30--TORRANCE, CA:** 59th annual show, "Nature's Treasures"; South Bay Lapidary & Mineral Society; Torrance Recreation Center, 3341 Torrance Blvd.; free admission; Sat. 10-5, Sun. 10-4; contact Larry Hoskinson or Leslie Neff, (310) 318-2170

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*The Editor*

# The Opal Express

American Opal Society  
P.O. Box 4875  
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**Volume #41 Issue #3  
March 2008**

TO:

### Some Topics In This Issue:

- *AOS Election Results*
- *Opal Formation*
- *Lost Gold of the Ada Hancock*
- *The Great Diamond Hoax of 1872*

### Important Info:

**Board Meeting – March 4<sup>th</sup>**

### **General Meeting - March 13<sup>th</sup>**

Local Jewelry Designer and Artist Stan McCall will give a lecture on Advanced Stone Inlay.

# **March 13th Stan McCall on Advanced Stone Inlay**

### — GENERAL MEETINGS —

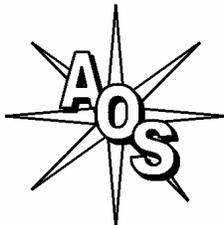
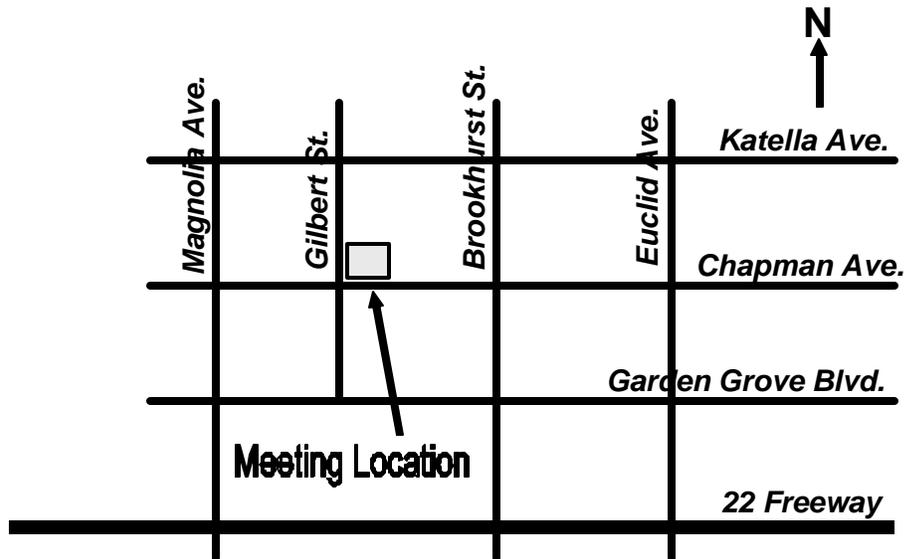
2nd Thursday of the Month  
7:00 pm - 9:00 PM

Garden Grove Civic Women's Club  
9501 Chapman Ave.  
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(NE corner of Gilbert & Chapman)

### MEETING ACTIVITIES

Opal Cutting, Advice, Guest Speakers,  
Slide Shows, Videos, Other Activities



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