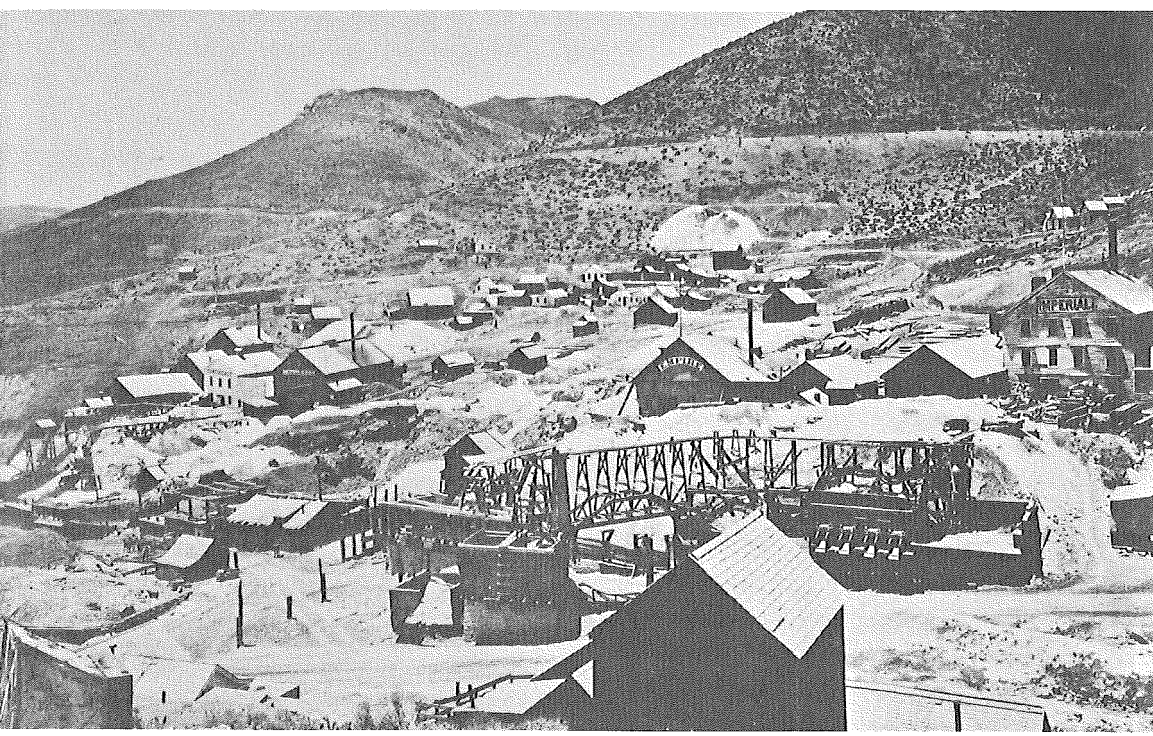
NEVADA Historical Society Quarterly



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Gold Hill, Nevada, by O'Sullivan, ca. 1868. See page 27.

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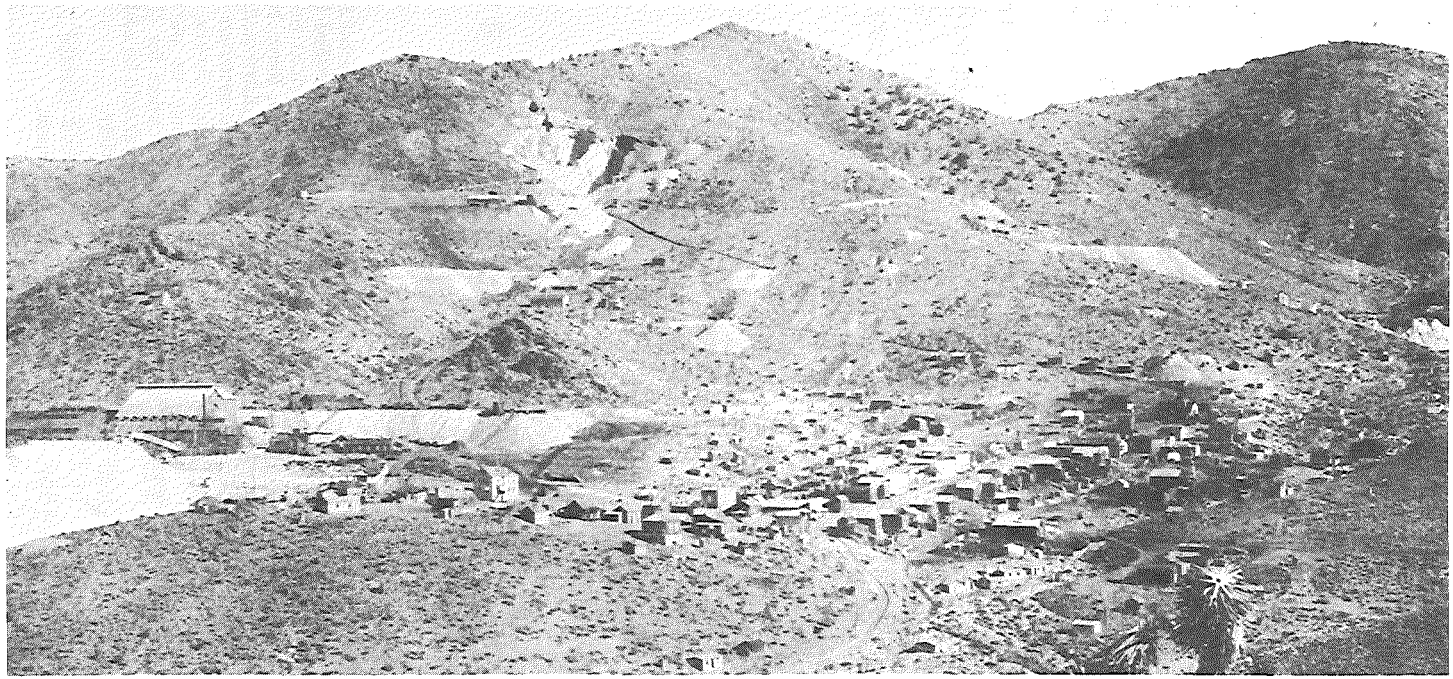

Delamar at the height of its boom, ca. 1898. Courtesy of Chick Perkins, Overton Museum.

The Delamar Boom:

Development of a Small, One-Company Mining District in the Great Basin

by John M. Townley

IN THE LATE SUMMER of 1889, two ranchers from the Pahranagat Valley were trying to generate some "cash money" by trapping mustangs in the Highland Range, bordering Meadow Valley Wash on the west. At the time, the virtual inactivity in mining since 1878 had almost eliminated markets for farm or ranch produce in Nevada. While riding up one of the dry washes on the western slope of the range, the men noticed what appeared to be mineralized float in the arroyo. Stepping down from their animals, Joe Sharp and John Ferguson collected a few samples of the rock and believed that they could see flecks of gold in the quartz matrix. Using a monkey wrench to crush one of the samples, they dry-panned the powder and found a thin string of gold flakes in the bottom of their skillet. From that day until the following June, the two men spent as much time as possible searching the drainage pattern for the dry wash, looking for the source of the rock. Then, during the first week of June, 1890, the first claims were filed in the Lincoln County Clerk's office.[1]

Since the area had never produced earlier, the printed record of the claims in the *Pioche Weekly Record* initiated little interest within the mining fraternity. Sharp and Ferguson continued to study the hillsides

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above their first claims and began mailing samples of the ore to various persons in the mining business, hoping for some financing to develop the deposits. Their first outside interest came from Hartwig A. Cohen, a mining engineer then operating the Morey mine in central Nevada.

Between 1890 and October, 1891, Cohen grubstaked Sharp and Ferguson. Assays indicated that the veins discovered were of low value, but encouraged further prospecting. During the summer months of 1891, Sharp sold his interest to Cohen for a trifling sum and Ferguson continued his work alone. In October, Ferguson began working the slopes of the gulch that bordered the original discovery to the south. About halfway up the canyon he found float with visible veinlets of gold throughout the specimens. Walking uphill, he traced the float to the source, an exposed outcrop standing six to ten feet above the surrounding area and about a quarter of a mile in length. Hurriedly taking grab samples, he sent the collection to Cohen by post, and an assay of $1,000 per ton was made. Cohen quickly made arrangements to reach the discovery and sent the following letter to a friend after he had confirmed the strike:

> My trip south was productive of results better than I had anticipated. The mine which I invested in, is in the Bennett Springs Range, about thirty miles south of Pioche, and about thirty-five miles east of Pahranagat Valley. The mine is not situated in any mining district, and the first tracks which were ever made into the canyon are now made by the locators. . . . There are now three men at work sinking a shaft. We are using a whip and horse at the shaft. We shall take up a town site and call it Helene [first name of Cohen's wife].[2]

The earliest notice of the district in a national mining publication came a month after Cohen began hiring men and teams for exploratory work on the Magnolia claims.[3] The information had been sent by Cohen and was part of his plan to attract capital to the district and dispose of the claims filed earlier by Ferguson. This bit of puffery brought a rush of local prospectors to the area.

Following the influx of prospectors, promoters, and businessmen during December, 1891, and January, 1892, the most immediate need was for a local means of recording claims and settling disputes. Accordingly, on February 21, 1892, nineteen men met and organized the Ferguson district, named in honor of the discoverer. The rules adopted embodied the format utilized in most of the contemporary districts. Three cheers for John Ferguson ended the meeting.[4]

From this time, the district was a virtual appendage of Utah. It drew all its equipment and most of its personnel from that state. The materials necessary to any mining enterprise were shipped over Utah railroads to Milford and then freighted overland from that point by Utah teamsters. Many of the businesses that later grew up in the district were branches of Utah firms and the ores were backhauled to Salt Lake City smelters.

In 1892 the umbilical relationship was apparent; the time zone incorporating the southeastern Nevada communities was the same as that of Salt Lake City, not Reno.

The earliest center of business and other activities was near John Ferguson's camp in Monkey Wrench Gulch. After the discovery of the Magnolia claims in October, 1891, the tent camp shifted to Helene, just below the Magnolia discovery marker. The town grew quickly and by September, 1892, had a four-page newspaper, the *Ferguson Lode*. The paper used a distinctive bit of artwork that gave some *élan* to an otherwise undistinguished boom-town sheet. The editor had a column-wide representation of John Ferguson's famous monkey wrench molded and used it to separate ads and copy. The humble tool became the community's symbol of trust in the future. Stores and saloons copied the newspaper and adorned their false fronts with the design.

Between March and September, 1892, the claims that were later to produce heavily were discovered or developed. The Magnolia was the bellwether of the camp and confidence waxed or waned depending on the news from its management. H. A. Cohen had moved himself and family to Helene in March. Cohen and Ferguson were the leading figures during this period and much was made of the fact that they were native Nevada entrepreneurs.[5] Under Cohen's management the Magnolia was able to finance its development from shipment of ore to Salt Lake City.

During this free-wheeling phase, two other mines promised to be future bonanzas: the April Fool and the Jim Crow–Monitor claims. By May, the April Fool posted signs on its dumps warning individuals not to take samples.[6] The summer months of 1892 saw the first leases given on major properties and the first involvement of outside capital in the Ferguson district.[7]

The Jim Crow–Monitor claims were to be purchased by Joseph R. De La Mar in April, 1894, and became the leading producers in the camp. However, in 1892 they were no more promising than any other prospect holes in the district. The low-grade, high-volume ores of the Jim Crow claims pitched toward the April Fool and became thin veins of jewelry rock. The April Fool was considered so favorable that another Salt Lake promoter, James Mahana, took a $150,000 bond on the property. Mahana believed that he could produce enough ore during his lease to pay the bond off; but even so, he didn't risk bankruptcy since the cash advance against the bond was only $1,000. By the terms of the lease, the owners had a thirty-day grace period, in which they could remove any ore from the dump. By careful handsorting, they concentrated over $778 in gold and 178 ounces of silver to each ton shipped.[8] News of the values being shipped to Utah brought a flood of mining engineers and brokers to the district. Prosperity continued until mid-November.

From high-rolling boom to stagnant mining district took less than a month. In early November, Mahana failed to pay the purchase price on

the April Fool bond. The twenty-four-man crew had not been paid for weeks and the equipment ordered for the property was attached by mechanics' lien. The owners were not able to retain the crew and dismissed the men, which depressed the local labor market. Then, the Magnolia bond was dropped in December. After spending $40,000 in exploration, the bondholders decided the mine did not merit further expenditure. The Magnolia employees joined the other discharged crews in the district.

Another indicator of hard times was the number of men leaving Helene for the White Hills (Arizona) strike. The exodus was so substantial that the ever-optimistic *Ferguson Lode* was finally forced to notice it. By January 1, 1893, only the Jim Crow–Monitor claims had a crew made up of men other than the owners. The district relapsed into the quiet broken only three years before by Ferguson and Sharp chasing mustangs in the remote Highland Range. As many miners left for greener pastures, the incidence of petty theft grew apace. The *Lode* recorded the loss of business firms, mainly from Pioche and Utah, which closed their Helene outlets and returned to the home office. Finally, the newspaper was forced to move to Pioche, announcing it would return when the camp picked up in activity.[9]

Conditions within the district declined to near-anarchy. The Indian population of northern Lincoln County had moved to Helene with the boom and with its decline stole anything not firmly nailed down. News of the period between 1893 and mid-1894 is scanty since the Pioche papers took a perverse glee in ignoring the Ferguson district. However, the decline was more apparent than real. The low point in employment came when the bondholders ceased active exploration. Thereafter, employment slowly picked up, although it never reached the heights of the summer of 1892. Occasional wagonloads of sacked ore continued to flow over the wagon road to Milford and the Salt Lake City smelters.

Attempts at Local Milling

The high costs of transportation, with their resulting effects on shipment of supplies into the camp and hauling of ore to the Utah smelters, caused the claim owners to consider different schemes for local milling. After estimating the funding necessary to build mills at the various mines, consideration was given to already existing mills at Pioche and Hiko. Moderate expenditures would convert those facilities into suitable plants for the Ferguson ores. Accordingly, in April, 1893, Cohen and Ferguson announced that they would rebuild the Hiko mill to handle the Magnolia ores.[10]

The mill had been built in the 1860s to process silver ores. The equipment would be altered to handle the gold production from the Magnolia. Cohen calculated that he could send any rock worth more than $60 per ton to the Hiko plant, whereas he could only break even on ore worth

$100 sent to Salt Lake City. By June, 1893, the mill was ready for the initial run and even the *Pioche Weekly Record* had to admit that the district was looking better.[11] The Magnolia Mining Company advertised for teams and wagons to haul ore to Hiko, and by January, 1894, ten freight outfits were constantly at work. A steady stream of bullion was produced, although shipments were often delayed by bad weather and road conditions.

While the Magnolia Mining Company was innovating with the Hiko mill, the Jim Crow–Monitor and April Fool owners adopted a policy of "watchful waiting." After hesitating for several months, a half-interest in the Jim Crow was sold for $20,000 and the money used to convert the Condor mill in Bullionville (south of Pioche) to process their ores. The mill worked sixteen tons per day and over $60 per ton was being recovered from the four hundred tons of low-grade ore that had been shipped to the refurbished mill from the Jim Crow–Monitor dumps.

Satisfied that the mill would profitably work the low-grade rock, the owners decided that improvements to the transportation system between the mill and mine could be made. They planned a narrow-gauge railroad costing an estimated $250,000 and capable of handling three hundred tons per day—much above the productive capacity of the district at the time.[12]

The last member of the three leading properties joined in the milling fever when the April Fool signed a contract with the Jim Crow–Monitor group to ship its low-grade production to the Condor mill for custom separation. The prospects for the growth of a Nevada milling industry in both Pioche and Hiko had never been higher, when the situation within the district radically changed.

Captain De La Mar Buys In

In late November, 1893, Samuel T. Godbe, a Pioche mining promoter, had secretly acquired a bond on the Jim Crow–Monitor claims. The *Mining and Scientific Press* soon printed news of the $450,000 transaction limited to ninety days duration. Godbe quickly traveled to the East and began to ballyhoo the district and his optioned properties. In early April, Godbe was notified that a tunnel being driven along the Monitor ledge had broken through a porphyry dike into a vein of rich gold-bearing quartz.

Godbe's best prospect for the claims was J. R. De La Mar of New York City. A copy of the latest assays from the Monitor precipitated a whirlwind trip to Helene by De La Mar and some of his staff.[13] Two weeks later, the purchase was announced.

The new owner was a product of the western mining industry. Born in Amsterdam in 1843, he joined the Dutch merchant marine and gained the title of Captain through command of his own vessel. He came to the

United States on his twenty-fifth birthday and started a business in Vineyard Haven, Massachusetts, as a ship contractor. During the late 1870s he traveled in the western states and bought some claims in Leadville, Colorado. After studying chemistry and metallurgy in Chicago, he sold the claims for $2,000,000 to a London combine. Thereafter, his business was exclusively mining. The Captain preferred to develop one property at a time. His knowledge of metallurgy led him to prefer high-volume projects where low-grade ores could be exploited through efficient mining technology. His staff was small, but comprised of well-qualified engineers participating in one of the earliest bonus incentive programs.[14]

The purchase price was about $150,000. The Jim Crow brought $66,000 and the Monitor sold for $90,000. The $450,000 price for the two properties printed in the *Mining and Scientific Press* had evidently been reduced to one-third during negotiation.

Once the sale was consummated, De La Mar acted with his usual energy. H. A. Cohen was retained as superintendent and a telephone line was laid between the claims and Pioche, where telegraphic contact with the Captain's New York office was maintained. The paternalistic attitude to be adopted by the company was reflected in the extension of telephone privileges to local residents. The new venture was incorporated in the state of New Jersey, with 2,500 shares of $100 par value stock being issued. The title was De La Mar's Nevada Gold Mining Company as specified in the incorporation documents sent to the Lincoln County Recorder's office.[15]

In May, the inhabitants of the town of Helene moved *en masse* to the open flat just below the Jim Crow–Monitor claims. The location was immediately south of De La Mar's property and could expect to be the metropolis of the district. Initially, the town was called Reeves, after one of the Jim Crow–Monitor owners, but discretion overcame loyalty and the town changed its title to Delamar.[16]

Under Cohen's direction, an active program of development began. A series of tunnels were driven at hundred-foot intervals into the Monitor vein. A millsite was selected and a cable-tool drill rig began to drill for water in the flats west of Delamar. The efforts to develop a local source of industrial water were costly and finally failed, necessitating a pipeline over the Highland Range to Meadow Valley Wash for water.[17]

Cohen's most pressing problem was milling: whether to start with a small pilot plant or design a fullscale plant immediately. Samples of the ore sent to other districts indicated that the chlorination process was more efficient. Cohen insisted on trials in working mills, having no faith in laboratory processes. A 50-ton-per-day chlorination works was ordered and a Professor Houtz from De La Mar's Tintic works was sent to oversee construction.[18] An aerial tramway was built and a telephone system connecting mine, mill, and offices completed. Over three hundred men were employed under and above ground. Ten tunnels were completed into the

ore body (an upright cylinder over a thousand feet from surface to base), while construction of the mill continued apace.

The whistle was blown from the mill on Thursday, February 14, 1895.[19] All the massive equipment had been brought overland by freighters from Milford, Utah. De La Mar had established an office in Salt Lake City where he centralized his procurement actions and based several engineers for staff duties at one or the other of his mining operations. The most difficult transportation job was involved in moving the large metal water tanks. The teamsters were forced to cut the outer shells like so many oranges, freight the slices over the two hundred miles between Milford and Delamar, and then reassemble the units. Oldtimers at Caliente state that many of the teamsters took several weeks to move their wagons over the mountain into Delamar. Special wagons were built for the heaviest items and teamsters often widened the narrower portions of the roads to facilitate passage.

The first bullion from the new mill left Delamar on April 11. A special coach had been built that contained a safe weighing several tons. Three guards drove the express, complete with a built-in arsenal of several pistols, rifles, and shotguns. Throughout the history of the camp, its bullion had to be shipped to Milford, Utah, where Wells, Fargo and Company had the nearest bullion agent. When Jeanne Elizabeth Wier, first director of the Nevada Historical Society, visited the area, she was told of several attempts to rob the stage.[20]

Growth of the Town

Development at the townsite was as active as in the mine, but with much less order. A main street was laid out, but beyond that everything was chaos. Each miner claimed a lot and built his shacks of whatever was available: tin cans, barrels, bottles, powder boxes, and even cracker tins. It was lucky that the average annual rainfall was low, since most of the buildings were in the *al fresco* tradition.

By October, 1894, a constable had been appointed, a school initiated, and a newspaper was in business. Other important matters included the first slot machine, local Chinatown and Indian camps, and regularly scheduled shipments of Dixie Wine, a highly potent beverage freighted from southern Utah. Once, a miner advertised for a cure for his burro who was hopelessly addicted to the liquid. The Pioche newspaper picked up the item and claimed that it wasn't a four-legged jackass that was involved, but a two-legged one; further, the town of Delamar was full of them. This was one of the first indications of a rivalry that flared between the two communities and was not resolved until Delamar died in 1909.

On March 11, 1895, the first celebration of the discovery of the district was held with much speechmaking and revelry. Shortly afterward, the electric plant was completed and artificial light was provided by the company free of charge. A contract for 200,000 bricks was let and thereafter

most company buildings were constructed of that material. On March 23, 1895, the first child and first delivery of ice from Meadow Valley Wash arrived simultaneously.

In mining states, relations between state officers and mine owners are generally benevolent. However, De La Mar and Carson City were soon arguing over the use of scrip. In an effort to reduce actual cash outlay, miners were issued wages in aluminum tokens. Delamar merchants happily accepted these coins, but Pioche tradesmen affected repugnance. Pioche was down at the mouth anyway, much of their population and many of the community buildings having gone south to Delamar. County officials quietly passed the word to Carson City where action was taken.

State officials began a correspondence over the matter while the company stalled for time. Finally, in July, 1895, the U.S. Attorney for Nevada and the Deputy U.S. Marshal investigated the charges in Delamar. After collecting some affidavits and statements, the case was heard in Carson City in August, when the coins were ordered redeemed. In September, the *Lode* carried a notice that the company would exchange the tokens for coin of the realm. By this time, there was no need for parsimony. The mill was producing $20,000 weekly in profits and there was no shortage of funds in the treasury.

Before long, Delamar regarded the rest of the county as simply a means of absorbing their contribution to the tax rolls. The first protests were over road maintenance. While the roads to Delamar were receiving most of the traffic, the county work crews were employed along roads to isolated ranches in Meadow Valley Wash. The freight companies were losing equipment due to the condition of the roads and quickly convinced the *Delamar Lode* that a change was due.

For the following several months, the local editor sponsored a campaign to remove the county seat to Delamar. At this latest sign of aggression, the fur really flew. Piochers rose in arms and agreed to prevent such an action by force, if necessary.

The situation eventually resolved itself in compromise: Delamar would not threaten the county seat if they could have control over expenditure of the county revenues. Within a short time, the roads to Delamar were the best surfaced in the state. After 1896, most of the voters in Lincoln County lived in Delamar and elected Delamar candidates to county offices. Many meetings of the County Commissioners were held in Delamar and real control of county politics passed from Pioche.

The Delamar Dust

The district is more famous for dust than gold. The "fever" or "dust" caused the deaths of possibly several hundred men, women, and children until the dry crushing processes in the mill were replaced by wet methods. The first mill pumped dense columns of smoke and quartz particles into the sky, soon covering the lower-lying townsite with a continual pall.

Inhalation of the dust caused fibrosis of the lung tissue, internal bleeding, then an agonizing death. It was frequently not apparent to the sufferer until the last stages were at hand. Often a man reported to work, then suffered a massive hemorrhage at the mouth and nose, and died within a few days or weeks. Complaints about the dust were printed as early as April, 1895, just two months after the mill opened.[21]

A particular tragedy was the incidence of Delamar fever among young women and children. The mill was located uphill from the residential areas, and the winds carried the cloud over the town much of the time. The miners' families were not safe and suffered as much as the wage earner.

By September, 1895, concern over the fever was so strong that all lot owners were ordered to clean their property and boil all water. It was believed that the disease was a form of cholera and contracted through drinking water. The company water tanks were cleaned weekly with lime, but the epidemic still raged. As the years passed, the reputation of Delamar as a widow-maker was firmly established. The Utah press was especially virulent and advised their readers to trade with the prosperous community, but leave quickly.

By 1899 the dust was recognized by the town as the source of the fever. Company management accepted this privately, but refused to make the costly changes needed to eliminate the problem. Reports by company experts that the mills were safe had little comfort for grieving widows.

Technological progress eventually led to a solution. A Kansas City Dust Collector which saved the gold values that had been passing into the atmosphere was put on the market and sold to the company. After a test run, the collector paid for itself whereupon a complete battery was installed. A Sunday was set aside by the company to show the town through the newly safe crushing department.

This action removed the "fever" threat from mill workers and townspeople, but did nothing about conditions underground. Ex-miners said that a coating of white talc-like dust had accumulated in all parts of the workings to a depth of several inches. Blasting would send clouds of the material into the air, or personnel walking along the tunnels would fill the drifts with soot. Under the microscope, the particles were seen to be small quartz grains with sharp points and edges. Once in the lungs, they would irritate and weaken the tissues until a hemorrhage was started. The miners continued to suffer from the dust. Although an eight-hour shift was begun in the mill, the miner still worked a twelve-hour day.[22]

The full count of victims will probably never be known. Utah newspapers, quoting local physicians, claim as many as five hundred deaths from the dust. The cemetery in Helene Gulch does not contain a fifth of that number, for the bodies of most Chinese and many whites were sent home for burial. Also unknown is the number of debilitated people. Many persons arrested the disease in its first stages and survived with the loss

of all or part of a lung. Most of these were unable to continue at strenuous occupations; many were permanently bedridden. Most surprisingly, there is no record of suit against the Delamar company for damages or negligence.

The Boom Peaks, 1896–1900

The chlorination mill built in 1894–95 never functioned as well as expected. The structure was razed and replaced with a hundred-ton-per-day cyanide mill, which was tripled in size when the method was found to be satisfactory. Over a year was occupied in the completion of Delamar's milling facilities, with the cyanide plant finally operational by October, 1896. Production continued in parallel with plant construction.

The successful completion of the cyanide mill resulted in annual profits as high as a million dollars annually. Gross production figures were significantly higher:[23]

1896	$1,934,865
1897	2,183,125
1898	1,703,745
1899	1,253,355
1900	1,016,928

It is somehow disappointing that this five-year period of stable production coincides with the first sizeable loss in population. It appears that mining camps prosper on dreams, not reality. Once the mill had been completed, much of the population moved to greener fields. The election of 1896 saw 462 votes cast in Delamar; by 1900 only 260 votes were tabulated.

From 1896 until 1902, when De La Mar actually sold the property, the camp was periodically swept with rumors of sales to English, French, or domestic groups. Although the professional mining journals occasionally joined in, nothing came of the many excitements except to confuse the inhabitants of the district. De La Mar did frequently sell properties, but usually after he decided that their potential had been realized. Even then, the Captain had his own peculiar means of making a sale. He always financed the development of a mine at his own expense. If it proved exploitable, he expected to take all the profits. Most of the sales consummated by De La Mar went to foreign combines, who usually realized significant profits from their investments. Many of his transactions were repeat business, which indicates that the purchasers were generally content with the prior arrangements.

It is impossible to exaggerate the position of the Delamar mine in the economy of Nevada during the 1890s. It was the only operation in Lincoln County paying bullion tax to the state. In one year, over 80 percent of all the tax collected in the state was credited to the company. In addition, the mill was said by the professional press to be the largest consumer of

potassium cyanide in the nation; over a carload (24,000 lbs.) being consumed monthly.[24] Employment during this period remained between four and five hundred men and supported a population of more than fifteen hundred in the town of Delamar. The mine and mill were continually visited by important figures in the mining industry, who were intrigued with a process that routinely separated over 95 percent of the ore values. At a time when most of Nevada was in economic doldrums, Delamar could still be held up as an example of what was possible.

Since coal was not available by rail, the mill and most residences used wood as fuel. Almost unbelievable quantities were needed to fire boilers and provide heat. A sizeable service industry grew up in Delamar to supply the wood required, which was scrub pine and joshua trees from the Highland Range. Both burned well because of the oils present, but were consumed rapidly.

The company purchased wood by contract, as did most of the mercantile stores. Contracts ran as high as ten thousand cords and as many as a hundred men were reported working as woodchoppers, particularly in the fall months when a winter supply was laid up by mill and homeowners. Miners in the district kept a close eye on the company woodyard; if contracts fell off, rumors about shutdown began to spread.

Woodchoppers and their families settled near the uncut timber and founded several small, peripheral camps. The locations were changed as the hills were denuded. Many of the roads still passable today in the Highland Range were laid out by woodcutters, not prospectors, as is often supposed.

During the early years, burros were used to carry wood to Delamar. Chinese often entered the business and led long trains of animals completely covered by their loads into town. Later, the company bought a steam tractor and tried to cut costs by purchasing fuel in the hills and hauling it to town themselves. It was guaranteed by the manufacturer to haul a minimum of thirty cords of wood up a 15 percent grade. The machine arrived in March, 1898, and was used in road construction until the company woodcutters had cut enough timber for the first load. There was considerable betting in town over whether the rig would negotiate the tollroad into the mill. The skeptics must have lost since the *Pioche Weekly Record* of July 21, 1898, reported that the tractor was making regular trips of sixteen miles to the wood camps. However, the ultimate decision must have been to rely on contractors since outside contracts were resumed in 1901. The machine age had not yet come, completely, to Delamar.

Social Conditions

By January, 1896, the town had completely covered the narrow valley below the Delamar and April Fool mines. All the usual businesses and organizations found in the western mining camp were present, ranging

from ten formal saloons, two opera houses, four cribs, and six general mercantile stores, to the Pleasant Hour Social Club for young ladies, the Masons, Rebekahs, Odd Fellows, and the Delamar Brass Band. The site for most of the scheduled meetings of the social organizations was Schaefer's Grand Theatre (ladies please remove your hats because the floor is flat). Annually, the Delamar dancing class had a recital in the hall. As evidence of the ultimate in *ton,* a Mrs. Dupont taught French in her home.

Conflicts between labor and management were few. Although a union existed from the earliest days, its functions were social rather than economic. The "dust" was never an issue between labor and management. Union stalwarts had little incentive since the company paid above standard rates; only one conflict between the workers and company came to a strike status.

In late February, 1897, Edwin Boyce, President of the Western Federation of Miners visited Delamar. He spoke at mass meetings and urged a strike. However, several weeks of incitement were necessary to convince the miners to fight the company. The incident redounded to the disadvantage of the miners. De La Mar had been kept informed of the situation via telegraph by his management personnel. When it was apparent that opinion was swinging toward a strike, he closed the mine and published the following statement in the *Lode*:

> The recent organization of a miners union under the direction of Edwin Boyce, President of the Western Federation of Miners, and movements on the part of a certain element which appears to have arrayed itself against the Company's interests, all indicate that the brewing of a strike has begun, and induced us to take this step. The property will be closed down for an indefinite period. The same, of course, applies to the mill. We desire to give those who inaugurated the movement and those whose cooperation they are soliciting, plenty of time for reflection. The lesson which has been recently taught through the trouble at Leadville should serve as a warning to those who are agitating the movement at DeLamar, and I make the prediction now that every man who participates in it will live to lament his action.[25]

On March 2, a mass meeting of the miners was held and resolutions passed agreeing to the current wage scale. Further, they were pleased with the company housing and wanted to go back to work. The mine reopened on March 5 and thereafter the union was a benevolent and social body. On the surface at least, feelings between the company and its employees were smoothed over; when Captain De La Mar visited the camp the following July, the Delamar Brass Band met his stage, and received a hundred-dollar contribution for their performance.

Delamar was never the wild and woolly mining camp of popular legend. Its sins were minor. The *Lode* mentions instances of high-grading from

the mill and theft of jewelry rock from the mine. If the bullion were recovered, the man was simply discharged; if the metal was hidden, charges would be filed until he volunteered the information for recovering the loss. Another scourge among the local merchants was the occasional forger who came to town and "hung paper." All in all, violent crime was rare in the community. Its isolation and interdependence forced the inhabitants to respect the property of others.

Counteracting the forces of evil in the camp were its churches. As early as 1895, two churches, the Roman Catholic and Episcopal, had parishes in Delamar with full-time clergy. Other congregations were served by traveling ministers. The LDS Mission was represented by the Bishop of the Panaca Ward, C. C. Ronnow, who visited on alternate Sundays. Visitations from LDS officers in Utah were frequent. The *Lode* gave full coverage to church activities and unctiously commented that many of the town's unregenerates could benefit from the ministrations of the clergy. Many organizations grew out of the churches: choirs, altar guilds, Missionary societies, and so on. The Episcopal parish was housed in a building that was moved from Pioche. It was a *cause célèbre* between the two communities that required an injunction from the Bishop before the Pioche congregation would allow the church building to be moved.

Medical service was provided to the community gratis by the company. One resident physician was on the staff at all times. Other M.D.s who attempted to establish a practice in Delamar could not stand the free competition and never stayed appreciable periods. The company built a small clinic adjacent to the main offices and housed patients there.

Delamar provided its share of eager volunteers for the Spanish-American War. So many men rushed to the colors that the company had to advertise for additional help. The *Lode* commented that only the cowards were taking this easy way out of their personal dilemmas by leaving town. More men were said to volunteer from Delamar than any town of its size in the state. The Brass Band saw them on their way in July, 1898, and greeted them home a year later. They had been sent to Carson City for training, but the war was over before they could be sent into action.

All Is Not Gold That Glitters

A series of personal tragedies dogged the footsteps of many of the most influential men in the Delamar district. The earliest example was R. W. Crandall, who died from acute alcoholism in 1893, soon after he sold his interests in the Magnolia mine for $3,000. He was reported to have "been drunk since." Not a very favorable omen for the prospective millionaires of Delamar.

The subject of much behind-the-fans gossip was the marital status of De La Mar. He had remained single until past the age of fifty; then married the obscure daughter of a New York druggist after a whirlwind

courtship. The lady was credited with being among the reigning belles of Newport in 1895, the year of the nuptials.

The marriage lasted until 1898, when a divorce was granted in France. The Captain was awarded custody of the child, a daughter.[26] Despite a syrupy story of reconciliation in one of the women's magazines, the break was final. Nor was the Captain alone in his troubles. Hartwig A. Cohen, owner of the Magnolia and first superintendent of the Delamar mine, obtained a divorce and remarried. His first wife was judged insane after she became violent on repeated occasions. Cohen made frequent trips to Salt Lake City to care for her during these seizures. The suit for divorce was made in Pioche and a $15,000 settlement for her maintenance was agreed upon.

The discoverer of the district, John E. Ferguson, left the camp after selling his part of the Magnolia. He was twenty-three years old when he discovered the first mineralized outcrops and died ten years later of a wasting disease never correctly diagnosed. He was blind and confined to his bed from 1897 until his death in 1899. Alden Ferguson, John's brother and a partner in his mining ventures, died two years later. He was a victim of the "dust" and was less than thirty when he collapsed while working a new property.

The Captain Bows Out

By 1900 the honeymoon at Delamar was over. Ore values had dropped below ten dollars per ton, and the mill was rapidly becoming obsolete. Two choices faced company management: they could continue to operate the present plant until it wore itself down to the ground, or they could invest sufficient capital to put up a new facility. However, prior to construction, the remaining portions of the ore body must be explored and the total value of reserves calculated.

Once the staff began studying the possibilities, a heretofore untapped source of revenue was found.[27] The tailings that had been accumulating since 1895 contained as high as twenty dollars per ton in unrecovered gold. These tailings were immediately recycled through the mill.

At the time that De La Mar was reviewing his alternatives in further exploiting the mine, the worst disaster in Delamar's history occurred. A fire began in Edward's saloon on May 29, 1900, and consumed most of the town before it was controlled. Hoses from the mill kept the fire from spreading onto company property. Looting of the stores and saloons had to be stopped by force. Most families were without shelter or assistance until De La Mar authorized his manager to hire anyone needing work in an effort to alleviate some of the distress.[28] An insurance adjuster arrived shortly afterward and held an auction of the fire damaged goods. Those covered by insurance were promptly paid for their loss. This satisfied the businessmen, but did not extend to the miners who had little or no insurance on their homes.

During the height of the fire, water pressure in the town mains and hoses failed. The townspeople blamed the company and felt that loss of pressure at that point enabled the fire to get out of control. It was rumored that standing orders in case of fire were to retain all water for protection of company property. The company denied the charge, but resentment, whether justified or not, was high.[29]

The issue of water pressure and the earlier townsite incident caused a rupture between the company and the town that never completely healed. In 1897, the company had attempted to file a claim on the property occupied by the town. The land had been settled by "squatter's rights" and the title was still vested in the federal government. De La Mar applied for a patent and was sued by the residents. The matter went to the District Court and was settled in favor of the residents. That memory combined with the feelings engendered by loss of water pressure during the fire split opinion in the district so severely that the company was never again held in the high regard it had been earlier.[30]

The fire seemed to mark a period of renaissance for Delamar. In October, a strike of high-grade ore was made in No. 7 tunnel. Building in town resumed after several years of decay. But the largest single matter for optimism was the decision to erect a completely new mill and work the low-grade ores that had been ignored previously. No sooner was this decision made than another stroke of fortune fell to De La Mar. A crew of workmen was assigned to blasting a flat area out of a steep hillside near the mill. It was to be fenced and used as a hog farm for the company mess hall. The first round exposed a vein of ore eight feet wide. Called the Hog Pen Shoot, rock from this lode was mixed with the low-grade material to keep values up.

The new plant was completed in January, 1902. Electrically operated, it eliminated the belts and pulleys that had caused so many injuries to workmen. A bank of dust collectors and a "wet" system of crushing eliminated the dust problem.

The new mill was to be De La Mar's last display of energy and enterprise. Simon Bamberger, a leading Salt Lake City mining figure, had been quietly buying up properties in the district and at length approached De La Mar. The Captain was never at a loss for business acumen and offered his holdings for a round million. Bamberger asked for time to inspect the deposits and mill and received *carte blanche*. In the interim, De La Mar shut down the operation. As a result of the negotiations, production dropped from over a million dollars in 1901 to less than $50,000 in 1902.

In May, 1902, Bamberger took an option on the property, and acting on the recommendations of his mining engineer, exercised the provisions for sale in July.[31] The sale meant more than change in ownership. Bamberger was a salvager by temperament while De La Mar was a pioneer. Bamberger saw the possibilities in exploitation of the large amounts of

low-grade ore and was intrigued by the challenge, whereas De La Mar lost interest in the operation when the high-grade began to reach bottom. Although both private and public opinions were expressed about Bamberger's purchase of a "gold brick," he ignored the controversy and undertook personal management of the enterprise. Thereafter, Utah and the Delamar district were joined by the bonds of corporate ownership.

1. *Pioche* (Nevada) *Weekly Record,* June 7, 1890, p. 3; and James W. Hulse, "A History of Lincoln County, Nevada" (Master's thesis, Department of History, University of Nevada, 1958), p. 102. Other details on the discovery can be found in James G. Scrugham, *Nevada, A Narrative of the Conquest of a Frontier Land* (Chicago: Am. Hist. Soc., Inc., 1935) I, pp. 618–619, and *Pioche Weekly Record,* February 25, 1892, p. 1.

2. *Belmont* (Nevada) *Courier,* December 5, 1891, p. 3. The letter was sent to George Nicoll, Deputy Sheriff of Nye County, who sent it to the *Courier.*

3. *Engineering and Mining Journal,* December 5, 1891, p. 649. The information given the *Journal* mentioned silver, not gold, which it was hoped would be of more interest to potential investors in a region famous for silver, i.e., Pioche and Bristol.

4. *Pioche Weekly Record,* February 25, 1892, p. 1. Excellent summary of events in the area from 1890.

5. *Ibid.,* May 19, 1892, p. 3. Pioche had been declining in population and mineral production for fifteen years. No other town in the county had rivaled the older community until Helene boomed. Residents of Pioche were concerned over the possibility of removing the County Seat (and its jobs) to the new strike. They intended to give no inopportune slight to the nabobs of Helene. Whenever Cohen or Ferguson traveled to Pioche, notice of the fact was placed prominently in the columns of the *Record.*

6. *Ibid.,* May 19, 1892, p. 3. Before then, samples had been freely given to visitors. The warning indicates the high quality of the ore.

7. *Engineering and Mining Journal,* July 30, 1892, p. 111. The Magnolia was bonded by James Hutchinson and John Sevenoaks of Salt Lake City for $52,500, payable in lots of two $5,000 payments by October 16, with the remainder due by January 16, 1893. It was the first large, and by far the most important, transaction to that time.

Hutchinson and Sevenoaks were Salt Lake mining promoters who made a business of incorporating mining properties to provide capital to develop new deposits. The Salt Lake City area was the seedbed of Great Basin financing. The funds to work many Nevada properties were raised from Utah investors. It is surprising to note the many instances of investment capital raised from an allegedly low-cash-flow state that was historically averse to mining. There was demonstrably more investment capital available in the state than has generally been supposed.

8. *Ibid.,* August 27, 1892, p. 207. The results of the shipments from the April Fool were so spectacular that the *E&MJ* printed the values given by the smelter as a proof of the richness of the area. Even with freight charges of $32.50 per ton, the April Fool owners made a steady profit from the lode.

9. *Ferguson Lode,* February 6, 1893, p. 1.

10. *Pioche Weekly Record,* April 13, 1893, p. 3.

11. *Ibid.,* June 1, 1893, p. 3.

12. *Engineering and Mining Journal,* April 7, 1894, p. 327.

13. *Pioche Weekly Record,* April 12, 1894, p. 4. Both Helene and Pioche went to considerable effort to impress De La Mar.

14. Allan Johnson and Dumas Malone (eds.), *Dictionary of American Biography* (New York: Charles Scribner's Sons, 1930), pp. 210–211.

15. *Pioche Weekly Record,* May 24, 1894, p. 4; and *Engineering and Mining Journal,* May 5, 1894, p. 423.

16. *Engineering and Mining Journal,* June 21, 1894, p. 4. In early June, the Captain visited the Reeves townsite. A week later, the name was changed and a post office requested. The contraction "Delamar" dates from this visit.

17. *Mining and Scientific Press,* October 5, 1895, p. 218.

18. Many mill superintendents were graduates of the Freiburg School of Mines. Their special talents and Teutonic pedantry soon caused the miners to refer to them as "professors" regardless of their experience in the classroom.

19. *Delamar Lode,* February 11, 1895, p. 4. The *Lode* was the resurrected *Ferguson Lode* that moved to Pioche in 1893 when Helene declined. As soon as the new town of Delamar was founded, the paper returned to its parent district.

20. "Diary of Jeanne Elizabeth Wier," *Nevada Historical Society Quarterly,* IV (January–March, 1961), p. 8.

21. *Delamar Lode,* April 15, 1895, p. 4.

22. *Engineering and Mining Journal,* December 23, 1899, p. 769.

23. Hulse, p. 108.

24. *Engineering and Mining Journal,* January 8, 1898, p. 52.

25. *Delamar Lode,* March 1, 1897, p. 4.

26. *Pioche Weekly Record,* May 26, 1898, p. 4. The editor of the *Delamar Lode* had enough perception, or perhaps instruction, from the company not to run the Captain's dirty linen through his paper. However, the Pioche weekly took pride in carefully following the case through the courts.

27. *Mining and Scientific Press,* July 28, 1900, p. 98.

28. *Delamar Lode,* June 12, 1900, p. 1.

29. *Mining and Scientific Press,* June 16, 1900, p. 675.

30. *Salt Lake Mining Review,* January 15, 1901, p. 20.

31. *Mining and Scientific Press,* May 24, 1902, p. 289; and *Salt Lake Mining Review,* July 15, 1902, p. 26.

Remaining corner of the Evans Mill, the largest ruin still at Hardin City. Photo by Dave Basso.

Lost Hardin Silver:

Enigma of the Black Rock Desert

by Douglas MacDonald

TALES OF LOST MINES run rampant in Nevada, but only once in the history of the state did the search for a lost mine create a real mining rush, promote a town, and draw comments from mineralogists nationwide. Such was the case with James Allen Hardin's "Lost Silver Ledge" and his Black Rock Desert town, Hardin City.

No one is certain of the details of Hardin's life prior to 1849, though one writer claimed he was a Kentucky farmer. It is known that in the spring of that Gold Rush year he joined an emigrant wagon train and headed west. Near Lassen's Meadow on the Humboldt River the train split into two groups: those bound for the California gold fields would continue west over the Sierras, and those headed for the farming country of Oregon and northern California would turn northwest on the Applegate-Lassen Cut-Off. Hardin elected to stay with the latter group and traveled with them to Rabbithole Springs and then across the barren Black Rock Desert.

After covering a long stretch of waterless country, the train stopped to rest at the next available spot, Double Hot Springs. One of Hardin's friends on the train was John Lambert, who later was to become Superintendent of the Sierra Nevada mine in Virginia City. Together they

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decided on a short hunting trip in the Black Rock Range to replenish their food supply. Accordingly, the pair rode north three or four miles along the edge of the foothills. They found no game, but a reflected glint in the lower end of a small ravine caught Hardin's attention and he stopped to inspect it. What he found appeared to be lead and as they were also low on ammunition he took along some pieces to cast into bullets.

That evening they melted most of it in a borrowed bake oven, though Hardin kept one piece for use later. The wagon train continued northwest and Hardin eventually settled as a carpenter in Petaluma, California. Here he lived uneventfully until late 1857 or early 1858, when a neighbor happened upon the remaining piece of ore. He recognized it as a lead-silver carbonate and when it was assayed Hardin realized the true value of his discovery.

In a short time he had interested a number of men in forming an expedition to go back to the Black Rock country. The *Petaluma Journal* of July 9, 1858, states, "A party of some fifteen or eighteen persons left this locality a few days since for the eastern slope of the Sierra Nevadas, where they go in search of what they believe to be an immense deposit of silver ore." Hardin stated they would have no trouble in finding the silver and should be back within two months.

Whether he couldn't remember the exact location, or whether the topography of the area had changed in the intervening years, no one knows. However, Hardin and party did not find the silver again, although they hunted until winter began to set in. Hardin and some of the group returned to Petaluma while the others wintered in Honey Lake Valley. The following spring they were all back, along with a number of others who had heard about the search. Again they hunted throughout the summer, and again they found no trace of the ore.

Hardin planned to renew the search in 1860, but that spring the Indian troubles at Pyramid Lake kept most prospectors away. In 1862 the Black Rock excitement flamed again, but quickly died away and nothing more was done for the next three years. Then in January, 1866, a prospector from the Honey Lake region recorded a ledge close to what was then known as Hardin's Spring and the rush to Black Rock was on. Although the discovery was actually not the Hardin silver, many people believed it was and they all wanted to get in on the find.

The *Humboldt Register* of January 13, 1866, claimed in a small article that the Hardin Ledge was found. It also said: "The ledge crops a width of about one hundred feet" and shows "a value of $130 to $200 a ton in silver." This news was certain to draw more people to the discovery and the *Register* stated that many of the men who had spent so much time in the search "will not be content without a look, even if they don't get a foot."

James Thacker is reported to have made the first milling test on Black Rock ore by taking a few tons to Unionville. There it was worked at the

John C. Fall mill, but no silver at all was obtained. The mill was blamed for the poor result and soon thereafter another shipment of ore was sent to Dall's mill in Washoe Valley. This time the rock produced $306 to the ton.

In February, 1866, a number of newspapers printed statements which claimed the Black Rock country was extremely rich in silver. They said the ore was almost identical to that of the famous Poorman mine in Idaho, and one even went so far as to state that some ore had realized $2,700 a ton when milled. This was simply not true, but it greatly bolstered the reputation of the mines.

A small camp began to grow up at Hardin's Spring and naturally took the name Hardin City, although Hardin came there only once in the summer of 1866. Probably he stayed only long enough to verify that it was not his silver that had been found, and no further mention is known of his ever returning again.

Such varied results had been realized on the ore that the men of Hardin City decided to hire their own assayer to work right at the mines. Their choice was a man named Isenbeck, and he soon managed to get good returns from samples of all the claims in the area. So good, in fact, that some of the local people began to say he could get silver out of a piece of grindstone.

On one trip to Torrey's mill on the Humboldt though, Isenbeck requested that he be allowed to superintend the working of that shipment through the mill. He ran three tons through and then declared that a modification in the milling process was needed, as the chlorides floated too easily to be caught by the quicksilver. The tailings and pulp of the remainder of the shipment were placed in a vat to allow for evaporation of the extra moisture. Isenbeck claimed this would greatly increase the yield from future shipments, if it were incorporated into a regular milling process.

Finally in April the first crude mill was erected at Hardin City. It consisted simply of a Spanish style arrastra for crushing ore, and small hand methods for working the concentrates. Only a very small amount of ore could be worked in this way though, and the early results were quite poor. This process was soon abandoned and the miners continued sending their ore to Dall's mill for reduction.

Promotion of the mines continued unabated throughout the spring of 1866. Newspaper reporters continued to make enormous claims for the wealth of the district and the size of the mining rush there. The *Humboldt Register* said, "When you see a man sitting in front of a roll of blankets and a frying pan, and behind a Henry rifle, you need not ask him where he is going—he is 'going to Black Rock or burst.' "

Even the *Mining and Scientific Press* carried articles on Black Rock. One in particular, written by a well-known Nevada mining man, J. Mosheimer, claimed average lots of ore from the area assayed up to

$900 per ton. Dall's mill was processing Black Rock ore from the Merrimac running $48.85 a ton and from the Monadnock running $256. Some lots from the Snow Storm mine were bringing even higher and all of the ore came from no deeper than two feet below ground.

Through the summer and fall of the year the camp grew into a real town. The *Eastern Slope* called Hardin City "a city of fifteen houses and 15,000 rats." All that was lacking was a local mill so the miners could escape transporting their ore to the far-removed mills. The Evans brothers of Long Valley, California, realized this lack of a mill and began thinking of building their own at Hardin City. Before they sank any money into such a project though, they decided to test the local ore themselves. They took a wagonload of ore from the Snow Storm, Black Wax, and other mines to Dall's mill where a portion of the load supposedly assayed out at $1,000 a ton. However, two Virginia City and Gold Hill assayers worked on the same ore and got no returns at all. The superintendent of Dall's mill still maintained he could continue to get results on Black Rock ore and Alvaro Evans agreed to let him try.

At this time the Dall mill was operating with the Bartola process. That is, the ore was crushed and roasted, then put in hollow cylinders and rolled with old iron. The Black Rock ore was worked in the same manner and Evans' remaining 800 pounds of ore produced $800.

These results pleased Evans and he ordered the stamps and machinery to construct a mill using the same Bartola process. He obtained the necessary lumber at Honey Lake and began construction at Hardin City. A superintendent, named Cheatham, arrived to run the mill, which officially opened the first week in December.

The population of Hardin City was elated at having their own mill in town and all pitched in to dig greasewood roots to fuel the engine and reverberatory furnace. Cheatham made a run for thirty days, but when they were finished and had cleaned up, the ore had not returned one ounce of silver or gold. Someone theorized that the poor result was due to having a different kind of water in the area, so Evans took five gallons of it to Virginia City. It was completely analyzed there, and showed nothing that could affect working of the ore.

Isenbeck then stepped in and claimed he could get successful results at the Evans mill, so he was hired over Cheatham to superintend a few lots of ore. The process was again changed to meet Isenbeck's requirements, but after working different shipments even he could not get any silver from the ore. The mill closed down and was abandoned for all time. Evans later claimed that he then donated a half-barrel of whiskey to the town, and that the entire population had gotten drunk.

Undaunted by this failure, Judge C. C. Goodwin of Virginia City hired Isenbeck to run a large shipment of ore at Dall's mill. The results were very good and were well publicized in the newspapers. Goodwin felt that this showing indicated that a proper mill would be successful in the Black

Rock area and he began construction of one at Granite Meadows, some thirty-five miles from the mines. At the same time, Atchison and Company, of San Francisco, decided to build a mill in the area and chose Double Hot Springs for their site. By December of 1867 both mills were ready to run.

Cheatham, late of the Evans mill, had been hired to superintend the Atchison mill. He worked Black Rock ore for three months before pronouncing the operation a failure. Soon thereafter the Goodwin mill also claimed failure and closed down.

By this time most everyone felt that the ore actually was worthless and that Isenbeck was a fraud. The only time that any good returns had been realized on Black Rock ore was when it had been worked at Dall's mill. All the other shipments made to other mills had returned nothing. However, one last group of diehards still believed in the mines and sent a batch of samples east to Adelberg and Raymond. They assayed the ore and sent back the verdict that it was completely silverless bituminous clay.

People now began inquiring why Isenbeck could almost always manage to get good results from the ore while other mills, working the same ore, got nothing. After looking into the situation it was decided that the answer lay in the Bartola process in use at Dall's mill. This mill was then engaged in working rich ore from the Comstock and when the batteries and pans were cleaned after each run the job was not done properly. Thus when the Black Rock ore was worked it picked up the remaining gold and silver from the previous ore. The alkali in the rock also helped in cutting the gold and silver loose from the iron used in crushing. The first batch of ore through the mill gave very good results, while the next lots through showed little or nothing at all. It was also speculated that Isenbeck might have made his assays pay well as he had a very profitable job and did not want to lose it.

At any rate, the glory was gone from the Black Rock mines and by the summer of 1868 Hardin City was a ghost town. Within two years the mills had been dismantled and moved to other locales, but the story of Hardin's silver ledge lived on. Prospectors continued to search the area in following years, one of whom was William H. Jenison, son of one of the early-day Black Rock prospectors. In April, 1909, while camped at the site of Hardin City, he found evidence of a group having stayed there just prior to his visit. Among the pile of specimens they had collected and abandoned was a piece of rock exactly the same as Hardin had found in 1849. Jenison had seen the original sample when he was very young, and he knew that this was the first piece anyone had found since that pioneer discovery. He searched for a number of years following this, but again found no trace of the deposit.

Even Francis Lambert, grandson of Hardin's hunting companion when the silver was found, looked for the deposit. In 1956 he organized a group of mining men from southern California and spent considerable

time in the Black Rock Range. When fall came the project was abandoned, for like all previous seekers he too had found no sign of the silver.

Today the search goes on. Every summer prospectors arrive at the old site of Hardin City, now marked by a low stone foundation and one slowly disappearing corner of the Evans mill. As yet, there has still been no success, but there is always the hope that one of these men may still find the elusive silver and put Hardin City back on the map of Nevada.

Introduction to "Photographs From the High Rockies"

THE FOLLOWING ARTICLE, reproduced from the September, 1869, issue of *Harper's New Monthly Magazine* (pp. 465–475), contains more than one paradox and at least one mystery. Although it concerns the work of Timothy H. O'Sullivan, photographer for Clarence King's federal survey of the fortieth parallel (1867–1869), nowhere are O'Sullivan, King, or other members of the party mentioned by name. Second, the locale of the account is not the Rocky Mountains, but the route of the King survey, which extended from Sacramento, through Nevada and part of Idaho, to Salt Lake City. And finally, the illustrations are woodcuts, not photographs, for reproduction of photographs in periodicals was not possible until later in the nineteenth century.

The mystery revolves around the identity of the author. William H. Goetzmann, a prominent historian of western exploration, assumes that John Samson is actually O'Sullivan. James D. Horan, our best authority on the life and work of O'Sullivan, flatly states: "I doubt it." Richard A. Bartlett, another leading scholar of the exploration of the West, concedes that O'Sullivan's authorship of the article is possible but not certain, suggesting that Samson was perhaps "some itinerant journalist."

Biographical data on Timothy H. O'Sullivan is scanty, largely because of his reluctance to publicize himself. He was born in Ireland in 1840. His family moved to the United States two years later and young Tim grew up on Staten Island. In the 1850s he learned photography from the great pioneer of the art, Mathew Brady. Just before the Civil War, O'Sullivan worked in Brady's Washington, D.C., gallery, which was under the direction of another photographic genius, Alexander Gardner. He continued in Brady's employ during the war years, and many of the famous "Brady" pictures of the conflict are now credited to O'Sullivan and other employees of the master.

In 1867 the astute Clarence King picked O'Sullivan as the photographer for his expedition. For the next two years "Shadow Catcher" (as the Indians called him) trekked through California, Nevada, Idaho, and Utah with King and his group, capturing beautiful and awesome images of the Great Basin on his glass plates. Upon the completion of the survey, he served as the photographer for Lieutenant Commander Thomas O. Selfridge's expedition to Darién (Panama) in 1870. In the following year he returned to the West, having been chosen as photographer for

Lieutenant George M. Wheeler's Geographical and Geological Explorations West of the One Hundredth Meridian. Finishing this work in 1875, O'Sullivan returned to Staten Island and somewhat later was employed, briefly, by King's U.S. Geological Survey. He accepted a more promising position as photographer for the Treasury Department in 1880, but died in Staten Island the following year, of tuberculosis, at the age of forty-two.

The puzzle over the authorship of "Photographs from the High Rockies" and the paucity of information on the uncommonly modest and marvelously talented photographer should not detract from the merits of the article. It is a good introduction to the work of O'Sullivan and his comrades and offers lucid descriptions of Nevada and other areas along the route of the survey.

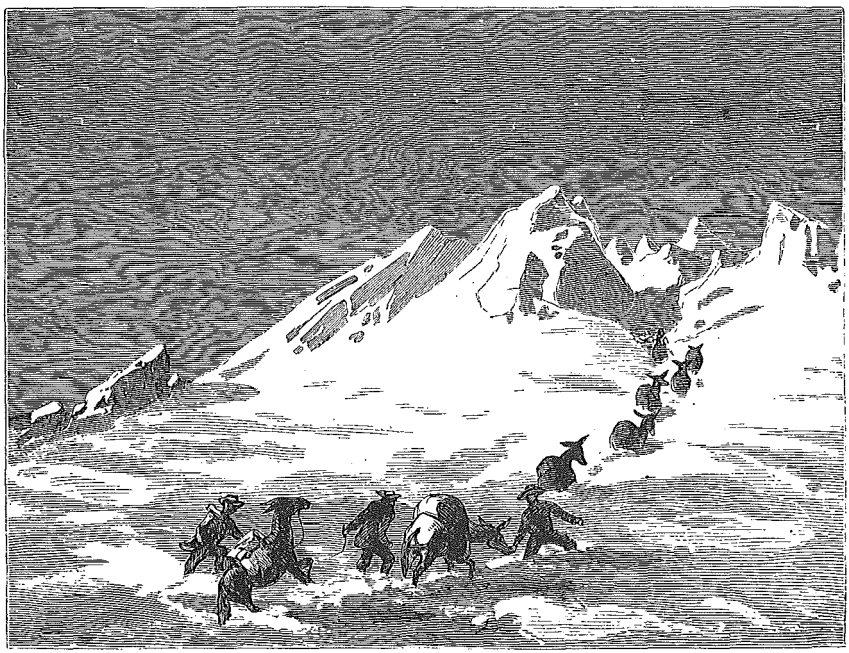
Readers wishing to know more of O'Sullivan can consult Horan's study, *Timothy O'Sullivan: America's Forgotten Photographer* (Garden City, N.Y.: Doubleday & Company, 1966), which contains a multitude of striking photographs of Nevada (including those upon which the woodcuts herein are based) and other parts of the West, plus Panama, and the Civil War. For the milieu in which O'Sullivan made his contributions, see William H. Goetzmann, *Exploration and Empire: The Explorer and the Scientist in the Winning of the American West* (New York: Alfred A. Knopf, 1966); Richard A. Bartlett, *Great Surveys of the American West* (Norman: University of Oklahoma Press, 1962); and Thurman Wilkins, *Clarence King, a Biography* (New York: Macmillan, 1958).

MICHAEL J. BRODHEAD

HARPER'S
NEW MONTHLY MAGAZINE.

No. CCXXXII.—SEPTEMBER, 1869.—VOL. XXXIX.

PHOTOGRAPHS FROM THE HIGH ROCKIES.



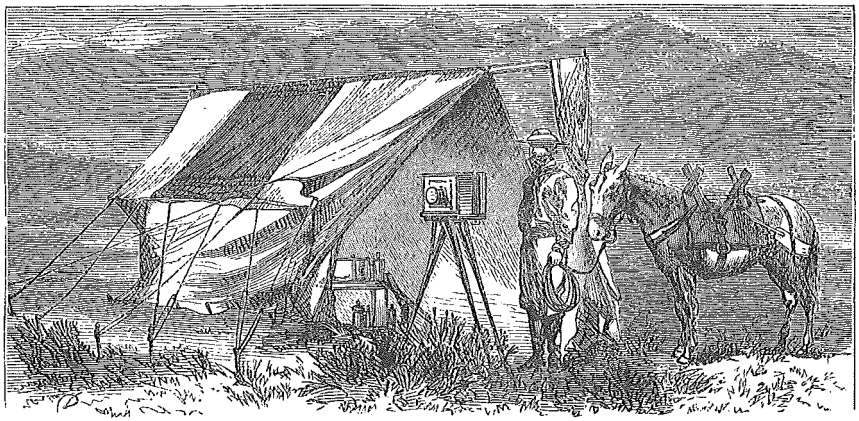
TRAVELING ABOVE THE SNOW-LINE.

PLACES and people are made familiar to us by means of the camera in the hands of skillful operators, who, vying with each other in the artistic excellence of their productions, avail themselves of every opportunity to visit interesting points, and take care to lose no good chance to scour the country in search of new fields for photographic labor.

During our late war we had photographic representations of battle-fields, which are now valuable as historical material, both for present and for future use.

The battle of Bull Run would have been photographed "close up" but for the fact that a shell from one of the rebel field-pieces took away the photographer's camera. In 1863, while photographing Fort Sumter and the Confederate batteries in the vicinity of Charleston, a courageous operator saw his camera twice knocked over by fragments of shell, his camera-cloth torn, and the loose white sand of Morris Island scattered over plates and chemicals. The veteran artillerists who manned the battery from which the views were made wisely sought refuge in the bomb-proofs to secure themselves from the heavy shell fire which was opened upon their fortification; but the photographer stuck to his work, and the pictures made on that memorable occasion are among the most interesting of the war. Many of the best photographs of events that occurred during the war were made by the adventurous artist who now furnishes pictures of scenes among the High Rockies, and narrates the adventures incident of the long journey during which the photographs were made.

Early in the summer of 1867 a surveying party of about forty persons left California to

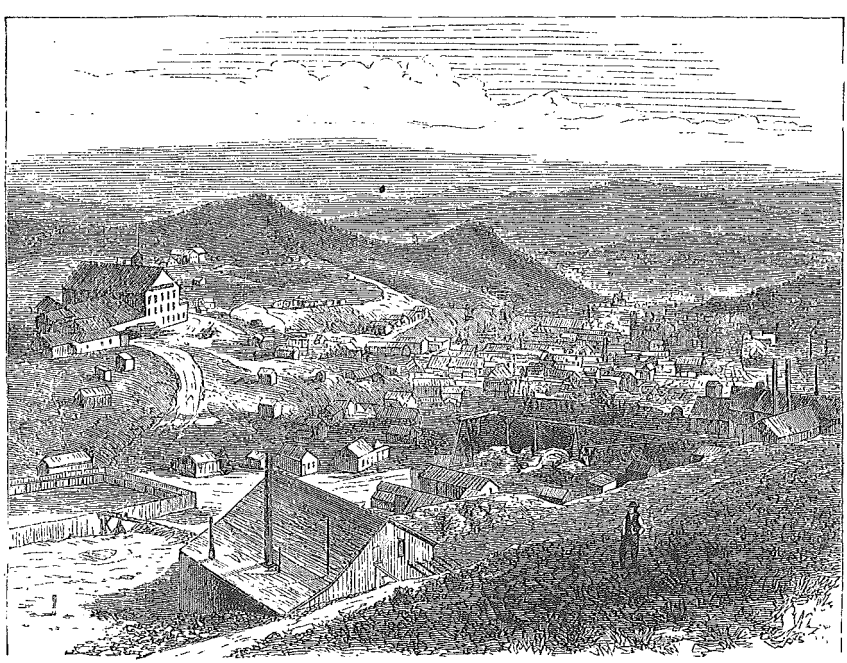


THE PHOTOGRAPHER'S OUTFIT.

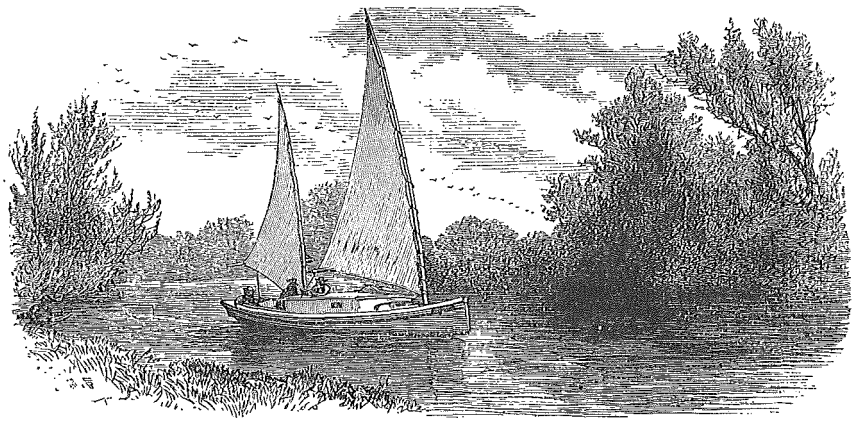
proceed eastward directly across the different ranges of the Rocky Mountains as far as the Great Salt Lake, and traveled most of the distance in the vicinity of the proposed route of the Central Pacific Railroad. The company comprised scientific gentlemen and other civilians, such as cooks and packers, to the number of seventeen. An escort of twenty men from the Eighth United States Cavalry, under the command of a sergeant, was considered a force quite adequate to guard against any danger from the Piutes and other tribes of mountain Indians who might be attracted by the stock, rations, or *hair* of the party. Two mules and an experienced packer were assigned to the photographing artist, and were by him duly accepted as a satisfactory outfit for the proposed expedition.

Traveling for some days in California, through fair mountain country, the mules became used to their packs, and the party sufficiently familiar with each other to realize the fact that to know a man well you must campaign with him.

A tarry at Nevada City, long enough to rest the stock, gave the Artist time to explore the mines along the great Comstock Lode, situated



GOLD HILL AND SILVER CITY.



THE NETTIE.

in Gold Hill and Silver City. This locality was a few months since visited by one of the direst calamities that ever befell the inhabitants of the mining rèqions of our country. I refer to the fires on the different levels of the Crown Point, Kentuck, and Yellow Jacket mines.

By means of magnesium light interesting views were taken of places located several hundred feet below daylight; but as this is not an article relating to gold mining, we will come up out of that profitable hole in the ground from which something like ninety million dollars in gold have been taken, and proceed northward to the banks of the Truckee, a swiftly flowing stream which empties its alkaline waters into the southern portion of Pyramid Lake.

The Truckee has its source in the Wabash Mountains, from the cañon and gorges of which flow brooks that may be traced to living springs of almost any mineral property that one may desire. These brooks combining form the Truckee. On this river the *Nettie*, a boat at which a single glance was all that was necessary to convince a man reared on the rugged coast of New England that the craft was the handiwork of an artisan who had built boats for New London fishermen. She was a perfect model of her class.

The pack animals were left in charge of the men who were not desirous to visit Pyramid Lake, while into the *Nettie* were stowed provisions and articles of actual necessity, among which may be mentioned the instruments and chemicals necessary for our photographer to "work up his views."

To sail or float down the rapids of the Truckee in a boat of the *Nettie's* build was an undertaking that, prior to this time, had not been accomplished. Between the rapids of the stream lay stretches of deep still water, through which the boat glided, impelled either by sail or sweeps. Presently the great rapids are reached; the stream is wider and shallower. Danger is near. The location of the rock, that is hidden beneath the rushing water, is discovered by the whirling eddy. In some places the foaming torrent dashes against a projecting spur of rock that breaks the current in showers of spray, of which the larger drops fall in the form of tiny crystal spheres that dance and sparkle for an instant ere they disappear below in the swift stream that has, in places, worn its course through, and exposed to view singular rock formations that tell of volcanic action.

The trunk of a tree comes floating swiftly down the tide, and is plunged into the whirling rapids. The stout stem that has stood for years, a landmark for the Piutes, is in a moment splintered by the rushing water as if riven by lightning. It is through these rapids that the *Nettie* must be navigated, if she can be released from the strong hold which the current has of her, as she lies jammed by the mad velocity of the stream against two projecting rocks. The strong oars are swept away and caught by the rocks below. In a twinkling the tough ash is bent into a shape more like the bow of an ox yoke than that of the tried oar.

Our photographic friend, being a swimmer of no ordinary power, succeeded in reaching the shore, not opposite the *Nettie*, though it was but forty yards from the shore, for he was carried a hundred yards down the rapids. A rope was thrown to him from the boat, and thus he rescued the little craft with her crew from their perilous situation. The sharp rocks had torn the little clothing of which he had not divested himself, and had so cut and bruised his body that he was glad to crawl into the brier tangle that fringed the river's brink. When at last he gained the point nearest to the boat his excited friends threw shoreward his pocket-book, freighted with three hundred dollars in twenty-dollar gold pieces. "That was rough," said he; "for I never found that 'dust' again, though I prospected a long time, barefooted, for it." The line which had been thrown was quickly made fast to a convenient spur of rock, and the

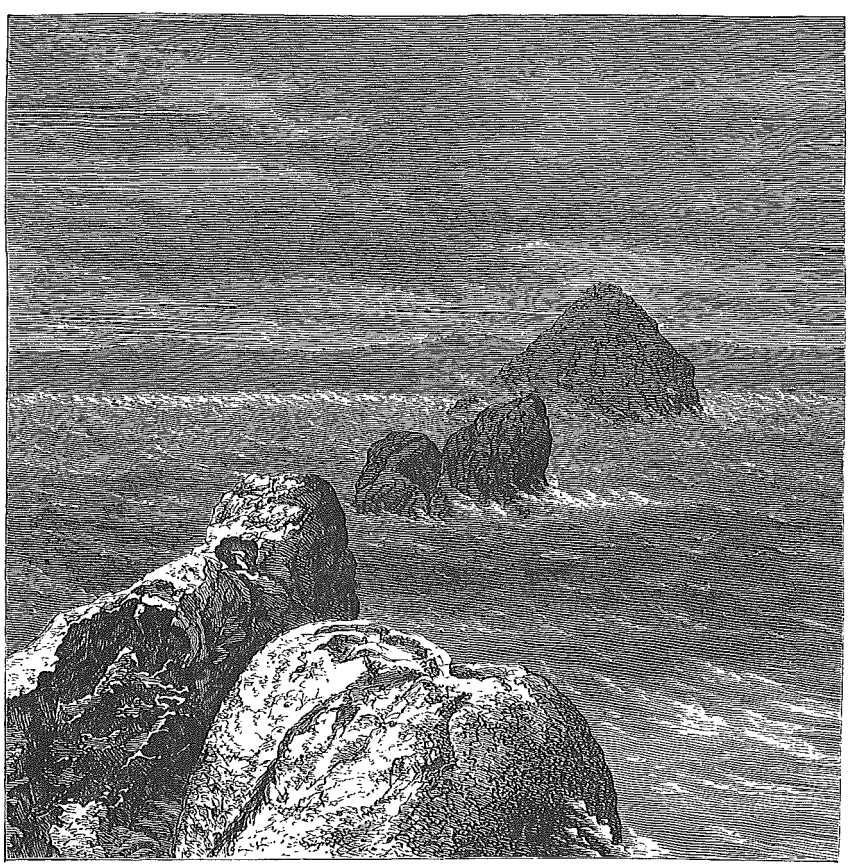
Nettie, half filled with water, was soon hauled to the shore, where the exploring party, wet and famished, pitched their camp among the briers for the night. On the following morning the *Nettie* was finally passed through the rapids by the aid of ropes, and not long after the party arrived at the outlet of Pyramid Lake, an irregular and stormy sheet of water, some 30 miles long and 12 wide.

The peculiar rock formations, from which this lake derives its name, are remarkable even among the "Rockies." The principal pyramid towers above the lake to a height of more than 500 feet, presenting in its general outline a remarkably perfect pyramidal form. Close scrutiny shows portions of its sides to consist of volcanic tufa, which greatly resembles a vegetable growth of vast size.

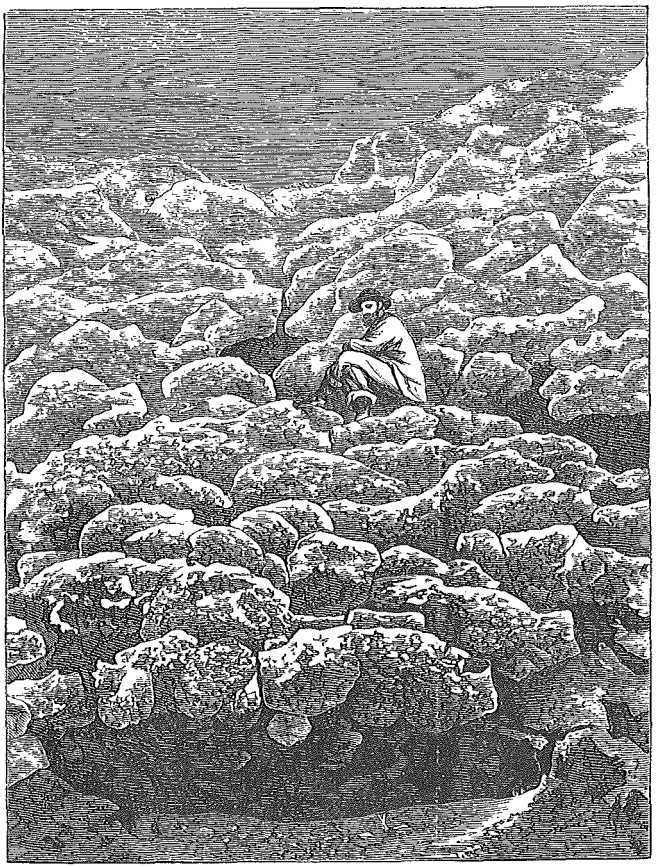
In color the pyramidal mounds vary with the varying light. At some moments they convey the impression of a rich, warm, brown tint; at others the hue is a cool gray that more nearly resembles the color which a close examination will prove to be the true one.

A visit to the largest pyramid developed the fact that it was occupied by tenants entirely capable of holding inviolate their prior right of possession against all human visitors. From every crevice there seemed to come a hiss. The rattling, too, was sharp and long continued. The whole rock was evidently alive with rattlesnakes. In every party that ever ventured into a country infested by rattlesnakes are some men who derive great pleasure in killing every snake that may show its head or sound its rattle. A loud shout of "Snakes! rattlers!" brought out the band of exterminators; but such a number of snakes came upon the field that it was clearly beyond the power of our snake-haters to carry on the combat with any hope of final victory. They gave up, and abandoned the locality to the serpentine tribe, which will probably retain the ownership for a period of time indefinite and unlimited.

The water of Pyramid Lake is clear, sparkling, and very salt. It abounds in fish, among which are the *coui-er*, a sprightly fish, having flesh the color of salmon, and quite as game. In weight this fish ranges from three to twenty pounds, and an occasional specimen rises to the



PYRAMID LAKE.



STRANGE TUFA.

fly that will scale quite twenty-five pounds. Besides the *couier* there is an abundance of trout, not precisely the speckled beauties of the Lake Superior region; neither do they bear a very close resemblance to the sluggish, black, spotted trout of our more Southern States. It is a trout, nevertheless, which rises readily to the artificial fly, and is a pleasing morsel for the epicurean palate. Cooked in the various styles known to the campers, this fish will compare favorably with its eastern brethren. Other varieties of the finny tribe abound in Pyramid Lake; but these are the ones which will be most sought after by any courageous disciple of Izaak Walton, who leaves the cars of the Central Pacific Railroad where it strikes the Truckee, and who ventures down to its outlet in this curious lake.

From Pyramid Lake the exploring party journeyed back by land to a point on the overland stage route, where the animals and extra camp equipage were in waiting for them. The Central Pacific Railroad has now its iron bands beside this road, and, in this vicinity, passes through a valley picturesque, and, for this section, tolerably fertile.

The next point of interest was the Humboldt Valley and Sink, on the way to which the party passed through a country where, besides the Indians, were occasionally found white inhabitants who had come from the Eastern States and traveled thus far on their long journey to California, and here they had squatted. These people seem to be peculiar to this portion of the Union. They have, ordinarily, left the States many years before, and migrating toward the famed Eldorado of the Pacific coast, have, from some reasons best known to themselves, here shortened their trail and come to a full stop. Possibly, and even quite probably, the Indians have "cleaned them out," to use the Plains' phraseology; that is, have stampeded their stock, and appropriated whatever was of any value in the "outfit" to their own use and behoof, leaving the emigrant to settle down, squat, where he was, and obtain such subsistence as he might be able to secure by cutting and preparing wild hay for the use of the great mining

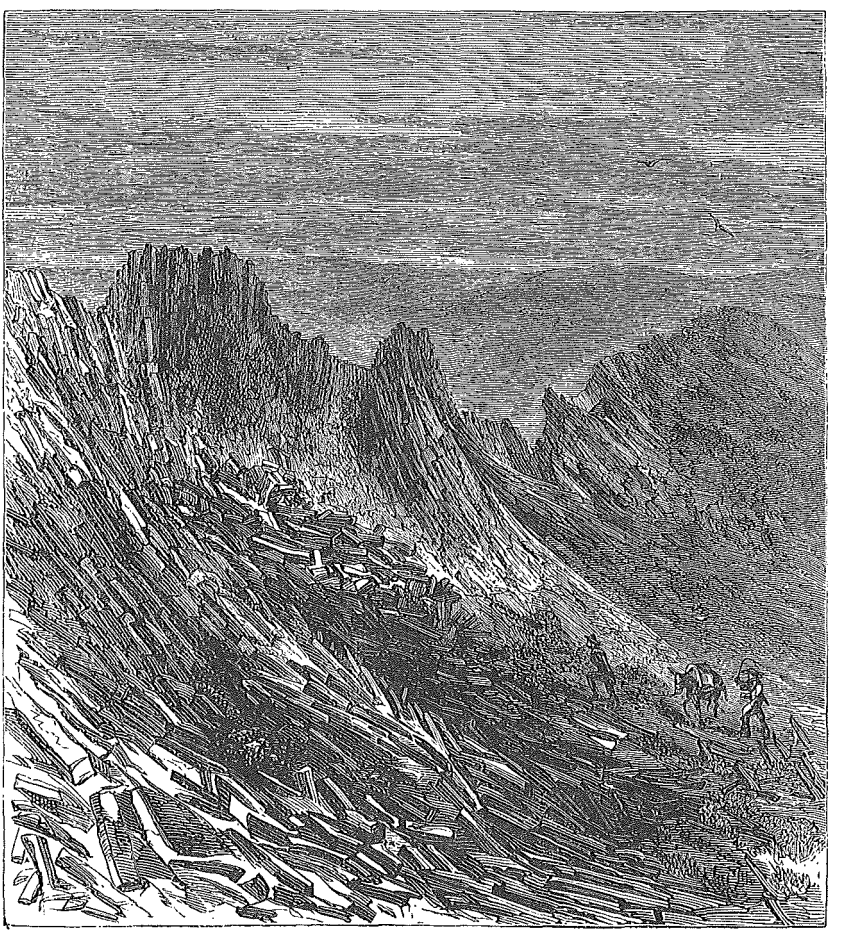
companies which dot those sections of the Rocky Mountains as do red barns the rugged hillsides of the old Granite State.

In this way the wayfarer will get a little "dust" ahead to help him to a new start for the promised land, and this will only result in another tarry at the first locale that pleases his fancy, and there he will again settle down, an inviting bait to any party of *bad* Indians that may wander like himself, but with a more definite purpose, into the little valley that satisfies the "hay rancher."

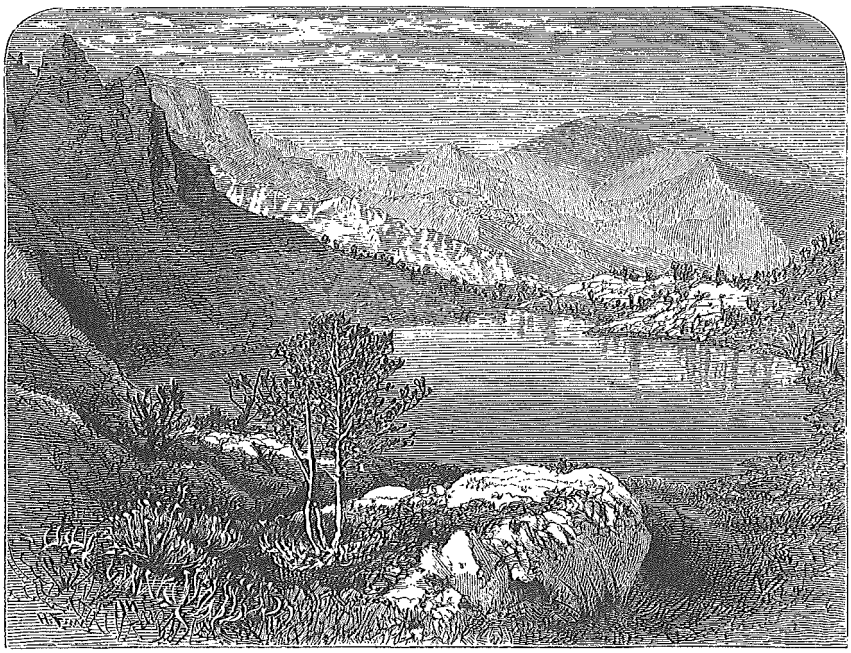
It takes a long time to reach California by adopting such a trail as this; and if the pilgrim does at last arrive there, the chances will be as nine to ten that this perambulating life-waster will take the back track, declaring his purpose to be "to clar the settlements 'cause thar ain't no ground that's worth any thing but what's taken up."

The Humboldt Sink is one of those peculiarities that nature presents as picturesque evidence of great volcanic convulsions that have occurred in years long since passed away. In the Humboldt and Carson "sinks"—a term indigenous to this locality—as well as in many other parts of the High Rockies, where traces of volcanic eruptions are found, the horizontal system of rock is not commonly seen. The rocks present a broken outline which may be pleasing enough to the eye, but to journey over with pack-mules is found laborious and difficult in the extreme. The foothold is very insecure, and danger from fragments of rock that are frequently dislodged by those who are in advance is continually experienced by the climbers in the rear. The accompanying illustration will convey some idea of a mountain crest, one of the curiosities of the Great Humboldt Sink.

To persons engaged in mountain climbing, the rarity of the atmosphere is one of the first among the many discomforts that will be likely to be experienced. Animals suffer from this



THE CARSON SINK.



HIGH WATER.

thin, depreciated atmosphere quite as much as men, and it was not difficult to learn that the mule which made an easy burden of a pack at the altitude of 2000 feet above the Pacific could not bear the same load over any long trail at the height of 10,000 or 11,000. It will be noticed, too, that birds seldom make long flights when in the rarer atmosphere of the higher peaks of the Rockies.

In speaking of the Humboldt and Carson sinks our photographer remarks: "It was a pretty location to work in, and *viewing* there was as pleasant work as could be desired; the only drawback was an unlimited number of the most voracious and particularly poisonous mosquitoes that we met with during our entire trip. Add to this the entire impossibility to save one's precious body from frequent attacks of that most enervating of all fevers, known as the 'mountain ail,' and you will see why we did not work up more of that country. We were, in fact, driven out by the mosquitoes and fever. Which of the two should be considered as the more unbearable it is impossible to state."

Some portions of the trail next followed were over a traveled route; but the greater portion of the distance was through or over a country absolutely wild and unexplored, except what the Indians and fur-trappers who frequent the mountains may have accomplished in the way of exploitation.

In moving from the Pacific coast toward the foot-hills, which form the eastern limit of the great mountain range of our continent, the traveler will find it necessary to cross range after range, all having a general direction from north to south. Many of these ranges are only separated by little valleys. The usual distance from range to range is not more than 25 or 30 miles, and frequently the distance is not even so great.

In crossing these ranges or "divides," as these irregularities are designated in the language of the country, our exploring party found it necessary to travel during the midnight hours. The reason for this being the condition of the snow-crust, which in the summer season is not sufficiently thick, even on the highest ranges, during the day, to sustain the weight of either man or beast. In crossing some of these snow-covered crests the party endured indescribable hardships, for the crust was in some cases too thin, even at two or three o'clock in the morning, to bear up the sharp hoofed mules, burdened with their heavy packs. In one instance not less than thirteen hours were consumed in crossing a divide, and the whole distance traveled did not exceed 2½ miles. On this occasion snow-drifts from 30 to 40 feet in depth were crossed. The men and animals were frequently lost from sight.

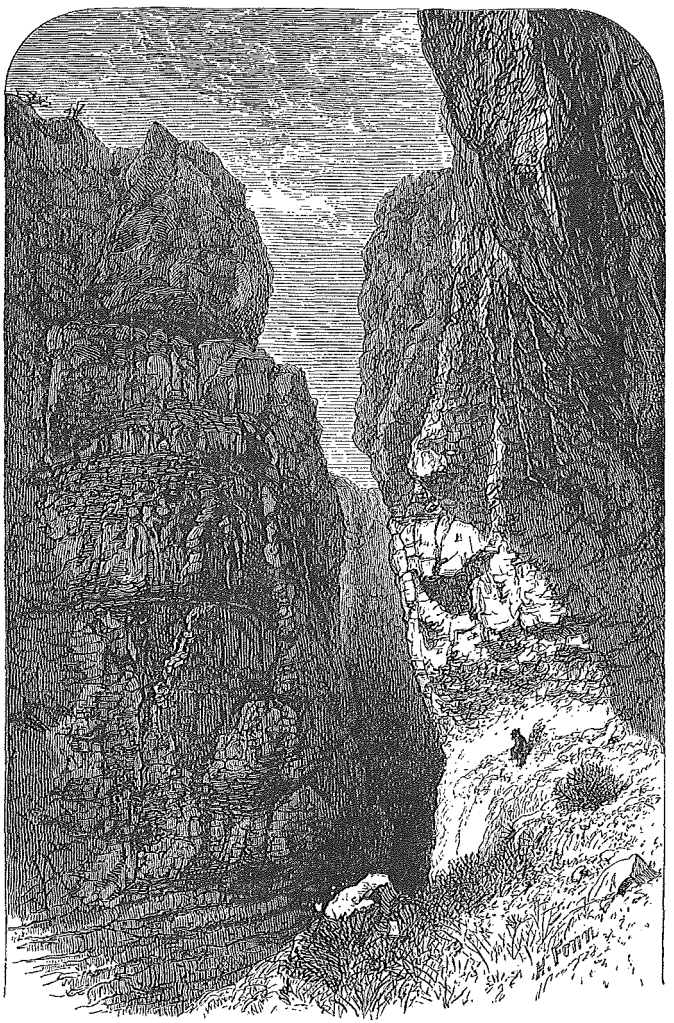
When, during the day, they arrived at the snow-line, they camped until midnight, or even later, to wait till the surface snow which had thawed during the day should become frozen or crusted by the frosty air of night—this crust, as a general rule, being sufficiently strong to bear up men and animals, and make it pos-

THE RUBY RANGE.

sible to take a trail which would otherwise be quite impracticable.

The explorers frequently found in the valleys little basins of snow-water that were of an extent to be dignified by the name of lake; indeed such they were, though some of them were found at an altitude of nearly 9000 feet above the surf that rolls upon the shores of the grand Pacific coast.

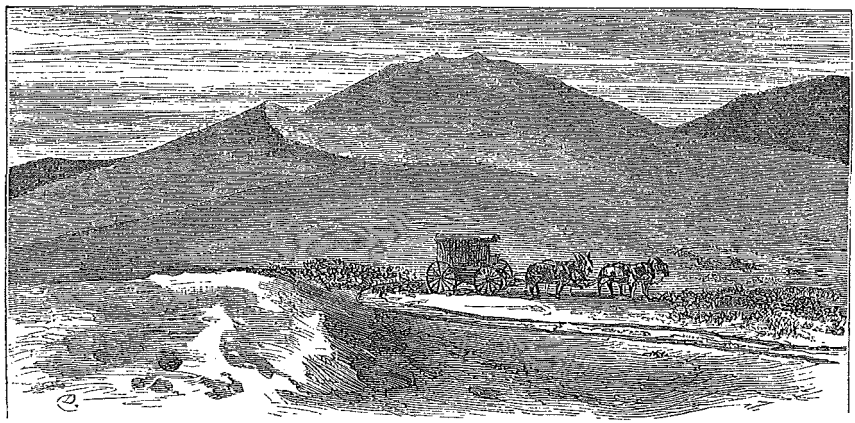
In the Ruby Range, one of the finest of the Rocky cordon, are some of the most beautiful of these lakelets. Near the lake, too, there are quite a number of trees. Some of them, notwithstanding the altitude of their situations, have attained considerable size.



CAÑON IN THE RUBY RANGE.

This particular locality has been for years a favorite resort for some few Indians of the Piute tribe, attracted, maybe, by the excellence of the pine-nut which grows in the vicinity, and by springs of which the waters are said to possess great curative properties in certain cases of physical malady. The pine-nut is one of the principal articles used as food by these Piutes and other mountain tribes. The general appearance of the tree is not unlike our pine of the Eastern States; the branches are more gnarled and the leaf somewhat longer; the cone or bur is much larger, and affords the little wedge-shaped nut, which the Indians secure late in the fall by throwing the burs into a fire, from which they are taken when charred and the nuts shaken out. From some of these burs the number of nuts obtained would quite fill an ordinary tea-cup. This nut, when dried, is sometimes pounded into a coarse meal, which is made into cakes and baked in the ashes, in much the same manner as the hoe-cake is by the negroes of the South. In taste the nut is resinous, and to the palate unaccustomed to the food not extremely agreeable.

The cañons in the Ruby Range were among the most interesting places met with during the entire trip. Standing just within the entrance of the one here shown it was possible to realize the immense power which could force this vast passage through a rock that would seem quite too hard to suffer greatly from the pigmy strength of man. The strata of the rocks are quite regular, and no marked appearance that

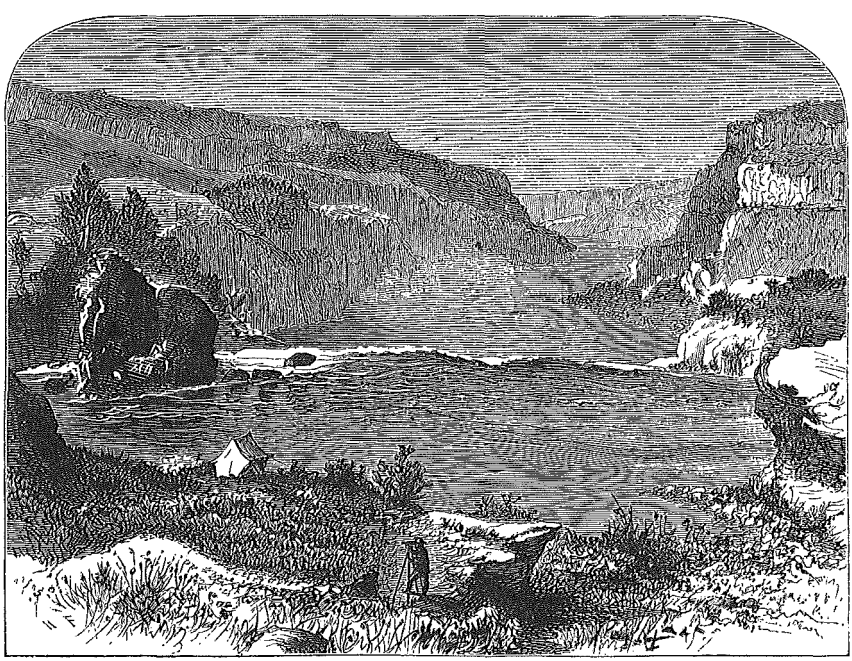


SHIFTING SAND-MOUNDS.

the great trap has been occasioned by volcanic action can be noted; indeed, there is evidently great dislodgment of rock, and the stratification is invariably horizontal, or with only a slight dip.

Our photographer, becoming tired of *too* much High Rocky, took advantage of an opportunity that offered to visit the great mounds of shifting sand which are located in an arid waste nearly a hundred miles to the south of the Carson Sink. For this trip an ambulance drawn by a team of four mules was used instead of the pack mule; a change in the means of locomotion that enhanced the comfort of the artist, and enabled him to transport a sufficient quantity of water to make the variety of views that he purposed to add to his already magnificent and valuable collection.

Arriving in the vicinity of the sand-mounds, the first impression conveyed by them was that of immense snow-drifts, for in the sunlight the white sand sparkled like a hard frozen crust of snow. The contour of the mounds was undulating and very graceful, it being continually broken into the sharp edges left by the falling away of some portions of the mound, which had



ABOVE THE SHOSHONE FALLS.

been undermined by the keen winds that spring up during the last hours of daylight and continue throughout the night.

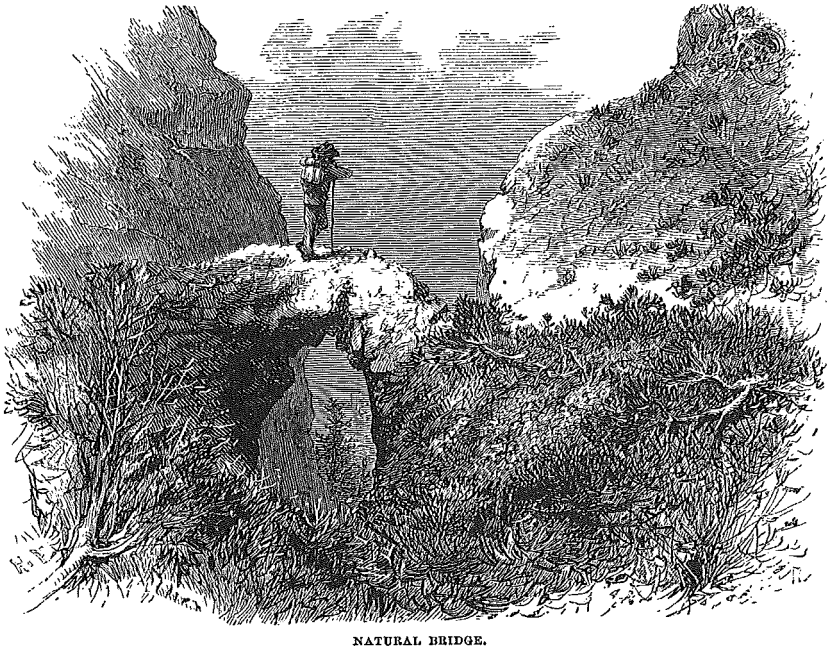
Frequently, while traversing this waste, a light breeze would catch the sand, loosened by a footstep, and carry the sparkling crystals up the mound in the form of a whirlwind. This circling cloud of sand appeared each moment to increase in size and strength until the crest of the mound was attained, when, as if ambitious of continuing its flight, the dancing sand took one whirl more, then broke, and its dismembered fragments were added to the other side of the mound. It is by the whirlwinds that these great mounds of sand—some of them reaching to the height of 500 feet—are shifted from place to place.

The photographer returned from the shifting sand-mounds and joined the party, which had already advanced some distance along the trail to the eastward, taking for their route the overland stage road. Then leaving this they moved northward toward the falls of the Snake River, designated, in the vicinity of Salt Lake, as the Great Shoshone Falls. The volume of water pouring over the Shoshone Falls is small compared with the great flood which gives grandeur to Niagara. Neither is the width of the river greater than that portion of Niagara known as the American Fall. In the Shoshone we have fall after fall to view as a preliminary exhibition. Each cascade is a splendid fall of itself, and the vast walls of rock are worn into weird forms by the constant action of rushing water.

The surroundings of the main fall are such that any number of views may be had of the scene. Standing upon the craggy rocks that jut out from and form the walls of the table-land below the falls, one may obtain a bird's-eye view of one of the most sublime of Rocky Mountain scenes. Even in this location, which is many feet above the falls, the air is heavy with moisture, which is attributable to the mist into which the river's great leap shivers the water. From the position on the crags you have also a grand sight of the different falls, of which the main one seems but the culmination. Each small fall is in itself a perfect gem with a setting of grandeur in the glorious masses of rock. On one great wall can be traced a tolerably perfect outline of a vast figure of a man. The whole form is not less than 100 feet in height.

There is in the entire region of the falls such wildness of beauty that a feeling pervades the mind almost unconsciously that you are, if not the *first* white man who has ever trod that trail, certainly one of the very few who have ventured so far. From the island above the falls you may not see the great leap that the water takes, but you will certainly feel sensible of the fact that you are in the presence of one of Nature's greatest spectacles as you listen to the roar of the falling water and gaze down the stream over the fall at the wild scene beyond.

Our photographic glimpses of Rocky Mountain scenery end with the picturesque little natural bridge which serves for a crossing over a deep gorge in the neighborhood of the falls.



NATURAL BRIDGE.

Notes and Documents

Indian Legend Explains Formation of Valley of Fire

THE SMALL INDIAN FAMILY moved slowly and quietly toward the crest of the hill that separated them from a full view of the inspiring scenic wonderland that the settlers of the Moapa Valley had so appropriately called the Valley of Fire. As the group surmounted the summit, and as Mrs. Evans, mother and grandmother in the family, glanced out over the vast stretches of fiery red sandstone peaks and hills, she paused and exclaimed in awe, "All this, the home of the Zoabitts!"[1]

The year was 1924. New ideas and new thinking were stirring the quiet of the peaceful Moapa Valley. The indefatigable new governor, Jim Scrugham, Nevada's "traveling governor" and historian, was delving into the past of the southern valleys and was stimulating a study and excavation of the extensive ruins and ancient home sites that pioneers had observed and wondered about for many years. Dr. M. R. Harrington, America's foremost authority on archaeology, was brought to the Valley. He remained to dig, to study, and to interpret the story recorded in the ruins and the graves of the ancient inhabitants. With Dr. Harrington came a faithful helper, Willis Evans, who had been trained during the excavation and study of the Lovelock Cave in the valley of the Humboldt to the north. Willis was a Shoshoni Indian and had developed an avid interest in the earlier peoples who had occupied the land during the centuries before his own people came to the Great Basin area. When Evans moved south he brought his wife with him, and on occasion his mother came to visit.

The interest that was aroused in the archaeology of the valley naturally spread into the scenic country of the Valley of Fire to the west of the excavations and to the petroglyph evidences of earlier cultures that were a part of that land of mystery. A visit of the Evans family evoked from Mrs. Evans the Shoshoni legend of the formation of this colorful land.

The story of the Zoabitts was one that Mr. and Mrs. Evans had heard from their parents on many occasions. It was a common ritual in the Shoshoni household, as it is in many modern homes, to have regular bedtime stories for the children. These Indian stories were told for the purpose of passing on the beliefs, the traditions, and the history of the tribe. They told of the animals which the people hunted, of the wanderings and ancestry of the tribe, of the great tragedies and catastrophies

of nature that had been visited on the land. They were told and retold for the purpose of preserving the knowledge and culture of the people. As the stories were told by the parents and grandparents, the children were required to repeat them word for word, until they were memorized. In such manner was the story of the Zoabitts told and handed down from parent to child through many generations.

The Zoabitts were giants and the embodiment of evil in human form. Huge in stature, tall and hairy, they had large sticky hands and they preyed on the peaceful Shoshoni tribes that occupied the hills, forests, and deserts of the Great Basin. Covering the countryside in huge strides, they found isolated hunters in the hills particularly easy prey. Catching them by the hair with their giant, sticky hands, the Zoabitts tossed them into the great cone-shaped harvest baskets which they carried on their backs. They then rapidly disappeared in the lands to the south where they reportedly lived and hibernated during the winter in a great cave.

As the raids of the Zoabitts continued, and as the Shoshoni lost their best and most skillful hunters, never to have them return, the peoples of the deserts and mountains became desperate. A great council of all the Shoshoni was called and the people came in from great distances. The wise men and the chiefs met for many days to discuss their problem. They prayed to their god for wisdom. They held sacred dances and chanted their sacred songs in an appeal to the Great Spirit for help in fighting this great enemy. It was finally decided that the people would fight back by trapping the giants in their cave. The best trackers were sent out to trace the trail of the raiders. For many days they followed the signs left by the passing of the Zoabitts until they came to the mouth of a great cave into which the Zoabitts had disappeared carrying the large basket filled with the Indians they had captured for their winter food supply. Here, surrounding the entrance, were found the skulls and bones of the victims of past years.

Indians were now summoned from all the country around to come and help trap the giants in the cave. When large numbers had gathered they began to cut the trees from the hills around to barricade the mouth of the great cavern. As they worked and as the pile of wood became ever higher at the entrance of the cave the Zoabitts were awakened from their winter sleep and began to tear at the great pile of trees and to pull them into the cave in a frantic effort to escape. Desperately the Indians doubled their efforts, cutting the trees for great distances around and placing them in the entrance to the cave only to have them pulled back into the interior by the enemy.

Finally, and in desperation, the Indians set fire to the wood they had gathered. The flames caught on and spread to the vast piles the Zoabitts had pulled into the cave. The fires raged for many days forcing the giants ever farther and farther back into the inner recesses of the underground cavern. When they could retreat no farther, and when the fire began to

burn the giant cave dwellers, there was a great roar and a violent shaking of the earth. The top of the mountain weaved back and forth and finally crumbled as the inner supports of the cave gave way, and all fell into the great cavity, burying the evil giants beneath. The rugged, jagged area of fire-colored hills that remained after this great cataclysm is now well named after the manner in which it was formed—The Valley of Fire.

1. "Zoabitts" is the phonetic spelling of the name as sounded out by Mrs. Willis Evans. It is probably the "Tsawhawbitts" of Harolds Club's *Pioneer Nevada* (vol. 1, p. 4).

ELBERT B. EDWARDS

Julia Bulette, honorary member of Virginia Engine Co. No. 1, shown posed with a fireman's helmet and belt from that organization.

From Our Library Collection

A Rare Photograph

IN CONJUNCTION with the series of articles run last year entitled "From Our Museum Collection," we are this year presenting four articles on material contained in our reference library. The first of these, a simple photograph, is one of the most significant in our entire photo collection—an actual *carte de visite* of Julia Bulette. This is the only known view of her, and we present it here to quell some of the misconceptions about her which have become so common of late.

The legend of "Jule" Bulette has grown by leaps and bounds in the 105 years since her death. Numerous articles have been written about her, at least two books dealing with her have enjoyed quite good sales, and a large stone monument in her memory stands on South C Street in Virginia City. Indeed, Jule was a harlot, living "in a little house by herself, near the corner of D and Union Streets"[1] in Virginia City's red-light district. She did have many redeeming merits, though, according to the *Territorial Enterprise,* which called her "kindhearted, liberal, benevolent and charitable . . . few of her class had more true friends."[2]

Some of the actions she is reportedly credited with were nothing more than figments of various writers' imaginations, but her relationship with the volunteer fire departments of Virginia can not be disputed. The *Enterprise* gave a concise account: "Julia Bulette was some time since elected honorary member of Virginia Engine Company No. 1, of this city, in return for numerous favors and munificent gifts bestowed by her upon the company, she taking always the greatest imaginable interest in all matters connected with the Fire Department, even on many occasions at fires working at the brakes of the engine."[3]

At about 5 A.M. on Sunday, January 20, 1867, Jule was strangled to death in her home. Virginia City was up in arms, not only because she was known by so many, but also because robbery seemed the only motive for the senseless murder. She was buried the following day in the Flowery Hill cemetery by some sixty members of Engine Co. No. 1, preceded by the Metropolitan Brass Band and followed by eighteen carriages filled with her friends. Only the storm raging at the time of the funeral prevented a larger crowd from turning out.[4]

The search went on for Jule's murderer and on May 28, John Millian, who had been in jail for some weeks owing to a charge of attempted murder of another girl in the red-light district, was formally charged with the Bulette murder of four months earlier. Numerous articles of clothing

and jewelry, which had been traced through him, were found to have been Jule's and in the trial which followed Millian was convicted of murder in the first degree.

Millian always maintained that he was guilty only of being a lookout for the actual killers,[5] but later facts show that he was but recently from France, could speak little or no English, and was not given an interpreter during his trial. At any rate, guilty or not, Millian was hanged on April 24, 1868, while a crowd of some three thousand curious onlookers watched.[6] Millian's confession, which was never a confession to the murder but which only related the facts of his involvement with the actual murderers, was not published until the day after his death.[7] Considering the language barrier involved, it is still not certain whether the confession was reported accurately, but at the time no one seemed concerned.

From here the legends grew. The men of the Comstock probably remembered her reverently, when they remembered her at all, while the ladies of the day felt relief that one more of the "fair but frail" was gone. With the decline of Virginia City through the following decades her story was almost forgotten, and would have remained so, had it not been for the sensationalism which accompanied the modern-day tourist boom. It is generally accepted that Julia Bulette was somewhat different from the others of her trade, and that the facts of her murder coupled with the succeeding trial were also unusual, but it is past time that these events be placed in their true light as an historic vignette. For those who desire the complete story, it is all in the newspapers of the time.

1. "Horrible Murder—A Woman Strangled to Death in Her Bed—Blood-curdling Tragedy Directly in the Heart of the City," *Daily Territorial Enterprise,* January 22, 1867, p. 3, col. 1.
2. *Loc. cit.*
3. *Loc. cit.*
4. *Loc. cit.*
5. *Life and Confession of John Millian, (Properly Jean Marie A. Villain,) Convicted as the Murderer of Julia Bulette, As Given by Him to his Attorney.* (Virginia [City]: Lammon, Gregory & Palmer, 1868), pp. 14–15.
6. *Loc. cit.*
7. *Loc. cit.*

DOUGLAS MACDONALD

What's Being Written

States of the Nation: Nevada, by Robert Laxalt (New York: Coward-McCann, 1970; 125 pages; illustrations; $4.29).

A BOOK OF THIS NATURE is difficult to organize and write. Its basic plan is to give the reader a reasonable smattering of state history rather than the intricacies and personalities of either an historical novel or a detailed history. It is particularly difficult to summarize a subject and yet place all events in proper perspective, but the author has succeeded. He stretched the development of Nevada from "Nothing-but-Land" to the present. And, yet, his personable and knowledgeable approach to Nevada immediately reaches out and engulfs the reader's attention. Mr. Laxalt has spent the better part of his life absorbing every part of the state—its history, its beauty, its politics. He has a novelist's eye for detail. He has combined these attributes in *States of the Nation: Nevada.*

Laxalt points up the geographical and human diversity of Nevada. The state extends from near sea level to some of the country's highest peaks. It is one of the driest, newest, and yet oldest areas of the United States. It is mountains, forests, sand, and sagebrush. Laxalt emphasizes the miners and the gamblers. Nevada has ways of life as different as San Francisco's North Beach joints and Salt Lake City's sedate ward houses. This book will give the reader curiosity to look for more. My one criticism is that the book is too short; we would like to know more.

ROSS SALMON

The First 100 Years, A History of the Salt Lake Tribune, by O. N. Malmquist (Salt Lake City: Utah State Historical Society, 1971; 454 pages; index; $8).

THIS HISTORY of the *Salt Lake Tribune*'s first century is, in the words of the author, "unapologetically pro-*Tribune,* but not uncritically so." Malmquist has traced the history of one of Salt Lake City's spiciest newspapers and has produced some interesting reading for Nevadans in the process.

One of the most colorful characters in the paper's history was noted Nevada jurist and journalist, Charles C. Goodwin. He assumed the editorial chair of the *Tribune* on May 24, 1880, after having developed quite a reputation as a journalist in Nevada during the preceding seventeen years.

Born in New York in 1832, Goodwin went to California at age twenty and settled in Marysville. He taught school there and studied law under

his brother before he turned his boots toward Nevada in 1861. Although he met with failure in Nevada's mines, Goodwin grew to be a journalist of rare merit in the sagebrush state as well as in the land of Mormon. He had his first encounter with printer's ink in Washoe City in 1863 when he worked for a couple of weeks on the *Washoe Times,* and he served as district judge of Washoe County from 1864 to 1866.

Other editorial escapades of this wandering newspaperman included short stints on the Hamilton *Inland Empire* and on John C. Lewis's *Reno Crescent.* Goodwin's association with the *Territorial Enterprise* in Virginia City was perhaps his most colorful within Nevada. He edited the paper with a vigor that made its influence felt throughout the West. Nearly six years on the *Enterprise* afforded him the opportunity to develop his editorial capacities.

He had ample opportunity to use those capacities on the *Salt Lake Tribune,* especially when he ran into extreme opposition from the *Deseret News,* a pro-Mormon paper edited by Charles W. Penrose. The *Tribune* began publication on April 15, 1871, to generate support for a reform movement within the Church of Jesus Christ of Latter-day Saints. As Malmquist says, the founders of the *Tribune* were "excommunicated converts" of the church, who advocated the abolition of polygamy and the isolationist policies of the church. The "Mormon Situation," as the controversy was called, received wide coverage in the news and editorial columns of both papers.

Goodwin and Penrose carried on the philosophical debate in vigorous style in their respective columns. Malmquist has carefully annotated this rivalry with extensive reprints of editorials from both sheets.

The author traces Goodwin's life in Utah, including his nomination by the Liberal Party for Utah's seat in Congress and his nomination on the Socialist ticket for the bench of the Utah Supreme Court. Both races were futile attempts on Goodwin's part.

After Goodwin's sale of the *Tribune,* on October 19, 1901, he began a political organ, *Goodwin's Weekly,* which gained considerable prestige. He later became editor of the *Evening Telegram* in Salt Lake City, but, according to Malmquist, "Goodwin was never able to transfer his *Tribune* prestige and reader appeal to the *Telegram,* possibly because he had passed his peak, or because the changing Utah climate had outmoded his talents, or because of over-exposure."

Malmquist has done a commendable job of research, and his close association with the *Tribune* for nearly forty years certainly provided him with insights into the circumstances which gave direction to the paper. He joined the staff in 1929 and in the 1930s was appointed city editor. Down through the years he has become known as the "dean emeritus of Utah political writers."

If the volume leaves anything to be desired, it is the illustrations. They have been bunched together in a single signature, and reproductions of

three pages from the *Tribune* suffered considerably when they were reduced to fit the six-by-nine-inch format.

All in all, it must be said that *The First 100 Years* is a fine addition to the history of Utah journalism and provides insights into the biography of a great Nevadan.

DAVE BASSO

Landmarks on the Emigrant Trail: A Portfolio of Nevada Watercolors, by Craig Sheppard (Reno: University of Nevada Press, 1971; eight watercolors, brochure; $25).

CRAIG SHEPPARD has painted a series of very fine watercolors showing scenes along the route taken by the Forty-Niners in their trek across northern Nevada. There has been surprisingly little change in the landscape over the last century, and these paintings capture the rugged beauty so often described in the early travelers' journals.

Reproductions of eight of the best of Sheppard's watercolors have recently been published (13 by 18 inches in size), providing us with views of the most famous landmarks along the historic trail. A brochure by Robert Laxalt describes how Sheppard used the journals of J. Goldsborough Bruff to help locate the old settlers' route, and a map shows where each of the paintings was done.

History buffs and art collectors will be intrigued by this handsome portfolio—we are fortunate that a gifted artist has provided us with scenes of such historic interest.

Las Vegas, As it Began—As it Grew, by Stanley W. Paher (Las Vegas: Nevada Publications, 1971; 181 pages; illustrations; $10.95).

STANLEY PAHER, who recently became well known for his book *Nevada Ghost Towns and Mining Camps,* has branched off with a well researched, well written account of the history of Las Vegas, his home town. Beginning with the first explorers through that area in the 1830s, Paher first takes the reader through the history of Las Vegas Wash and Las Vegas Springs, leading up to the Mormon mission founded at Las Vegas in 1855. Some thirteen pages alone are devoted to the three years of Mormon occupation.

The author gives great detail to the history of some of the surrounding communities in order to build up the reader's understanding of why Las Vegas grew. Such settlements as Potosi and Fort Baker are brought to light with this in mind, contributing to the annals of the Las Vegas area.

Octavius Decatur Gass's purchase of the old Mormon fort at Las Vegas in 1865, and the forty subsequent years of ranching and farming in the valley, are extremely well narrated. Then in 1905, Las Vegas was founded with the construction of the San Pedro, Los Angeles and Salt Lake

Railroad, and here is the meat of Paher's story. His recounting of the years between the turn of the century and approximately 1920 gives the reader the greatest insight into the birth and early growth of the fledgling community of Las Vegas.

The remainder of the book is mostly photographs, many never before published, and all illustrating perhaps better than text could how Las Vegas jumped from a one-horse railroad settlement to the fabulous city it is today. Included are excellent photographs of the step-by-step growth of the city, construction of Boulder Dam, legalization of gambling, growth of the large casinos, early Helldorado Days, Basic Magnesium, the atomic test site, and lastly, the Strip. These photographs alone make the book very worthwhile and most of the line illustrations, especially the maps done by Roy Purcell, are quite good.

Needless to say, Paher has another success, and this book is recommended for either the devoted Nevada historian or the casual armchair reader.

DOUGLAS MACDONALD

What's Going On

Spanish Borderlands History Award

THE *Western Historical Quarterly,* published at Utah State University in Logan, Utah, announces the Herbert Eugene Bolton Award in Spanish Borderlands History. A prize of $300 will be awarded the best article, in the opinion of the judges, submitted to the *Western Historical Quarterly,* on any phase of the history of the Spanish Borderlands in North America from the fifteenth century to the present.

Manuscripts should be from 5,000 to 7,500 words, typewritten in conformity with the editorial style of the *Western Historical Quarterly,* and must be submitted prior to September 1, 1972. The winning article will be published in the *Western Historical Quarterly* and the winner will also be announced at the Western History Association conference in New Haven, Conn., in October, 1972.

Anyone desiring to compete for this award should submit his articles to the *Western Historical Quarterly,* Utah State University, Logan, Utah, 84321.

Historical Society Receives Two Project Grants

IN RECENT MONTHS two separate grants have been received by the Society for the promotion and continuation of microfilm and slide programs. The first, from the Luke B. Hancock Foundation, was in the amount of $5,000 to be used within the limits of our project of microfilming and purchasing previously microfilmed editions of early-day Nevada newspapers. Within the terms of the grant, the Society may also purchase some much-needed equipment for storing, reading, and printing microfilm, all of which the research library has been lacking since the inception of the newspaper microfilming project. Mrs. Andy Welliver, who retired as Director of the Society this past January, was instrumental in securing this grant, which will fill a long-neglected weak spot in our reference materials.

The additional grant, from the Nevada State Council on the Arts, was for $1,000, matched by a like amount from our private funds. This money

is to be directed toward making slide packages of our new photographs as well as reproducing old ones, and making these packages available to the public. This project is now well under way and by September we will have these programs, pre-packaged in Kodak carousel drums with an accompanying printed text, available for distribution to schools, civic groups, clubs, and so on. Interested persons are requested to write this Society for slide-package catalogues, which should be ready this summer.

Junior History News

THE JUNIOR HISTORY SOCIETY of Nevada held its first field trip for Junior History Club members on October 23, 1971. Approximately seventy-five students, from three Junior History Clubs in Reno, Sparks, and Virginia City, participated in the day-long caravan from Virginia City to Sutro, Nevada. The tour received such a warm reception that there will be another, larger field trip on Saturday, May 13. All interested Junior History Club members are invited to meet at the petroglyphs on the north end of Winnemucca Lake, just east of Pyramid Lake, at 7 A.M. The turn-off will be well marked but those wishing breakfast, which will be cooked by the students themselves, should come early. All participants will be loaded into U.S. Army trucks at 10 A.M. for the start of the tour. Due to the rugged terrain, all personal cars will be left at Winnemucca Lake except the two control vehicles. From the lake the trucks will travel to Gerlach and then double back to Pyramid Lake, across country, on the exact route used by John C. Frémont in 1844. The tour will be led by Sheriff Fred Keiper, who is an authority on that trail, and talks on the wildflowers of the area will also be presented. The tour should be over about 8 P.M. but since no meals will be cooked except breakfast everyone must remember to bring his own lunch, water, and so on.

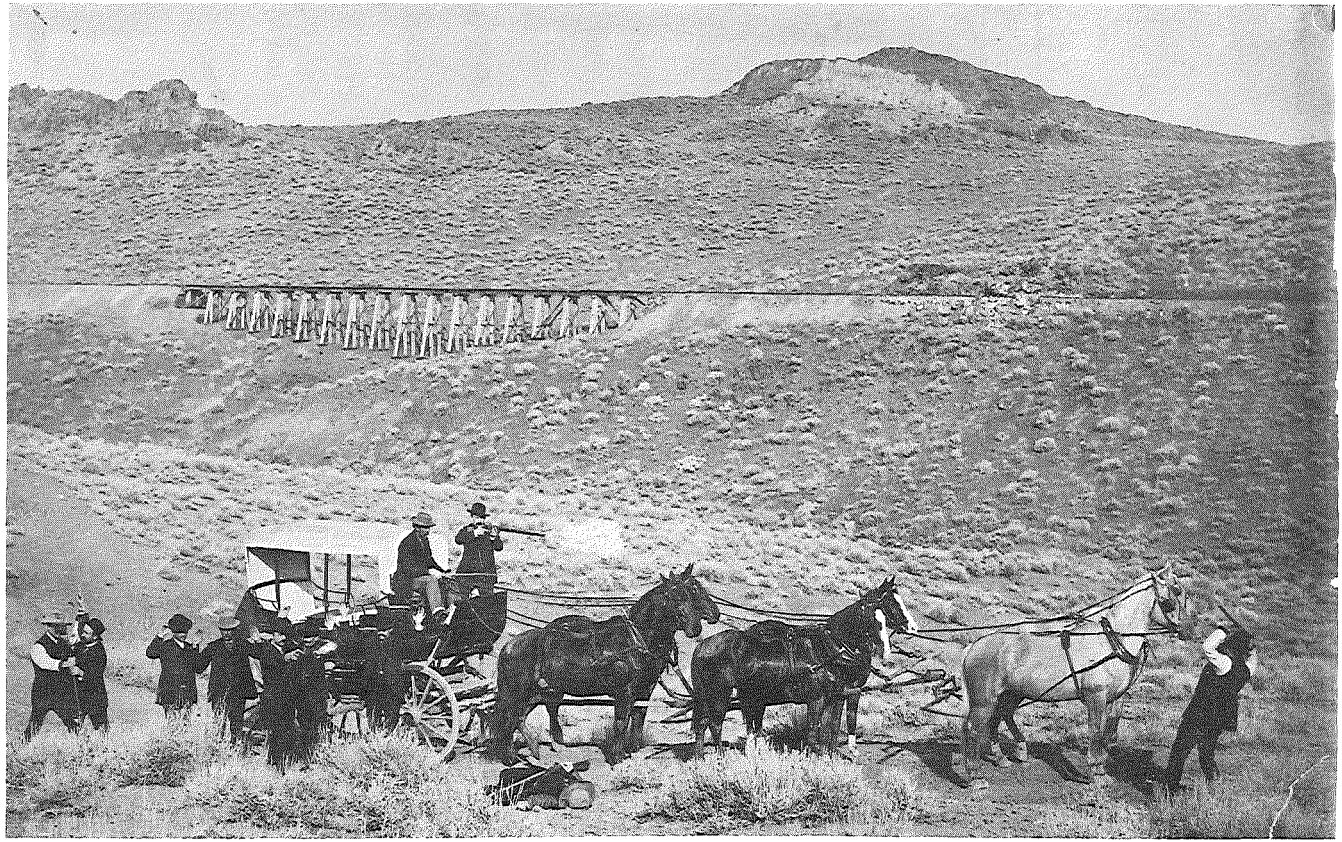
The cost for this field trip will be $1.00 per person, which will be used to cover the cost of the breakfast meal and sundry other expenses. Each student must also sign a waiver, available from all Junior History Clubs, and must pay his $1.00 fee when handing in the form. All those wishing to participate must be signed up prior to May 7 so that we may have an accurate count of the number planning to come.

The Junior History Society *Newsletter* was started in November and is now reaching out to some three hundred students in six different clubs. The object of the *Newsletter* is to provide an opportunity for the students themselves to contribute to a publication, as well as to enable all the various clubs to know what the other clubs are doing and to use that information to expand their programs or to begin new ones. Although

this publication is just getting off the ground, the response from students and teachers has been quite good, and hopefully it will provide still another means for bringing Nevada history ever more solidly into the Nevada school system.

New Director Selected

AT A MEETING of the Board of Trustees of the Nevada Historical Society, held in Las Vegas on January 15, 1972, John M. Townley was named the new director of the organization. Mr. Townley assumed his duties on March 1, 1972. The Summer issue of the *Quarterly* will introduce Mr. Townley to our readers and carry a discussion of his plans for the Society.



Turn-of-the-century Nevada humor: A mock holdup staged by Reno residents.

SPO, Carson City, Nevada