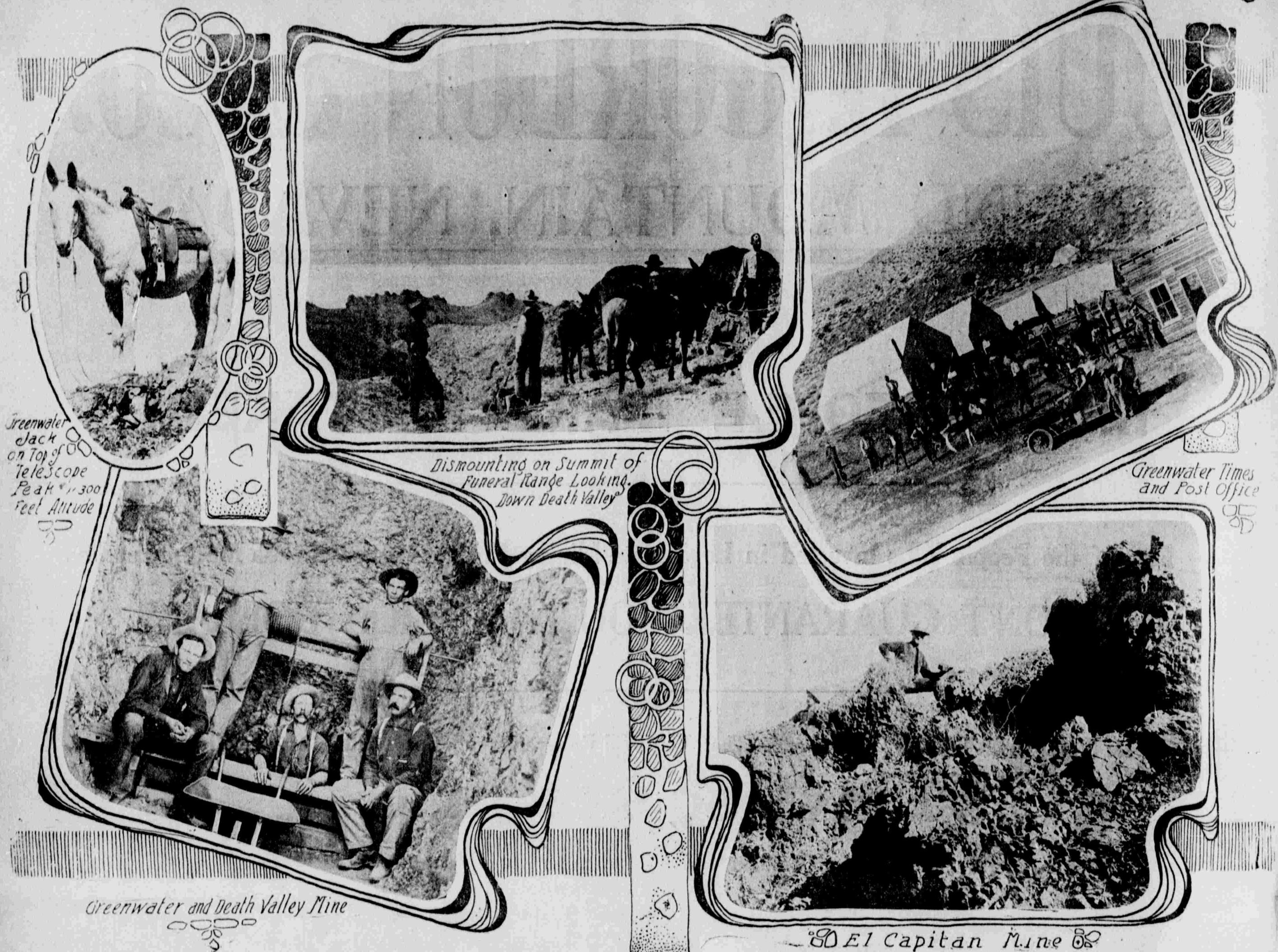


Greenwater, and Its Attractive Copper Showings.



THE newest and very latest camp which has only recently jumped into prominence is that of Greenwater. While many people think it is in Nevada, it is not, but just across the state line on the other side of the Funeral range and in Inyo county, California. It is situated on the very edge of Death Valley and has enlisted a larger share of leading mining men in a shorter space of time than any of the older and now assured mining districts. Charles M. Schwab, Senator W. A. Clark, Senator Geo. S. Nixon, "Sam" Newhouse, "Patsy" Clark, Jno. W. Gates, Augustus Heinze, Malcolm Macdonald, Don B. Gillis, State Senator T. L. Oddie and others less known are interested in this wonderful district. All these men are famous for the success they have achieved in mining, and usually know what they are doing and it is not too much to expect that here will be developed one of the most remarkable copper camps in the United States.

Mr. Claude Sachs, the able editor of

that reliable mining publication, "The Mining Investor," of Colorado Springs, has recently made a personal examination of Greenwater district and through his courtesy and by his permission it is reproduced here. He says: "The discoveries were made owing to the search for rich minerals which has been going on by thousands of prospectors in southern Nevada and northern California since the first discoveries were made in Tonopah a little over five years ago. Greenwater, while in California, is very close to the Nevada line, being but 45 miles southwest of the Bullfrog district, 1,200 feet located in the Funeral range near the Death valley. Enthusiastic optimists are already claiming for Greenwater that it is the richest camp yet discovered in the past five years, and is certainly the greatest copper mining district ever found in the world—bigger than the biggest either in Montana or Arizona. Whether these estimates of the optimists are true or not, remains to be seen. But already enough is known to make it certain that some remarkably big and rich bodies of copper ore have been discovered in this new field, and where copper ores are

found on the surface so abundantly it is safe to figure they go down. The following condensed information in regard to the new camp has been compiled by A. J. Kessler, who is thoroughly familiar with the Greenwater district.

Location.—Greenwater lies 45 miles by air line southwest of Bullfrog on Funeral range, in the Funeral range. The district extends to the Nevada state line.

Investments.—Money invested in Greenwater in the past six months, estimated, \$15,000,000.

Notes.—This money was expended in purchase of property by copper experts whose engineers reported most favorably of the new deposits.

Properties.—France Creek Copper company, \$2,000,000; Schwab property, \$200,000; Heinze, \$200,000; Roger Knox, \$150,000; Greenwater Furnace Creek company, \$100,000; Donnellan group, \$100,000; Copper Cliff group, \$75,000; Magna Charta group, \$50,000; Gold Notes group, \$100,000; Rickard group, \$20,000; United Verde Fractious, \$10,000; Greenwater Calumet company, over 300 acres; Nicolette group, \$25,000; Morning Glory group, \$75,000; Rambler group,

\$100,000; Blue Jackets group, \$200,000; Oliver Posey property, \$80,000; Calumet & Hecla, \$100,000; Undertakers group, \$50,000; Trade Dollar and The Bulls, \$10,000; Fortune group, \$75,000; Red Jackets, \$25,000; Buster Brown group, \$40,000; West Side group, \$75,000; Copper Queen, Nevada group, seven claims; Brook group, Kunze group, Salisbury group, 18 claims; Lisle group, 17 claims; Hub group, 13 claims; Nipper, Governor group, four claims; Anaconda group, 18 claims; Crescent group, eight claims; Revenue group, eight claims; Investor group, 33 claims; McGinnis group.

Transportation.—Via Salt Lake Railroad to Las Vegas; from Las Vegas via Las Vegas & Tonopah branch to Amargosa, 15 miles; from Amargosa by stage to Greenwater, 55 miles; stage fare \$18 one way. Coming in from the north, it is possible to go by railroad from Bullfrog to Amargosa, and from Amargosa by stage.

Improvements.—A nine-inch pipe line is being built from the Amargosa river to Greenwater. The Borax Smith railroad is completing survey into the town of Greenwater. The grade of this road will enable Greenwater to do its entire

trading with Los Angeles within the next 60 days. When the railroad reaches the Lila C. borax mine, it will be hard by 20 miles by railroad from Greenwater.

Temperature.—The temperature three weeks ago averaged from 104 degrees to 106 degrees in the shade. The air is so light that heat is not felt so much as in the east. In the winter, the climate is very pleasant. The altitude is 5,600 feet.

Towns.—There are three saloons, one lodging house, where a cot or springs on boxes can be secured for \$1 a night. There are two restaurants, one merchandise store, one assay office, three surveyors' offices and five surveyors. One case of champagne was sent in, and was bought by Salisbury. Liquor is cooled by wet gunnybags or wet shavings. A party from Delamar, Ida., is contemplating putting in a general merchandise store.

Salaries.—Carpenters get \$8 for an eight-hour day, skilled miners, and skilled labor, \$5.50 a day; sinking and upraising in the mines, \$5 a day; common laborers and ordinary miners, \$4.50 a day.

Living Expenses.—Enough canned

goods for luncheon will cost \$2. An ordinary boarding house meal can be bought for \$1, with free water. Water sells at 25 cents a canteen, 75 cents for five gallons, \$7.50 a barrel. Rough lumber costs from \$160 to \$200 per 1,000 ft. Two sacks of potatoes, one burr-to-load, cost \$15.

Meats.—There is no fresh meat in the camp, and no butcher shops. The only fresh meat obtainable is jack rabbits.

Teams.—Teams are worth \$25 a day. One team will drink \$11.50 worth of water a day, and will eat about \$5 worth of grain and hay.

Conveniences.—There are no barber shops and no bath tubs. The only method for cleanliness is dust baths. The animals—burros, coyotes, rats, rabbits, mice, etc., have kicked the rocks away from their wallows to take dust baths. The men wash their faces in the water, then store it away, and when a sufficient amount has accumulated, wash their clothes in it, and then give it to the burros to drink.

Fuel.—The present fuel consists of huge greasewood roots, which are dug up by the miners, and gasoline. Gasoline ranges are used for cooking. For

heat this winter, preparations are being made with lumber companies. Gasoline does the mining work, as it is Goldfield and Tonopah, in a most efficient manner. The thermometer has been known to go to 10 degrees below at Goldfield and 10 above at Bullfrog. Last winter, the pipes were frozen in the Merchants hotel, and the floors flooded.

Population.—Greenwater boasts at the present time of a population of four women and 350 men. One hundred and fifty of the latter are prospectors and nearly all the balance are miners.

The credit for the original discovery was made in the Greenwater district by Frank McAllister, who was prospecting in this country several years ago and who has made many efforts to interest capital therein. But it was not until the branch line from the Bullfrog district was almost completed that anyone would seriously consider the Greenwater field. Now, however, according to Mr. McAllister, they are now making up for lost time and are securing properties at big figures.

Pioche Destined to Duplicate Its Twenty Million Record.

THE Pioche, Nevada mineral belt is situated in a low isolated range of mountains about 6,000 feet above sea level in Cambrian quartzite and overlapping limestone formation throughout which run a number of ore bearing fissures, while a huge porphyry dyke, measuring over 50 feet wide, rises abruptly, cutting its way prominently across the district and on for several miles to the west. Examinations made of the district by such notables as John Hays Hammond, Prof. Kemp, the geologist, the last year by Prof. Pack, professor of geology in Columbia college, together with other engineers and practical mining men has recognized this dyke as the main ore bearing channel of the district from which all the other veins have derived their metallic contents and is the Mother lode of the district.

WORKED IN THE SEVENTIES.

It was developed in the early seventies by shafts sunk on the Yuba, 1,200 feet, Silver 900 feet, Newark 900 and tapped in the independent ground through a long cross cut run out from the bottom of the old Raymond & Ely shaft at a depth of 1,200 feet below the surface, from which point it was further developed by a winze sunk 200 feet still deeper.

All the working mentioned being in ore, showing it to be continuous from a short distance below the surface and to extend along the strike of the ledge for great distance, while the bottom levels are permanent and show the ore going on down to the deep.

ORE SULPHIDE IN CHARACTER.

The ore consists of the sulphides of lead, iron, zinc, with high silver and gold values; the general average being around 50 ounces silver, 15 per cent lead and 45 gold per ton, while some

zinc blends is found close to the walls running over 200 ounces silver, one ounce gold and 50 per cent lead per ton.

THE QUARTZITE FISSURE.

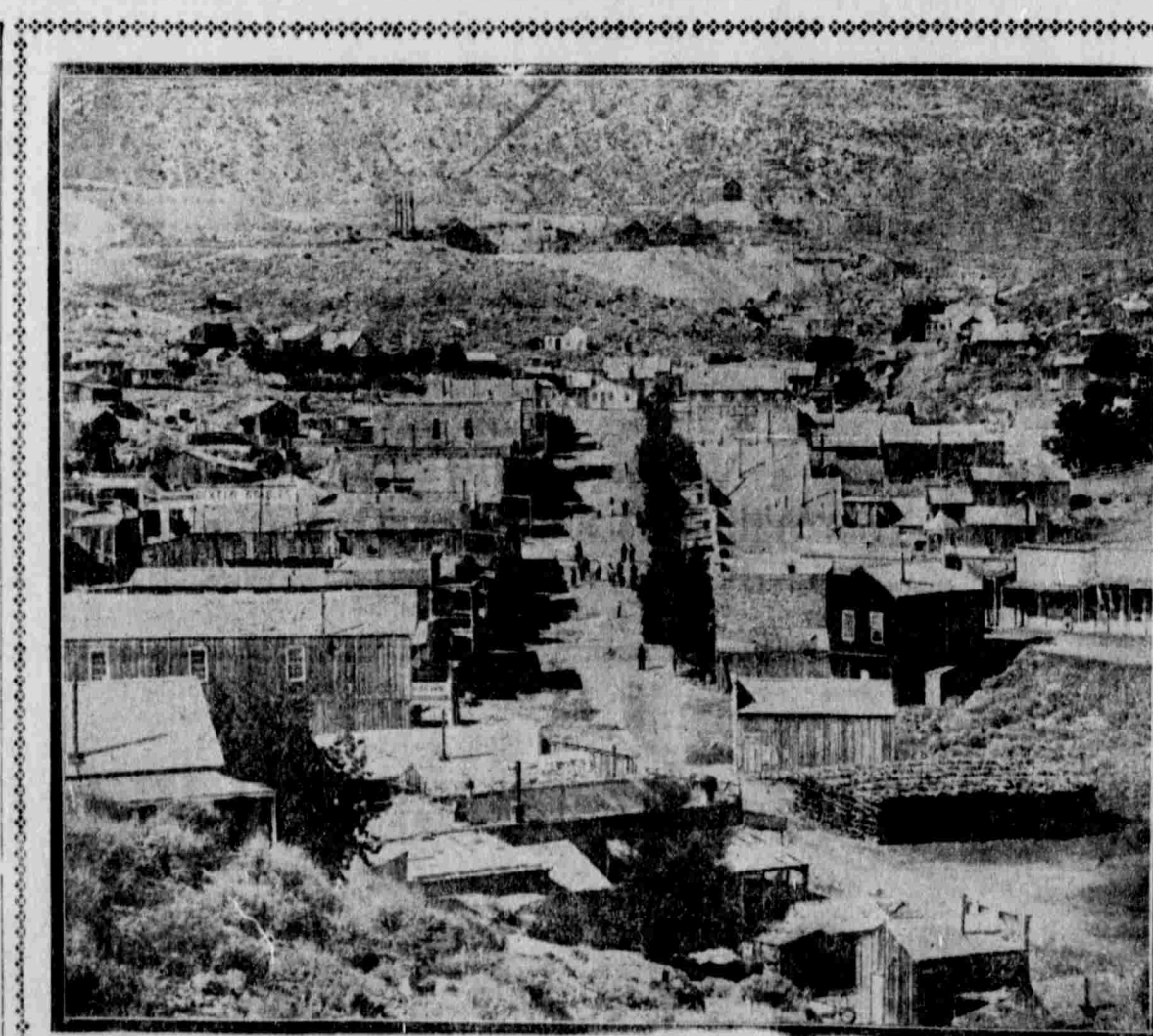
The long quartzite fissure which lies about 200 feet south of the porphyry ledge, and parallel to it, is covered by the old Raymond & Ely and Meadows Valley mines from which over \$20,000,000 was produced within a short space of six years from time of their discovery in 1868 to around 1874. This fissure varies in width from 4 to 30 feet and was worked down to the 1,200 feet or water level, and filled with oxidized ores averaging 100 ounces silver, \$5 gold per ton, with some lead carbonate, but owing the poor metallurgical facilities afforded in those days, only two-thirds of the values were extracted in the old time pan amalgamation mills at Bullionville; the tailings on hand at that place, and now owned by the Phoenix Reduction company, show values in the unworked material, aggregating over \$3,000,000.

BLACK LEDGE DISCOVERED.

It was during these "flash" days that the porphyry ledge was discovered and a rich white or ore nick-named the "black ledge" found upon it and the independent ground contained horn silver and rich silver sulphides associated with galena and zinc blends and created considerable excitement, and yet at the same time a problem presented itself which the early day metallurgists were unable to solve, viz., to extract the values from this excellent base material. No extraction could be obtained by the pan amalgamation treatment. Large sums were spent in experimental work in this country and abroad, and finally Howell roasting furnaces were erected to roast with salt, followed with amalgamation, but to no avail, for the material was smelting ore and not free milling. Smelting was then in a crude and imperfect state, which, added to the long wagon haul of over 250 miles to Palsade, the nearest railroad point on the old Central Pacific, complicated matters worse than ever.

CAUSED A SHUT DOWN.

These discouragements together with the fact that the ore contained in the quartzite fissure, changed to a lead and water level caused a general shut down in all the Pioche properties at a time



PIOCHE AS IT LOOKED A QUARTER OF A CENTURY AGO.

too, when millions were blocked out in their workings.

WHAT COSTS WERE THEN.

The actual mining cost in those days was \$44 a ton and milling cost \$22, making the total cost for mining and milling a ton of ore over \$66. Comparing the past with the present, some idea as to the advance in mining and metallurgy can be had when it is known that, concentrating is done in the big

mills of today for about a dollar a ton, and lead is readily separated from zinc, with the latter commanding a price of over \$120 a ton in the New York market. Lead formerly was worth next to nothing, but like copper, is now in great demand at \$110 a ton, while silver is on the upward grade, selling now around 70 cents an ounce, with some claiming it will touch the dollar mark. The building of a railroad into this

famous district is now about to be completed, and will deliver ores to the Salt Lake market around \$2 a ton. The fact that smelting rates are low, now than ever known before, like Bingham, Park City and other old time stand-bys, Pioche will soon take its place in the front ranks, and enter upon a new era of production.

ON EVE OF BIG BOOM.

Pioche is on the eve of making rapid

advancement. Many of its old mines are being rejuvenated and prepared for operation upon an extensive scale, while development this year has brought a good many new properties to the front and which promise to become rich producing mines.

The Nevada-Utah Mines & Smelters corporation and the Ohio-Kentucky Mining company are probably doing the most important work in the camp at this time. The former has expended a great deal of money during the past year in re-opening some of the camp's famous mines which had been in a state of inactivity for years.

OHIO-KENTUCKY OPERATION.

But the Ohio-Kentucky Mining company, recently organized, and which has been solidly financed, has been equally vigorous in bringing about new conditions in this wonderful district of southern Nevada.

The Ohio-Kentucky Mining company owns one-half of the so-called "Black Ledge" as well as a half interest in the Pioche Water works. Samuel Newhouse, was recently made president of the company, A. H. and E. L. Godbe and J. L. Hackett of Louisville, Kentucky are extensively interested in the property and were instrumental in interesting Mr. Newhouse in Pioche.

Reno the Prettiest Spot on All the Nevada Desert.

WHERE are few prettier spots in all the west than Reno, situated in the northwestern corner of Nevada, near the California line. That it was overlooked in the boom days of the Comstock is not to be wondered at, because those who acquired suddenly immense fortunes, went just a couple of hundred miles further to the incomparable Golden Gate and made San Francisco the beautiful city it was. When those who made their money during the past five or six years at Tonopah, Goldfield, Bullfrog and elsewhere sought for a place to build their homes, they cast their eyes upon Reno and found a desirable place near at hand.

The beautiful Truckee river, which is the outlet of Lake Tahoe, flows right through the town and empties into Pyramid lake. Taken altogether, Reno is the oasis in the desert of Nevada and is building up rapidly. The hotels are crowded to overflowing, new structures

are being erected everywhere and it now boasts of a population of 12,000 and 15,000 people. It has five banks, 10 churches, two daily newspapers, the best paved district street, the streets of any town in the west. It is fast coming to the front as a health resort. It is the seat of a health state university, Nevada agricultural institutions. Nature has done much for it. Some day when the old timers have died off or have been bought off and the newer element has taken hold, Reno will be to Colorado what White Nevada needs, is some public spirited citizen like Taber Straton—the one made Denver and the other Colorado Springs—to make both over. Such a man has not yet, however, made his appearance upon the scene.

Ramsay and Its Location Close to the Comstock Lode.

Only 25 miles from the great Comstock lode Ramsay, one of the newest and most promising camps in the state, is yet in its infancy; but it is a healthy youngster which promises to become a full grown first class camp in a year or two. When such men as L. P. Loftis, J. B. Davis, Capt. A. E. Mayo of Salt Lake, H. W. Kulkbacker, Tom Ramsay, Frank Isherwood, Jack Reynolds cast their fortunes with the Comstock, it is safe to say they will be something doing one of these days. All of them have made money in some of the other camps of Nevada and are putting some of it in Ramsay. It is easily accessible by stage and automobile from Clark's station on the main line of the Southern Pacific, and is 17 miles from Fort Churchill on the Hann cut-off to Tonopah.

Enough development work has been done on the Ramsay Comstock, Ramsay Mining company, Wheeler-Norcross and other properties to prove that the values are there. The dikes are as high as surface values average at \$150 per ton, while at greater depth is \$180 per ton. A townsite has been laid off and considerable holdings have been done. Its location is in favor of Ramsay and so is the character of the people who are developing it. The writer speaks by the card when he says that there are no better people operating anywhere in Nevada than are those in Ramsay. A boom may be looked for in this camp in the early spring.