

Mining and Scientific Press

Jan. 7, 1893 p. 13

San Diego.

A STRIKE.—Perris *New Era*, Dec. 29: A strike of considerable magnitude is reported

in the Virginia mine, six miles west of Ferris. The ledge has been uncovered to the width of the main shaft, and ore assays nearly \$100 per ton. Jerry Shay, the owner of the property, has recently bonded it, and it is believed that within the next few days the new purchasers will take hold of the mine. It is a good property and bids fair to become a leading bullion-producer.

Jan. 14, 1893 p. 21

DEATH VALLEY'S BORAX TEAM.—One of the odd contributions to the World's Fair Mining Department will be what is called the Death valley borax team. It is contributed by the Pacific Coast Borax Company, and consists of a model in borax four feet high, a borax wagon loaded, and on its way over the desert from the famous Borax lake, California. The wagon, to which is attached a provision cart and water-tank, has hitched to it 20 mules. In crossing the dry plains about the borax deposits, it is necessary to carry sufficient water for both the men and the stock.

Jan. 21, 1893 p. 36

Piru Mining District.

FAIRVIEW CAMP, PIRU DISTRICT, VENTURA CO.

TO THE EDITOR:—In one of my letters to the PRESS I stated that the White Mule Company was putting up a five-stamp quartz mill. I was so informed at that time, and part of the timber and engine were on the ground. But as Mr. Harbell, one of the owners of the mine, was up at Sacramento, attending the State Fair, he saw the Huntington Mill there on exhibition, and had some ore from the White Mule mine worked. He was so well pleased with the Huntington mill that he gave up the idea of putting up stamps, and now the Company has a Huntington 3-foot mill, a Woodbury concentrator, and a Huntington rock breaker and ore-feeder. The mill is built, and everything is in first-class shape to commence grinding out the yellow gold. Mr. Harry Mead superintended the work. He is a first-class millwright, and has had many years experience at the business. George Haylock and W. H. Carpenter are going to put up a mill on the Bunker Hill mine next spring, the mine being opened so as to show hundreds of tons of good paying ore in sight. The Fairview mine has the same class of ore as the Bunker Hill, and is on the same lode. There are several veins on each claim, but the one opened up on the Bunker Hill is 30 or 40 feet wide, assaying from two or three dollars up into the hundreds. I think it will average \$10 or \$15. If it does it is a good mine, as it can be worked very cheap, there being an abundance of good timber for mining purposes and for fuel. That is one great advantage we have in this district—plenty of wood and water for steam mills. Five miles south of this camp is the Piru creek, which furnishes a splendid water power, and the day will come when there will be dozens of mills in this district run by electricity; electrical plants being placed on the Piru and Lockwood creeks. The writer may not see it, but it will be done some day. Everything moves very slowly in this camp. The reason is, all the men who own mines are too poor to rush things, or at least most of them are, and if the mining law was changed as your correspondent, Mr. Ross E. Browne, suggests, they would not be able to pay \$50 cash annually to keep up some mining engineer; neither would

ment work. Rich men and big corporations would soon have all the mineral land gobbled up and the poor prospector would go hungry for something to eat. The only chance that the prospectors here have had to get money to buy tools, powder, provisions and clothes, has been by working for men who live at a distance and own mining claims here. The prospector, by getting the assessment work to do, can live and have part of the year to do his own assessment work. Some of Mr. Browne's ideas are good enough, but I want to see the mining laws let alone. The United States mineral laws are all right, and the more they are "tinkered" with the worse it is for prospectors and miners and the better it suits lawyers and surveyors. Again, as to "the granting of extra lateral right to lode claims, *i. e.*, the right to follow and work a lode on its dip into neighboring ground," I know of a good mine which has several thousand dollars worth of machinery and other improvements on it, that, if the owners were not allowed the privilege of following the vein across their side-line, the vein being on so slight a dip or incline, would not be of any value to them. I could put down a shaft just north of their side-line and get the best part of the vein, after they have spent their money following the vein to show me where to sink, and also how far I would have to go to strike their best ground. The law is right and just. I have already said too much, and want to hear from other prospectors on the subject. I am alluding to quartz veins, not placer or hydraulic claims. T. H.

Jan. 28, 1893 p. 61

San Diego.

THE LOST PEGLEG.—San Francisco *Chronicle*, Jan. 22: Another party of prospectors has left this city in search of the famous lost Pegleg gold mine, which exists somewhere in the Colorado desert between Yuma and Los Angeles. The party is composed of Thos. L. Doran, John D. Bell and Jas. Corcoran. The last two are old mining prospectors and experts. The former, Thos. L. Doran, is now on his third trip in search of the fabulously rich lost mine. Doran's adventures have been published before, and the history of the mine and the many searches made for it have filled as many columns in different newspapers as there are skeletons of the searchers bleaching on the desert. In both of Doran's former trips he nearly lost his life from the hardships he went through, and the last time he was saved by Bell, who was his companion. The members of the party feel that they will be successful this time, as they have secured, after six months' search this summer and fall, a tracing of the exact route followed by Pegleg Smith when he crossed the desert and found the "three little golden hills." The plan of the party is to go to Los Angeles, where they will stay two days, and then proceed to San Bernardino, where they will get their outfit. They will then strike for the desert, through Warner's Pass, where Pegleg Smith ended his wearisome journey. From Warner's Pass they will follow the line traced on the map as closely as they can, but will not proceed more than two days forward before hunting for the "three little golden hills higher than the rest," which they expect will bring them millions of dollars. This will cause the party to explore a more northern part of the desert than Doran has been on before. The party is prepared to make a systematic search for six months before the excessive heat compels them to leave the desert.

Mining and Scientific Press

Feb. 4, 1893 p. 66

ARGUS GOLD CAMP.—J. B. Skewes, formerly a mining superintendent at Bodie, has been in the city during the week purchasing machinery to take down to the new Argus camp. He obtained a Kendall one-stamp mill, gasoline engine, assay outfit, etc. The mines are 80 miles from Mohave and about 60 miles from the line of the Carson and Colorado railroad. The nearest mining settlement is Darwin, in Inyo Co. In the new camp water is scarce, or larger machinery would have been purchased. That which has been procured will be in operation in about three weeks. Argus is a gold camp in the Argus mountains, with good grade ore running from \$20 to \$50 per ton.

Feb. 4, 1893 p. 77
INYO

PROMISING OUTLOOK.—*Register*, Jan. 28: Some rich specimens are being shown from the Georgia gold mine in Redding's canyon nearly east of town. A chunk of quartz from there now in Bulpitt's store is heavily speckled with the precious metal. Reports say that the ledge is increasing in richness as it is followed, and the owners are sanguine as to its value. Geo. F. Willis, who is working the mine, owns a half interest and holds a lease of the interests of Hill & Anderson.

PANAMINT.—*Cor. Inyo Index*, Jan. 28: The mountains bordering on the east side of Death valley, partly in Lincoln county, Nevada, southeastern Inyo and the northern portion of San Bernardino county, Cal., embracing a large territory and lying between longitude 115° and 117° west, and latitude 35° 46' and 36° 46' north, is a comparatively unknown country. Very few men have had the hardihood to brave the dangers, endure the trials and privations necessary to go through in order to prospect that section. Amargosa and Black mountains forming the eastern boundary of Death valley, have in many places never been visited by white men and possibly very little by the Indians living in the vicinity, as they have a limited knowledge of the water and topography of the country, seeming to avoid it for some reason. What little has been found out in regard to the mineral character by the few whites who have penetrated the mountains, is of a very flattering nature. Many specimens of rich gold, silver, copper and lead-bearing ores, and samples of borax, soda, lithographic stone, clays and other minerals have been found and brought in from both the mountains and valley. In consequence of the great heat of the deserts, which had to be crossed before an entrance could be made in the mountains, considerable risk attended the undertaking. In one of the canyons leading down from the Funeral range to Death valley, on the north side of the canyon, an iron-stained quartz ledge crops out for quite a distance. Some of the croppings show gold freely and are very rich. Never has there been any work performed upon the ledge and doubtless has never been seen by more than three white men, who discovered it while making their way across the mountains and valley on their way to Panamint some years ago. Stopping to investigate the extent of the discovery was out of the question, as they had no knowledge of the country and water nearly gone, contenting themselves with bringing a few samples. The pieces brought in were very rich. Before reaching water they nearly perished from thirst, and no inducement could be held out after their recovery to again cross the valley that summer.

Many ledges of silver bearing quartz have been found by the float rock washed down toward the valley; some containing horn silver, others containing copper and base metals, and high grade in their character. Great boulders of lead lie exposed upon the surface, which being traced up lead to huge croppings of galena, discolored by the elements, looking like black and brown basaltic rock in the distance and when broken glisten and sparkle in the sun's rays like huge diamonds. In the past the discoverers have not been benefited by their find, as the lack of transportation and capital has prevented working and development. From assays, many were found to go from 5 to 100 ozs. in silver, a trace to over \$30 in gold and very high in lead, in some cases over 80 per cent, when galena was tested. What a source of supply it would be for the Los Angeles smelter, if the Salt Lake railroad was finished! Not only this, but other sections would contribute large supplies of ores, and upon which development has been made; many miners now having large quantities of lead ores upon their dumps that cannot be reduced for the simple reason that there is no suitable fuel for reduction, the bringing it in being too costly, and transportation of ores to where they can be worked costing from \$60 to \$80 per ton, which would eat up all profits, bringing the miner in debt. At Resting Springs, milling was attempted but soon abandoned, the ore carrying too high percentage of lead to admit of successful amalgamation. In the foothills bordering the valley, large veins resembling quartz crop out bold. To any one not acquainted with their composition, they would be taken for barren quartz ledges, but are very rich in boracic acid. In the near future they will become the source of most of the supply of our commercial borax. Many varieties of fine building stone are found here, white and colored marble, red and brown freestone, slate

and other stone suitable for architectural and artistic purposes. In places where volcanic agency is discernible, red and brown-colored earthy matter has been formed which, upon investigation, might produce an excellent article of mineral paint. Clays as white as the driven snow, showing a beautiful polish on being cut, closely resembling meerschaum, and others suitable for manufacturing earthenware, and firebrick also exists here. Toward the east side of the valley, extending for several miles in length and some two miles in width, is an enormous body of nearly pure salt, looking like a great mass of ice. In places, crevices have been formed and huge pieces tilted on end, forming fantastic figures, it being of sufficient purity, after the surface has been removed, for domestic purposes. Along the course of the Amargosa river, in many places the depression is below sea level, as much as 120 feet being found at a point opposite Bennets Holes. Large beds of extinct lakes, rich in borax, soda and other mineral salts, lie in the valley.

Feb. 11, 1893 p. 81

THE Southern California Smelting and Refining Company, at Los Angeles, has begun the work of preparing ground for a smelter, and expects to have the machinery in place and ready for operation early in April.

Mining and Scientific Press

Feb. 18, 1893 p. 100

VANDEBILT is the name of a new district on the Mojave desert, in this State. The town at present consists of 200 people, 40 tents and one small frame house. Lumber costs \$90 per 1000 feet, water 3½ cents per gallon and potatoes 5 cents a pound. The railroad from Goff's station toward Vanderbilt is graded for 14 miles and there are five miles of track laid.

Feb. 18, 1893 p. 109

Inyo.

FISH SPRINGS.—Inyo Register, Feb. 9: The miners of Fish Springs are now doing real prospecting work. John Escallon is running a tunnel along the Goldbug vein, which will compel the "bug" to render up rich treasures, should the aforesaid "bug" have them hidden at a depth from the surface. Geo. Gilliam is throwing his youthful energy into the development of one of the most promising claims in the district. Fuller & Malone are in high hopes of a Columbian Exposition stake from a mine which

they are developing. Antone Cunha and Upton Tracy have struck a fine body of ore in their mine, the Queen, just south of the Goldbug. Indications proclaim that this district will soon be famed abroad. Ex-Sheriff Gregg and Dick Whittaker only await the next crop of daisies to commence washing out the yellow dross at the O'Hern placer claim, southwest of the hamlet.

FINE ORE.—Inyo Index, Feb. 8: Some of the finest ore ever seen in any country is now being taken out of the Hirsh mine in the Inyo range. The U. & C. R. R. will soon put in a siding at the Eclipse crossing to accommodate ore shipments from the Hirsh.

Feb. 18, 1893 p. 110

Yellow Pine District.

LOOKING WELL.—Pioche Record, Feb. 8: The latest news from Yellow Pine and vicinity indicates the feverish interest which was recently manifested in that section to be abating somewhat, though all the mining properties are looking as well and showing up as much ore as ever. The working force at the Keystone, the gold mine of the district so far, has been reduced, 60 days ago, from 20 to but 3 men, who are operating in various parts of the property. The mine itself looks as well as at any time in the past, unless it was at the time the rich pocket was struck in the first working. Ore shipments have been regularly made. Mr. S. T. Godbe, one of the owners and manager of the property, returned there a week ago last Sunday after an absence of two months, and the working force may at once be increased. Prospecting is going on in the other parts of the district, as the means of the owners will permit, and the possibilities of the district as a great ore-producer become steadily more apparent. The main object of interest is the approaching railroad from Goffs. About 60 teams and 100 men are engaged in the work. On January 22d, twelve miles of grade was thrown up and three miles of track laid, the whole work being delayed for want of materials. Water and all supplies have to be brought from The Needles, and this will have to be continued until New York district is reached, as there is no water between the two places. The contract as let requires the road to be completed to New York district, a distance of 30 miles, by the 14th inst., but from a general shortage of supplies and building material this cannot now be done. In all probability, however, this part of the line will be finished by the end of the present

month. A gentleman who has just returned from that section says there is no talk there of the road being extended farther this way for the present. The 30 miles of road now in course of construction runs over a very level section of country. Only two water-courses will be crossed in that distance, and neither of these will require bridging, while the largest fill does not reach five feet. Recent reports of prospects there have resulted in an influx of men, the majority of whom are without means, and very many are doing nothing whatever.

Vanderbilt District.

OVERDONE.—Pioche Record, Feb. 8: At Vanderbilt district over 150 men have congregated. Not more than 25 of this number are working for wages, and a very large majority of the remainder are without means. The place with present prospects is said to be badly overdone, though much hope is entertained for the future. The place, though small and of recent origin, already sports two saloons and two stores. It is situated about seven miles from New York district, and 30 miles from the Nevada State line.

Feb. 25, 1893 p. 114

The bond on the gold mines in Vanderbilt district, San Bernardino county, which W. S. Lyle and others secured for the bonanza firm, has been taken up. The amount paid to the original owners is \$40,000. Messrs. Mackay, Flood and others, who now control the group, will expend about \$100,000 in developing the properties. Mr. Mackay himself, while on the coast, will visit these mines. If satisfied with them, it is said that the stocks of the companies to be incorporated will be listed on the stock boards in this city. This will be the first time the Nevada silver-mining millionaires have turned their attention to California gold mines, and it is characteristic of them that they should begin in the greatest silver-producing county of the State. They also take up an entirely new district in which to begin their operations. It is to be hoped that they have good properties, as there are plenty of good gold mines in California. Outside of those at Bolie, however, few of them have ever been listed on the boards for speculative purposes.

Mining and Scientific Press
Feb. 25, 1893 p. 125

THE PIRU DISTRICT.—*Los Angeles Times*, Feb. 18: In regard to the Piru mining district, brief mention of which was made in the *Times* last week, a practical miner recently from that section gives the following interesting details: The Piru mining district lies about 60 miles from Lancaster, on the edge of Ventura county, and the principal new claims that are being developed are about 18 miles west from Gorman's station, and about 4 miles southwest from Capt. Cuddy's residence. There is a stage making tri-weekly trips between Lancaster and Gorman's station. At Gorman's station a rig or horse can be hired to take the traveler to the mines, or after staying all night at Gorman's, where good lodging and meals can be had for a moderate charge, the traveler can easily walk to the mines in time to dine at 12 o'clock. Messrs. Harbell, Hazlett & Bergoren have just completed putting up a 34-foot Huntington mill on the White Mule mine, and next week are going to start up and run night and day. Their mill will be lighted by electricity and a gang of men put at work in the mine sufficient to keep the mill supplied with rock. Mr. Harbell has shown great energy and enterprise in getting a mill at his mine, he having to work under numerous difficulties, but has now got things in shape to go ahead and will undoubtedly reap a prosperous harvest for his enterprise. They have about 100 tons of ore on the dump, which averages about \$12 to the ton, free gold, and the concentrates from \$70 to \$80 per ton. Col. P. J. Harty, who has just come down from the mines, says they started up the mill and ran it a few hours and that everything about the machinery worked perfectly satisfactory, and that as soon as the electric plant is placed in position, which will be in a few days, they will be ready to run night and day. Messrs. George Reed and Isaac Haylock, owners of the Fairview mining claim, have several hundred feet of tunnel run in their mine, and it prospects good. They intend to keep on prospecting their claim, and show it up in good shape before offering it on the market, or getting capitalists interested in putting up machinery on it. They also have other fine prospects yet to be developed. Messrs. George Haylock and W. H. Carpenter are owners of the Bunker Hill mine, situated further up the mountain above the White Mule and Fairview. The ledge in the Bunker Hill mine averages about 75 feet wide, and has gold from the top of the ground down. It averages, including dirt, decomposed rock and quartz, about \$10 to \$12 per ton in free gold. All of the quartz in this mine is free-milling ore. The proprietors of this mine intend putting up a mill on their own claim the coming spring. They have from four to five hundred tons of ore on the dump, but do not propose to take out any more ore until they have a mill running, as it is as little trouble to take the ore from the mine as from the dump. One great advantage this camp has is, there is an abundance of good wood and water at the mines. The Haylock Bros. have been in this camp several years, and, as they are both old miners, they know what they are doing. They have never attempted to get capitalists interested there yet, preferring to go ahead themselves and develop their claims, and wait until they can show up to good advantage what they have got. Col. P. J. Harty and Judge Rennolds are interested in several claims in this district, and propose next summer to do some vigorous developing. Prof. Leroy Mitchell has just left here for the mines, and proposes to prosecute vigorously the development of his claims. He has an extension of the White Mule lead and is considered one of the lucky locators of the camp.

March 4, 1893 p. 130

What is usually called the "desert regions" of this State in portions of San Bernardino, Inyo and San Diego counties, doubtless contains much wealth in its mineral deposits. A few years since we published in the *MINING AND SCIENTIFIC PRESS* a series of letters written by James H. Crossman, on the mineral resources of San Bernardino county, in which attention was called to many good prospects in the desert regions of that county. These were undeveloped mines, but the indications all pointed to a possible future for the section if capital would help the prospectors out. The fact that some of the successful Nevada silver miners have gone to work in Vanderbilt district on the Mojave desert, will soon attract attention to that part of the State, and other men will begin to invest. There is a large area, only partly prospected in the counties mentioned, and although there have been many legends of rich mines, few have been opened. The New York district, on the Mojave desert in San Bernardino, is another district which is beginning to be noticed. They have found ore running from \$40 to \$68 per ton, and the bullion contains a liberal proportion of gold. The mountain ranges bordering the desert have been visited by very few expert prospectors or miners and a thorough search may result in the formation of several new districts.

March 11, 1893 p. 147

MURPHY MINING DISTRICT. a new Nevada camp, is only eight miles northeast of Vanderbilt district, San Bernardino Co., Cal.

Mining and Scientific Press
March 11, 1893 p. 148

San Bernardino Mining Districts.

VICTOR, CAL., March 6, 1893.

TO THE EDITOR:—The Vanderbilt District is coming to the front. It is located about 30 miles from Gaff Station, on the A. and P. Railroad. About 12 miles of track have already been laid on the new railroad which will pass through Vanderbilt, thence through the New York District and will finally be built through part of Nevada and Utah. It will pass through some of the richest mining country in California. There are 40 men working on the group of mines in the New York District which property was purchased by a Denver syndicate. At Danby this same company has bonded mines from Marcus Alby Thompson, and is doing considerable prospecting work and development upon them. They are proving up all that could be expected, showing up some very rich ore.

At Calico, the Silver King Mining Company, Limited, is running its 30 stamp mill day and night, and is shipping its usual quantity of bullion. The mines are looking better than ever. The borax mines have been sold, and are increasing their output of boracic acid from 10 to 18 tons per day. Mr. Perry still has charge of this property. The force of men working these mines has been increased. At Oro Grande, Vyman Gruendike & Co. are mining a large quantity of limestone, which they convert into lime. This rock makes as good lime as can be obtained on the Pacific Coast. At Victor, a company of Eastern capitalists has been formed, their object being to dam the Mojave river at the narrows, near the town of Victor, and, by running ditches, irrigate a large portion of the Mojave desert. This is the finest location for a smelter that your correspondent knows of, there being plenty of gold, silver, lead, copper and iron ores, also timber and water right in the vicinity.

Twenty-nine Palms mining district will come to the front in time. There are probably some very good prospects there, but they need capital badly. At Ferris, the Good Hope mine is the only bullion producing one at the present time. They shipped a bar of gold from there last month. At South Riverside, the tin mines are deserted; nearly all their stores have been sold at constable's sale.

ALBERT MINER.

March 18, 1893 p. 173
Inyo.

Just So.—Inyo Index, March 11: A New York mining expert, who recently visited Owens valley and inspected mines in the adjacent Inyo range, was well pleased with the mines, but says the transportation facilities here are much against the mining interest. He further said that it would be very difficult to get people into this section until we had shorter rail communication; that when a man got to Belleville, he was ready to turn around and go back.

A BIG DEED.—A transfer has just been put on record from A. L. Tubbs, assignee of the Harmony Borax Co., Meridian Borax Co. and California Chemical Co., to F. M. Smith for a large body of patented borax lands in South-eastern Inyo, the consideration being \$150,000. The deed covers 111 pages of county records.

March 25, 1893 p. 189
San Bernardino.

VANDERBILT DISTRICT.—Cor. White Pine News, March 18: There are two great mineral districts adjoining, namely, New York and Vanderbilt in San Bernardino county, Cal. The first-named formation is lime and porphyry. A Denver company is now operating there with a force of 80 men holding forth in dugouts and tents. The ore runs about 35 ounces in silver and from 30 to 40 per cent lead. It was originally claimed to be a gold camp, but after its purchase found to be the contrary. They are busy making roads and developing a group of eight mines and storing ore until the advent of the railroad now in course of construction.

The Vanderbilt formation is gneiss or quartz, and its appearance is certainly indicative of a good, strong mineral belt, and is situated about 35 miles from Gaff's station on the line of the Atlantic & Pacific, and seven miles westerly from New York, and bids fair to be an extensive camp. Two of the principal mines are down about 75 feet, with drifts run for 60 feet, showing veins quite continuous but narrow and best quality of ore shipped has averaged about \$60 gold and \$35 silver—reckoned as a gold camp—all the prospects showing two-thirds gold. The ore is of a sulphuret character and water is coming in at aforesaid depth. Springs are close by and a number of millsites are located there.

Lyle has bonded the Gold Bronze for \$40,000 and the Gold Bar is bonded for \$75,000, and it is now a foregone conclusion that said sales will be consummated as they have taken up two millsites for the purpose of reducing ore within a mile from the mines.

The camp is located in a narrow wash, with about a dozen tents, consisting of one lodging house, three boarding houses, two saloons, one general merchandise store and Chinese laundry. Only 18 men are employed regularly, but upwards of 200 men are in the district prospecting, and for a 90-day camp it is quite lively.

Apr. 1, 1893 p. 205
Inyo.

BORAX OPERATIONS.—Index, March 22: M. H. Bush, of Alvord, was in town on Monday. He reports an accumulation of 1400 sacks of borax at Conn & Trudo's works, in Saline valley, owing to a blockade of the wagon-road over the mountains, occasioned by the storms of the winter. The road will soon be repaired and hauling commence. Bush and his partners are making 16 sacks of borax per day at a marsh in Nye county, Nevada, about 10 miles from the California State-line. This will be hauled to Alvord, a distance of 94 miles, and shipped by rail.

Apr. 8, 1893 p. 214

IN the suit of John Doe against the Waterloo Mining Company, on trial in the Los Angeles United States Court, involving title to disputed ground in mining claims at Calico, Judge Ross rendered a verdict for the plaintiff. Several suits are involved and are practically settled by this decision, in which several hundred thousand dollars in damages were claimed. The case had been contested in the courts for several years.

Mining and Scientific Press

Apr. 8, 1893 p. 214

New Incorporations.

Mohave Cattle Co., Capital stock, \$50,000. Directors—Paul Breon, Henry Lambert, Daniel Murphy, George H. Wheaton and George W. Harrold.

Needles Land and Cattle Co., Needles, San Bernardino county. Capital stock, \$50,000. Directors—T. L. Blackburn, F. Monaghan, Daniel Murphy, G. S. Briggs and George Nay.

Evans Extension Ditch Co., Visalia, Tulare county. Capital stock, \$54,400. Directors—W. H. Hammond, W. G. Pennebaker, J. W. Thomas, R. E. Hyde, H. C. Ray, J. C. Ward and J. W. Fewell.

Jeffress, Mitchell, Tutt Co., Oakland. Capital stock, \$150,000. Directors—M. J. Mitchell, Geo. H. Jeffress, E. R. Tutt, J. C. Buttner and James Graham.

Alamitos Oyster Co., Long Beach, Los Angeles county. Capital stock, \$25,000. Directors—J. Bixby, J. McGarvin, A. L. Lovett, J. W. McGarvin and W. F. Sweeney.

Crescent Oil Co., Los Angeles. Capital stock, \$25,000. Directors—C. J. Hutchins, H. C. Converse, E. S. Lockwood, W. B. Nicholson and E. T. Wright.

Apr. 15, 1893 p. 227

GEORGE R. WELLS, J. L. FLOOD AND NAT. T. MESSER have gone to the Vanderbilt district, in San Bernardino county. These mines are to be listed shortly on the stock board.

Apr. 8, 1893 p. 216

20-Stamp Mill for Sale.

In Southern California, a 20-stamp Gold Quartz Mill, with engine, boiler, self-feeders, rock-breaker, etc. As the premises are adjacent to Railroad, the Mill could be conveniently removed. Can be had at low price for cash. Address "Quartz Mill," care MINING AND SCIENTIFIC PRESS, San Francisco.

Sampling Works for Sale.

The works are situated at Daggett, Cal., in the Calico Mining District, and on side track of the Atlantic & Pacific Railroad. They contain a first-class 50-horsepower Engine and 45-horsepower Boiler with Ore-crusher and other machinery. Mill Scales, Assaying Outfit, etc., all nearly new. Also upon the premises, an office building and a comfortable dwelling-house (portable). The above can be had at a bargain. Apply to JOHN H. GILZSPER, 1914 Stockton St., San Francisco.

Apr. 22, 1893 p. 253

San Bernardino.

VANDERBILT DISTRICT.—Cor. San Bernardino *Times-Index*, April 15: I see an article going the rounds of the press that Vanderbilt mining district is an old mining camp, having been worked and abandoned many years ago by Senator Jones & Co. Such are not the facts. In 1874 Jones & Co. bought and operated mines in the Panimint mountains, which lie something like 200 miles north from this camp in Inyo county. The Panimint mines were silver, while Vanderbilt veins are all or principally gold. The truth is that these mines were never worked, or even so much as discovered until found by the Indian, Bob Black, and located by M. M. Beatty. New York district is located over the range and some eight miles south from this camp, and is now being worked by Denver parties. It was first discovered and worked away back in the '60s. It is only within the last few years that prospectors have been aware of, or even so much as suspected, the presence of gold veins in this so-called desert region. The truth is that gold is found outcropping in but few places in all this vast stretch of country, the gold veins being generally capped by hematite of iron and sometimes, as is the case here in this district, associated to a greater or less extent with galena ores. I do not mean by this that the Vanderbilt mines carry galena

to any appreciable extent; but here and there in many of the veins thus far prospected lead ore (galena) is here and there encountered, and is looked upon by the prospector as a pretty sure indication of finding gold. But little free gold is visible in the ores of this district, it being more generally found in the iron sulphurets. There is no question but what many valuable discoveries will yet be made in this vicinity now that prospectors have learned the character of the veins and the nature of the ores. In truth, the desert—as you people insist on calling this section—will soon and is now taking on a new lease of life. I hear almost daily of new and valuable discoveries. Another important lesson the prospector has learned is that he must do development work if he expects to find a mine—sink a hole on his vein. Some of the best prospects in this camp gave out only from \$4 to \$10 on the surface. The Bonanza people have acquired the interests of M. M. Beatty in the great Beatty lode of this district, the three first locations made in the district, all on the same vein, and upon which a force of men will be soon set at work. This important mining deal, when fully completed,

will place in the hands and under the control of the Bonanza firm the two great veins of the district, and insures the future of Vanderbilt. The work on the new railroad has been somewhat retarded of late, owing to the non-arrival of material, such as rails and other supplies necessary to a rapid construction of the road. It is now surveyed and the line established to and a few miles beyond this place. Since my last, an election for District Recorder has been held, at which meeting many new features and laws to more fully govern the district were introduced and adopted, and William McFarlane duly elected Recorder for the ensuing year.

New Discoveries.—San Bernardino *Times-Index*, April 15: Frank Meacham has just returned from the new placer fields at Borax lake, 150 miles northwest of this city, discovered some six weeks ago by himself and Ramsey Cox, and reports rich returns. He says the gravel is rich and bedrock is found at a depth of only four feet. To those not acquainted with mining operations it is explained that the gold in placer digging is found at bedrock, and the amount of labor involved in getting it out is, of course, proportioned to the depth at which bedrock is found. In this case the diggings are shallow and the gold is easily reached. When the fields were discovered, Meacham and Cox thoroughly prospected them and each located 20 acres, the limit allowed by mining law. They then informed a number of their friends of the richness of their discovery, and these likewise located. The find has been kept very quiet and this accounts for the fact that nothing has been heard of the new diggings. At present there are about a dozen men working at the diggings, but Mr. Meacham states that all the desirable locations have been taken up. At first the men labored at considerable disadvantage, owing to the lack of "washers" in the camp, and were compelled to carry the dirt on their backs to the lake, a distance of half a mile from the diggings, where it was washed in "cradles." Even by this slow and primitive method, however, excellent returns were reaped. Mr. Meacham reports that during the first seven days he was at work he washed out \$110 in dust and nuggets. The locators have now bought "dry washers" and the dirt is said to be worked closer by this process than if water and amalgam plates were used. The placer diggers are making an excellent thing out of the field. A return of \$10 a day is considered small, and some are getting out as much as \$25 or \$30 for a day's work. There are two ways of reaching the fields. One is to go out by wagon from here. Another, and by far the more preferable route, is to take the Southern Pacific to Mojave, and from there proceed by wagon over the old Borax road, a distance of 50 miles. Old miners, seen this morning by a *Times-Index* representative, say the field is virtually unexplored.

Mining and Scientific Press
Apr. 22, 1893 p. 253

Inyo.

SILVER-LEAD MINING.—Inyo Register, April 15: The following gives, in a general sort of way, some idea of what is being done in silver-lead mining in the camps sending ores to the railroad at Keeler: Three carloads, or about 30 tons, of ore are shipped from this latter point weekly, on an average. J. J. Gunn, at the Minnietta, the farthest of these mines from Keeler, is working seven or eight men, and has between 40 and 50 tons of high-grade silver-lead ore ready for shipment. Fitzgerald, at the Modock mines on the north side of the same hill, is working about the same number of men and is taking out ore in paying quantities all the time. Frank Silva, at the Columbia mine near Darwin, has out two carloads or more of fine ore ready for shipment. He employs three men. E. A. Reddy, at the Defiance, is working seven or eight men, but for two months past has been sinking the main incline, the better to extract ores from below the 400-foot levels. It will take a week or ten days yet to connect the incline with the tunnels or workings previously made at that depth, but from which the ore had to be handled not less than three times before it came to the steam hoisting works, hence the sinking of this incline. McKenzie, at the Lucky Jim mine, is shipping a carload or two of ore, and, with a light force, is taking out ore all the time, though not in such quantities as in times past. The Newtown Co., at Cerro Gordo, is working eight or nine men, and is sending down about three tons of ore every day. Tom Boland, lessee of the Union mines, same place, is working about the same number of men, and will begin hoisting ore by steam in a few days. He is also handling a good deal of fine dust by the jigging process. The low price of silver has depressed mining work in all these camps very much; nevertheless, there is more being done in mining these silver-lead ores than is generally supposed.

THE SODA WORKS.—The Inyo Development Co. at Keeler is working 30 men and a corresponding number of teams—over 40 horses in all—in the construction of new vats. It has now about 50 acres of vats, and is running one pump which keeps a stream of 50 inches of water flowing into the vats constantly. It is shipping now only one carload of crude soda every week, but in due time will vastly increase its shipments.

Apr. 29, 1893 p. 260

Yellow Pine District, Nevada.

A Virginia Chronicle reporter had an interview with J. V. Keeley of San Francisco, who was paying a short visit to Comstock friends. Mr. Keeley was formerly local agent of Wells, Fargo & Co., at Pioche, and was also located at Eureka, this State. He is interested in mining property in Yellow Pine, which is located in the extreme southern end of Lincoln county, Nevada. Mr. Keeley has but recently returned from a trip to that locality, and is imbued with the belief that Yellow Pine in the near future will astonish the world, as it abounds in rich minerals, principally gold.

Yellow Pine district is six miles east of San Bernardino county, the altitude above the sea level being 4900 feet. The gold belt covers an area of twenty miles, while minerals are found in large quantities within a radius of 100 miles. The gold belt is surrounded by mountains of galena ore, averaging from 2 to 60 ounces silver, and 80 per cent galena. There is a timber belt within twelve miles on Potosi mountain and numerous living springs of water. There are several good mines being worked in the district, and hundreds of locations already made. The country

rock is lime, the capping on the surface generally ranging from two to ten feet deep. The gangue of the ores of the gold claims is generally found in red oxide of iron, interspersed with copper, a very favorable indication of permanency. The ore is free milling.

The principal mine of Yellow Pine, the only one being worked at present, is the Keystone, six miles east of Good Springs. Ten men are employed. A shaft has been sunk 110 feet, and a tunnel run 150 feet. In the face of the tunnel the ledge is 2½ feet wide, the ore from which assays from \$23 to \$30 in gold. The owners of the Keystone recently shipped 75 tons of ore to Pueblo, Col., for reduction, which netted them \$35, all gold, the assays ranging from \$446 to \$3195 per ton.

Another mine of merit is the Clementina, owned by Mr. Keeley. Six assays of ore, red oxide of iron, averaged \$323.42 in gold—the small percentage of silver not being counted. The mineral is flour gold, and easily horned, the ore being so crumbly that it can be pulverized between the finger and thumb. The great trouble in working the ore might be in saving the fine gold, which runs off, but the oxide of iron forming a natural flux a high percentage of the mineral can be saved. Omaha parties have offered to mill the ore on as liberal terms as offered in San Francisco.

The Boss mine, four miles west of the Keystone, one of the best developed in the district, has been bonded by S. T. Goddie Jr. of Pioche and Mr. Keeley. A shaft has been sunk 45 feet, one tunnel run 110 feet and three others from 10 to 60 feet, showing red oxide of iron and copper. The ledges blend 5 feet copper and 5 feet gold. The copper averages 14 per cent, silver 6 ounces, gold 1½. They have in sight and on the dumps 1500 tons. A mill test of two tons of the gold and copper ore worked up to 80 per cent. The ledge can be traced from 1200 to 1300 feet on the surface.

The drawback to development of Yellow Pine district is the lack of railroad facilities. A Denver corporation is now engaged in running the Nevada Southern railroad from Blake (formerly Goff's) on the Atlantic Pacific to Vanderbilt, in San Bernardino county, thirty-five miles. A branch road seven miles in length will be run south from the main line to New York district, twenty-eight miles from Blake. When the road is completed to Vanderbilt it will run to Good Springs, forty-five miles, the center of Yellow Pine, and may connect with the Denver and Rio Grande at Salina, Utah. But the main point is to run to Iron City, Utah, to tap the magnetic iron mountain there, the largest iron deposit in the United States, and also to reach the coal fields at Kanarra, Utah. Twenty-six miles of the road from the road from Blake has already been built—within nine miles of Vanderbilt.

The company building the Nevada Southern from Blake is interested exclusively in a series of mines in New York district, where it has eighty men employed. The ore is low grade silver and when the branch road is finished to that locality the ore will be shipped to the company's reduction works at Needles, where it can be worked at a profit.

The gangue of the ore found in Vanderbilt district is granite and gneiss. The ore is sulphuret, the veins being continuous from the surface down. The ore from the mines owned by the Bonanza firm averages \$45 per ton in gold.

When the railroad shall have penetrated Yellow Pine district mills for the reduction of the ore will be built on the San Bernardino desert, which is only 1800 feet above the sea level. In a descent of ten miles from Yellow Pine there is a drop of 3100 feet. Wells will be sunk on the desert, where water is obtainable from three to twelve feet below the surface.

Mr. Keeley is confident of the future prosperity of Yellow Pine. He says there are base ores enough in the district to run a large number of smelters, for ten years. The climate is not enticing. The temperature ranges from 90 degrees in January to 110 in summer. Vegetation is scarce—nothing grows there but cactus and tule-palm (commonly called "Joshua"), which is used for fuel, and rattlers are thicker than gophers in Mason Valley. But whoever heard of anything deterring the hardy prospector in search of gold.

Apr. 29, 1893 p. 269

Inyo.
New Mine.—Inyo Independent, April 21: W. O. Wilson of Mojave has certainly developed a good mine near the south line of the county. The location is near the north side of Indian Wells Valley, about 25 miles northeast from Coyote Hole station. It is in the Argus range, where the chain ends on the edge of the plain. The ledge was well prospected, and the extent and value of the ore determined before anything else was done. From an average sample, Selby & Co. of San Francisco gave Mr. Wilson the following return per ton: Gold, \$134.78; silver, \$14.88; total, \$144.11. A small mill has been erected and is now about ready for work.

San Bernardino.
A BIG MINING DEAL.—Riverside Enterprise, April 23: Mr. J. H. Crossman of this city and San Francisco parties have just closed a deal for a group of mines situated in the Dry Lake mining district which is situated on the Mojave Desert. The purchase price of the mines in question was \$100,000 and the sale was consummated through the instrumentality of Attorney A. L. Bartlett of this city. The mines in question have all been developed more or less, and sufficient work has been done to show the great value of the mines. Tests of the rock taken from the mines show them all to be rich in gold-bearing ore. The purchase of Mr. Crossman and associates shows ledges varying in width from 2 to 40 feet, and the rock assays from \$8 to several thousand dollars per ton. The location of the mines is accessible to rail-road over a good wagon-road, and there is ample water supply to run a large stamp-mill. We were shown specimens of rock from the mines yesterday, and they certainly bear out the claim of Mr. Crossman when he says his company has a bonanza. Mr. Crossman leaves to-day for San Francisco to confer with his associates relative to further development of the mines in question.

May 6, 1893 p. 285

Inyo.
FISH SPRINGS MINES.—Cor. Inyo Register, April 23: The Fish Springs mines are looking well. Upton Tracy was in yesterday and reports a fine strike of gold ore made by Cunha and Tracy. Mr. Tracy says that the ore-body is getting stronger as depth is attained, and that in sinking a vertical shaft on the vein they get a thousand pounds of good working ore per diem. Their rock yields about \$40 per ton. John Commetti is taking out a quantity of good working rock. Gilliam and Broder are pleased with the appearance of their prospect and will soon make a run at their "water-mill." John Escallon reports his claim, the Gold Bug, in fine shape, and says he will commence crushing ore some time during the present week.

May 6, 1893 p. 285

San Bernardino.
THE DESERT COUNTRY.—Needles Eye, April 29: The desert country is at last to be the gold-producing section of the State. The mines are far richer than any of the blue gravel diggings to the north, and as soon as water can be obtained the thousands of acres of placer ground in the north end of the mountains will be worked at a great profit. The desert country is spotted over with placer ground that some day will produce immense wealth. Hon. P. F. Collins has made an important discovery of gold ore on the old Government road, eight miles west of Fort Mojave. The ledge is six feet in width, and a sample from the entire vein gave a result of \$80 per ton gold. The ore is heavily impregnated with iron and is free milling. For years the ledge has been traveled over, but no one had the faintest idea that it contained the precious metals. Should development prove the vein as rich as the surface promises, Mr. Collins will indeed have a bonanza. Reports from the new town of Vanderbilt seem to be giving the boys around town the mining fever. There are many miners and prospectors in and around Cosman Springs and many mines have been located and are being worked. It is probable that this camp will cause quite a stir in mining circles within the next few months. Easum & Longstreet have a splendid prospect at a place north of Vanderbilt known as Cosman Springs. Mr. Easum is foreman of the Gold Bronze at Vanderbilt and is a first-class miner. Longstreet is an old-time prospector. Considerable work will be done on the property this summer and fall.

May 13, 1893 p. 301

Inyo.
FROM BIG PINE.—Inyo Register, May 4: The hauling of borax from Saline valley is now going on in good shape. Three teams are now constantly reducing the surplus which accumulated at the works during the unpleasant weather of February and March. Dan Hall just broke the record on time, and John Counts knocked out the record for quantity, he having pulled in 20,400 pounds with a mixed team of small-eared mules and straight horses, numbering ten in all. H. W. Barton is in from his extensive field and shows some specimens of borax made in small cans, which is pronounced to be excellent. The impression is growing that Saline valley will soon be noted for the quantity as it now is for the quality of its borax output. I. H. Coe and Andy Fife will commence the leaching of Montezuma ore some time this week. Mr. Coe has confidence in the Montezuma property, and if their process of reduction operates successfully, excellent works will be erected at the mine in due time. S. P. Roberts of Big Pine will resume work at his Pine Mountain claims as soon as the snow will permit, and hopes to enlist capital sufficient to make that a good permanent camp. S. G. Gregg and Dick Whitaker have their sluice-boxes set at their placer claim southwest of the hamlet.

A Smelter for Los Angeles.

TO THE EDITOR:—With the prospects of an active smelter in the corporate limits of this city at an early date and a generally increased interest in mining in this section it looks as if we are indeed close to a genuine mining boom.

The smelter will probably be ready to buy ores in thirty, and for smelting in sixty days. Then southern California will surprise the world with the quantity of good smelting and other classes of ores it can produce. Several good properties are now being developed and ore taken out for shipment to the new smelter.

The question is often asked, "Is there anything in it?" etc., to which I will say that the foundation is being laid and several carloads of machinery have arrived. The chief promoter, Dr. Endlich, seems to be a polished gentleman of fine education and ability, having had much experience in the old country and in this. For years he was in the Smithsonian at Washington and is the author of an elaborate and excellent work in mineralogy.

Los Angeles is also liable to become quite a center for interest in the new cyanide process. We have with us now two gentlemen from Tombstone, W. H. and L. E. Aubury, who are among the few who have successfully worked out the practical details of the process. They have thus been treating ores in Tombstone for the past year and making eight and ten dollar silver ore pay. They have also made some valuable modifications of the process, in recognition of which the Denver Company has granted them special privileges in working ores. They are now arranging to erect large plants at several mines in southern California, and putting up a small one here in the city to demonstrate the practicability of the process on various ores. Like the amalgamation, the Russell, or any other process, it is, of course, applicable only to a certain class of ores, though to a greater extent than is generally supposed. Each case has to be determined by a practical working test.

Sampling works are also in prospect of being erected here soon.

E. M. WADE.

Yellow Pine District.

KEYSTONE.—Pioche Record, May 18: Latest mail advices from Yellow Pine state that the purchase of the Taylor half interest in the Keystone gold claim at \$40,000 had not yet been consummated. I. C. Blake, of Denver, is the party, it will be remembered, who was expected to make the purchase. The Keystone itself, though, is reported to show up large quantities of high-grade ore, only such as was necessary for development work having been extracted since last November. The working force has not been increased, but remains at three men. Mr. Blake is in that section personally inspecting the country which his railroad is to develop and may make the purchase before closing his business there. The principal excitement in that section is at Vanderbilt district, California, which the road has now about reached. At Good Springs everything is quiet and may continue so for a time. The weather, too, is becoming oppressively warm, and claims situated any distance from water will probably receive little attention until next fall.

San Bernardino.

MORONGO MINING DISTRICT.—San Bernardino Times-Index, May 27: From Knight's hotel to the Rosa mine it is about 20 miles; to Livingston and Allen's mine it is about 27 miles. On the road is Gold Hill and many other mining claims in a greater or less state of development. Gold Hill and a large area of grazing and timber lands are owned by Lucky Baldwin. The mine was worked up to 1878 with a 50-stamp mill. After the mine was shut down the mill was burned, the ruins of which are now standing. Even the tramway used to deliver the ore from the mine to the mill is in a pretty good state of preservation. The houses used by the miners and the officers of the company are standing, being as good as new. Six thousand cords of wood, cut 17 years ago with which to run the mill, remain piled up on the hillsides, somewhat weather-beaten and looking old and wrinkled, but still possessing something of the fire of youth. After having remained idle for 17 years a new company under the direction of Jenks and Lavette has been formed to reopen the mine. A number of men are now at work digging the foundation of a new experimental mill. If it is found that the ore can be worked successfully, then a larger mill will be erected and a big force of men will be kept constantly at work for years to come. Gold Hill, as the name indicates, is a vast ledge of gold-bearing quartz of low-grade ore. The management thinks that it can work three or four-dollar ore successfully. These experiments, if successful, may build up a large mining camp employing hundreds of men. The Rose mine is now under the superintendency of S. W. Wood—Wheeler, the former superintendent, having made so much money, having worked so hard to bring the mine into a paying condition, that he was compelled to seek relaxation in a trip through the East and to the World's Fair. The mine is now partially developed to the 300-foot level, where a large body of ore 20 feet wide has been opened up, going from \$150 to \$300 per ton. A five-stamp mill goes night and day on the low-grade ores, while the higher-grade ores are shipped to San Francisco by way of Victor. The daily output amounts to from \$200 to \$400

per day, \$80,000 having been taken out this winter. The ore bodies are found in larger quantities at greater depths, and there is enough ore in sight to make the owners independently rich. The orange-growers of Riverside, who own the mine, have proved more successful than some older miners. The mill and hoisting works are of the best. The mill was designed for crushing silver ore, but it works well on gold ore. Only 55 per cent of the gold is saved in working. The dump contains \$50,000 in gold, which some day may be worked over again. The Rosa mine pays out in wages monthly over \$2000. Inglehardt and Cullen, of Glendora, have the first westerly extension of the Rose mine, and it has been demonstrated to a mathematical certainty that the easterly end of their claim is at least within 250 feet of the richest body of gold-bearing ore that has ever been opened up in this county. If they do not hit the main ledge at the 300-foot level, there will be something strange developed in mining not before known. Five miles or more beyond the Rose mine, the Livingstone & Allen mine is located. Experts who have examined this mine say that it is undoubtedly a true fissure vein. It lies in a contact between a slate and limestone formation, just where something rich might be expected. Two shafts have been sunk—one 200 feet deep and the other 50 feet deep. The 200-foot shaft has been partially filled up with debris from a cloudburst, but it will be re-opened at once. In the 50-foot shaft a body of ore that was at first a mere shell has widened out to two feet and runs up into hundreds of dollars

June 3, 1893 p. 349

Inyo.

BIG PINE.—*Cor. Inyo Register, May 27:* The mining interest and confidence in the mineral resources of Inyo have no more faithful advocates than the dwellers of the hamlet. Your correspondent visited some locations at Lead Canyon a couple of times within the past ten days, the first time in company with Geo. L. Cornell of Big Pine and M. D. Ratchford of Salt Lake. Mr. Ratchford is an experienced geologist, thorough mineralogist and practical miner. We found the latter gentleman in company with Wm. A. Sanger, of the east side, at Waucoba, they having inspected several claims in which Mr. Sanger is interested, lying between the Sanger ranch and Waucoba springs. Mr. Ratchford reports seeing some fair chloriding chances in this belt; and predicts that several claims visited will be successfully worked in the near future. The principal claims in the Lead Canyon belt are the Bullion, located by Geo. L. Cornell, ex-Sheriff J. R. Eldred, and S. H. Spratt. These parties have two other claims in company. J. N. Munn and R. W. Thomas have some promising claims in this section. Mr. Ratchford expressed himself as well pleased with the appearance of the ore, the nature of the formation and the natural conditions of the belt. There has been little work done except upon one claim, the New Moon. John Erwin and G. F. Fuller of the prospecting firm of Fuller & Melone several years ago drove a good working tunnel in the ledge matter, encountering small quantities of lead carrying from 12 to 120 ounces of silver, the lead running as high as 70 per cent. Many thousands of tons of ore are now at the mouth of this tunnel which can be worked at a small profit by processes of reduction of late discovery. The south extension of the Bullion shows some fine-appearing carbonate ore; one of the locators of which, Mr. J. N. Munn, intends having the mines developed in the near future. There is excellent forage in this country for horses, and an abundance of wood and water for reducing ore by steam power. Quite a number of old-timers have always claimed that the top indications for a good lead camp are much better in Lead Canyon than at Cerro Gordo, and have predicted that "some day" this section would rival the output of the latter camp in its "whooping" time.

Kern.

THE BRIGHT STAR MINE.—*Oakland Times, June 1:* The St. Louis and San Francisco parties who recently recommenced work on the Bright Star mine on Piute mountain have pumped all the water out of the old workings and retimbered the old shaft, which is about 330 feet in depth. It will be remembered that in times past this mine yielded a great deal of gold. But it was worked at a time when all expenses were very much greater than now, and upon encountering a layer of poor ground in the lower levels the mine was shut down. It is now reported that the present owners have found the old pay chute in the bottom level, or else a new one. At any event it is a paying one, and striking it at such a depth is almost certain assurance of renewed prosperity. Deitrich Babben, who was one of the owners of the property in its palmiest days, has been engaged as underground foreman, on account of his familiarity with the former working. If the pay chute just discovered proves to be permanent it will do much toward reviving the general mining interests of Kern.

June 17, 1893 p. 370

EDWARD MORAN has sued the Waterloo Mining Company to recover \$50,000 damages for personal injuries caused by the caving in of a portion of the company's mine in San Bernardino county. Moran was an employe of the company and working in that portion of the mine where the cave occurred. He charges negligence on the part of the company in permitting the mine to be maintained in an unsafe and dangerous condition.

June 17, 1893 p. 381

Inyo.

LEAD CANYON.—*Inyo Register, June 8:* Ex-Sheriff J. R. Eldred started for Lead Canyon this morning, accompanied by Mr. James Wright, an old and experienced lead prospector and miner. Mr. Eldred has some excellent prospects in this district. This mining belt is situated about 40 miles from Big Pine, in a southeasterly direction, approachable from the hamlet via Devil's Lute, Marble canyon and Waucoba Springs, points on the Saline

valley borax road. Some good lead ore has been shipped from this section to the Selby Works of San Francisco. The district will receive considerable attention during the present season. Mr. Dailey, of Fish Springs, made a cleanup of \$700 from a 10-ton run of gold ore last week. Tracy & Cunha will commence crushing rock the present week.

June 24, 1893 p. 389

THE new camp of Vanderbilt, San Bernardino Co., has 600 inhabitants. A wagon road from Vanderbilt Good Springs has been contracted for to haul six tons of ore a day to Needles.

The Price of Silver and the Mining Interests.

The worst blow to the silver mining industry in this country which it has ever received came unexpectedly and from an unexpected source, in the announcement that the mints of India had ceased coining the white metal. That country has long been known as the greatest consumer of silver, yet the Indian Council has passed an order for the immediate closing of the Indian mints to the free coinage of silver. In the English House of Lords, Earl Kimberly, Secretary of State for India, made this announcement on Monday, and added that arrangements are being made to issue rupees from the mints in exchange for gold at the rate of 16d per rupee, and for receiving sovereigns and half-sovereigns at the treasuries in payment for dues at the same rate. He further said it was intended to introduce a gold standard in India, but that gold in the meantime would not be made the sole legal tender.

This news was almost paralyzing to the silver miners of this country and to all advocates of free silver coinage. Almost immediately the price of the metal fell to the lowest point ever before known. Merchants are petitioning the President to take steps toward the repeal of the Sherman silver bill, and it is probable that Congress will soon be convened to take action. Meantime the free coinage men have opened headquarters in Washington and will make a vigorous campaign. Governor McConnell, as President of the Trans-Mississippi Congress, has appointed Senators Teller of Colorado and Mitchell of Oregon to act with Senator Stewart of Nevada as a committee to present the free-coinage resolutions adopted by the congress to the United States Senate.

Aside from the financial and political features of the subject, those which relate to the mining of the metal interest our readers most. As might have been expected, such a disastrous drop in value as occurred immediately caused the closing down of a lot of mines, and more must follow. In Utah, on Tuesday, the Daily West mine at Park City was ordered closed down. The Diamond mine at Eureka, Nev., and the old Jordan and Galena at Bingham were also ordered closed. The owners of the following mines say that they will close in a few days: The Sampson at Bingham, the Bullion, the Beck and the Champion at Tintic, the Caroline at Eureka, the Yosemite at Bingham, the Crescent at Park City and the Anchor at Park City. These have all been steady and strong producers.

In Colorado, which is the largest producer of silver of any of the States, the decline in silver created the greatest apprehension. Davis H. Moffatt, the largest mine-owner in the State, said: "The situation is exceedingly grave. I have wired all my managers to come to Denver at once. Seventy-seven cents for silver mined by men who are paid \$3 a day means a loss to the mine-owner. My idea is to

propose to the men in my employ that instead of receiving \$3 a day they should be satisfied with two-thirds of that sum until silver shall return to a fairly reasonable price. If they do not accept such a proposition I shall be compelled to shut down all my property."

Senator Wolcott said: "If an extra session of Congress should be called to-day the Sherman law would not be repealed. Times are dark enough to indicate that a streak of light must break in from some direction soon. This means immediate disaster to Western interests, but it may be a blessing in disguise if we can hold on. If we suffer, the disaster entailed to Great Britain is worse, and the continued fall in the price of silver must force some international agreement."

From all quarters come accounts of mines and smelters closing down. There is a strong probability that the big smelting and refining works at Omaha will be closed down for the present. In the Wood River country, Idaho, it has been determined to cease shipping entirely, as the properties producing lead and silver ores cannot be worked at a margin. Those mines able to continue work without shipping will do so with a largely decreased force, while those not absolutely compelled to continue will close down altogether and await developments. At Butte, Montana, nearly all the silver mines are being closed down. The Alice, one of the largest producers, commenced closing down everything about the mines except pumps Wednesday; the mill will make a clean-up and then hang up the stamps. The Moulton and Lexington will probably follow suit in a day or two. Several of the smaller mines were also closed Wednesday. All ore purchasing has ceased. The copper mines of Butte will not cease operations, but the question of reducing the miners' wages from \$3.50 to \$3 per day is receiving serious consideration. Prominent mine-owners of Montana on Wednesday issued a call for a State convention, to be held July 6th, to take steps to impress upon the coming extra session of Congress Montana's demands. It is likely a strong organization will be effected, and Montana headquarters will be established at Washington.

India and Mexico have heretofore been the only countries in the world where the free coinage of silver was undertaken, and now with India stricken from the list, the United States, with its silver-purchase bill, will have only Mexico to assist it in keeping up the value of silver. Denver smelters feel very severely the drop in silver. They have on hand an average of about 500,000 ounces each, enough to last for several months without making any new contracts, but the trouble is there is absolutely no market for silver, and if the smelters cannot dispose of the products of their works it will be impossible to continue running. It is estimated that the smelters in Denver and throughout Colorado have lost in the aggregate \$650,000 on ore bought during the last week and which has fallen so greatly in value in the last two days. It was bad enough when it went to 77 cents, but it is at present writing as low as 69 cents with no indications of stopping the downward movement, though speculators will doubtless try and increase the panic in the hope of profit later on.

The situation is not only bad for the silver miners, but for the lead and copper miners as well. The bulk of the silver of this country does not come from milling ores of silver mines, but those producing lead and copper as main products.

Mining and Scientific Press

July 1, 1893 p. 2

The following table, carefully compiled from information furnished by the officers and agents of the United States mint in charge of the collection of the statistics of the precious metals in the different producing States and Territories, exhibits approximately the sources from which the silver product of the United States for the year 1892 was obtained—that is, the distribution of the product among the three classes into which argentiferous ores naturally group themselves, viz.: (1) Quartz and milling ores (silver ores proper); (2) argentiferous lead ores; (3) argentiferous copper ores:

State or Territory.	Fine Ounces Silver in			Total.
	Quartz and Milling Ores.	Lead Ores.	Copper Ores.	
Arizona.....	919,730	112,500	.....	1,032,230
California.....	860,000	.....	.....	860,000
Colorado.....	10,500,000	12,100,000	1,400,000	24,000,000
Idaho.....	824,000	2,840,269	.....	3,664,269
Montana.....	2,200,000	2,850,000	5,800,000	17,350,000
Nevada.....	2,024,000	220,000	.....	2,244,000
New Mexico.....	625,000	450,000	.....	1,075,000
Utah.....	1,610,000	6,460,000	.....	8,070,000
All others.....	401,000	200,000	44,511	644,511
Total.....	26,522,720	24,232,769	7,244,511	58,000,000

From an examination of the above table it will be seen that of the 58,000,000 ounces of silver produced in the United States during the calendar year 1892, about 26,500,000 ounces were extracted from milling ores—that is, silver ores proper, while 24,200,000 ounces came from lead ores, and 7,200,000 ounces from copper ores.

It would appear, therefore, that less than one-half of the

silver product of the United States is derived from mines producing silver ores proper, and that considerably more than one-half of the entire silver output of the United States is an incidental product from the smelting of lead and copper ores, although this incidental product is frequently more valuable than the other metals contained.

It is not only the silver mines pure and simple which are affected by this marked decline in the white metal. The argentiferous lead mines of Idaho, Utah and elsewhere cannot possibly go on under the present conditions. Lead itself is very low in price, and with the value of the silver eliminated these mines must stop. Even last year there was a greatly diminished production of silver in certain quarters, and the whole United States made a smaller silver product by 330,000 ounces than in 1891. All the States fell off in product except Colorado and Montana. The latter increased its product of silver over that of 1891 by 1,000,000 ounces, and Colorado increased nearly 3,000,000 ounces. The largest falling off is in the States of Nevada and Idaho, the product of Nevada having decreased from 3,500,000 ounces in 1891 to 2,244,000 ounces in 1892, and in Idaho from 4,035,000 ounces in 1891 to 3,164,269 ounces in 1892. The product of Utah also shows a decrease from 8,750,000 in 1891 to 8,100,000 in 1892. The Mint estimates the silver product of our mines for the calendar year 1892 at 58,000,000 ounces (troy) of pure silver, worth, at the average commercial price of silver during the year (\$0.875 per fine ounce), \$50,750,000, and of the coining value of \$74,989,900, against a product in

1891 of 58,330,000 ounces of fine silver, worth, at the average price during that year (\$0.988 per fine ounce), \$57,630,040, of the coining value of \$76,416,565.

As the greatest silver producers, Colorado and Montana will feel this sudden depression most, and more mines and miners will be affected in those States. Nevada, Utah, Idaho and New Mexico will also be seriously injured as to their mining interests, and proportionately in the order mentioned. With the exception of Oregon and Washington, California, among the mining States, will be the least seriously affected, our silver product being now only about 360,000 ounces per annum, while our gold yield is \$12,571,900, or over one-third of the total of the United States. We have referred to this more fully in another column of this number of the PRESS.

The silver miners have thought they had fallen on hard times when silver was in the "80's," but now it is low down in the "60's," there is apparently nothing left for them to do but quit work and see if Congress can help them out.

July 1, 1893 p. 13

Inyo.

A SUCCESSFUL PROCESS.—*Inyo Independent*, June 23: The leaching process of working ore has not been much practiced here, but Andrew Fyfe is making a success of it at the Montezuma mine. After the furnace at Elna was burned, about eight years ago, work at the Montezuma mine was stopped. During the time the mine had been worked much ore had been thrown in the dump, because it was fine, like sand or gravel. This is the ore that is now being leached. Mr. Fyfe experimented with the ore till he was satisfied money could be made by leaching it, and then he got a small plant and went to work. The principal part of the plant is tanks, and with three got at the brewery here, Mr. Fyfe has now enough to work 12 tons of ore each day. The ore carries from \$8 to \$30 gold, and from 18 to 20 ounces silver per ton. None of the lead is saved, and of this the ore carries 28 per cent. The ore at the dump is first screened, to get rid of all that is reduced to condition of dust, as this would pack too solid to permit the liquid to leach out the metal. From the size of wheat up to the size of beans is found to be the most favorable for leaching. The concentrates obtained by leaching are worth from \$1600 to \$1800 per ton. These will all be shipped to Salt Lake for reduction. Hypo-sulphide of soda and a very small portion of sulphate of copper are the chemicals used in leaching. Mr. Fyfe says these cost about 50 cents for each ton of ore worked. On the dump there is now at least 2000 tons of ore ready for working. In the mine is plenty of ore in sight, and when the dump shall be exhausted a crusher will be erected to reduce the ore taken from the mine to a proper condition for leaching. Several years ago Sheriff Gorman, who was then working the furnace at Swansea, smelted 300 tons of ore and got substantially the same returns of gold, silver and lead that Mr. Fyfe gets from it. Mr. Gorman still has the records kept when he smelted the ore, and these show returns as stated.

DULL.—*Inyo Index*, June 24: Times are dull—very dull—in this section, and there appears no early prospect of improvement. The home market which the silver mines afforded is nearly gone, as few mines are being worked, and even these on a reduced scale. With present transportation facilities, there are very few articles of production that can stand the expense of shipment.

Mining and Scientific Press

July 8, 1893 p. 18

Mining men say it is now immaterial how low silver goes. Having gone below 80 cents, the effect is just the same as if it were 60 or 50, because the mines have to close. Profitable silver-mining under present conditions is impossible. Ore-buyers have ceased to buy, smelting works have closed down, the big mining companies have ceased operations and leasers have stopped work. This is not a local condition, but exists in all the silver-mining regions. While the smelters elsewhere are stopping work, the Selby Smelting and Lead Co., with main offices in this city, continue as usual and have plenty to do. Under their system the silver is sold as soon as in condition for market, and their silver account shows a profit. These works are running as usual and intend receiving such ores, concentrates and bullion as may be shipped to them, and will make prompt settlement as before. Ore-shippers should remember this fact, while so many other smelting works are declining to receive ores and announcing their intention of suspending operations until the silver question is settled.

July 15, 1893 p. 36

Mines Around San Bernardino Mountain.

TO THE EDITOR:—I have lately been visiting the mines in and about San Bernardino mountain and find considerable activity. The old Gold Mountain (Lucky Baldwin) mines have been bonded by Budd Doble and associates, and a company is being formed to be called The Budd Doble Gold Milling and Mining Co.

It was a well understood fact that the quantity of ore and the values were in those mines. It appears that Doble has for years past been testing these ores in Denver, Chicago, and other mining centers and always found the assays satisfactory, but never until lately could he find proper treatment for saving the gold. Hearing of the new patent amalgamator of T. J. Lovett's, of Chicago, the machinery of which is manufactured by The Gates Iron Works, Doble and associates had Mr. Lovett visit the property and after satisfying himself as to the quantity and quality of the ores, had a few tons shipped to Chicago for a practical test. The new machinery saved 90 per cent—this being highly satisfactory—and to further assure themselves they had a couple of mills put up on the ground. One of the mills has been in operation for over a month and the mines have been opened up where there is a mountain of ore, if I can use such a term. A face 40 feet in width by about the same in height is now in full view where they have taken the ore from to test the property. I have seen the results of several assays of tailings and in no instance do they exceed \$1 per ton. This is extremely satisfactory and the result of the clean-up is more surprising. Your correspondent has been allowed, through the courtesy of Mr. Lovett and Mr. Jenks, the metallurgist, to be present dur-

ing the time they have been cleaning up and smelting. I give you the exact figures, which will no doubt surprise some of the old Gold Mountain Co. stockholders and especially Lucky Baldwin himself.

The ore taken from the face of the 40 feet assayed \$10 per ton, and the actual bullion saved was \$9.10. This is highly satisfactory, and Mr. Lovett will soon go East for the purpose of putting in a large plant.

The Rose mine, in Morongo district, about six miles east of the Gold mountain, is still running the five-stamp mill with success, and the company (being composed principally of orange-growers in Riverside) is also shipping some of the rich ores to the smelter. This mine has been running some two years with remarkable success. The ore is high grade, being about \$50 per ton, and the shipping ore over \$300 per ton. The mill process will save only a small percentage of the higher grade—in fact, they do not save over 60 per cent of any of the ore. Mr. Wood, formerly of Tombstone, is now in charge. The last ore-body has been struck on the 350-foot level, and it is the largest body yet found. If this mine was up north there would be a great deal more heard about it.

The Holcomb Valley Co. is putting in new machinery on its placer ground. Mr. W. E. Pedley, the superintendent, believes he has now surmounted the difficulty of working the ground. The gravel is rich enough, but the natural fall of the ground is not sufficient for sluicing or hydraulicking, so he is putting up expensive dredging machinery, with a view of getting sufficient fall for sluicing. The works are expected to be in operation in a few weeks.

C. W. Allen, of San Bernardino, is working several men on the Livingston mine. Some old works have been cleaned out to the depth of 200 feet, where he expects to work the mine from. Some very rich ore has been struck lately, and by cross-cutting from the bottom of the old shaft they expect to strike it at that depth. This claim is about five miles southeast from the Rose, in the main belt. A number of prospects in Rattlesnake canyon, in the same neighborhood, give promises of value.

This country (Bear valley) as a summer resort cannot be surpassed. There are two lakes, one five miles in length, which supply Redlands and surrounding country with their irrigating water. This is a most picturesque sheet of water, the tall pines surrounding it on all sides. There are lovely drives, good fishing and hunting, and the best of accommodation. The stage runs twice a week from San Bernardino to Knight's hotel, in Bear valley. MORE ANON.

Pine Lake, San Bernardino Co., July 10, 1893.

The Mining Bureau Museum.

Gold Quartz—Gold Bronze Mine, Vanderbilt District, San Bernardino Co., Cal. Assays 15 ounces gold and 60 ounces silver per ton; from Messrs. Faggart & Hall.

July 15, 1893 p. 38

THE mill at Needles is receiving ore from both Vanderbilt and New York districts. There is talk of building a smelter at the Needles.

San Bernardino.

VANDERBILT DISTRICT.—Los Angeles Herald, July 8: For the past six or eight months the attention of prospectors and monied mining capitalists has been directed to Vanderbilt, the new mining district in San Bernardino county, 35 miles this side of the Needles. The camp was first brought into prominence by the news of a rich strike by Mr. Taggart and some others some time last year. It had been known to prospectors for years past as a rich country, but as prospecting was accompanied with great difficulties and hardships, it was not carefully gone over until the advent of Mr. Taggart. Since then a large number of prospectors have gone into the new district and have staked out many claims. There is one very remarkable feature of Vanderbilt, however. Thus far its growth has been healthy and it has advanced steadily. As yet the bare grub-staked prospector has not put in an appearance to any great extent, no mushroom excitement has been raised, and all is moving forward with healthy steadiness. Extensive capital has been placed in the district, and the work of developing the different claims goes along easily and surely. There is no question but that Vanderbilt has a great future before it, as the presence of the capital of men like Mackay and Flood would naturally suggest. Copper, some silver, galena and iron are also found, but the big-paying metal is gold, which is in the greatest proportion and value. Copper is also found in good quantity. The most of the ore throughout the Vanderbilt district is easy to work.

GOLER CAMP.—Los Angeles Express, July 22: Goler Camp is about 40 miles north of the borax road. It is situated in a little canyon with plenty of water. The climate is delightful on account of the elevation and dryness of the air. One needs a pair of blankets at night. A cool breeze is blowing nearly all the time, so that the hills of the Mojave desert are not the bugaboo we have always supposed. There can be no better climate for those suffering from pulmonary complaints. The trip from Mojave is not pleasant until the hills are reached. Water may be had at the Six Mile House,

again at Kane's Springs, 20 miles further; again at Mesquite Springs, three miles farther, and at the Borax pump, four miles toward Goler. Leaving the borax road at Mesquite Springs and taking the canyon brings one to the Colorado Camp and Big Nugget Gulch, where the \$250 nugget was found June 27th last. From three to five men are working the Big Nugget Claim and have two dry washers. The owners think they have something good and are not on the sell. Harvey Hanson, the veteran prospector, is looking for the lead from which the big nugget came. Charles Fahey, of San Bernardino, has interests here and is now out looking at claims of Mr. Ayers, with a view to purchasing. The Benson boys are doing well, as are also Reid & Co. Many others are making from first-class wages up. Quite a number of miners and prospectors have come in within the last two weeks. The Bergeron & Burlingame Company will soon have its men at work developing its lodes.

J. H. CROSSMAN, the old California miner, is lying at the Baldwin Hotel, physically in bad shape. He was brought in on a stretcher, and has been suffering considerable pain, but is better now. A few days ago, just after examining a group of mines near French Gulch, Shasta county, his horse ran away, while coming down the mountain grade. He and J. H. Riddle, who was with him, were thrown out. Both were badly bruised, and Riddle had three ribs broken. Mr. Crossman had his hip dislocated.

GOOD GOLD PROSPECTS.—Inyo Independent, July 28: Supervisor Wilson was in town this morning. He reports the roads all right in his district. The river is running over the Lone Pine bridge, but as the structure is a very substantial one, there is no danger of its going out. Mr. Wilson says that quite a party will soon go into the Beveridge country, where some excellent prospects have recently been opened up. The Corrasco boys and Jim Stansbury have just concluded a run of gold ore in the steam arrastre at the old McEvoy mill and made a good cleanup. Mr. Wilson will keep the arrastre running and will probably start the mill. The ruinous depreciation of silver

has the effect of stimulating gold mining to a greater degree of activity. The miner must work or starve, and as silver is comparatively valueless the old gold-fields will be thoroughly prospected over.

BACK FROM INYO.—Walker Lake Bulletin, July 27: W. N. Cook, of the Central mine, returned Sunday from Inyo county. He says that the country in the vicinity of Bishop is now a beautiful sight. Mr. Cook made several prospecting trips into the mountains of Inyo. He is of the opinion that it will some day prove to be a big mining region. But very little mining has ever been done there, and he says the general formation is favorable for quartz ledges. Mr. Cook's judgment on a mining proposition is second to none.

San Bernardino County Camps.

TO THE EDITOR:—At Vanderbilt the sale of the Gold Bronze mine to J. B. Haggin has been effected and possession given. J. L. Flood visited his St. George property this week. President Lyle is now buying pumping machinery with which to drain the mine and permit sinking. The Hongkong mine, the property of A. A. Banning, is showing some fine ore. J. L. Robinson, one of the

owners of the Richmond, left for Chicago Monday. W. H. Smith is making a shipment from the Murray. John Kreiner brought in some rich ore from Soda lake. Its value is about equally divided between silver and gold. Several prospecting parties have gone to a district five miles south of Crescent, found by Metcalfe and Dooley. It promises well, large veins bearing gold in a free state showing prominently. A fine gold strike was recently made on the north side of Campbell mountain. The Nevada Southern railroad is laying track and will be within two miles of Vanderbilt by August 10th.

In the Crescent district, W. A. Phelps is stoping a carload of \$200 gold ore for shipment. A contract has been let to sink the Spaulding silver mine 50 feet deeper. The three-foot ore body now showing averages 150 ounces. Work will start this week on the properties recently bought by Los Angeles parties and under the management of Al Stevens. Harvey Forester has made a free gold discovery on the north side of the mountains that excels anything yet found in the district. A concentrator will be needed very shortly, and water is being developed for that purpose. A peculiarity of this district is the rich silver float found in several places, while the ledges which furnished it have never been discovered. Not much attention is being paid to silver properties, the miners devoting their time to seeking the gold ledges which show over so extended a section.

Vanderbilt, July 22, 1893.

M.

Mining and Scientific Press

Aug 5, 1893 p. 93

San Bernardino.

VANDEBILT DISTRICT.—Pioche Record, July 27: Deputy Recorder Harrison yesterday received a letter informing him that articles of incorporation of the Keystone mine at Good Springs had been forwarded to him for record. The amount of stock and names of officers are not known, as the papers have not yet arrived. The company have let a contract to haul 1000 tons of ore from the mine to the terminus of the Nevada Southern railway, near Vanderbilt. The Gold Bronze mine in Vanderbilt has been sold to Haggin & Tevis, the great California capitalists, for a large sum. Preparations are already being made to do an extensive amount of work on the mine. This is indeed good news for that section, as the incorporation of the Keystone and the interesting of such men as Haggin & Tevis in the mines means work for hundreds of men and consequent prosperity to the camps. A telegram from Needles states that \$450,000 of bonds of the Nevada Southern railway branch line have been sold in New York City, and it is thought work will be pushed on to Good Springs and Pioche at once.

Aug. 12, 1893 p. 99

THE gravel mines on Old Baldy mountain, San Bernardino county, are to be worked by a Nebraska company. A reservoir has been built and a pipe line laid for hydraulicizing at an expense of \$30,000.

Aug. 19, 1893 p. 113

A Promising District.

J. V. Keeley, formerly of Pioche, Nev., is in San Francisco in the interest of mines in Yellow Pine district, Lincoln county, Nevada. If the old Nevada theory still holds good that a mining camp is no account unless it is hard to get at, then Yellow Pine is possessed of claims to distinction, for it is very difficult of access. At present the nearest way is by rail from San Francisco to Blake's station on the A. & P. road, in San Bernardino county, thence to Vanderbilt 35 miles, and northeast 55 miles further to Yellow Pine.

The Nevada Southern railroad, a Denver corporation, is building through the district and extending northward.

Mr. Keeley finds Colorado men more disposed to develop that country than are residents of San Francisco. So far, Denver capital has been solely invested to the exclusion of San Francisco capitalists, though every dictate of business suggests that to this city the output should come.

The country rock is mostly lime, badly broken up and bidding defiance to the theories of formationists, porphyry dikes intervening in every direction. The ore, chiefly red oxide, from the Keystone, Clementina and other mines, averages an assay of \$325 in gold.

The former mine has shipped seventy tons to Denver with very satisfactory results. On this trip Mr Keeley brought fifty tons to San Francisco at an expense of \$80 per ton. The returns were fully up to the average.

So far nothing but free milling ore has been touched, but the whole country is full of base ore enough to run half a dozen smelters for an indefinite period.

The climate is something awful. Nothing but sharp, shining sand and brilliant sunshine, the thermometer ranging from 90 degrees to 120, water four cents a gallon and everything to eat, drink or use packed fifty miles through sand hub deep, make an undesirable combination.

But the gold is there, and lots of it, and with due encouragement on the part of capital Yellow Pine district will bring back to Lincoln county the old-time prestige of the days when the Ely district was pouring hundreds of thousands of dollars monthly dividends into this city.

Sept. 12, 1893 p. 146

WHAT is meant by the gold and silver ratio of 16 to 1? is a question frequently asked. The legal silver dollar consists of 412.5 grains standard silver, the legal gold dollar 25.8 grains standard gold. Both are nine-tenths pure, one-tenth alloy. The silver dollar therefore contains 371.25 (412.5 minus 41.25) grains pure silver, 41.25 grains alloy. The gold dollar contains 23.22 (25.8 minus 2.58) grains pure gold. The weight of silver in one dollar is therefore 15 98 times the weight of gold, or, practically, 16 times the weight of gold. Nominally, 16 ounces of silver and 1 ounce of gold are of the same value. At the ratio of 20 to 1 the silver dollar would contain 464.40 grains of pure silver, or 516 grains of standard silver, and be twenty times the weight of the gold dollar, and silver, when coined, would be worth \$1.03 per ounce, or over 26 cents per ounce less than its present value.

Mining and Scientific Press

Sept. 2, 1893 p. 158

San Bernardino.

THE YUMA PLACERS.—San Bernardino dispatch, Aug. 18: About September 1st a large English company, together with several home capitalists, including Wilbur and Chandler, and A. Caldwell of Riverside and L. C. Moreland, will begin working the placer claims about 15 miles above Yuma, on the California side of the Colorado river. Immense pumping works have been erected—one on the banks of the river, with 500-horse power, which will raise a large stream of water to the high bluffs above, from where it will be conveyed in steel pipes to the placer mines, four miles away. After the water is used once, it will be again pumped back by a second pumping plant and used over and over again. The plant is completed except for the laying of the pipe line. It is thought that about 300 men will be employed on the day and night shifts. Contracts for labor are being made.

Mining and Scientific Press

Sept. 9, 1893 p. 174

San Bernardino.

FIND OF ALUMINIUM.—A correspondent of the Los Angeles Herald says there is a vast deposit of aluminium in San Bernardino county along the line of the Santa Fe road. It is a soft shale, free from silica and other impurities, and feels like soapstone to the touch. As electricity is necessary for the reduction of the clay in which aluminium is found, and that can be cheaply generated in this section, this find may prove to be worth millions of money.

Sept. 23, 1893 p. 206

San Bernardino.

A FIVE-POUND NUGGET.—Mojave, Cal., dispatch, Sept. 14: The gold excitement which has been on here in this vicinity for the past three months reached a climax this afternoon when a party named Reed, who has a placer claim at Red Rock canyon, about forty miles east of here, arrived with a nugget weighing five pounds. It is a beauty, and an old mining expert here claims it will assay the finder \$1000 worth of free gold. This makes the second nugget found in the placers during the last six weeks, the last one weighing over two pounds and netting over \$400. Parties are going to the fields daily and it is the opinion of old miners that much richer mines will be discovered soon.

San Diego.

RICH FIND.—A letter received from Rob Weyms, who is now at Julian, says the San Diego Union, states that a most important new find was discovered in the Ella mine by Sid Wilcox. Wilcox, it appears, had occasion to remove some dirt ten feet from the mouth of the lower works, when his pick struck into decomposed rock. The rock proved to be rich, a low estimate being \$20 to \$25 per ton. The vein struck is fully three feet wide. Wilcox and others have for years been working within 10 feet of this rich body of ore. In their work they have run a tunnel 600 feet long, and as now appears have been paralleling the rich vein. They will now crosscut the old works to reach the new rock. The mine is conceded to be the richest in the Julian region.

Sept. 30, 1893 p. 221

Kern.

THE BIG BLUE.—Kern county Echo: H. P. Bender has just completed an abstract of the title of the Sumner Gold and Silver Mining Company's property at Kernville. This is the property commonly known as the "Big Blue," and includes an 80-stamp mill and a mine of admitted richness. The abstract referred to covered about 760 closely typewritten pages and was prepared for the Kern County Land Company, otherwise J. B. Haggin and Lloyd Tevis. As Haggin, Mackay and Jones have been making some large mine purchases of late, and as there is a general belief that we are on the eve of a great revival of mining business on this coast, the facts above stated may be of some interest in this county.

Oct. 7, 1893 p. 238

Inyo.

REPORTED SOLD.—Inyo. Report says that Frank Sorba has sold his silver-lead mine at Darwin to Los Angeles capitalists for \$10,000, and that the money has been paid.

San Bernardino.

ON THE COLORADO.—San Bernardino dispatch, Sept. 30: The Picacho Gold Mines Company will start work to-morrow with 125 men. These placer mines are located about 25 miles above Yuma, on the California side, and will be operated by pumping water for sluicing purposes out of the Colorado river with three Worthington pumps, 20 tons each, throwing 300 miner's inches of water 600 feet high and 26,000 feet distant from the river through an 11-inch steel screwed-joint pipe. For this purpose a 500-horse power engine is used. The test of the pump and plant made a few days ago proved satisfactory.

Oct. 14, 1893 p. 229-5

Yellow Pine District.

TO THE EDITOR:—We are almost daily in receipt of favorable reports about the new gold camp at Crescent, which is 18 miles northeast of Vanderbilt by wagon road, and 13 miles by trail. Twenty men are at work developing the property, and several of the concerns there are making arrangements to ship ore to our road. There is also some new activity in the Yellow Pine mining district about Good Springs. This is an extensive lead district, and the increase in the price of lead will help to open up some of the lead mines, as I have been engaged

in obtaining bids upon several lots of ore for intending shippers at Keystone, which is just southwest of Good Springs and east of Mesquite Wells. The Keystone Mining Company has finished its ten-stamp mill, which started in operation the 20th inst. and has been running successfully. This company has shipped eight carloads of high-grade ore to Pueblo Smelting and Refining Company during the month of August.

Geo. C. Manly,
Sec'y Nevada Southern Railway Co.

Nov. 4, 1893 p. 301

—The Picacho Gold Mining Company's pumping plant cost, with the 11-inch pipe line, which is five miles in length, \$155,000. The mines are situated 500 feet above the pumps, which are on the bank of the Colorado in San Diego county.

—President Blake of the Nevada Southern Railway, makes the statement that the road will be at once extended with all the energy and dispatch possible to the coal fields of southern Utah. The company have secured the right of way and the means to carry its road for 150 miles farther than its present terminus, and that will bring the cars into the center of the coal fields of Utah.

Mining and Scientific Press
 Nov. 4, 1893 p. 302

San Bernardino.

SLIDING SCALE OF WAGES.—Hawthorne Bulletin. Peter Hatton (Shorty) writes as follows from Calico, San Bernardino county, to a friend in Hawthorne:

I am working every day, but the wages are small. The miners are working on this sliding scale:

	Per ounce.	Wages.
When silver is.....	60	\$2.00
Silver.....	70	2.50
Silver.....	80	2.75
Silver.....	90	3.00
Silver.....	1.00	3.50
Silver.....	1.25	4.00

At present wages are \$2.50. This is a good place to work. There are three mines working and they employ 200 men.

Nov. 11, 1893 p. 317

Kern.

RICH PLACER STRIKES.—Chronicle, Nov. 7: Kern county's mining boom still continues. L. N. Chapman, at one time a United States surveyor, is now in town preparing for a return to the diggings. These are on the desert side of the Sierra Nevada mountains, about 30 miles north from Mojave. Mr. Chapman reports that the mines are very rich and that a great deal of coarse gold is being obtained. The country is waterless. Even the drinking water has to be brought to the miners in barrels. In consequence the gold is all "washed" dry. The gravel is shoveled into a machine like an ordinary grain-fanner. This is usually worked by hand. The gravel passes through several sieves of different sizes and the dust is blown away, only the gold falling to the bottom.

The mines are in the same township as the town of Kane's Springs. Most of the miners are working in the gravel beds in Goler creek and Jawbone canyon. It was in the former that J. S. Reed found a 56½-ounce nugget a short time ago. This single lump of gold is worth over \$1000.

The pay gravel is not only in the canyons and creek beds, but all along the base of a high mountain range which occupies the western part of the township. It is from the rich quartz ledges in the high range that the gold comes. While the country is without rain there are sometimes cloudbursts. These carry whole hillsides down into the valley. In this way the gold was washed into the gullies. There are now 600 men at the mines.

Nov. 25, 1893 p. 350
 Kern.

PLACER MINING CLAIMS.—Echo: The following mining locations have been made: J. W. Ahern, J. B. Douglas, D. V. Burton and L. A. Burton, 20-acre mining claim in the Valley View mining district; W. J. Sullivan, 20-acre placer claim, two miles northeast of the old stage station in Red Rock canyon; W. Black, 20-acre placer claim in the same locality. These two last filings cover ground in the new mining camp 30 miles north of Mojave, which has caused so much excitement.

Riverside.

IN GOOD ORE.—Press: Ex-Governor H. G. Blaisdel of Nevada is spending considerable time, energy and money in developing a mining claim between Perris and Elsinore. He says the ore they are now taking out of the mine mills about \$12 per ton, and the prospects are good for a better grade. It is the intention to thoroughly test this mine, and, if the grade of ore continues to improve, a large stamp-mill will be put in.

Dec. 2, 1893 p. 356

THE Good Hope mine in Riverside County has been sold to a Denver syndicate. It is the purpose of the new owners to begin the development of the mine, which heretofore has been worked in a small way. Machinery has been ordered, which is expected to be in operation by January 1st.

Dec 2, 1893 p. 365

San Bernardino.

THE SALE OF GOLD MINES.—Contract of sale of the Gold Bug and Golden Rule mines near Grapevine Springs was filed for record Nov. 23, the consideration being \$10,000. Several minor sales of gold mines in the Morongo mining district have been made.

Dec. 9, 1893 p. 381

Inyo.

RICH GOLD DIGGINGS.—Inyo, Independent: Good gold diggings have recently been discovered in Redrock canyon. About one mile below the stage station a narrow canyon runs north at nearly a right angle to the main canyon. Up that narrow canyon about one mile is the placer ground. The discoverer in four days took out \$150. He took the gold to Mojave and sold it there. Then with a partner he started back to his claim; and in two days the two men took out \$260. They put the gold-bearing dirt into sacks and carried it down to the stream in Redrock canyon, where they washed it out. Some of the sacks of dirt yielded \$40 worth of gold. The report of this rich find had the usual effect of causing a rush to the ground, and last Sunday it was told at the station at Redrock canyon that 200 men were already there prospecting and locating claims. The claim is about 25 miles north from Mojave.

Mining and Scientific Press
Dec. 16, 1893 p. 387

Mines on the Lower Colorado River.

IN TWO PARTS—PART I.

How much a dunce that has been sent to roam
Excels a dunce that has been kept at home.

During the past two years the writer, in a professional way, has visited many mining localities and districts of the Pacific coast, from British Columbia on the north and well into Sonora, Mexico, on the south, and the result of these investigations has more firmly emphasized the superior advantages held by the mines adjacent to Yuma. It would be unjust to invidiously compare any certain locality with these lower Colorado river districts, as any one at all familiar with mining will at once see the natural advantages peculiar to the locality herein referred to. It is well to bear in mind that neither "glittering generalities" nor unresponsive, prospectively valuable and untried districts will be considered but demonstrated.

Tangible Paying Mines, in all that the word implies; mines owned or leased by working men—poor men, but who are gradually but surely digging from these mines, if not riches (as the word now goes), a competence, and that in the face of a debased metal, for they are silver mines. To illustrate what has been and what can be done, by muscle and grit and a grubstake earned by polisher drill-heads, take the example of Frank Vomocil. Some envious, less energetic people may call it "Luck;" just prefix P and read it "Pluck"—that's the whole story. Vomocil, about 1886, located the abandoned Eureka district mines and, shortly thereafter, certain deserted Castle Dome mines, after exploring the old working thoroughly. Not a soul lived in either place at the time. Working alone, 14 hours a day, a few months, proved the office mining, heretofore controlling developments in Eureka and ending in disaster, yielded to more practical work, and the mines have been steady producers since and have supported a camp of 40 to 100 people.

The story was repeated in Castle Dome district, others following in the lead set. Vomocil is pretty well fixed now, leasing and supervising his holdings. There is no place in the writer's knowledge where an able-bodied, rustling miner can do better than in "tribute," or leased working, on the "soft ores" of the lower Colorado river, even with silver at 70 cents and lead at \$3.50.

We will not consider the old placer diggings at the Pot Holes and Lagunas. There is gold there, but it will not pay for the extraction by the chimerical pump methods attempted, as was publicly foretold by the writer at the inception of pump work, but we will note the first district of importance reached by steamer above Yuma.

The Castle Dome Mining District.—The mines are situated on the flat mesa and rolling hills near the base of a lofty mountain range, here forming a horseshoe curve. A system of three parallel veins cut through the country at the outer points of the curve, with a N. W. and S. E. strike, and at an elevation above sea level of 1800 feet.

They are readily accessible over hard, level mesa roads and "wash," 20 miles from Castle Dome Landing and post office, on the Colorado river, thence 30 miles to Yuma by steamer or wagon road, or to Gila City, a station on the S. P. R. R., all road, and one handling of ore saved—a distance of 30 miles. Present transportation rates to Castle Dome Landing by team are \$6; thence by steamer and rail to San Francisco, \$9, or a total of \$15 per ton; Gila City, \$7; team, \$8; rail, \$15.

The country formation is porphyry. The mines lie in a contact of porphyry and granite, with a dip generally to the east of 45°. The ledges are from two to four feet wide. The vein stuff is decomposed porphyry. The mineral, argentiferous galena and lead carbonates, are in a gangue of fluor and calcspar, with considerable iron oxide. It is a clean smelting ore, carrying no deleterious base material. It is cheaply mined, but little powder required, and that of a "slow," low-grade kind. The ore ranges in value from 20 ounces to 90 ounces silver and 60 to 80 per cent lead per ton.

These mines under the old regime yielded steady, remunerative shipments for about 20 years, when work was stopped at water level, 300 feet in depth. Understand, the veins of this district in no instance "pinch out;" they continue, and in ore where work was suspended. It probably cost too much at the then price of lead to mine and extract ore 200 and 300 feet deep by hand windlass or whim, though this is the present way of hoisting. Advised by some of the old-time workers in these mines of the location of favorable indications of ore, the present owners have uncovered large ore bodies in virgin ground above water level, and the result is a steady and assured output.

The number of men actually employed at the mines is above 100, and three ore teams steadily on the road. The Hodge Bros. are operating the "Washington group;" Frank Avila and John Stofella shipping from the old "Pocahontas" and "Arkansaw" mines, and a large force on Frank Vomocil's Railroad group of eight claims. Much

more could be written of this interesting and thriving camp, but space forbids.

Eureka Mining District—Twelve miles north of Castle Dome Landing, 42 miles from Yuma, is found the Eureka district and mines. Extensive work was done here before the advent of the railroad to Yuma. It is exceptionally situated for cheap mining. The outside mines are not one mile from the river bank, and those now working not one-fourth mile off.

Here the mountains rise abruptly to greater height than any other range on the lower river, thus allowing economical working by tunnel. The formation is block slate. The ledges are of a width of two to five feet, between firm walls with a strike N. W. and S. E. Gangue matter is of lime-spar and quartz, and a clay gouge or casing on the hanging wall, dipping to the east and under the mountain at 46°. The ore is silver-lead with seams and pockets of iron oxides, and "free" until water level is reached, when some zinc blende is found in seams paralleling the galenite. Water is found at river level. A hand pump handles the inflow in shaft sinking. At present, as in the past, there is plenty of virgin ground to exploit above water level that is responding favorably to "tribute" workers now on the ground.

The ore averages 50 ounces silver, 60 per cent lead per ton. Sufficeth to say the Vomocil group, with the "Mina Alta," an outside strong vein on ore, comprise the mines of this district. They have supported 60 to 100 people, and shipments are regular, for years past, and to-day below Eureka proper, one mile away, Charley Thiesen has a claim from which he has made shipments in times past.

Mining and Scientific Press
Dec. 16, 1893 p. 387 (Cont.)

The Azure King Group—Two miles north of Eureka and a half mile from Steamer Landing is situated the Azure King group of six claims. This is a gold-silver-copper proposition, was worked extensively and ore shipped via the river and Gulf of California to San Francisco in an early day. There are numerous shafts on the vein from 20 to 60 feet deep, in which the notched pole ladders yet in the shafts show the primitive method used in packing out ore and waste on the backs of men in days long since. The mines are situated just within the porphyry mountain range that parallels the river.

The veins have a N. W. and S. E. trend, are two to six feet wide, with a quartz gangue in the talcose-schist vein matter. The copper occurs as a "chalcocite" coppe glance; "tetrahedrite," gray copper, sparingly; "cuprite, red copper; and generously of "malachite" and "azurite," or green and blue carbonates of copper. (Hence the name.) Crude hand-sorting of the vein as it runs returned an assay value of: No. 1, gold, \$47.54; silver, 15 ounces; copper, 12 per cent; No. 2, gold, \$24; silver, 16 ounces; copper, 13 per cent. It is safe to assume an average value of \$12 gold; \$10 silver, and 10 per cent copper to the ore in place.

These claims will be worked at a profit some day, as they are exceptionally easy of access and free, containing not a trace of arsenic, and can be cheaply mined and treated on the ground. Handsome specimens containing coarse free gold imbedded in malachite are not uncommon.

TAYLOR D. MACLEOD.

San Francisco, December 11, 1893.

Dec. 16, 1893 p. 397
Los Angeles.

Nuggets Found.—A dispatch from Lasadena says: A couple of miners down from the mountains were in town exhibiting gold nuggets which fairly bristled with the precious ore. Between them they had fully \$100 worth of gold in nuggets and dust, which they claim to have worked out of a mine recently located by them in the mountains north of this place. Just where the mine is they refuse to state, but claim there is plenty of gold in sight. They came down on account of the snowstorm, but will secure provisions and return at once. Whether there is anything in the story or not is hard to tell, but rumors of big finds in the mountains have been floating around for some time, and it is possible that the men have made a big hit, as they claim. Old miners have long claimed that there is gold, and plenty of it, in this range of mountains, the mineralogical conditions being such as to furnish this idea, and that it will be only a question of time until some one strikes the lucky vein. The mine which was recently discovered near the Lowe Mountain Railway by Mr. Dickey, which promises to produce some excellent paying ore in large quantities, lends color to these predictions. The discovery of some well-paying gold fields in the vicinity at present would prove very acceptable and be of great benefit in the development of southern California.

Riverside.

A Thrifty Camp.—Governor Blasdell is building up quite a little settlement around the Santa Rosa mine, near Perris, and it gives promise of becoming a good-sized, thrifty camp, says the *New Era*. The mill is working night and day, and a large amount of ore is being crushed. Ore is being taken out of the north drift in the mine and it mills well.

Dec. 23, 1893 p. 403

A GREAT DEAL OF ATTENTION has recently been directed to the new placer districts about 30 miles northeast of Mohave, California. Many miners have recently gone in there, and reports are of numerous rich finds. Indeed, considerable sensational matter about the new districts is now being printed in the southern California press. But, allowing for exaggeration, it appears that the new fields have real worth, and are destined to yield considerable gold. The great trouble with the districts is the scarcity of water. Dry washers are used chiefly. A review of the Goler, Red Rock and Summit districts, from a Los Angeles paper, will be found in our Mining Summary. It is given for what it is worth:

Dec. 23, 1893 p. 406

Mines on the Lower Colorado River.

IN TWO PARTS—PART II.

The Picacho Mining District.—One mile above the "Azure King," on the California side of the Colorado, is the ten-stamp mill that pounded out much gold in early days. Three miles westerly over a good "wash" wagon road, clustered near the base of "Chimney Peak," or Picacho, are the mines. These mines produced good pay from several rich and extensive chambers, but are now held a low-grade ore, though specially free in gold. Doubtless systematic exploiting by a thoroughly competent superintendent, with "no strings on him," would result in the discovery of other ore chambers of like extent and value. There's the rub! A self-respecting, competent mining man does not care to exploit "has been" mines through orders from parlor miners in New York, who don't know the strike of a ledge from a railroad strike. That there is a future for the quartz mines of Picacho district the writer has never doubted. An English company, at great expense, have erected a pumping plant at the river to ground sluice for the gold that is certainly of good value in the gulches and impregnating the gravel mesas of this district. The success of the venture will hinge on the management of the enterprise in its inception. If they have not secured the services of some eminently qualified practical hydraulic engineer, it may be written down a failure. There is too much expense, too many leaks, in this method of lifting for miles the volume of water required in placer mining, to monkey with any experimental measures. In all probability it will ultimately pay—provided our English cousins do not weary of assessments.

Three miles yet to the north, and 50 miles by river to Yuma, and 30 miles by trail on the California side, we find the village of Moritons Landing, maintained solely and alone from the produce of the mines of Silver district.

Cont.

Mining and Scientific Press
 Dec. 23, 1893 p. 407 (cont.)

Silver District.—Mortons Landing has a postoffice and the general supply store of Levy & Casaras, a public school of 25 pupils, and the largest settlement between Yuma and the Needles on the Colorado river. The mines are five miles westerly over good wagon roads. The veins of this district are remarkable for strength and continuity. There is a system of four parallel ore channels, cropping boldly with an average width of 20 feet between walls, and a northwest and southeast trend, clearly defined, with unbroken croppings, three to five miles in length. In the southeastern part of the district the ledges are in a contact of porphyry and granite, where the "soft" or smelting ores are had. The granite pinches out and the porphyry gives way to trachyte, as the ledges reach north and the ore changes to a "dry," free-milling silver chloride, with not two per cent of lead, as shown in the Clip, Rooster and New Deal claims—an excellent illustration of the influence the inclosing walls of a mineral has on the kind of ore deposited. The general country formation is porphyry.

The "Red Cloud" mine, leased by Judge Levy and sub-let to working men, on royalty, is the principal producer. From 60 to 100 men are constantly at work in and about this mine.

The average value of shipments is high, about 100 ounces silver and 60 per cent lead per ton. Here are the values of some of the last shipments, from samples submitted to the writer by the miners, in different lots:

132 ounces silver	56 per cent lead,
170 " "	45 " "
174 " "	58 " "
240 " "	64 " "
288 " "	66 " "

No assays were had lower than these. New finds are being made by underground workers. The last assay given, 288 ounces, represents an ore chimney lately uncovered by Manuel Velasco, having from four to six inches of this ore in place, though it may be remarked that Velasco, a skilled miner, worked with varying success for several months, driving for this rich chute, before finding it. It is in this haphazard tribute way in which this mine has been operated. This magnificent property for years has been handled in this desultory way. There is clean metal at the water level, 400 feet deep. The ledge is strong here between smooth granite walls, and unexplored ground above. From the old "Remnant" samples of ore shipments were assayed by the writer, the returns giving:

No. 1—171 ounces silver	46 per cent lead.
No. 2—665 " "	" "

There is but little soft ore in this mine, principally a silver chloride and glance in an iron manganese, spar and quartz gangue stuff.

This is essentially a low-grade mining camp. In its entirety, the ores are smelting and milling and we write only of those mines now shipping, simply referring to the "Clip" and "Rooster," with above a year's run of 20 stamps, of 12 to 30-ounce ore in place in the mines. Five feet of 40-ounce ore are exposed in the "Deal," 17-ounce ore in place on the "Parnell," uncovered by shafts and cuts, and numerous lesser deposits are known to exist, of free milling

chloride of silver ore, in the camp. These will be made to pay when silver shall have somewhat recovered its old standing and real worth.

Old Johnston Camp, adjoining Silver district to the south, is a clear smelting deal in porphyry and slate. The ore is in small seams of clean metal, though regular and strong, and from which much good ore of 40 to 80 ounces silver, and 65 per cent lead has been and will be shipped for many years to come.

Now, let the reader bear in mind, all of the districts mentioned have not one company with any pretense of capital behind it, with the exception of Judge Levy and Vomocil, both of whom came to this country poor men on day's work; hence a living illustration of what thrift and rustle may do. The mines now shipping, and thus supporting so many of our citizens, were carried by our merchants of Yuma until such times as they became independent, and the merchants deserve to, and have been, well repaid for their confidence in the resources of Yuma county.

This letter is written that inflowing capital may know that not in citrus possibilities and agricultural fields is Yuma county alone rich, but that money judiciously invested will return a good profit from her mines, and there are many such to be had that will repay investigations throughout the county. We write only of the mines directly tributary to Yuma, and which the writer has personally examined.

Again, remember all these mines are easy of access, are free ores, no antimony, arsenic, zinc or other refractory minerals to combat and reduce their values. Labor is cheap; miners \$2 per day; no strikes; work continuing without cessation the year through. And what is written of Yuma county is more or less applicable to southern Arizona.

TAYLOR D. MACLEOD.

San Francisco, December 11, 1893.

Kern.

New Finds.—Los Angeles *Herald*, Dec. 19: The recent gold discoveries in the Goler and Red Rock districts northeast of Mojave, have caused great excitement throughout southern California, and the emigration to those places

is so large that it looks as if a big town would be developed in short order.

This morning a *Herald* reporter feasted his eyes upon a \$1000 worth of gold nuggets which had been brought from the new "diggings" in the Goler and Red Rock districts, 28 or 30 miles north of Mojave. If the present indications hold out according to expectations, that region will soon become a second El Dorado. It is now assuming the character of an old-time California mining camp. The new "finds" are now paying from \$5 to \$20 per man, while many of the older claims are panning out many times that amount. As is the case in all new mining camps, claims are becoming scarce but prospecting more plentiful.

Considerable excitement marked the discovery of gold in the Goler region eight or nine months ago, and many people flocked to the new camp. A party of San Bernardino prospectors stole a march on many of the gold-seekers. To avoid giving out the object of their mission, the party passed through Mojave at night, and began work at the mines before it became generally known that gold existed in large quantities. The Goler mines have been almost continually worked since last August with good results. Over \$25,000 has been taken from the diggings at Goler.

W. C. Wilson of Mojave has bought and sold over \$6000 worth of nuggets from that district. The rest has been shipped direct to the mint at San Francisco.

One of the best paying mines at Goler is the Bald Eagle, No 1, owned by Gus. Hagg and A. Johnson of San Bernardino. A shaft 35 feet in depth has been sunk, and over \$2000 worth of coarse gold and nuggets has been taken out. The "drift" is excellent. Another shaft is being sunk. Mr. Johnson declined to say what was being taken out each day, but it was evident that he and his partner have a bonanza.

The Benson Bros.' claim is panning out well. It is in shallow diggings from six to ten feet. A nugget from this claim in the possession of W. C. Wilson at Mojave weighs \$280, another \$145 and another \$66.50. The larger one was picked up in Nugget Gulch.

Charles Sherman, a newspaper man who went into the camp Sunday, purchased a large nugget for \$147. From the looks of things such finds are of frequent occurrence.

Three bottles of fine gold and nuggets were exhibited by Mr. Wilson. The yellow stuff came from Goler and amounted to over \$400. Besides the claims mentioned numerous others are being worked successfully. A large number of certificates from the San Francisco Mint show the gold to pay \$17.77 net per ounce, which is considered big money.

The Red Rock district is turning out considerable gold. A miner who has been working the district since it was opened six weeks ago claims that no less than an ounce of gold is taken out by each man. Three men took out 15 ounces or nearly \$300 in one day, but this was the luckiest day encountered. The gold here is coarse, some of the nuggets weighing as high as \$3 and \$10. These valuable chunks of gold are growing scarcer as the days wear on, but pay dirt is found all the time. Dry washers are largely used in taking the gold out.

Red Rock is a very flourishing camp and is on the road to Globe and the Summit district.

The Summit claims were located only four or five days ago and are situated on the elevation dividing the Mojave country from the region opening into Death valley. The south end of the famous Valley of Death can be seen from the last discovered diggings called Summit.

The new one was located by Mr. Van Slack and three other prospectors from San Bernardino. The locators sold a claim to sink a shaft to bedrock. The prospects are decidedly flattering, as pay dirt was found at the outset. Summit is 65 miles from Mojave and about 30 miles from Red Rock.

While at the camp on Sunday, three boys drove from another location and exhibited some rich dirt but refused to give the location. In fact, the whole country is being prospected and more or less gold found.

Will Robinson, an experienced coast miner, is of the opinion that the value of the Goler and Red Rock districts is limited, while he expresses great confidence in the newly-discovered region where his claim is located. This diversity of opinion is only typical of the real miner and cannot be of great value to the prospector in times of mining excitement.

A San Jose prospecting party is now engaged in the old deserted El Paso district in trying to develop water. It is thought that good water can be secured. Lack of water is a drawback to the new Summit diggings. The gold found in these parts is very fine, unlike that taken from Goler and Red Rock. Several washes at Summit appeared to be very extensive.

A San Bernardino prospector claims that he has discovered auriferous rock in paying quantities in Mesquite canyon, seven miles from Kane Springs, on the road to Goler and beyond Red Rock. The quartz lead is of recent discovery. It is the first ledge to be found that presents bright prospects. Quartz mining has as yet been almost unheard of in these gold fields.

In the Goler district miners, who prefer it, are getting \$2.50 a day and board. None but good miners are employed. Meals are 35 cents in this camp and other necessaries in proportion. The prospectors are all supplied with their own outfits, both as to provisions and bedding. The weather up there is cool. Feed for horses, such as grain, is scarce, while the burros do not suffer owing to their peculiar taste for vegetation that the horse cannot touch.

In going to Summit the water from the Mesquite water is unusually good. secured at the last station borax works in Death valley. The Red Rock district is Mojave. The road is good

When the forks of the road are reached this side of Red Rock the prospector going to Goler takes the road leading to the north. The other road leads into Red Rock canyon, where there is a mining camp of no mean dimensions, in fact, all the region is beginning to assume the characteristics of early mining days, when gold was found easily and spent lavishly. Men and teams are constantly going in and out of the new gold fields.

Mining and Scientific Press
Dec. 23, 1893 p. 414

San Bernardino.

THE GOLEE DISTRICT.—Los Angeles press dispatch, Dec. 15: Most favorable reports continue to come in here regarding the richness of the new mining district called Golee, about 25 miles northwest of Mojave. Frank Budd and W. Zimmerman, of Lancaster, returned today from the camp and at once went back after getting supplies. They are greatly elated over the prospect, and report great excitement in that region and many men striking it rich. Mr. Budd says that big sacks of nuggets are common things thereabouts, and positively stated that a number of miners in Red Rock canyon are taking out \$100 a day on an average, all by dry washers. The custom is to have a glass jar at the side of the washer, and after the cleanup the nuggets are placed in this, making a stirring sight. The gold is of excellent grade and is sold at the camp to dealers at \$13.50 per ounce. A little farther up the main road to Independence a new and equally rich camp is drawing a multitude of prospectors. Mr. Budd states that G. W. Hamilton of Lancaster, with his partner, has a very rich claim, and are working in dirt that pays from \$1 to \$1.25 per pan, although they were not yet down to bed-rock. The news has occasioned great interest in the new camp, and an exodus of mining men has already commenced.

GOOD STRIKE.—Vanderbilt Shaft, Dec. 15: A ledge that, at eight feet below the surface, shows well defined walls, a solid vein five feet wide and one that averages about \$30 from one side to the other, in a camp where as yet no prospect has failed, is what the Gold Bar Mining Company can show in its new find. It is showing up better than was expected, and work on it will be pushed.

Dec. 30, 1893 p. 420

THE Altura Gold Mining Company, capital stock \$250,000, and the Vanderbilt Mining and Milling Company, capital stock \$1,000,000, have filed articles of incorporation; both at San Bernardino.

Dec. 30, 1893 p. 427

Inyo.

GOOD STRIKE.—Register: A good strike is reported from the Georgia mine in Redding canyon. An 18-inch ledge of good gold ore is in sight.

Mining and Scientific Press

Jan. 6, 1894

Important Mining Deal.

The Good Hope Consolidated Mining Company has just sold all its property in the Pinacate district, Riverside county, to Dudley Porter, John L. Hobson and Charles W. Morse, of Haverhill, Mass., for \$500,000—making altogether the largest transaction in California properties which has been recorded for some time. Colonel John M. S. Eagan of Georgetown, Col., manager of the Pay Rock mine near that city, is to have the management of the mines. One of the purchasers, Charles W. Morse, of Haverhill, Mass., who is in Riverside, says he will leave Sunday for San Francisco to purchase a stamp mill, mining tools, etc., to push the work. Colonel Eagan accompanies him, and will return to Colorado for his family and bring them to Riverside. The Good Hope mine was the first in the Pinacate district to reach a paying basis—and that it has paid well is evidenced by the sum realized for it and adjoining properties.

The peculiarities of the Pinacate district are such that they are worth noting in this connection. The veins of the Good Hope mine are in a dyke of light-colored biotite granite. It has considerable width on the surface—100 feet or more—but below ground some distance it is not over 12 feet. On the surface it is greatly decomposed and cut by numerous small veins, which are so scattered that they hardly pay for working. Below they unite to form larger veins, generally one on the foot and another nearer the hanging wall. The latter is more irregular, often running out at a small angle. The foot-wall, a dark, compact diorite, is very regular. The walls are separated by well-defined seams from the vein matter, the decomposed granite. Clay seams also separate the different veins. The foot-wall diorite forms the country rock indefinitely eastward. The hanging wall is a fine, dark brown mica schist. The quartz is generally friable, and the granite vein matter much decomposed. The quartz at a depth of 300 feet carried one-third of the gold in the sulphurets. A small amount of silver is also found. This vein is located for over a mile; direction a little east of north, dip 65° west. It is remarkable that there is no barren quartz; all the ore pays for working. In the lower workings the veins become more regular.

The sale of these mines is ample proof that there are good mines in California for sale. The recent offer of \$200,000 for the Nevada City mine is another. The purchase of the Rocky Bar and other Massachusetts Hill mines by James D. Hague is one more. The sale of the Alison Ranch, at a figure said to be large, is still another. The sale of the Hite mine, in Mariposa, is another. And so on the list might be multiplied indefinitely. The list of mines of what might be termed the second class (based on output) which has recently changed hands is very large. The organization of new mining companies—recorded in this paper from week to week—exceeds in number the record for many years. Some of these companies are organized to develop new, others to re-develop old properties. Their promoters seem to have had no unusual trouble in finding desirable properties. Where there is money to buy it will be found that there is a corresponding willingness to sell mines. If a purchaser

thinks a figure exorbitant, he must act precisely as he would in any other transaction—refuse to buy. There are other properties. If an owner considers an offer too low—and he often does—he has the privilege of declining to sell. But, in the course of business, a common level is to be found. We believe that there is at this time no legitimate investment in the United States which offers such guaranties of profitable returns as California gold mine. Capitalists appear to be coming to much the same conclusion.

Jan. 6, 1894

It is not wise for prospectors and miners to become unduly excited over the fabulous reports which have come from the Goler and other districts in the Mojave desert. It is no doubt true that there is gold in these districts, and probably a good deal of it; but it is likewise true that the available placer territory is to a considerable extent appropriated. The disadvantages of existence in such a region should be considered by all who contemplate going there. It is dry, remote, difficult of access, and supplies are expensive. One who goes in must be prepared to undergo more or less hardship. There are, no doubt, some who will secure fine claims; the majority run good chances of coming out empty-handed.

The Gold Bar Mining Company, at Vanderbilt, has been incorporated under the name of the Vanderbilt Mining and Milling Company. The incorporators are J. K. Patton, Anna M. Taggart, William Chambers, H. C. Dillon and S. F. Godbe. The capital stock, paid in, is one million dollars.

At the rate at which mining locations are being filed in this county, one would think that the mines would soon be encroaching upon the orchards, and these two industries become rivals for the possession of the land, says the San Jacinto (Riverside county) Register. Fortunately the two have not yet come into collision, and as the mere matter of unoccupied land has little to do with the progress of either of them, they are not likely to interfere with each other.

Mining and Scientific Press
Jan 20, 1894 p. 45-46

San Bernardino.

GREAT PROGRESS.—*Vanderbilt Shaft, Jan. 12:* The past week has been one in which greater progress has been made than in any other three weeks since the first location was made here. There have been, perhaps, periods of more feverish excitement over finds, and more people could be seen on the streets. Such periods have not benefited the place. The reaction that has always followed has been hurtful to Vanderbilt in the extreme. In the past week, however, much has been accomplished.

Immediately upon the arrival of his mill, and upon the arrival of Mr. Stanley and Mr. Rich, A. G. Campbell began work in earnest on the preparations for the erection of his mill. A large crew of men were put to work grading for the mill, in consequence of which this work is all done, and the foundations for the battery and engine will soon be completed. The machinery and lumber are nearly all on the ground. As soon as possible, the mill will be erected and in working order. The water for the mill will be supplied by three wells, and will flow through a 3½-inch hydraulic mining pipe into a sump below the mill, from which it will be pumped as needed. This will necessitate the laying of 6000 feet of pipe.

At the Boomerang, the new steam hoist will

soon be in running order. The ore now being taken from this mine looks remarkably well. Altogether, matters are as satisfactory at Campbells as they could well be.

Things are assuming a very cheerful aspect about the property of the Vanderbilt Mining and Milling Company, also. On Monday morning the force was increased, the new men commencing the grading for the mill, which will, without doubt, arrive here by February 1st. The mill will be fitted for 20 stamps, although only 10 stamps will be put in at first. The Monday morning train brought in Mr. A. Smith of Denver, who is an able millman. He will have charge of the erection of the mill.

This week has not been without excitement. Friday night, about ten o'clock, a blast in the east drift, on the 50-foot level of the Gold Bronze, opened up a cave of crystallized quartz bearing free gold. It being remarkably rich in appearance, Mr. Saubrey, the foreman, called Mr. Taggart down. Later Mr. Patton went also, and, as a result of the blast, the richest ore ever found here was taken out. It showed so much free gold that an excitement was raised immediately. The next morning every one looked at the rock and said it was very rich, which it was.

Jan. 27, 1894 p. 61

Inyo.

LOOKED FOR.—*Inyo Independent:* Every indication of a revival of mining in Inyo county. There are more men prospecting and new finds will surely be made. The Boomerang is steadily producing good ore, and the more work is extended the more prominent the mine becomes. The owners have taken out enough ore to pay for the

Jan. 27, 1894 p. 61

Riverside.

COAL AGAIN FOUND.—It seems as if there must be a considerable body of good coal in the Santa Ana range of mountains, south of town, says the *South Riverside Bee*. There are abundant indications of coal, and prospectors have at different times followed up small veins until their money or their patience gave out. The best result ever obtained was in Tin Mine canyon, where the Gilbert Brothers expended all their means. They developed an 18-inch vein of excellent coal. Their shaft filled with water and they had to abandon it. Several prospects are now being developed. Outside capital has been put into development of a claim owned by Judge Riche. The 50-foot shaft that had been put down has filled with water and a tunnel is now being driven. Several thin veins or stringers of coal have been cut, and hopes are entertained that a good body will be uncovered.

San Bernardino.

BIG NUGGET.—J. D. Beam, Bunyon Marsh and W. W. Wright, the three prospectors who left here, says the *Madera Mercury*, to prospect for a quartz mine in the newly discovered gold fields in western San Bernardino county, have returned. They brought with them a flat nugget which weighs 19 ounces and will probably assay about \$17 to the ounce. The under side of the nugget is smooth where it laid in the sand and the upper surface is irregular. The gold had been melted by volcanic action and was irregularly formed. It was found in a small wash in Goler canyon, about three feet below the surface of the ground. As all the claims in that country had been located, the prospectors did not prosecute their search very closely. Mr. Wright stated that the prospect for quartz mines is very poor. The ore is of a low grade and would not pay if it had been shipped to a mill. Water and wood are scarce, the prospectors having to carry a supply of both articles. They were forced to come back, as horse feed gave out. They will probably make another prospect soon.

TWO NEW MILLS.—*Vanderbilt Shaft:* The commencement of work by the two stamp mills now being erected will be the beginning of a new era in our camp. The number of men employed in the mills and mines connected therewith will be sufficient to make the payroll amount to \$10,000 per month, with only ten stamps in each mill. Besides these men there will be many other men who either have claims here or will lease parts of claims, and who will commence chloriding, as both mines will probably do custom work.

Mining and Scientific Press
Feb 3, 1894

Inyo.

THE BLACK WARRIOR.—*Independent:* Tressel & Mann are at work developing the Black Warrior mine, about six miles west of Big Pine. There is a shaft sunk about 110 feet in the ledge, and at a point 60 feet from the surface a tunnel has been run 200 feet along the ledge. The ore assays about \$23 a ton all through, and is free-milling gold. The mine is about 300 yards from Big Pine creek, and there is plenty of timber all around it. The ledge is about a foot thick, has clearly defined walls, the hanging being slate and the foot granite with clay casings. There is every indication of the mine developing into a permanent and valuable property.

WORKING ON GALENA—Big Pine Cor. *Register:* The mining outlook for this section is flattering. M. H. Bush and Supervisor Uhlmyer began operations on their galena near Alford yesterday. Experts pronounce this to be an excellent property. D. M. Tressel and J. N. Munn, owners of the Warrior mine on Big Pine creek, have resolved on the thorough development of this claim, and will seek out the condition of the lead at a depth. Dave Pitman, J. R. Eldred and Uncle George L. Cornell left last week for their lead claims in Lead canyon, and will take out a shipment of ore. The developments at the Montezuma by J. H. Coe and Andy Fife, the persistent prospector, indicate that their faith in this celebrated property is not misplaced.

Kern.

AN OUNCE A DAY.—Of the new gold fields in Kern county, of which so much has been said lately, the *Californian* says: A brief note received from Mr. Sherman, the *Californian's* expert now investigating the desert placer mines, states that the average results secured by the miners in Redrock canyon are an ounce a day. The best reported in any day was 15½ ounces. The pay dirt lies close to the surface, and covers a wide extent of territory.

Riverside.

FIVE-STAMP MILL.—*Banning Herald:* An immense five-stamp mill was side-tracked near the local station this week. It came from the defunct Temescal tin mines, where it was used for sampling. It was purchased by the Morongo King Mining Company. Another five-stamp mill with engine for the same enterprising company is en route from San Francisco.

San Bernardino.

VANDERBILT M. AND M. COMPANY.—*Shaft:* People in camp are wondering which mill will be in operation first—Campbell's or the one at the Bronze. Campbell's mill is on the ground, but when will the repairs be here? is the question. The mill for the Mining and Milling Company is liable to be here any day, and will be all ready to put up. Mr. Smith is not letting the grass grow very much on the ground that is to be graded. The sound of the shooting in which he indulges, in order to get the hard rock out of the way, sounds like a five-gun battery. The grading, which was a very hard job, is now just the same as completed. The three winzes and double-compartment shaft, which are being sunk from the lower level, will soon be down another hundred feet, and then another drift will be run to connect them, and

will be at least 500 feet long. At the lowest point yet reached in the mine, the indications.

Feb. 10, 1894 p. 93
Kern.

THE NEW PLACERS.—The Los Angeles *Herald* claims to have carefully investigated the new gold districts of Goler, Red Rock and Summit, northeast of Mojave, and from entirely trustworthy sources has gathered information which it prints, and of which the following is a summary:

The influx of miners to Red Rock continues heavy. Many are disappointed, but many others make money. An instance occurred recently where a claim was purchased for \$6000, and the next day the buyers were offered and declined the same sum for a third interest. The present manner of working with dry washers is crude, but the owners are sure they will take out \$200,000, even with the present appliances. The wasteful method used is illustrated by the fact that three men worked on tailings from the dry washers and took out three ounces of fine gold in one day. Martin Stoddard is a miner who is doing well. He sold 24 ounces of gold at Mojave last week that he had taken out in a few days. His vein of pay dirt is from four to five feet thick. At Goler the Benson Bros. of San Bernardino have done well. They went to the camp a few months ago and have sold \$20,000 worth of gold already, and find their claim steadily getting richer. A Johnson and his partner are also doing well at Goler. On one day of last week ten ounces of gold were cleaned up from his claim. Summit camp is east from Goler, and from there also good reports come. A miner named Van Slyke is working there with two partners. A person who was at the camp recently states that he saw the three men take out \$180 in three days. A part of this claim is leased to Bakersfield men, and in one day they were seen to take out eight ounces. Mr. Van Slyke reports that the miners at Summit are averaging \$10 each a day. It appears settled beyond question that these three camps are but parts of a very extensive and wonderfully rich gold field. When the water is brought to the district from Owens river by the canal now being constructed, it is probable that the output will be something astounding, for now but a portion of the gold—the very coarsest—can be got by dry washing.

Feb. 17, 1894, p. 109

Inyo.

MINING EXCITEMENTS.—*Register, Feb. 10:* The town has enjoyed a couple of mild pulsations of excitement since our last issue. The first was caused by the reported discovery by Ruellas and others of the long-lost "Frenchman's mine," in the mountains west of Watson's ranch, and seven miles south of town. This mine was worked many years ago, and the present locators found upon it an old windlass over a 50-foot shaft. The ledge is said to be six feet wide, but as to its richness there is no satisfactory information at hand. The second stir was created by a rush for a three-foot quartz ledge in the hills six or seven miles west of here, and a mile or so south of Bishop creek. This ledge crops out east of the old Freeman and Coats workings in the same section. The ledge is clearly defined, and the croppings present the appearance of pay ore. Some rich gold float has been found in that locality from time to time, but the lode from which the float came has not been found, unless this present prospect should prove to be its source. Quite a picturesque race took place between John Black and Charley Levy for the location. Apparently there is plenty of mineral ground there, as several locations have been made already.

Mining and Scientific Press

Feb. 17, 1894 p. 109

San Bernardino.

LOOKING WELL.—Shaft: The Bronze is looking splendidly now. A good deal of work is being done on it, and it is being done in a scientific manner. The company are to be complimented for the excellent judgment shown in the selection of Mr. Charles Saurbrey for foreman, and they are to be congratulated because of the fact that he is in their employ.

AT CAMPBELL'S.—Shaft: Active operations in sinking were commenced at the Boomerang on Tuesday morning. Foreman McAdams, having received orders to prepare for sinking, got to work as usual and kept at it night and day until everything was ready, and then work was commenced with three shifts. Shaft No. 2 has been straightened at the 200-foot level, where the vein left the angle that it had been following and became vertical. It is expected that each shift will do over a foot of work. At the mill everything is progressing rapidly. The battery frame has been erected, the foundation for the engine has been laid, and the engine is in place. The foundation for the boilers is now being laid. The large water tanks, three in number, have been erected. The road to the mines is being graded, and will very soon be completed. Large crews of men are kept at work under competent foremen, and consequently much is being accomplished.

Feb. 24, 1894 p. 115

The Good Hope mine, near Ferris, is to start up at once.

Excitement prevails in the vicinity of Needles over the new gold fields in the vicinity of Goldstone, about twenty miles west of Fenner. Miners are flocking there from all parts of the country. Assays from five claims show very well. The mountains are well supplied with wood and water.

Mar. 3, 1894 p. 135

The Kern County Mines.

Gus Routh, a prospector, recently went from Porterville, Tulare county, to the new Kern county mines, and he writes thus to the Enterprise regarding the district:

We arrived here January 21st. Our trip was uneventful with the exception of heavy rains and snow storms while crossing the mountains. We are located thirty miles north-east of Mojave, thirty-five miles east of Red Rock and twenty-six miles east of Goler.

The climate here is fine, about the same as Porterville; some colder nights; no rain or snow, and very little wind. The altitude is 3100 feet, the nature of the country volcanic—three or four extinct craters in a radius of ten miles.

Two of the mines are paying well, avering from three to fifteen dollars per day to the man. There are some forty or fifty men here, all sociable, jolly fellows, always ready to help their fellow man. That is characteristic of the miner.

Considering the time we have been here we are doing well and have bright prospects ahead of us. We have some good claims. A large portion of the land in this district is located, but claims can be bought at nominal figures. For the benefit of anyone wishing to come I would suggest that they come via Tehachapi to Camerson. At that point leave the railroad to the right. Six miles from Camerson you intersect with the old Borax road, one of the best in the State. It is sixteen miles from there to Red Rock, twenty-six to Goler and forty-three to the Sum-

mit. On starting bring provisions to last six weeks, as you may want to return, and money to buy a dry washer. They cost from \$30 to \$75. Nothing can be accomplished without one. And do not expect to find nuggets on top of the ground, or growing on bushes. You may expect to meet with many hardships, and will have use for a pick and shovel.

Hay is worth from 1 1/2 to 2 cents per pound, barley \$1.50 per sack, and can be bought at Red Rock, Goler, Kane and Mosquito Springs—all along the line of travel. Six miles from Camerson, at the junction of the Borax road, there is plenty of good water; five miles from Red Rock station, plenty of water; Kane, spring water for stock; Mosquito Springs, good water; and four miles from us as good water as can be had anywhere. All it costs is to help yourself.

Our nearest postoffice is Koehn, twenty-six miles west, in the Goler district.

Mar. 3, 1894 p. 141

Inyo.

ALABAMA DISTRICT.—Index: The old Alabama district is attracting some attention these days. A claim of 20 acres, over 4600 feet high by 200 wide, was located last week. It is the most interesting, from the fact that it is most exposed of what appears to be a post-pliocene river extending along the west wall of the Sierras from Bodie to Red Rock. In the "Kearsarge and Alabama" days of 60 much gold was taken out of both, but especially the latter district. The best of Kearsarge Peak are under patent to men who won't work them. As neither are more than a dozen miles from town, they are near home to be appreciated.

Kern.

A GROUP OF MINES.—Bakersfield California. O'Connor and Steuben of Visalia have completed the purchase of the Stuter & group of gold mines in Agua Caliente. These mines have yielded over \$20,000 in the past few years and have only been about 60 feet from the surface. The veins—the Wandoo, Bonita and Ball—will now be extensively developed. The present mill consists of arrastras and will be increased to include machinery by steam power. During the past work considerable base metal ore was found and was thrown on the dump as unfavorable for amalgamation. Assays show that this ore is about \$40 in silver, at present prices, to a ton, and some of it as high as \$500 a ton in

Mar. 3, 1894 p. 141

Riverside.

STRUCK GOLD.—*Riverside Enterprise*: It is reported that Messrs. Lang & Son, cattle men on New river, have struck rich gold property in the hills about 20 miles northwest of Indio station on the Southern Pacific Road, and seven miles west of Tingman's two-stamp mill. The ledge is three feet wide and crops for about 4500 feet. Samples taken from three different points give an average assay of \$500 in gold to the ton. The gold is very coarse in the quartz, single pieces worth 50 cents being found. Ten tons of the croppings were taken over to Tingman's mill and yielded \$7000. The finders have a large force of men at work.

San Bernardino.

NEW MILL.—The Morongo Gold Mining and Milling Company, in San Bernardino county, has purchased a ten-stamp mill, which is being moved to the mines, and it is expected to have the property on a producing and paying basis in the near future.

Mar. 10, 1894 p. 157

Kern.

RAIN IN THE GOLER FIELDS.—A business man who had been all over the mining camps at Redrock, Goler and Summit a few days ago, reports to the *Los Angeles Herald* as follows: A good deal of rain has fallen the past two weeks and the ground in all the camps is soaked. In consequence of this nearly all the miners are idle at present. The gold is taken out by the dry-washing process, which can be done only when the dirt is in a dry, powdery condition. Most of the claims yet worked are in shallow ground, which even moderate rainfall wets to bedrock. A few claims are in ground where bedrock is ten feet or more below the surface. In these claims dry dirt is found, and there miners have been working without any interruption by rain. In all these claims men are making good pay. The visitor who makes this report says he learned that at Redrock, Goler and Summit there are men earning from \$4 to \$10 per day. It will take a few weeks of dry weather to put the ground in condition to push work as it was before the late rains. San Francisco parties are negotiating for the purchase of most of the claims at Redrock.

BOUGHT A MINE.—*Bakersfield Californian*:—The Taic gold mine was recently purchased by George W. King for himself and other Denver capitalists. It lies about two and one-half miles northeast of Woody Postoffice and is a promising gold property. The mines in that locality have been worked from an early date and have yielded a great deal of very rich quartz.

Riverside.

AT THE GOOD HOPE.—*Riverside Enterprise*: The grading for the new mill to be erected on the Good Hope mine has been completed and lively times may be looked for there before long. It is stated on good authority that the new mine will employ at least 300 men when in full operation. J. K. Estep, a representative of the Union Iron Works of San Francisco, is at the Good Hope ready to begin the erection of a new mill, which is being built by the iron works and which is expected to arrive soon. The owners of the Snow Bird mine, which is located near Winchester, are considering the question of the erection of a stamp mill. Report comes that both the Rose mine and the Christie mine, which latter is an extension of the Rose, are showing up in good shape of late. It is said the Rose is paying handsomely now, although the owners, who live in this city, do not talk much of the mine.

Mar. 10, 1894 p. 157

San Bernardino.

AT THE CAMPBELL MILL.—*Shaft*, March 2: Mr. Stanley, Mr. Campbell's right-hand man, and Chief of Construction Rich, say that stamps will commence dropping in the Campbell mill next Monday.

At the Boomerang the main shaft is now about 50 feet below the lower level, and is being sunk rapidly by three shifts of good men. The vein is looking splendidly all the way down, and considerable water is being found. Although Mr. Campbell has not stated his intentions in the matter, it is supposed that he will continue to sink his shaft as fast as it can be done until the 500-foot level is reached, and perhaps farther.

The mill at the Bronze has reached that point

where a good deal of time can be put in without any apparent result from hour to hour. But it is nearly ready for business, and the placing of the machinery will soon be done. It is very likely that by March 10th ore will be worked in this mill. Everything about it will be first-class, and it is a foregone conclusion that the best of results will attend the working of the ore.

At the Bronze the chief feature during the past week was the striking of a quality of ore that runs much higher than that which has been taken out, rich though it has been. This strike was made at the very lowest point in the vein, and although the winze has been sunk still farther the quality remains the same. The character of the rock is not changed, it still remaining a pure quartz, just as it has been for a long time. This new ore is very rich and the ledge is of good width.

The pumping of the water out of the St. George still continues, and will soon be done. Progress is retarded by the necessity of re-timbering the shaft, the work being poorly done before. An interesting event in the work was the uncovering of a seven-foot vein at the 250-foot level by the falling away of the wall. This probably insures the sale of the mine to Mr. Schofield's company; and, if the purchase is made, it will be worked for all there is in it, which is just what we desire to see. That property is too valuable to lie idle.

NEW GLADSTONE CAMP.—*Needles Eye*: The rich strike made by Patrick Dwyre and James Walker, 26 miles west of Fenner, has aroused considerable interest in Needles. Last week Judge West, Pat Flynn and others from this point, went to the scene and laid out a town-site, giving it the appropriate title of Gladstone. On Monday F. C. Robie, Ben Harshberger and William Hunt left for the field. They are seeking mineral locations. The strike is unquestionably a phenomenal one. The ore from one of the claims runs high in gold and silver. The ledges run from a few inches to two feet in width, and are rich in free gold. Mr. Dwyre has made five trips to the place before, but has always been unable to find the ledges, as they were covered with dirt. The place is 26 miles west of Fenner, 11 miles southwest of Providence, and about 50 miles south of Vanderbilt. On last Saturday a good strike was made by Charles Lingo and J. L. Sullivan, 10 miles south of town. They brought in some very rich pieces of float, and on Monday returned to the scene. They are confident that they have struck it rich.

Mining and Scientific Press

Mar. 17, 1894 p. 163

EXCITEMENT prevails at Needles over the new gold fields at Goldstone. Assays from five claims show from \$175. to \$1100 in free gold per ton. Rich strikes are also reported from the desert country 60 miles from San Bernardino.

Mar. 17, 1894 p. 173

Kern.

DEPOSITS OF COLEMANITE.—Bakersfield Californian: Parties prospecting near Colorado camp, in the Red Rock range, have recently found quite extensive deposits of "colemanite" or "cotton balls," and have made quite a number of locations. Not far from this locality Searles Bros. & Skillings found some deposits of colemanite several years ago, but they were not extensive and were speedily worked out. Colemanite is a variety of boracic acid and occurs in nodules. Its cottony appearance is due to efflorescence of the outer surface. Combined with two parts of soda ash it makes the borax of commerce, which is a bi-borate of soda.

Riverside.

GOOD STRIKE.—San Bernardino Courier: Another rich strike has been made in Riverside county, near Salton. F. M. Living came in and brought three large specimens of quartz. The gold is visible to the naked eye, and under gaslight fairly glitters. The mine from which these specimens were taken is known as the Summerville mine. The property has been worked for about two years by the owners, but has never been known to yield very rich ore till a few days since, when a strike of unusual richness was made on the 200-foot level, from which these specimens were taken. The mine is about eight miles north of Salton, on the Southern Pacific, and will doubtless be the making of a fortune to the owners. At present they are working only a few men and have no machinery, but they will continue to develop their interests, and have given out that the property is not for sale. This discovery will probably cause a rush to that vicinity. There is a number of men prospecting in the neighborhood, but no strike of importance outside the present one has been reported.

GOOD ORE.—The main shaft on Governor Blasdell's Santa Rosa mine, near Perris, is now down 225 feet. A station has been established at that point, and from it a force of men is at work night and day drifting north and south. Between the upper level at 125 feet and the lower level the vein has enlarged from two to over three feet, and an excellent grade of ore is exposed the entire distance.

San Bernardino.

SHADOW MOUNTAIN.—Of all the mineral-producing districts contiguous to Vanderbilt, says the *Shaft*, none have attracted more attention in mining circles here during the last two months than the Shadow Mountain country. There has been no great excitement connected with it, but instead, its growth in public favor has been steady and gradual. "Shadow Mountain," says a prospector of that section, "is the poor man's country, for the reason that there is rich rock from the grass roots down. The veins are large and the ore rich, and it is bound to be a good place. There are more men coming in every day now, and very few are going out. Everybody is doing well."

cont.

PLACER MINES.—FOR some time it has been known by people of this vicinity, says the *Rialto*, San Bernardino county, *Fruit Grower*, that there were some placer mines being worked in Lytle Creek, and that some of them were paying fairly well. The old Turk & Banks mine has been one of the good paying properties. On Tuesday of this week James Washington dropped into our office and showed us some of as fine nuggets as one would wish to look at. He has been working his mine for some three years, and has at no time worked at a loss. Most of the time when at work he has taken out \$8 to the man per day, and this, too, in a very crude way with the old-fashioned rocker and with no modern appliances whatever. Mr. Washington is a colored man, who, as we said, came here three years ago, \$100 in debt, but he don't owe anybody now.

Mar. 3, 1894 p. 205

Inyo.

GOLD ORE.—*Index*: At each of eight claims in Fish Springs district there are now on the dumps from 15 to 30 tons of gold ore, assaying in gold from \$40 to \$80 per ton, which does not include the value of the sulphuretted ore which abounds. There is a fine opening there for some enterprising millman to put in modern works, with thousands of water power to run them. The boys could then keep on mining and let their four ancient arrastras rest.

Kern.

REDBROCK AND GOLER.—*Inyo Index*, March 23: From Jake Schober, who returned Tuesday evening from the gold fields, we learn that matters there are quiet. But little work is at present being done in the forty or fifty dry washers, as the ground is too wet. Many of the stories told of the richness of the mines are greatly overdrawn. Three or four of the Schrober and Brockman claims, which number seven in all and are four miles west of Goler, have been prospected enough to prove that they will pay \$5 a day to the man. At that

Riverside.

LARGE TIMBERS.—The largest timbers ever shipped to southern California were sent from Riverside to the Good Hope mine, near Perris, on the 8th instant, by the Russ Lumber and Mill Company. They were 26x29 and 32 feet long and four in number. They will be used in the foundation of the new 20-stamp mill. The erection of the mill will consume 100,000 feet of lumber, and seven teams are now engaged in hauling it to the mine.

Mining and Scientific Press
Mar. 3, 1894 p. 205

San Bernardino.

A RAILROAD NEAR.—James Campbell has returned to Los Angeles from Needles and Vanderbilt, two places that are now attracting some attention. Mr. Campbell says that the Nevada Southern Railroad is in good order and regular trips are made to Manvel, which is four miles from Vanderbilt. Two mills are now being constructed—one by Mr. Campbell of Salt Lake City, and the other by Messrs. Patten & Taggart will be in running order within a week. These mills are complete in every particular, and will be a credit to the owners. The mines on which these mills are erected have been fully tested by milling process in Denver, Pueblo and other places. The owners have no fears of the result from their own mills, and have estimated that the ore in sight will keep them running for one year and the average value at \$60 per ton, which goes to show that when the Nevada Southern is finished to the Keystone mill, more stamps will be added to the present mills and new mills and smelters constructed. There is now a party of engineers and a gang of men and scraper teams at work between Manvel and Vanderbilt.

STAMP MILL STARTS.—*Shaft, March 16:* The announcements made last fall by A. G. Campbell and by Patton & Taggart that upon the property of each a ten-stamp mill would be erected was hailed with delight generally. The culmination of hope occurred, however, when Campbell's mill started last week and anticipation was turned to realization. The first clean-up, which occurred after a 40-hour run, resulted in a \$500-bar of gold, 950 fine. The concentrates for the 40 hours will yield \$150. The tailings went \$240. The mill is a ten-stamp Fraser & Chalmers mill. The stamps weigh 750 pounds each, have a seven-inch drop and they drop 90 times per minute. The mill is fitted with Evans concentrators. The power is furnished by two 50-horse power boilers and a 100-horse power engine.

THE BOOMERANG.—W. F. McAdams, the genial foreman of Campbell's mines, almost fainted away the other day when he went down to the 260-foot level in the Boomerang and found that a vein of rich ore over three feet in

width had been opened up. The vein still continues to be of that width.

V. M. AND M. COMPANY.—When the main shaft of the Bronze had reached a point about 50 feet below the lower level last week, Foreman Sauerbrey noticed that the ore was of a different character and took a specimen to the surface, which, when assayed, showed a value of \$1117.38 per ton. The next day he took two samples, which he selected carefully in order that he might get only an average. These two samples with the other made an average of \$542.62 per ton in gold. The character of the ore remains unchanged. The mill at the Bronze will be running very soon.

THE ST. GEORGE.—The work of cleaning up the St. George in preparation for its inspection by Mr. Schofield, who has a bond on it, is about done. It has been a long and difficult task, and its end will not increase the sorrow of any one. It will be examined immediately upon the completion of the work.

Apr. 7, 1894 p. 207

Two Kinds of Stamp Mills.

Mining literature has recently found considerable additions in a discussion as to the relative merits of Colorado stamp mills and California stamp mills. The Press has given space to the discussion, which has been both interesting and profitable; and the conclusion reached seems to have been that the California mill is best for California and that the Colorado mill is doubtless all right for Colorado. The essential difference between the two mills is that in one there is a fast and low drop, in the other a high and slow drop. In other words, the Colorado stamps

drop (roughly speaking) twice as far and half as fast as the California.

In this connection, the experience of the two ten-stamp mills at Vanderbilt, in this State, is both curious and interesting. These mills, it is well known, have just been placed in operation.

the mills would not be successful, inasmuch as the ore is variable and of an unusual character. The gangue is quartz, honeycombed at the surface from the oxidation of sulphurets it originally contained, small disseminated crystals of which (iron, lead and copper) begin to show in the rock from the deepest part of the workings. Some of the rock contains a high percentage of lead in the form of galena and carbonate, but it occurs in bunches and is not distributed through the rock. The Campbell mine, Fraser & Chalmers mill, with 750-pound stamps, that drop seven inches 90 times per minute, and it has an Evans concentrator. The Vanderbilt Mining and Milling Company has a "Gilpin county" mill, with 650-pound stamps that drop 16 inches 30 times per minute, and the

concentrator used is what is known as the "Gilpin county" bumping tables. Even the rock-breakers and the automatic feeders are different. Everything is different, and yet we are told that at one 94 per cent of the gold is saved with the concentrator; in the other, 89 per cent without. When the concentrator is running in the latter, the percentage, it is thought, will be brought up to 95.

This experience seems to prove that, in one instance at least, there is no room for controversy as to the values of the mills. Both are good.

Apr. 7, 1894 p. 211

The body of Henry Kreiner, a miner, well known in mining camps in southern California, was found on the Mojave desert. Kreiner had fallen from his wagon, and in the fall killed himself.

San Bernardino.

AMONG THE CHLORIDERS.—Vanderbilt Shaft, March 30: Last Monday we took a stroll around to see the different chloriders in camp, and it was one of the pleasantest trips we have made lately. There is nothing more agreeable than to visit a man at his work when he is doing well and is full of hope; therefore, as there is not a discouraged chlorider in camp, it does a person good to talk to them.

Fox, Phillips and Freethy have a lease on the Bronze and are doing remarkably well. They work hard, have a good vein and their ore is rich, very rich. From one horning made recently the gold obtained weighed 25 cents.

Auderson and Makepeace have a lease on the Gore and are digging out good rock. Charlie McDonald also has a lease on this claim and is

doing well, his ore being very rich. Eddy and More have just taken a lease on this claim.

Marrs and Congdon, who have been working a lease on the Chippie for two months or more, and who have been doing well, are still taking out some very rich rock, a recent assay showing a value of about \$250. They have a lot of ore on the dump. Mr. Ewing commenced work Tuesday on a lease on this claim.

A short time ago I. Howell made a deal with A. G. Campbell by which Mr. Howell became owner of the Alta mining claim. Mr. Howell is now working this claim and has considerable fine ore on the dump. He will put some through the arrastra soon. Jim Orr is helping him in the mine.

John Alphin is looking for a good place to begin chloriding.

W. V. Trask and S. C. Spence are getting some good hornings out of the eight-inch vein on their lease on the Oversight. They are bound to make some money.

Kilpatrick and Grundy have a lease on the Monte and have sunk upon it a 35-foot shaft. They will now commence to drift. They have a good vein of ore and will do well.

E. D. Mulcahy has a 30-foot tunnel on the Iron claim. He is taking out ore now, having run his tunnel along the vein without disturbing the ore. He has a good showing.

Craig and Gordon have as good a body of ore as any chlorider in camp. They have a lease on the Webster, and their vein averages about eight inches in width, some of which runs very high, a recent assay showing a value of \$450.

Juan Tapio took a lease on the Nugget about two months ago, and he is doing as well as any chlorider in camp.

Apr. 14, 1894 p. 227

PLACER GOLD has been discovered within a mile and a half of Tehachapi and prospects well. From three pans of top dirt there was taken out 37½ cents of the yellow metal one day this week. There are a number of men out prospecting and a rich find will not be a surprising event.

THE Salt Wells Borax Company has been incorporated. Principal place of business, Independence, Inyo Co. Capital stock, \$2000, with Fredericke Rhine, Harry Rhine, F. E. Denmore, Charles Ling and Wall Lee of Independence as directors.

CHARLES MARTIN came to San Bernardino last week and gave himself up to the authorities. He says that on April 5th, at a point about 40 miles east of Banning, he shot and killed a man named James in a dispute over the ownership of a mining claim. He claims that James and others jumped his claim, and in an altercation which followed he shot and killed James in self-defense. James was a resident of San Diego and Martin is of San Bernardino.

Apr. 14, 1894 p. 237
RIVERSIDE.

THE Good Hope.—Riverside Press: Col. Egan of the Good Hope mine, near Perris, says work is progressing at the mine very satisfactorily, and when the stamp mill is in place it will be one of the finest appointed mines in the whole country. It is expected to have everything ready for pushing the work of milling the ore by May 1st. The mine, when it came into the hands of the present owners, was down 350 feet. It is now down 550 feet, and proves better the deeper it goes. Col. Egan says that a number of the miners with families are building homes, and that the class of men he has brought with him is of that kind that make good citizens, many of whom having been engaged with him in mining matters for the past 18 years.

San Bernardino.

GOOD MINES.—The Tingman and Holland mines, located about 20 miles north of Indio, are still yielding gold in paying quantities, and give promise of greater development. Tingman's mill has been crushing ore for Lang & Son, but as soon as he can arrange for water, Mr. Lang will put up a mill.

A MILL FOR CRESCENT.—Vanderbilt Shaft: A. F. Stevens arrived in Vanderbilt on Monday, being on his way home from San Francisco, where he went to purchase a stamp-mill for the Legal Tender Mining Company, of which he is superintendent. The mill, which will be here by April 15th, is a Fulton Iron Works five-stamp mill, the stamps weighing about 900 pounds each, and will drop five stamps 100 times per minute. Although but five stamps will be put in at first, there will be power for 10 stamps, and the mill will be fitted for that number. Frue Vanner concentrators will be used. The mill is to be erected at Crossman Springs, 3¼ miles from the mines. The haul from the mines to the mill will be all the way down hill, however. The mill building will be 23x75 feet, and will be built of Arizona lumber. Besides this, there will be erected an engine room 20x30 feet, an office 12x24 feet, an assay room 12x14 feet, and a dwelling house for Mr. Stevens. The head carpenter will be Mr. Stevens' brother, E. C. Stevens, who came down from San Francisco to take the position.

CONSIDERABLE WATER.—Shaft: The Bronze is producing considerable water at present; in fact, the amount produced is increasing daily, and by the time that the shaft has been sunk another 100 feet the company will have little need of the water from Willow Springs, with which the stamp mill is now supplied.

The mill is working to perfection. All the kinds of ore thus far tried have been satisfactorily worked, and there is no doubt that the mill will accomplish all that was claimed for it.

THE BOOMERANG.—Mr. Campbell is now erecting a steam hoist at this mine. He has been intending to do this for some time, but was hindered because all his mechanics were on the mill. The hoist will be in operation very soon, and it is probable that the shaft will be sunk to the 500-foot level at the rate of a foot per shift, the shifts being eight hours. The vein is looking splendid at the bottom of the shaft, being as strong and as well defined as ever, although

it is below the point at which, it has always been claimed, the vein would quit. The vein has never looked more promising than at present.

As soon as the hoisting works are completed, the construction force will immediately begin the erection of the mill building. Mr. Campbell, being in a hurry to get the stamps working, simply put the machinery in place, erecting no building at the time. Now, however, it will be put up, and will be a very large and complete structure.

Apr. 21, 1894 p. 253

San Bernardino.

GLITTERING GOLD.—San Bernardino Index: In Salt creek, four miles east of Elsinore, is a six-foot lead of free-milling ore and sulphurets, with the contact vein between slate and granite. The lead runs in a northwesterly and southeasterly direction. There are a number of locations on it, and five of them are being worked and are showing up well. Returns from assays made of this ore gave \$3 to \$1000. This ledge has been known for many years, but the cap rock only assayed \$3 in gold, no one had the nerve to open it up. There is not a doubt but that the parties now working there have made a very rich strike. This contact vein has been traced for 18 miles, and runs in

the direction of the place where Chas. Briggs made his big strike, about six miles south of Winchester. By following the contact in a northwesterly direction, it leads past some of the rich strikes of the Gavilan district and on to the old tin mine itself. There is talk of organizing a party to prospect along the contact systematically as far as the desert.

Apr. 29, 1894 p. 269

San Bernardino.

RED ROCK PLACERS.—The placer mines at Red Rock, 38 miles northeast of Mojave, are attracting considerable attention. They were discovered by a Mexican March 30th. It is reported that men are making from \$3 to \$5 per day. Men are coming in fast and taking up the best claims. Claims that will pay from \$3 to \$15 per day per man are sold from \$100 to \$1500.

A GOOD CAMP.—Kern Californian: Summit mining district, out on the Mojave desert, is having a big boom. There are over 200 men permanent residents of the camp, and 60 dry washers are constantly at work. Curiously enough, the flat mesa lands pay better than the gulches, and the ground yields more gold right at the surface than it does deeper down. No

bedrock has been struck yet in this district, but at from 4 to 12 feet from the surface there is a layer of cemented clay where most of the mines stop, although the dirt below this will pay wages if worked. The gold from this district is worth \$18 an ounce, or from 50 to 60 cents per ounce more than the Red Rock and Goler gold. Every dry washer is working on pay dirt. The highest product lately has been an ounce and a quarter in a day, but an ounce of gold to the machine is the regular thing.

PLACER LOCATIONS.—Mojave Miner: Many placer locations have been made in the Burro creek country and it is said some of them are very valuable. The gold is coarse and easily saved. Men who are out of employment can make good wages working these claims, as wood and water are handy.

May 5, 1894 p. 285

San Bernardino.

Red Oak.—Epitaph: Four Redlands men, coming from the desert, brought a large quantity of ore from a prospect they discovered in the northwest of Panamint. Several assays made of the ore showed a ton of ore to average over \$1000; a few over \$2500 a ton. The miners declare it is the richest ore ever found in southern California.

Waterloo Mills and Mines.

We present an illustration showing the layout of the two stamp-mills of the Waterloo Mining Company, which are on the north side of the Mojave river, opposite the town of Daggett, on the Atlantic & Pacific Railroad, in San Bernardino county. The mill shown in the illustration runs 60 feet long, weighing 850 pounds each, with a capacity of 6½ inches 100 times per minute. The smaller mill, only a short distance away, has only 15 stamps. The capacity of these stamps is about three tons of ore to the stamp, or about 225 tons for the two mills each 24 hours.

The mine is located about six miles north of the mills, in the West Calico mining district, about two miles west of the town of Daggett, and the company has constructed a narrow-gauge railroad to connect the mine with the mills. The mine is developed by the running of various tunnels on different levels, all through pay ore. The ore body is from 10 to 85 feet in thickness and, so far as is known, about 600 feet in length. No water has been encountered in the mine. It is said, runs about \$25 to the ton, but would if silver was as valuable as it was in former days.

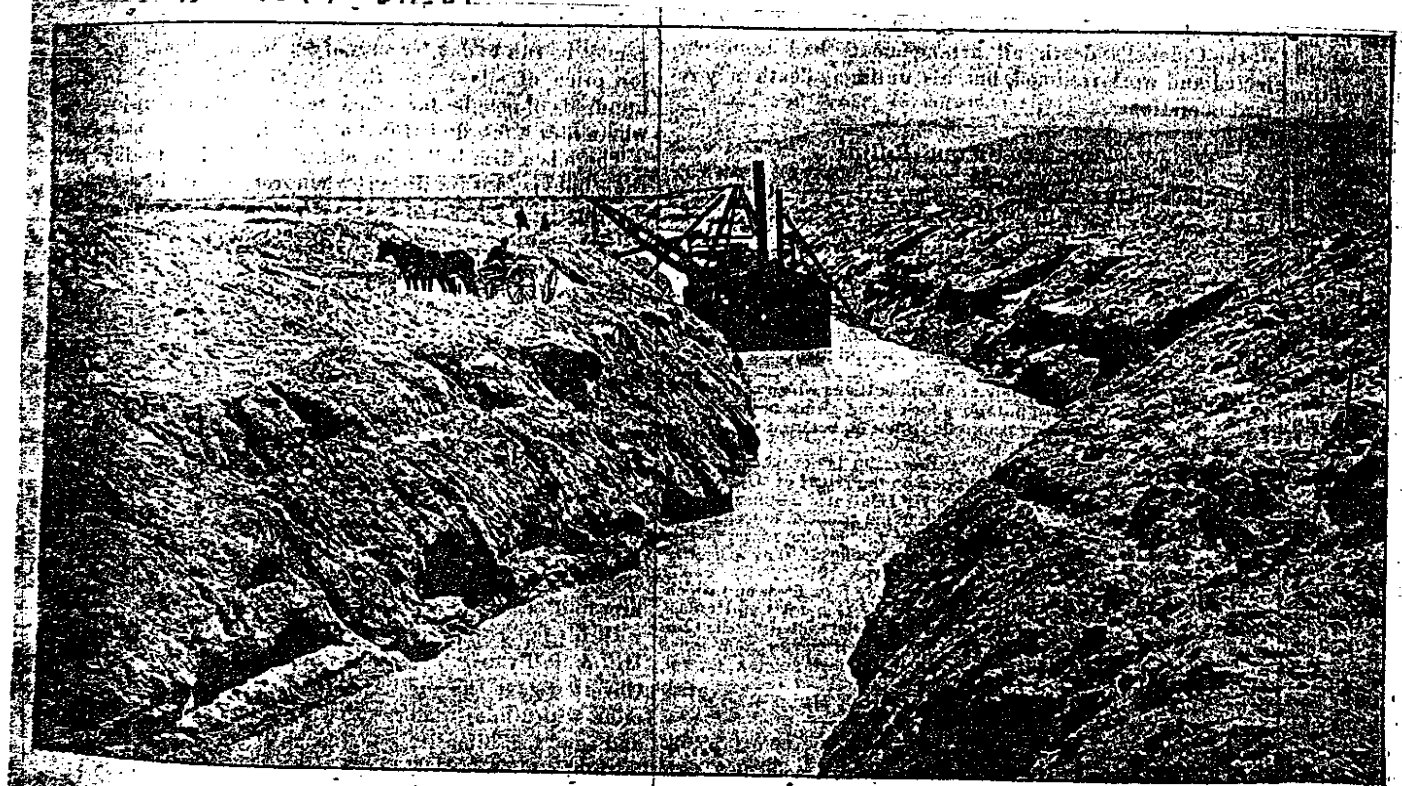
The mill has been shut down for three years past, on account of the high price of power and the low price of silver. It is said that the power used now costs about \$1000 a year. The cost of milling the ore is \$2.50 per ton. With cheaper power this mine could be run at a profit, even with the low price of silver now current.

The company owning the Minneola canal propose to use that cheaper power. Ten miles below the head of the canal there is a drop of 100 feet, which will furnish 1000-horse power if the supply of water meets the

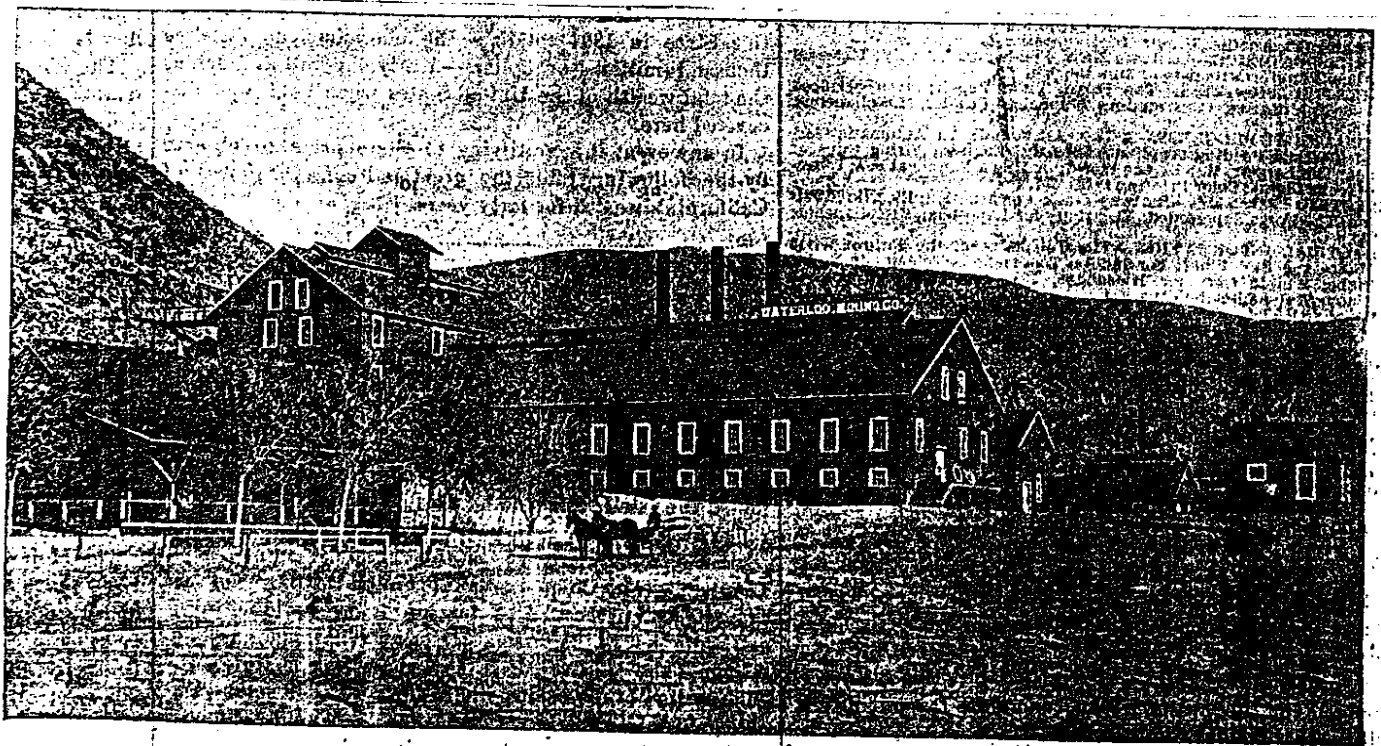
lowest estimates of the engineers. This power can be converted into electricity and conveyed to any mills in the valley that may need the power, and it can be furnished at one-fourth the cost of power by steam.

With this cheap power every mill in that region can be run, even with the present low price of silver; other mills can be erected and other mines opened which are non-producers to-day and must forever remain so until a cheaper power can be had.

Mining and Scientific Press (May 12, 1894 p. 287)
May 12 1894 D. 289



DREDGER AT WORK ON THE MINNEOLA CANAL, SAN BERNARDINO COUNTY.—See next page.



MILLS OF THE WATERLOO MINING COMPANY, SAN BERNARDINO COUNTY.

Mining and Scientific Press

May 12, 1894 p. 290

Minneola Canal—A Wonderful Water Development.

An interesting water development is found on the Mojave river in San Bernardino county, on the line of the Atlantic and Pacific railroad near the town of Daggett.

This canal, the largest in southern California, has a carrying capacity of 25,000 inches, or 500 cubic feet per second, and for a distance of one mile from its head was dug by a floating dredger.

On the preceding page is an illustration, from a photograph, showing the dredger at work in ten feet of water. The bottom of this canal, through this mile of its length, lies through a water-bearing strata. The bottom of the canal at its head is 14 feet below the level of the water in the river, but none of the water of the canal, as shown in the illustration, comes from the river, as it seeps in through the water-bearing strata—pure coarse sand and gravel—through which the cut is made.

Except in times of high water there is very little surface flow of water in the Mojave river at the head of the canal, but the under flow of the stream is very great, filling the coarse sand and gravel for an average depth of 25 feet for a width of 1600 feet. In midsummer the surface flow of the river does not exceed 200 or 300 inches, but there is always a surface flow indicating that the underflow is always full.

The work of tapping this underflow has not been attempted yet. The plan of procedure, however, has been definitely settled. There will be a deep cut made across the river by the dredger. The bottom of this cut will be 14 feet below the surface of the water level at that point. In this trench, which will be 1600 feet long, will be laid a box flume 10 feet wide and 5 feet deep, so constructed that the water will find its way into the flume readily, while the sand will be kept out. This flume will have a grade of about eight feet to the mile, so as to carry off the water readily, and with it carry whatever sand may find its way into the flume. The bottom of this flume is on a level with the bottom of the canal which will carry away the water.

The main canal is completed now for a distance of four miles to Daggett, while a branch canal, with a capacity to convey about 5000 inches, is completed for a distance of four miles more.

The Mojave river has a fall of about 19 feet to the mile. Forty miles above the head of the Minneola canal, at the upper narrows, the river carries in midsummer 10,000 inches of water on the surface, besides a large underflow. Below the narrows a large extent of country drains into the river, including the Antelope valley and all the mountain streams which flow into the Mojave plateau west of the San Bernardino meridian; and while there are no surface streams which flow into the Mojave river from that section of country, there must be a large underflow that finds its way to the river and through this gap in the hills where the Minneola canal is taken out.

Engineers estimate the amount of water within reach of the Minneola canal all the way from 5000 to 25,000 inches.

Ten miles below the head of this canal is a drop of 100 feet in the canal, which will furnish several thousand horse power, the amount being dependent on the amount of water obtained. This power, converted into electricity, can be sent to the various stamp mills in this mining section, and power can thus be furnished at one-quarter the cost of the power now generated by coal. Mills which cannot be run to-day because of the high price of coal at a low price of silver can thus be started up again and hundreds of people furnished remunerative employment where now a few do indifferently well.

There is a firm belief in electrical circles to-day the time is not far distant when iron ore will be reduced by electricity instead of coal. There is an iron mine within 25 miles of this water power which shows 20,000 tons of iron ore above the surface of the ground yields from 60 to 70 per cent of iron. This iron is pronounced by the Union Iron Works and Eastern workers to be the very best quality for the manufacture of Bessemer steel. A railroad is contemplated from the water power to the iron deposit, and there appears little to hinder the building up of an iron center at the water power which shall work a revolution in the iron industry of this coast.

May 12, 1894 p. 307

Red Rock a Fraud.—*Inyo Register*: From the report given by Henry McDonald, who returned from Red Rock and Goler a few days ago, it is fair to pronounce that a splendid section to stay away from. He says nothing is done in the way of finding gold, and few, if any, are making wages, or anywhere near it. The owners of some of what have been reported to be the best mines in the section, "paying \$20 a day per man," are unable to meet even the smallest obligations. Apparently the agitation kept up by some who have claims to sell, or have other reasons. McDonald says that the Mexican mine, reported to pay from \$100 to \$1000 a day, was sold for \$300 lately. Hundreds of men have come in there, worked hard to get something paying, and left "cussing the country." Consequently it seems that the best possible advice concerning Goler is to stay away from there.

Mining and Scientific Press
May 19, 1894 p. 317 (out of order)

Riverside.

The Winchester Recorder, in speaking of the mining industry in Riverside county, says more attention is given to mines and mining than ever before. Many think that the sale of the Good Hope mine some months ago is the cause of its revival, others that the absence of other employment has led many to develop old prospects that proved to be richer than at first supposed; yet whatever the reason for this activity, the fact remains that the known mineral resources of the county are constantly increasing.

Work is steadily progressing on the mines around Winchester—the Snowbird, the Alice and others—and their owners have unbounded confidence that they will prove rich producers when developed.

San Bernardino.

The Holcomb Mountain Mining and Milling Company of Los Angeles has a capital stock of \$300,000. Their mines are located in San Bernardino county and are reported rich in placer gold. A carload of machinery was recently shipped.

Plant & Pierce, from San Bernardino, have bought the steam arrastras which were at Old Woman's Spring, and have moved them to a gold mine of theirs near the once famous Green Lead mine.

The Holcomb Valley Company started up their placer works about the 1st of April. The new machinery for amalgamation is working better than last fall, but is not yet as complete a success as could be desired. O. L. Metzger & Co., who have a large number of claims, will commence work in a few days.

The Riversiders have changed their superintendent once more on the Rose mine; Dr. Shurgart holds the reins now. Some of the miners think it was time for a change, as they claim provisions were short during the winter.

The Morongo King Company are slowly putting up their ten-stamp mill. This week several carloads of pipe are being freighted in.

A half interest in the Surplus mine in Rattlesnake Canyon has been sold by Mat Morris to Metcalf Bros. The price is said to be \$5000, \$500 of which was paid down. They are running a horse arrastra on the ore from this claim.

May 12, 1894 p. 191

From Redlands, Cal., comes the statement that prospectors in the neighborhood of Death valley have displayed a large quantity of fabulously rich gold ore, assaying over \$2000 a ton; that several mining experts and capitalists have become interested and have agreed to furnish the needed capital to open the roads, build the mills, etc. They declare that a ledge is exposed 800 feet, with an average depth of two feet, and that more than half a million dollars in ore is in sight.

May 12, 1894 p. 307

RED ROCK A FRAUD.—Inyo Register: From the report given by Henry McDonald, who returned from Red Rock and Goler a few days ago, it is fair to pronounce that a splendid section to stay away from. He says nothing is done in the way of finding gold, and few, if any, are making wages, or anywhere near it. The owners of some of what have been reported to be the best mines in the section, "paying \$20 a day per man," are unable to meet even the smallest obligations. Apparently the agitation is kept up by some who have claims to sell, or have other reasons. McDonald says that the Mexican mine, reported to pay from \$100 to \$200 a day, was sold for \$300 lately. Hundreds of men have come in there, worked hard to do something paying, and left "cussing the country." Consequently it seems that the best advice concerning Goler is to stay away from there.

~~May 24, 1894 p. 333~~
May 24, 1894 p. 333

Los Angeles.

MUCH GOLD IN SIGHT.—Los Angeles Times: L. R. Harrison of this city has returned from the Red Rock mining district, 28 miles north-east of Mojave, where he has several valuable claims. Mr. Harrison brought with him a pocket of nuggets to show what he is doing. He says that with primitive dry washers men can make good wages, and if water can be got on the claims, there is big money in sight. The gold is on top of the ground, and the dirt is easily worked. He has great hopes of the Red Rock camp.

San Bernardino.

The mill of the Morongo King Mining Company, of which C. W. Allen is president and George Campbell is a principal owner, is all completed and ready to start up on a large amount of ore already mined as soon as the line is completed. It is thought that this will be about the 20th.

Word has just reached San Bernardino of a very important strike in one of the mines of the Altama Mining Company, in the Morongo

district. A tunnel 145 feet long has been run, which tapped the vein at a depth of 75 feet below the surface. At this point a body of rich ore, running from \$200 to \$300 per ton in gold, was found. A drift has been run on the vein about 25 feet, and about six tons of rich ore have been taken out and sacked for shipment. The ore body is about 2½ feet wide and is continuous so far as the development work has been carried.

June 2, 1894 p. 337

S. R. Cox, who was at work at the Winder mine, located 12 miles from Barstow, fell down the shaft on the 20th ult., catching on the projecting timbers which knocked him senseless. O. C. Kehr, who was working with him, lowered him to the ground and went for help. In his absence Cox came to and started to climb up the ladder. His strength gave way and he fell again, crushing his right cheek bone and tearing off his eyelid, which was found on the projecting timbers. Cox started up the ladder a second time, and was found dead about 25 feet from the bottom, clinging to the rounds of the ladder. Cox was about 65 years of age, and had been in the district only a few days.

Kern.

THE DESERT MINES.—The rush to the Red Rock, Goler, Summit and Black Mountain mining districts still continues, and each day outfits pass through Mojave in their search of gold. In answer to inquiries the majority of prospectors state that they have nothing else to do and are taking the gambling chance of discovering gold or hops for something to turn up. It is needless to state that the majority of them return disappointed, and, what is worse, broke. All classes and followers of every trade and profession have become prospectors and are on the desert hoping against hope to obtain a portion of the desert gold.

Exaggerated stories concerning the amount of gold taken out can be heard on every hand, and with each repetition the story grows as everything else in this glorious climate. There is no doubt of there being gold in all these districts, but the amount has been very much overestimated. The greater number of the people going into these camps are not practical prospectors; they have never been on a desert and go wholly unprepared for the hardships which they have to endure.

At the stations of the borax company water can be secured when there is a surplus, but at other times it must be sought elsewhere. There is water six miles from Mojave, at a borax station; again at Nugents, 16 miles from Mojave; at Red Rock, Kane Springs, 27 miles from Mojave; at Mesquite Springs, six miles farther. From the latter place water is hauled a distance of six miles to Goler, and to Summit, 13 miles. At these camps water is sold at \$1 per barrel of 50 gallons.

As in all mining camps, nearly as many leave every day as arrive, and the population shows but little increase.

At Red Rock but three mines are in operation—the Sullivan, Bonanza and one other. These are paying wages, or about \$4 or \$5 per day to the man. The reports of the fabulous wealth of the quartz vein known as the Mexican mine, are laughed at here as they are supposed to emanate from interested parties. It is a well-known fact to oldtimers that the same ore was discovered and worked in 1867 at a stamp mill erected about three miles above Red Rock, at a place which was known as Egeland. Negotiations are pending, however, for the bonding of the Mexican mine for \$10,000. There is but little use of a prospector going to Red Rock unless he wishes to buy, as all the ground is taken up for miles around.

At Goler there are, perhaps, a dozen men at work dry-washing, although a number of prospectors are on the ground.

At Summit not more than 15 men are mining, some of whom are not making board, while others are averaging \$10 per day to the man. Claims can be bought from \$2.50 up, and many are anxious to sell for anything they can get. The camp is not a very prosperous one, yet it is as lively as any of its neighbors.

Some discoveries have been made recently in the Black Hills, but their extent is not yet known. The difficulty with the entire district from Red Rock to Summit is that it is located and held only for speculative purposes. Color can be found in nearly every gulch, but gold in paying quantities has not been discovered in any places. None of these places can become mining camps of any magnitude until the horde of lazy, porcine speculators and land-grabbers are rooted out.

There is no grass on the desert, and horses had to be hauled from Mojave; water is a luxury and gold scarce. Taken altogether, the best gold fields contiguous to Mojave are not a place for a poor man to venture into at present. Between the gambling sharks of Mojave, the scarcity of water and the high price of provisions, many leave here "sadder but wiser" men.

Canfield and associates, who bought the Bonanza claim at Red Rock and have since been purchasing adjoining properties, have now at Mojave a lot of pumping machinery. The plan is to pump water from Kane Springs right over the mountains—a raise of at least 1200 feet—and then use it on the western or Red Rock slope for sluicing and, possibly, hydraulic purposes. It is a big scheme and will cost pots of gold to carry out.

At the new mining camp in the desert, called Black Hills, the Lee Brothers have opened a bed of gravel, some 15 feet in thickness, which prospects finely in gold throughout. This district is about 12 miles northwest from Red Rock and entirely away from what has been considered the course of the Red dry river. It is another one of the peculiar features of that desert country, in the line of things that no one can explain. The lack of the camp is water, for so far there is nothing like a spring in the entire district.

Another discovery of quartz very rich in gold has just been made near Dove Springs. This discovery between the Mojave desert proper and the valley has for years been known to have good boats, and now both the mines recently discovered are producing very rich ore.

A man well posted in mining affairs, who has given the desert gold fields careful examination, states that it will be a poor man's country for years and years. As he expressed it, "If all the industrials could be turned loose there and were a-mind to work they could get good wages for years and years." But he does not deem it a good place for investment or operation on a large scale by companies. In this view he is undoubtedly correct.

It is stated that Gustav Miller of Havilah is mining antimony ore and selling it on the way to San Francisco parties for \$20 a ton.

Add this to the hauling and crushing costs, and it will be seen that this is about equivalent to quartz that mills \$30 a ton in gold.

San Bernardino.

VANDERBILT DISTRICT.—*Pioche Record:* James Clark of Desert Springs came in Saturday from Vanderbilt, where he has been residing for the past three months. He says that mining and milling are progressing favorably in that section, and there not many idle men in camp. The great difficulty is the scarcity of water, which is a detriment to the steady run of the mills. Green Campbell is sinking on the Boomarang mine and as soon as water level is reached calculates to obtain sufficient water for all milling purposes. There is considerable prospecting going on in the neighboring hills for water, but so far the results are not favorable for any great supply. There are three men at work grading on this end of the railroad, but this is only a temporary force and will be increased.

Many men are chloriding on small streaks of

gold-bearing quartz, which will be run principally at the Bronze mill.

While there Mr. Clark met some Piochers, among them Dick Rich, who is carpentering at the Crescent mill; Hank Goodrich, who is erecting an assay office in connection with the Crescent mill, and Joe Goodrich is helping to put up some machinery at the same place. Places of amusement are springing up and the camp generally presents an air of activity.

Mineral and Scientific Press
June 9, 1874 p. 355

The Crescent and Murphy mining districts, in Lincoln Co., Nevada, have consolidated.

A MINING district which will be known as the "Mud Hills" district has been formed. It lies about 22 miles southwest of Vanderbilt and three miles west of Government Wells. Alex. Carlisle is the recorder.

June 16, 1874 p. 381
Inyo.

REDDING CANYON.—*Register:* The Georgia mine, owned by Geo. F. Willis and others, is being worked at depth, and shows a good grade of ore. The last five tons extracted will probably mill \$50 per ton.

N. W. Willis is getting some very good ore. The report has been widely circulated that the "gold does not go down in the Inyo mountains," and that one can hope for nothing but surface "prospects." However, the results so far as can be known from the deepest workings here (about 200 feet) seem to prove the contrary.

Geo. Story has just finished an arrastra, and will soon start up on ore. He has a Pelton motor for power. His arrastra is about three-fourths of a mile below the one owned by Geo. F. Willis. The owners of the Georgia will furnish a run of 25 tons of rock in a few days that promises to excel in richness anything that has been run from that mine as yet. There will be considerable custom rock run at the Willis arrastra this summer.

PIKE MARBLE.—*Independent:* Recently two carloads of very choice marble were sent out from the Inyo quarry. The blocks weighed about ten tons each. There are orders now on for marble that will keep the mill running day and night for the next six months to come. Mr. Holmes, superintendent, has lately opened up an immense body of marble different from any yet found there. He says the ledge is over a mile long and a hundred feet wide. Mr. Holmes says he could take out blocks twice the length of the Washington monument and without a flaw.

June 30, 1874 p. 404

MAJ. L. C. MORELAND has sold a half interest in the Nugget and Sunrise mines, San Bernardino county, for \$40,000, and stock for \$15,000.

The new quartz mill at the Livingston mine, San Bernardino county, is in operation. The clean-up of the first five tons of ore netted \$372.

The old Picacho gold quartz mines, near Yuma, comprising the Mars, Venus, St. George and Goshen mines, including the 15-stamp quartz mill built by the late David Neahr, and which cost \$40,000, has been sold by J. M. Mendevill, agent for the owner, D. W. C. Jones of New York, to Col. S. K. Allen and his associates, a Chicago syndicate of capitalists, for \$125,000.

An interest in the Mercur Gold Mining and Milling Company has been sold by its owner, J. H. Hedges, one of the former directors of the company, for \$150,000. He owned 23,000 shares of the capital stock, and his holding was purchased by President Dern and two of the other stockholders.

It is but recently Lucky Baldwin sold the Gold Mountain mine to Burt Dopee for \$40,000. The latter is reported to have bonded the mine to an English company for \$500,000.

Another alleged gold discovery is reported at Red Rock, thirty miles from Mojave. This time one man secures \$170 in one day by the dry washer process. Water is said to be had "in unlimited quantity" at the Bonanza mine.

June 30, 1874 p. 400

Mines on the Lower Colorado River.

Taylor D. MacLeod in Yuma Times.

Castle Dome.—The mines are situated on the flat mesa and rolling hills near the base of a lofty mountain range, here forming a horseshoe curve. A system of three parallel veins cuts through the country at the outer points of the curve with an N. W. and S. E. strike, and at an elevation above sea level of 1800 feet. They are readily accessible over hard, level mesa roads and "wash," 20 miles from Castle Dome Landing on the Colorado river, thence 30 miles to Yuma by steamer or wagon road; or to Gila City, a station on the S. P. R. R., all road and one handling of ore saved—a distance of 30 miles. Present transportation rates to Castle Dome Landing by team are \$6; thence by steamer and rail to San Francisco \$9, or a total of \$15 per ton; Gila City \$7, team \$8, rail \$15.

The country formation is porphyry. The mines lie in a contact of porphyry and granite, with a dip generally to the east of 45 degrees. The ledges are from two to four feet wide. The vein stuff is decomposed porphyry. The mineral, argentiferous galena and lead carbonates, are in a gangue of fluor and calcspar, with considerable iron oxide. It is a clean smelting ore, carrying no deleterious base material. It is cheaply mined, but little powder required, and that of a "slow," low-grade kind. The ore ranges in value from 20 to 90 ounces silver and 60 to 80 per cent lead per ton.

These mines, under the old regime, yielded steady, remunerative shipments for about 20 years, when work was stopped at a water level 300 feet in depth. The veins of this district in no instance pinch out; they continue and in ore where work was suspended. It probably cost too much at the then price of lead to mine and extract ore 200 and 300 feet deep by hand windlass or whim, though this is the present way of hoisting. Advised by some of the old-time workers in these mines of the location of favorable indications of ore, the present owners have uncovered large ore bodies in virgin ground above water level, and the result is a steady and assured output.

The number of men actually employed at the mines is above 100, and three ore teams are constantly on the road. The Hodges Bros. are operating Washington group; Frank Avila and John Stoffela are shipping from the old Pochontas and Arkansaw mines, and a large force is on Frank Vomocil's Railroad group of eight claims.

Eureka.—Twelve miles north of Castle Dome Landing is found the Eureka district and mines. Extensive work was done here before the advent of the railroad to Yuma. It is exceptionally situated for cheap mining. The outside mines are not one mile from the river bank, and those now working not one-fourth of a mile off.

Here the mountains rise abruptly to a greater height than any other range on the lower river, thus allowing economical working by tunnel. The formation is block slate. The ledges are of a width of two to five feet, between firm walls with a strike N. W. and S. E. Gangue matter is of limestone and quartz and a clay gouge or casing on the hanging wall, dipping to the east and under the mountain at 46 degrees. The ore is silver-lead with seams and pockets of iron oxides, and "free" until water level is reached, when some zinc blende is found in seams paralleling the galenic.

Water is found at river level. A hand pump handles the inflow in shaft sinking. At present, as in the past, there is plenty of virgin ground to exploit above the water level, that is responding favorably to tribute workers now on the ground. The ore averages 50 ounces silver and 60 per cent lead per ton. Sufficeth it to say that the Vomocli group, with the Mina Alta, an outside vein strong in ore, comprise the mines of this district. They have supported 60 to 100 people, and shipments are regular. Below Eureka, proper, one mile away, Charlie Thiesen has a claim from which he has made shipments in times past.

Azure King Group.—Two miles north of Eureka and half a mile from the steamer landing is situated the Azure King group of six claims. This is a gold-silver-copper proposition, was worked extensively, and ore shipped to the river and Gulf of California to San Francisco in an early day. There are numerous shafts on the vein, from 20 to 60 feet deep, in which the notched pole ladders, yet in the shafts show the primitive method used in packing out ore and waste on the backs of men in days long since. The mines are situated just within the porphyry mountain range that parallels the river.

The veins have an N. W. and S. E. trend, are two to ten feet wide, with a quartz gangue in the talcose-schist matrix matter. The copper occurs as a chalcocite copper glance, tetrahedrite, gray copper, sparingly; cuprite, red copper and generously of malachite and azurite, or green and blue carbonates of copper—hence the name.

Crude hand sorting of the vein as it runs returned an assay value of: No. 1—gold, \$47.54; silver, 15 ounces copper, 12 per cent. No. 2—gold, \$24; silver, 16 ounces; copper, 13 per cent. It is safe to assume an average value of \$12 gold, \$10 silver and 10 per cent copper to the ore in place.

These claims will be worked at a profit some day, as they are exceptionally easy of access and free, containing not a trace of arsenic, and can be cheaply mined and treated on the ground. Handsome specimens containing coarse free gold imbedded in malachite are not uncommon.

San Diego.

Union: The old Cargo Muchacho is still pounding away night and day, not turning out quite as much gold as in the past, but still working away and doing well, paying nice monthly dividends. The Gold Rock forty-stamp mill gets away with 100 tons of ten-dollar rock per day without any trouble. The great vein on the Queen mine is now down over 300 feet, with pay ore more than 100 feet wide. At Pichaco the great pumping plant at present stands idle. Efforts are being made by those who have the American control of the property, to put the rich mines to producing. J. M. Mandeville, agent for Dr. D. W. O. Jayne of New York, has sold the old Pichaco group of gold-quartz mines, comprising the St. George, Goshen, Venus and Mars, with the fifteen-stamp mill, to Colonel D. K. Allen, representing a wealthy Chicago syndicate, who will start up the mill at once, adding fifteen more stamps now, to be followed by twenty stamps more as soon as they can be erected, making fifty stamps all told. Wood is abundant and cheap along the river, and the Colorado furnishes a never-failing supply of water.

The New Diggings.—*Independent:* Early in the week we made a visit to the newly-discovered placer diggings in Mazourka canyon. The scene of the discovery is in the region of the "Hickey Hood" spring, about six miles from Citrus. There are quite a number of Mexicans there who were engaged in cutting and packing wood. While looking for a spring that would be nearer his camp a Mexican named Gomez found gold in the canyon next north of the Hood Spring canyon. His find led comrades to prospecting, and they have found gold the entire length of the canyon, a distance of over a mile. The discovery caused many others to visit the locality, about 50 men being camped at the spring last Saturday night. "Colors" have been found in several of the adjacent canyons, but not in sufficient quantities to pay. The "Mexican gulch," as it is called, is the only place where gold has been found in paying quantities. On Saturday we saw about 350 pounds of dirt taken from this gulch and panned, and it yielded over three dollars. The dirt was not selected, but taken from the bottom of the gulch and about a foot from the surface. The formation of the range of hills through which the canyon runs is argillite, and the pay dirt is light gray in color and is formed from the slate by corrosion. Underneath the argillite is limestone, and underlying all is granite, which forms the summit of the main range. There has been a great deal of prospecting for quartz in the locality for over 30 years, but no paying ledge has ever been found. As the placer gold is not found in gravel, but in the crumbled slate, the supposition is reasonable that it was deposited where it now lies during some mighty eruption in past ages. The country is highly volcanic, and this seems the most reasonable conjecture as to the source from which the gold came. There are about 15 Mexicans at work and they are all making wages, although they are operating in the most primitive manner, packing the dirt to water and washing it in gold-pans. Bob Currasco has a good claim and he intends putting in a dry washer. By this means the ground can be worked much more rapidly. There is also plenty of water to run several rockers, and this system will probably be tried. Some further developments may be made in the near future.

Mining and Scientific Press

July 7, 1894 p. 5

Mines on the Lower Colorado River.

Taylor D. Macleod in Yuma Times.

Picacho District.—One mile above the Azure King, on the California side of the Colorado, is the ten-stamp mill that pounded out much gold in early days. Three miles westerly over a good "wash" wagon road, clustered near the base of Chimney peak, or Picacho, are the mines. These mines produced good pay from several rich and extensive chambers, but are now holding a low grade ore, though specially free in gold. Doubtless systematic exploiting by a thoroughly competent superintendent, with "no strings on him," would result in the discovery of like extent and value. There's the rub! A self-respecting, competent mining man does not care to exploit "has been" mines through orders from parlor miners in New York, who don't know the strike of a ledge from a railroad strike. That there is a future for the quartz mines of Picacho district the writer has never doubted.

An English company, at great expense, has erected a pumping plant at the river to ground sluice for the gold that is certainly of good value in the gulches and impregnating the gravel mesas of this district. The success of the venture will hinge on the management of the enterprise in its inception. If they have not secured the services of some eminently qualified practical hydraulic engineer, it may be written down as a failure. There is too much expense, too many leaks, in this method of lifting for miles the volume of water required in placer mining to "monkey" with any experimental measures. In all probability it will ultimately pay—provided our English cousins do not weary of assessments.

Silver District.—Three miles yet to the north, and 50 miles by river to Yuma, and 30 miles by trail on the California side, we find the village of Norton's Landing, maintained solely and alone from the produce of the mines of Silver district.

Norton's Landing has a postoffice and the general supply store of Levy & Caseres, a public school of 25 pupils and the largest settlement between Yuma and the Needles on the Colorado river. The mines are five miles westerly over good wagon roads. The veins of this district are remarkable for strength and continuity. There is a system of four parallel ore channels, cropping boldly with an average width of 20 feet between walls, and a northwest and southeast trend, clearly defined, with unbroken croppings, three to five miles in length. In the southeastern part of the district the ledges are in a contact of porphyry and granite, where the "soft" or smelting ores are had. The granite pinches out and the porphyry gives way to trachyte as the ledges reach north and the ore changes to a "dry," free milling silver chloride, with not two per cent of lead, as shown in the Clip, Rooster and New Deal claims—an excellent illustration of the influence the inclosing walls have on the kind of ore deposited. The general country formation is porphyry.

July 21, 1894 p. 35

THE Morongo King Mining Company, of San Bernardino county, has bonded its property to a Chicago syndicate for ninety days for \$325,000. The Chicago parties are to have possession of the property upon the payment down at any time within the ninety days of one-half the purchase price. The

balance is to be paid in four equal payments in three, six, nine and twelve months. The purchasers are to turn over one-half of the gross output of the mine each month to apply on the deferred payments and retain one-half and pay all operating expenses. Until the payment of one-half the purchase price, the present owners will continue to operate the property for their own profit.

July 28, 1894 p. 51

JAS. E. DORAN, of Los Angeles, wants \$3 a day for an even 1000 days that he worked for the Good Hope Consolidated Mining Company, at Pinacate. He also claims that while so working he was directed by James M. Sigafus, the president of the corporation, to pump the water from certain shafts and drifts by hand, a duty that was not within his ordinary employment, and that while standing in the water up to his chin for several hours each day, he incurred a sickness from which he has never recovered, and he asks damages therefor in the sum of \$25,000 in addition to his wages of \$3000. He also wants \$25,000 additional for labor and services in the development of the mine and for assisting in its sale, alleging it to be now worth the sum of \$250,000.

Mining and Scientific Press
July 28, 1894 p. 55

San Bernardino Prospects.

TO THE EDITOR:—A recent trip to the country lying between the Southern Pacific Railway and the Atlantic & Pacific in San Bernardino county convinces me it is destined, in the near future, to become a large gold-producing district and a desirable section for investment of capital; also that it is, at the same time, adapted to the interest of prospectors with small means, energy and pluck.

Gold predominates, but some ledges carry a percentage of silver. They are apparently well-defined veins as a rule, increasing in quantity and holding their quality, as development has thus far proved.

This country, like all isolated portions of the desert province, has been, and is now, comparatively unknown to any considerable extent, but is, I think, well worthy of investigation by those who feel interested in the mineral-producing sections of our State.

Some properties are being equipped with mill machinery with every prospect of fair returns. In the vicinity of Twenty-nine Palms, say within a radius of 25 miles, in any direction, there are well-formed veins of auriferous quartz; and other things being favorable, it seems to have a good prospective future. According to my judgment, from a geological standpoint, and although comparatively little has been done toward development, the indications for permanence are flattering.

To reach this district, take the Southern Pacific route to Banning; or if driving through, go to White-water, thence through the Morongo pass to Warren's ranch and onward to Twenty-nine Palms, where there is an abundance of water and fuel for camp purposes only.

As an illustration of what is now being done with prospect claims, I will cite one belonging to J. W. Parks, which he is pleased to call his "Summer Queen," six miles south of Twenty-nine Palms. He has followed his ledge for a depth of 45 feet, and from a small pay streak, richer than the balance, has cleaned up something over \$1600, or about \$40 per foot in depth, and has on the dump over 100 tons of ore worth something like \$25 per ton. The tailings from his arrastra carry a considerable quantity of sulphurets worth running through a mill. The ledge at the cropping is about two feet thick and has increased to five feet at the bottom, with a well-defined formation.

Fuel is scarce, but the Utah Southern, also the Southern Pacific, have staked out lines in the vicinity which will ultimately provide for the necessary accommodation as soon as the traffic is in sight to warrant their building.

T. A. DARLING.

July 28, 1894 p. 55

Southeastern Nevada.

In Lincoln, Nev., the *Record* says the mining industry of the southern portion of the county is coming to the front.

A deep cut has been run on what is known as the Big Ledge, situated one mile south of the Capital shaft. The cut is in thirty feet and taps the ledge at a depth of thirty feet; the ledge being about two and a half feet wide and averaging \$50 in gold.

A load of ore from the Monitor mine has been shipped to the El Dorado mill as a working test and the result is eagerly looked for. The ore is carbonate; formation trachite and the veins run east and west and pitch to the north. The mines are but three miles from the Colorado river and a fine road can be made down a wash with but little expense.

In the workings of former years no assays were taken for gold, and the silver value being too small to open up the claims, going only about four or five ounces, they were neglected.

About twenty-two miles from the Vegas ranch and on the road to El Dorado Canyon, a strike has been made by W. J. Stewart of the Vegas ranch. Samples taken from the croppings go from \$10 to \$100 a ton in gold.

The late trouble at the Keystone mine in Yellow Pine mining district over the thefts of ore ended in nearly all the men being discharged, and replaced by new ones. The company at present is working thirty men. They are down 400 feet. The Keystone mining company has two other claims at Shadow mountain, thirty miles from Keystone, in California, across the line. Two men took out twenty tons of ore in a week's time, and the teams have commenced to haul ore from here.

The mill is situated eight miles from the Keystone mine at what is now called Sandy City. Fifteen tons are put through every day and the average workings for the last three months have been ninety-six per cent of the assay value.

Some eastern capitalists are at present negotiating for the purchase of the Clementina mine from J. V. Keeley. The property is one of the best in Yellow Pine mining district and needs but capital to bring it to the front as a large producer.

The population of Keystone and Sandy is about fifty.

Crecent City is a new place that has sprung into prominence within the last year. It is situated in the southeastern portion of the county about 240 miles from Pioche, and fourteen miles northeast from Vanderbilt, California.

COA...

July 28, 1894 p. 55 (cont.)

The Legal Tender Mining Company has completed a five-stamp gold quartz mill from the Fulton Iron Works of San Francisco, with a corrugated Frue concentrator, the capacity of the mill being fifteen tons a day. The engines and boilers were put in heavy enough, should the developments justify it to increase the number of stamps. At present only enough water is to be had to run five stamps, but work is going on to develop more if possible.

The company own some fifteen mining claims, but so far have confined their work to one mine called the Legal Tender, upon which two shafts have been sunk 200 feet and about 100 feet apart, connected at the 100-foot level with a drift run for ventilation. The vein averages four feet and the pay streak about twenty inches. Numerous drifts have been run, all showing up well and averaging about the same for the pay streak in them all. No stoping has been done, and the amount of ore taken out is about 400 tons of an average of \$58.20 in gold per ton. Some work has been done on all the other claims and they show pay ore. The company have been working twenty-five men nearly all winter and have about thirty many employed now.

A fair estimate of the amount of ore in sight in the Legal Tender mine is \$200,000. The company have expended some \$30,000 already and have just contracted for the purchase of another mine at \$100,000.

There are about 65 men in the district and a mail service is soon to be established between Crescent and Vanderbilt.

July 28, 1894 p. 58

Inyo.

The Tipton Register: This is the appropriate name given a mine on the extreme summit of the Sierras about seven miles from Round Valley. It is estimated, from the timber-line indications, to be at least 12,000 feet high. Messrs. S. Thompson and Schee Bros., of Los Angeles, have bonded the property for \$10,000, the bond running until December, 1895. Tests of the ore give results as high as \$25 ounces silver and \$15 gold per ton. The average of the ledge, which is about twelve feet wide, is nearly or quite 80 ounces silver and \$12 gold.

Aug. 4, 1894 p. 67

At El Dorado canyon, Lincoln Co., Nev., the Southwestern Company has suspended operations for a time, until arrangements can be made to secure supplies at a lower figure than has ruled for several years past. This is necessary from the fact that the ore deposits, though good, will not bear the unusual expense incident to mining in that out-of-the-way section. River charges have always been high, relatively, and freighting overland from Kingman, Ariz., renders it necessary to ferry everything over the river. Recently a road has been laid out from Vanderbilt to El Dorado, a distance of forty-nine miles, which, with some repairs, will be practical, and it may be that when resuming operations this route will be used and some station on the Nevada Southern made a shipping point, say Manuel or Vanderbilt.

Aug. 4, 1894 p. 71

Death on the Desert.

W. H. La Pearle writes from Bullionville, Nevada as follows:

"I left Vanderbilt, Cal., 300 miles from here, afoot. Part of the way I came afoot and the rest of the way I walked. I had a jackass packed with a little bacon and flour and a canteen of water and then struck out into the desert. It was a tough trip. I had a tramp of sixty-five miles without water, except a canteen full, and the sun beat down on me red-hot two long days; with not a living thing in sight. I tramped steady for two days and one night, getting across that piece of landscape.

"I had quite an exciting experience the last day when within about six miles of water. I met a crazy prospector. He had his clothes off and was digging holes in the sand for water. When I came toward him he told me to look out, for the water was very deep. The poor chap had been without water for a long time, and he had gone crazy. I poured a little water out of my canteen for him."

"As soon as he saw the water he jumped on me like a mad dog. As I fell I managed to put my hand on a rock, with which I hit him on the head. He came to in a few minutes and I got some water into his mouth. Soon after he fell asleep. Every few minutes I would pour some water into his mouth, until he was all gone. I had only a pint when I met him."

"I knew it could not be far from water, so I took my pack off the jack and got on him and struck on him in a little over an hour I found the water. I never saw an animal drink like that jack did. I filled my canteen and went back to my crazy man, who was still asleep. I got some more water down him and wet his head. I watched him all night, and I tell you it was a long, dreary night, sitting out on the desert with a crazy man. By morning he had recovered his senses. He told me he had a partner, and they had got lost on the desert. He could not remember where he left his partner."

"After we had had a bite to eat, as he was too weak to go with me, I struck out alone to look for his partner. I found tracks leading right away from the water. I followed them about three miles, and I came to the poor fellow, lying on his back, dead. I dug a hole in the sand and put him in and covered him up as well as I could and went back. My partner, being able to walk a little, we went to the Indian reservation and told the Indian agent about the dead man and then came here and we both went to work."

Nevada's Gold Prospects.

In many places on the Pacific coast, says Dan De Quille, a great fuss is made about gold quartz that yields from \$5 to \$10 a ton. Here but little is thought of such prospects. In regard to some of the gold belts of Nevada, I find the following notices in the local papers for the past three days:

Three and a half tons of ore from the Palmico mine, Hawthorne, yielded \$4050 in gold.

A lot of fifteen tons of ore from the Irish Boy mine, Kennedy district, sent to Selby's smelting works, San Francisco, for reduction, paid \$512 a ton. The vein is from two to four feet wide.

A ledge, just found, a mile and a half from Unionville, Humboldt county, assays from \$140 to \$1800 a ton in gold. The vein is two feet wide.

In Lincoln county, Scott Allen accidentally found a vein of iron-stained quartz. He did not think much of his find, but an assay showed that the material contained over \$3000 a ton in gold. This find was made in a section of country some distance south of where Captain De Lamar is operating.

These paragraphs are in regard to only a few districts or sections of the many gold belts. In the Kennedy district—first discovered in July, 1891—are the Cricket, Imperial and many other mines as rich as the ones mentioned above. Indeed, it is a region full of rich veins of gold-bearing quartz, and lands are still being made almost every week. No place in Nevada is more worthy of the attention of the capitalist or prospector.

A railroad down through Nevada—as one that would connect Salt Lake City with Los Angeles—would open up many good gold camps. The whole route would be through a region full of mines of the precious metals. Down toward Death valley lies Montgomery district, a good gold camp, but one that is almost out of the world as regards transportation. Also down near Death valley, in Tule canyon, some rich gold mines should be opened up. On this canyon rich dry diggings were discovered some fifteen years ago. In 1880 a few men were at work there. They had no machines for dry washing, and did not winnow the dirt by tossing it up in the wind, Mexican fashion. They simply dug over the ground with picks, collecting such pieces of gold as they happened to see. In this way they made good wages in ground from two to four feet deep. Working in this way they found one nugget that weighed five pounds, and very many worth from \$5 to \$75. Pieces of gold worth about fifty cents were about the smallest saved working in this way, "by eye." With water, or even dry washing machines, such ground would have paid immensely. As all the placers in the Great Basin region are of local origin, Tule canyon must cut one or more large and rich veins of gold-bearing quartz. At present we hear but little about these diggings, though there is always more or less coming from them, which is said to be ground out in arrastras by some of the ranchers living in the vicinity.

cont.

In the early days an impression prevailed among miners and prospectors—mostly from California—that the gold veins on this side of the mountains would not prove permanent. They said it was mere surface production and would not hold out in fact. This soon came to be accepted as an established fact, therefore little attention was given to that were purely gold bearing by those who went forth on prospecting raids. Now the truth is that our gold mines are the most permanent in the country. The first gold mines opened and worked in the Devil's Gate district, at Silver City. These have been worked right along unceasingly for over twenty years, and to-day are paying their owners as well as at first. Wherever paying gold mines have been found in Nevada they are still paying, as in the case of the old mining, and this is more than can be said of many silver mines.

A MAN'S skeleton was found between Cargo Muchaco and Pichaco, in the eastern end of San Diego county, last week, by Benjamin Page of Yuma. On the ground in the vicinity of the skeleton were found a pocket-book, watch, keys and small change, and an envelope addressed to "Peter Zanovich, Yuma, Arizona." A man by that name left Yuma two months ago for this State. The circumstances indicated that the man was on his way to Cargo Muchaco, and, being unacquainted with the country, had been overcome with thirst. Coyotes had devoured the flesh. The skeleton was buried and steps were taken to learn if it was the remain of Zanovich.

Mining and Scientific Press
Aug 11, 1894 p. 95

In Southern California.

Not since the days of '49, says a San Bernardino dispatch, has there been such activity in mining circles as there is now in southern California, and the movement of wagon trains from here and other points nearer the gold fields revives the old days vividly in the minds of the old timers.

Out upon the desert, a few miles north from Goff's, where but a few months ago was nothing but barren uninviting desert, is now the thriving camp of Vanderbilt, with its newspaper and railroad connection with the outer world by means of the Nevada Southern and Southern California railroads. Except the laying off of a few of the men because of the recent strike upon the railways having cut off the supplies necessary for continuing operations, every miner of ability who came to this district was afforded employment. A voting precinct and school district were formed here and a special tax levied by the progressive miners to keep school going.

A big force of men is at work in the Leuze mine, and the mill was running night and day until the strike gave an opportunity to close long enough to clean-up and make some needed improvements.

Another good property is the Boomerang, which is showing better ore as it is developed, and turns out some good bullion.

In the Queen of the Night, at a depth of 50 feet in the west shaft, three fine veins have been found. At the bottom of the shaft is a rich vein nine inches wide, and another like it upon the side, and a third 18 inches wide in the hanging wall.

Work has also been active in the Lost Horse, Boomerang and Queen of the Night mines.

A number of chloriders have been used in the district, but the demand for the miners in the mines has been so

great that they have done little for themselves.

Near Indio, on the line between San Bernardino and Riverside counties, there is some activity, and a two-stamp mill is run by a gasoline engine, and when running at its full capacity works up about three tons of ore in twenty-four hours, the ore coming chiefly from the Piyon mountains.

A large number of mining locations have been filed about here, nothing east of the Lost Horse mine. Good float has been discovered west of there. The weather is so hot, though, that it is difficult to do anything at this season of the year.

Aug 25, 1894 p. 22

NEW FINDS ON THE DESERT.—Dr. J. A. Mack and E. B. Waite of Redlands have just returned from the Panamint country, where the Redlands Gold Mining Company have some very valuable property, upon which they are erecting a mill, says the San Bernardino *Times-Index*. These gentlemen are not interested in that enterprise, but have been prospecting about six miles this side and have made twenty-two locations within a radius of twelve miles. On the Yolanda, at a depth of fifty feet on an incline, they have a ledge twelve feet wide and have seventy-five tons of ore on the dump. The formation is a shale and talcose slate, which is very favorable for gold. The ore is a honey-combed iron quartz and shows considerable free gold, besides sulphurets. Assays as high as \$1200 in gold have been obtained. They also have locations that show galena in quartz running three and one-half ounces in gold. These claims are located about four miles north of the county line in Inyo county. They brought in a large number of specimens from these properties that by their appearance indicate their value.

The only drawback to the country in which these properties are located is the great distance from the railroad—it is over 100 miles north of Daggett—and the scarcity of wood and water; but with rich ore and plenty of it, such difficulties can be overcome.

Sept. 1, 1894 p. 138

SOUTHERN INYO.—*Register*: Work on the Wilson & Co. property, eight miles south of Postoffice Springs, in the Panamint range, is progressing.

In Panamint P. Gallagher is at work on a small vein of high-grade silver ore. The ore works in San Francisco \$600 per ton, but under the existing price of silver is a hard horse to carry.

At Wild Rose, Kennedy & Danielson are at work on the Mammoth leads of antimony. Could capital be induced to take hold of this property, it would be one of the greatest bonanzas in southern Inyo. On the dumps there are 150 tons of ore from 50 to 65 per cent antimony, and an abundance of ore in sight.

In Mountain Spring canyon James C. Prewitt and partner have opened up a fine gold property. This mine had been abandoned years ago and considered worthless. These men relocated the mine and sunk a new shaft; have ore working from surface. Down 100 feet found ore working \$80 per ton in the arrastra, and have two feet of ore that works \$25 per ton. Capitalists have interested themselves and the owners are about to make a sale for \$16,000.

Stiles & Mills, about six miles east from Mountain Springs, have a group of mines that they have been at work on constantly for the past two years. This ore carries both gold and silver, and the prospects are a mill will be erected soon on the property.

Mr. Meredith and John Curran have struck a rich vein of gold ore in the Slate Range country, the ore going \$200 per ton in free gold.

THE CASEY.—This mine, the property of the Inyo Gold Mining Co., about eight miles north-east of Bishop, is steadily producing ore of a fair grade. The five-stamp mill is now at work on a run amounting altogether to 130 tons of ore. Work will shortly be begun on a vertical shaft to tap the ledge at a depth of about 180 feet, and hoisting works of some kind put on. It is probable that in the very

near future a \$1200 cyanide plant will be put up by outside parties to work the 3000 tons of tailings at the mill.

Too Much Work.—*Index*: Baldwin Bros., late of San Bernardino, came in from Mazurka on Sunday with about four ounces of nice gold dust, the result of several days' work with their dry washer. There was too much work for the pay and they will not return.

Mining and Scientific Press

Sept. 1, 1894 p. 138

San Bernardino.

A FORTUNE IN SILVER.—Herald: The impression which prevails that silver mines do not pay to work at this time is rather disproved by the assertion made by C. W. Maxson, who returned from Kocler a few days ago. From him it is learned that D. C. Lane of Pomona purchased the Sorba mine last August, since which time he has actually put in the bank \$35,000 and now has 100 carloads of ore on the dump worth \$1600 a car. He has done this while developing the property, with no real intention of working the mine. Mr. Maxson says this is a fact which can be proven. It shows a pretty rich condition of silver ore, certainly. It is in this same district where Bellshaw & Beaudry took out \$17,000,000. That was away back twenty odd years ago. Remi Nadcau, for whom the hotel in Los Angeles is named, also made money out of the camp by hauling ore and bullion to the nearest shipping point. At present, however, nothing but the richest ore is shipped, as it costs \$8 a ton to haul it to San Francisco, and another \$8 to treat it after it reaches the smelter.

San Diego.

RICE MINING DISTRICT.—Union: The new Rice mining district a few miles east of Warner's ranch in this county promises to become the scene of permanent activity. The few mines already discovered there by J. B. Rice, one or two of which have shown signs of developing into first-class properties, have attracted other miners to this locality, and location notices are now being received by the county recorder almost daily. Yesterday notices were filed of the Bonny Bell mine, by Chatham Holm; the Sarah mine, by Sarah A. Wright; the Good Luck mine, by M. Rice and others; the Oelavie mine, by J. P. Higgins and others; the Ellen mine, by J. B. Rice and others, who also filed a notice appropriating 100 inches of water in Grape Vine springs, with five acres of land for a millsite.

Sept. 8, 1894 p. 147

CONSIDERABLE activity is reported at Perris, Cal. The Santa Rosa mine has been sold recently for \$400,000. It is working a ten-stamp mill and taking out \$20,000 to \$25,000 a month in gold. There are two new mills being put up, and these will be followed by others. At the present time there are in the neighborhood of 300 men employed in prospecting, working in the mines or employed about the mills.

Sept. 15, 1894 p. 163

At Perris, Riverside Co., the Santa Fe and Santa Rosa companies are each building a stamp mill. Considerable work has been done on each mine. The Santa Rosa was formerly the property of Gov. Blasdel, of Nevada.

Sept. 15, 1894 p. 170

San Bernardino.

MORE BIG NUGGETS.—The desert gold camps are showing unexpected staying qualities, says the San Bernardino Times-Index. It was predicted that they would not last long, but that seems to be a mistake. Goler is yielding more gold now than at any time since its discovery and the yield of big nuggets, for which it is famous, still continues. George Swarthout is just in from Goler, bringing with him a nugget weighing between twenty-four and twenty-five ounces and worth \$430. This was found in the Bensen gulch, which has been famous for its big nuggets. It was discovered fifteen feet below the surface and about three hundred yards from where the noted \$1,000 Reed nugget was found. Mr. Swarthout reports that many nuggets worth from \$20 to \$100 are found in that locality, besides the

Sept. 22, 1894 p. 179

It is said that \$100,000 has been refused for the Lost Horae mine, north of Indio, Cal. This mine was located last January.

Sept. 22, 1894 p. 186

San Diego.

THE OGILBY DISTRICT.—“The gold mines of eastern San Diego county are destined to astonish the world,” said D. M. Dubray to the Union. “I have just returned from Gold Rock camp in Ogilby district, and the people of San Diego do not imagine what a treasure they have in their own county. The mines in that district, I verily believe, on my own opinion and that of every mining man who

has seen them, will become the greatest gold producers in America, if not in the world. Such immense deposits of ore are rarely to be found anywhere, and when you add to this the fact that the ore is of high grade, running not less than \$10 per ton, you can imagine the bonanza in sight. The deepest mine in the camp is 300 feet down, and not another foot needs to be sunk to keep a hundred-stamp mill running for the next three years. Neither wall in this great ore body has been found—in fact the ore seems to be more of a deposit than a vein, though I have no doubt that the formation is regular and that the gigantic veins will be found to run with the trend of the Cargo Muchacho mountains in which they lie.

“The Golden Cross Mining and Milling Company is owner of the properties worked at present, the main mine being the Golden Queen in point of development. Thirty men are at work in the mine, and seven men break enough rock to keep the forty-stamp mill going night and day, crushing 120 tons. One man develops enough ore to keep fifty men busy. Some of the big stopes in that mine would easily contain the biggest building in San Diego, if not quite the Hotel del Coronado. Two hundred and fifty people are in the camp and the population is rapidly growing. Other companies are becoming interested and more prospects will soon be developed, with every indication that they will be as big as the Golden Queen.

“For years these gigantic deposits were deserted, and Eastern capitalists laughed at the reports made on them, deeming them lies and impossible of fulfillment. Then the Hedges brothers and a couple of other Los Angeles men went in, and by hard work, economy and daring they got the properties developed, piping water from the Colorado, twelve miles distant, and erecting a forty-stamp mill. Within a year they had in sight a greater property than anything in South Dakota, greater than the Treadwell in Alaska, and perhaps the best all-round gold property in America. Everything seems to favor the camp. The ore is apparently of all kinds and colors, yet it is all free milling. The gold is as good as reaches the San Francisco mint, reaching \$20 per ounce. With all these things the Englishmen began to get interested, and they offered \$1,000,000 for the properties; but it was the Americans' turn to laugh, and they would not entertain the offer. The Hedges own three-fifths and other parties the balance, and all efforts to buy into the company have failed. I believe that within two years the mines will be worth in cold cash \$5,000,000.

“The district,” continued Mr. Dubray, “is a big one, and the mountains seem to be full of ore as promising as that on which the Hedges are working. Mining men are puzzled when they come to look at the district, as in many features it is an entirely new problem in geology and mineralogy. All agree, however, that the district will astonish the world with its yield of gold. The Golden Cross Company will increase its stamps to 80 and later to 100, and with other companies going in there will be greater activity and an immense camp built up. The camp is four miles north of Ogilby station, on the Southern Pacific.

Mining and Scientific Press

Sept. 27, 1894 p. 196

"Desert" Mines of California.

During the thirty-four years of its successful existence the MINING AND SCIENTIFIC PRESS has portrayed every nook and corner of the State and coast where mining is carried on, illustrating copiously with engravings made from actual photographs, and whether on difficult mountain sides, in the beds of streams, or by flash light, 2700 feet below the surface, the exact appearance of the scene described has been reproduced.

This week space is given to a region not usually noticed, but which is coming into prominence—that part of California generally described as "the desert." The reading matter is from a personal visit made this summer by C. F. Von Petersdorff, M. E. The illustrations are used by courtesy of Mr. G. F. Weeks of the Bakersfield, Kern Co., *Californian*. That part of "the desert" embraced in Kern county is herein referred to in speaking of the gold mining operations now going on.

The gold-bearing formation extends from the Tehachapi mountains in a northeasterly direction past El Paso peak to the Summit, and along its line mining camps have been established and claims are being worked. The principal ones are Red Rock, Black Mountain, Goler and Summit. The easiest way of reaching them is from Mojave. A stage line has been run from there to Keeler for many years

over excellent roads, and the product of the various borax works is brought here on trains of especially constructed wagons, drawn by from sixteen to thirty mules.

Leaving Mojave by the Keeler stage road in a northeasterly direction, the first indications of gold mining are met with a mile and a half west of Nugent's Station, sixteen miles out, where Judge J. A. Haralson of Tehachapi has commenced work on a ledge nearly 600 feet in width, of low-grade free milling ore, assaying from \$2.50 to \$15 per ton—the Oasis mine.

Water has been found in neighboring gulches; and if it can be developed in sufficient quantities to justify the establishment of a quartz mill, it will prove a valuable property. The work done up to the date of Mr. Von Petersdorff's visit—June 4, 1894—consisted of two drifts run for the purpose of prospecting, one along the footwall and the other into the center of the ledge. Four miles west of the Oasis mine, and on the very summit of a high peak, J. J. McLaughlin is engaged in placer mining, and reports satisfactory returns for his labor. Three miles farther on is Red Rock mining camp, at the junction of Red Rock and Iron canyons.

Although water is quite abundant at this point, the high percentage of alkaline admixtures makes it unsuitable for drink. Drinking water is obtained at a spring a mile and a half up Red Rock canyon, where the stage company has established a station

The mines now worked are located in Iron canyon and its tributaries. The principal ones are the Bonanza and the Success. The former is operated by a corporation which owns and controls a number of paying claims and is about to revolutionize the present method of mining with the aid of "dry washers," by the development of water and introduction of "sluicing."

A word in regard to "dry washing." The usual way of working placer deposits by means of sluices, rockers, etc., requires a sufficient and steady supply of water, which was not obtainable in this and other arid localities where gold-bearing deposits were dis-

covered. The lack of water delayed operations for time, until apparatus could be evolved to fill the requirements of the case; the result is the "dry washer." It is based upon the same principle as the fanning mill, which separates the grain from the chaff, with such changes as are required by difference in the material to be handled.

Although between thirty and forty different styles of dry washers are now in use in the desert mining region, one general description will fit them all, their difference consists merely in peculiarities of adjusting their several constituent parts, as the angle of the apron, mesh of screen, height and number of riffles, etc.

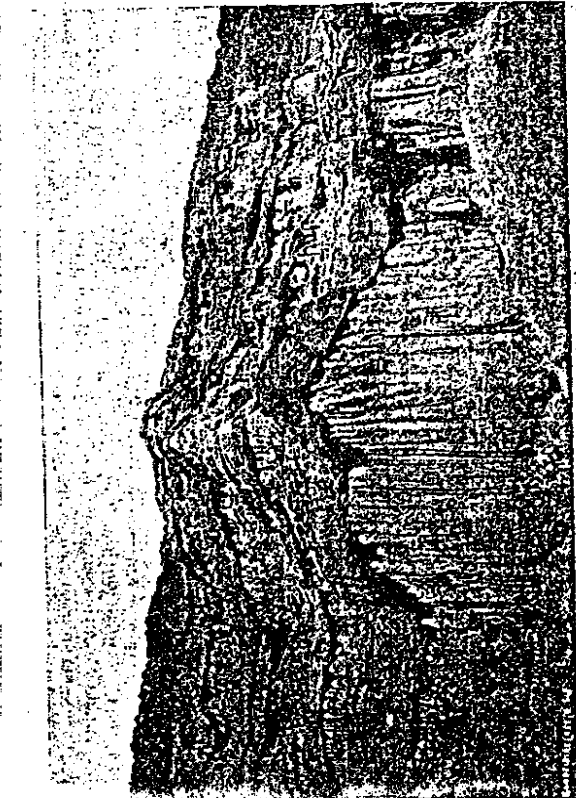
A dry washer consists of a strong wooden frame to the bottom of which is attached a bellows, the top of which forms the riffle board, consisting



RONANZA MINE—IRON CANYON.



WORKING A DRY WASHER.



PULPIT ROCK—RED ROCK CANYON.



RED ROCK MINING CAMP.

Mining and Scientific Press

Oct. 6, 1894 p. 211

A rich placer strike is reported near Mesquite, on the Southern Pacific railroad, sixty miles west of Yuma. The discoverers are John Peterson, Thomas Kaine and L. C. Moreland. The discovery, it is claimed, is an extremely rich one.

THE Yuma, Arizona, *Times* says: Gold Rock is going to be better and livelier. A twenty-stamp mill will be put up on the claims adjoining the Golden Cross. If this is done sixty stamps will be dropping in the district and the monthly clean-up ought to be \$50,000.

Oct. 6, 1894 p. 211

Defiance mine at Darwin, Cal., continues to ship ore in quantities.

Oct. 6, 1894 p. 218

Riverside.

Gazette: William R. Hearst, of the San Francisco *Examiner*, and J. M. Wilson, a San Francisco capitalist, have taken a working bond of ninety days, with a generous forfeit, upon the Arica group of gold mines in Riverside county, California, located thirty-five miles west of Ehrenburg on the Colorado.

The owners of the claims are Hiller & Gray, Phoenix, J. E. Teeters of this city being also interested with Mr. Gray in one of the claims. The purchase price, which is to be paid if the mines are accepted, is \$175,000, of which \$125,000 is to go to Hiller & Gray and \$50,000 to Gray & Teeters.

The capitalist investors have placed a large force of miners at work and by the expiration of the bonding time will have thoroughly tested the properties.

Gold is the metal that is to be found in the Arica claims, and there is said to be a fabulous amount of it in the ore so far developed. Something like 500 feet of development work has been done, and throughout free gold ore has been exposed in a broad and well defined lode. Experts who have examined the property declare it one of the greatest mines in the West, and though the price to be paid is a big one, the general impression heretofore has been that an even million would be none too much.

Col. Gray is exceptionally fortunate in securing good mines. He was one of the first owners of the famous Harqua Hala mines and was a party to the sale to Hubbard & Bowers for about \$50,000, a sum ridiculously smaller than the value of the properties, which afterward were sold for three-quarters of a million. It is believed that the Arica claims are fully as good as the Harqua Halas, with even a stronger ore body, and before long its output may be depressing the market price of gold bullion.

Oct. 13, 1894 p. 231

The Late James H. Crossman.

James H. Crossman, who in a fit of despondency committed suicide in this city last week, was known to a great many readers of the Press through his frequent contributions to its columns a few years ago. He was one of the pioneer mining men of California, who had been connected with all its old-time "excitements," and visited most of the camps on the coast. Like all of this class, he had fortune within his grasp many times; but he died without any estate. In Nevada, "Jim" Crossman was particularly well known and it was there he acquired the sobriquet of "East Ledge Crossman," owing to his enthusiasm and persistence with relation to a great east ledge of the Comstock. Of late years he had confined his operations mainly to San Bernardino county, where he was identified with the Temescal tin mines and the Gabilan gold mines. He made some \$10,000 in one of his speculations there a few years since, and this was his last "stake."

Although he was a frequent contributor to the newspapers on mining topics and had considerable experience as a practical miner, he was not an educated engineer. Nevertheless, for a long time he has figured as an "expert" and reported more or less on mining properties. Like most of the old-time miners he was of sanguine temperament and apt to greatly exaggerate the possibilities of profit.

He had a great many peculiar theories about geological formations, etc., but very little real knowledge of the science of geology, for he was never a student, but "picked up" what he knew on the subject and was apt to be very certain that he was right. He was a very much better mining superintendent than mining engineer.

While returning from an examination of a mine near French Gulch, Shasta county, about a year and a half ago, he was badly injured by an accident with a team on the grade, and was confined to his room for many months. It is only a short time since he was enabled to abandon his crutches, and has not been in a position to do any active work since the accident.

"Jim" Crossman, as he was generally known, was a genial, free-handed man, and made many friends in all the mining camps in the Pacific coast. He had wide experience as a miner, but it cannot be said that his reports on properties carried any great weight, which was largely owing, no doubt, to his very sanguine disposition. His knowledge was of a practical character, however, but more of the kind adapted to every-day work than that required to judge of the prospective value of a mine.

Mining and Scientific Press
Oct. 13, 1894 p. 234

Inyo.

BIG PINE.—*Register*: Mr. Rochford of the Montezuma has lately found a ledge of travertine, a few miles from Big Pine. This stone polishes nicely and is quite extensive.

The developments at the Ibex mine, under the supervision of Sam Thompson, are progressing rapidly. He reports an eight-foot ledge, carrying a good quality of ore.

The mines at Fish Springs are looking well, and the boys are doing fairly well for the season.

Kern.

RED ROCK AND GOLER.—*Inyo Register*: We learn that probably 100 men are at work in that section, and doing well. Nuggets of some size are being found, one lately picked up being worth \$428. These nuggets are covered with a lime crust. The finder of the \$428 nugget did not know that he had picked up gold until happening to rub the chunk on his overalls, thus wiping off the lime, he saw the yellow metal shining. In Goler another lucky miner found a little stack of nuggets in a compact pyramid, looking as though they had been all buried or hidden together at some time. The claims known as the Mexican were sold recently to H. F. Del Valle, the prominent Los Angeles politician. The work being done by the Bonanza Company is expected to make a valuable property, as it will substitute sluices for dry washing, and work the dirt to better advantage than is now done. Good discoveries are reported from Black Mountain, the section in which the Brockman claims are located. Altogether, it seems that while the Redrock excitement is quieting down, that country is proving its worth.

Oct. 20, 1894 p. 247
Tule Canyon Gold.

The *Silver State* says: Near Death valley, in Tule canyon, Nevada, some rich gold mines should be opened. In this canyon, rich dry diggings were discovered some fifteen years ago. In 1880 a few men were at work there. They had no machines for dry washing, and did not even winnow the dirt by tossing it up in the air, Mexican fashion. They simply dug over the ground with picks, collecting such pieces of gold as they happened to see. In this way they made good wages in ground from two to four feet deep.

Working in this rude way they found one nugget that weighed five pounds, and very many worth from \$5 to \$75. Pieces of gold worth about fifty cents were the smallest saved working in this way—"by eye." With water or even dry washing machines, such ground should have paid immensely. As all the placers in the great basin region are of local origin, Tule canyon must cut one or more large and rich veins of gold-bearing quartz.

Oct. 27, 1894 p. 262

The famous Pichacho placer mines near Yuma, located about a year ago by a non-resident English capitalist, and held by aliens, have all been relocated by parties backed by Montana mining capitalists, on the grounds that the mines are held and owned by aliens contrary to United States mining laws. The English company will not be allowed to work the mines until the case is decided by the courts.

Oct. 27, 1894 p. 266
San Diego.

PROSPEROUS GOLDEN CROSS.—*Yuma Journal*: The last cleanup at the mill was the largest yet made. It is not known how much it was, as the company has no information to give out. Four guards took the bullicen to the station.

Dubravich, Johnson and McGlone are still working their mines, and they are showing better. McMahan, Lawrence and Ratham are working another claim, and they have good ore in sight. The stage to Ogilby now runs with four mules to handle the business.

Nov. 3, 1894 p. 375

There are but few men left in the camp at Red Rock, Kern Co., the majority of them having gone to the excitement in the Black Hills, about fifteen miles north of Red Rock. The new camp is said to be very promising.

Nov. 3, 1894 p. 279

The Tule Canyon Gold.

TO THE EDITOR:—The information you publish, taken from the *Silver State*, is a little behind time, and the Tule Canyon mines are no more "dry diggings," as the Summit springs are supplying water for sluicing the gravel in the upper part of the canyon, from the fork down to Robinson's store, a distance of about three miles—the principal part active operations. Besides the springs, plenty water can be reached by sinking to the bedrock, from twenty to seventy feet, or perhaps more.

The pay dirt averages two feet in thickness; the gold is coarse and worth \$14 per ounce. Nuggets to one-half of an ounce in size are not uncommon. The largest I have seen during my stay there was three and one-fourth ounces. In January, 1892, there were about forty white men in the camp and about twenty Chinese. The Chinese had some claims leased—very few purchased—and were doing well. They have a Chinese supply store, but many prefer trading with white men. Both live together harmoniously. The miners were not very industrious, and took it easy.

They make good days' wages by working on short shifts, striking frequently small rich pockets, resulting in handsome profits, such as \$50 to \$400 in a week's cleanup.

There is a good field for prospecting, as more than two-thirds of the gulch is yet undeveloped; but it requires some capital, because the dirt has to be hoisted and pumping is unavoidable. The gulch is about nine miles long, opening into the desert. The highest point—the summit—is 7620 feet and the mouth 4340 feet above sea level. Wood and timber are abundant.

Tule canyon is situated in the extreme southwest of Nevada, Esmeralda county, on the California State line (Inyo county), and at the head of Death valley, and can be reached by the C. C. R. R. from Carson City to the Mound House, to Candelaria, then by stage (twice a week) via Columbus, Fishlake, Palmetto, Pigeon springs to Lyda valley, about seventy miles staging; hence four miles more of good wagon road. The accommodation is good. The Tule Canyon camp ever has been and is yet a sort of indolent concern. The miners make their living and seem not to care for anything more. Bob Robinson's store furnishes bacon, beans, tobacco and whisky in exchange for gold-dust, and nothing more is wanted. There is no hotel, no restaurant, no barber-shop and no saloon.

Mining and Scientific Press
Nov. 3, 1894 p. 279 (cont)

The Tule Canyon district has also strong, promising quartz ledges, but very little prospecting has been done on them. More attention was paid (1890-1892) to base metal veins. Several rich pockets were extracted and a couple of hundred tons of ore were shipped, rich in silver, but poor in gold.
I. B. Storck, M. E.

Nov. 10, 1894 p. 291

The Gold Bronze mine at Vanderbilt, San Bernardino county, is improving daily. The main shaft at a depth of 275 feet has thirty-six inches of ore, which will run from \$100 to \$200 to the ton in gold. Campbell's mill, which has been idle for ten days, on account of the breakage of the main shaft, is now running again. In the Boomerang shaft, at a depth of 535 feet, the ore will average \$45 to the ton in gold. The water supply from this shaft is now adequate to run the mill steadily.

Nov. 10, 1894 p. 298

Inyo.

SOUTHERN INYO MINES.—Register: From parties who have visited the mining locality south, we have the following summary:

Some fourteen miners are at work at Cerro Gordo, mostly on the old dumps. The total shipments foot up to something over five tons every day in the week. Owing to the low price in silver the margin for profits on this output is not at all large. Tom Boland is the principal operator.

At the soda works at Keeler new work is mostly suspended since the summer's crop has been gathered. At a rough guess there are some 3000 tons piled up. A very complete and obviously quite a costly calcining or refining furnace is being erected by Supt. Wrinkle, and it is expected to be ready for work in less than a month from the present time.

At Darwin nearly forty men are at work, the larger number in the Sorba or Lane mine. This mine "goes down," and is yielding handsomely, keeping one thirteen-ton team hauling constantly to Keeler.

The Defiance, under Capt. E. A. Reddy, is working but a small force. It is yielding finely but a large proportion of the ores are of a grade that will pay but little at the present price of silver, so none but the high grade ores are being shipped. On the whole this property is doing very well.

At old Coso several men are working to reopen the gold ledges of that somewhat famous old camp, but with what result we are not informed. Joe Danielson, once of this locality, is one of the prospectors.

Low silver has nearly depopulated Panamint, where until recent months some thirty men or more made a good living, if nothing more, in chloriding.

NOTES FROM SOUTHERN INYO.—Independent: The Sola Company will furnace several hundred tons of soda as soon as a supply of wood can be obtained.

It is rumored that the force of miners at the Reddy mine at Darwin will be cut down, on the first of November, to a few men, probably three or four. The mining outlook continues favorable there.

Pat Clinton has secured a contract to sink the Newton shaft, at Cerro Gordo, one hundred feet deeper, and is having a carload of timbers hauled up the hill by Horace Elder's team of Lone Pine. Mr. Gus Stecker, of Independence, will do the carpenter work for Mr. Clinton.

Nov. 24, 1894 p. 335

The Record says that financial difficulties involving Mr. Blake have brought an end to the railroad and consolidation scheme between the Pioche Con. Co. and the Nevada Southern Railroad. The railroad and other property owned by Mr. Blake are heavily in debt. Legal proceedings have been instituted and the properties are under attachment.

Dec. 8, 1894 p. 355

The Pichacho placer mines near Yuma have shut down. After a week's run with twenty-three men they cleaned up \$30 in gold. Expert Glondenin, who is examining the pumping plant, says the pumps must be moved and changed before they can do good work.

C. H. HENY, superintendent of the Nevada Southern Railway, and associates have eleven claims at Goldstone, the new camp twenty miles north of Fenner, on the Atlantic & Pacific railway in San Bernardino Co., for which he says they have refused an offer of \$60,000 in three equal payments by San Francisco mon.

Dec. 8, 1894 p. 357

Vanderbilt Mining District.

Written for the MINING AND SCIENTIFIC PRESS by Fred E. Lewis.

The mining camp of Vanderbilt is located in San Bernardino county, State of California, being only twelve miles west of the State line of Nevada, and thirty-five miles northwest of Blake (formerly Goffs) on the Atlantic & Pacific Railroad, and four miles north of Manvel, the present terminus of the Nevada Southern Railroad, the boundaries of the district being as follows: Commencing at a point on State line between California and Nevada near the Needles mountain, lying south of Crossman spring, thence northwesterly ten miles following the State line, thence southwesterly ten miles, thence southeasterly ten miles, thence northeasterly ten miles to place of beginning. This district was legally organized on the twenty-first day of March, 1891. It derives its name from Vanderbilt springs, located and named by government surveyors many years ago, and not as is generally supposed from the millionaire mine owner. The altitude is about 4400 feet, the

climate being very hot in summer and temperate in winter. As a rule, a few inches of snow will fall in the winter and melt the next day. Most of the people live in tents the whole year.

The camp was first discovered on the twenty-fifth day of January, 1891. Robert Black, a Piute Indian, who had been out on a prospecting trip, discovered what is now known as the Black mine. There being no assay office in that part of the country, he took his samples to Providence to have tests made. The ore proved valuable, and to protect his interests, Black took M. M. Beatty, an old-time miner and prospector, back with him to locate the property. Richard C. Hall, J. P. Taggart, J. K. Patton and Samuel King were then at Providence, the two former having charge of property there for a mining company. As soon as the discovery of the Vanderbilt mines was made known, Hall and King went out to locate a number of claims, and made some valuable locations. The veins of this camp are

cont.

Mining and Scientific Press
Dec. 8, 1894 p. 357 (cont.)

true fissures, dipping at an angle of seventy-nine degrees toward the northwest, the walls being composed of granite and porphyry. Most of the veins as far as developed are very regular in their course, and can be traced on the surface for more than a mile. The veins as a rule are about four feet wide between walls, the pay streak being about four

inches wide at the surface and widening out to two feet in width at about 250 feet in depth and increasing in value in nearly the same proportion—milling about \$25 to the ton in gold at the surface and over \$100 per ton at 250 feet in depth. Water is reached at a depth of 100 feet from the surface and increases as depth is attained and more ground opened up.

The town of Vanderbilt, following the example of a great many old California mining camps, is built in a gulch, the houses being built on the side hills and the bottom of the gulch used as a street. It is built up of lumber and tents. A great many of the miners live in dug-outs and tunnels. Following is a description of the chief mining properties in Vanderbilt and vicinity.

Quartz Mills.—The Gold Bronze Mining and Milling Company has a ten-stamp mill which crushes about nine tons of rock every twenty-four hours, it having two concentrators. This mill is well supplied with water from Willow springs, it being piped for a distance of two and one-half miles. A. G. Campbell has a ten-stamp mill, with two concentrators. This mill has a capacity of twenty tons of ore per twenty-four hours. The power is furnished by two 50-horse

power boilers and a 100-horse power engine, it being ample to run sixty stamps. Mr. Campbell's intention is to use the extra power in running an air compressor. This condensed air will be transmitted to the Boomerang shaft by means of pipes, where it will be utilized for hoisting purposes and for working rock drills. The supply of water is obtained from the Boomerang shaft, but is not sufficient at present, the mill only running twelve hours per day owing to the scarcity of water. The quantity is daily increasing as the shaft attains depth; in fact, if it increases as fast as it has done for the last fifty feet, at 600 feet or even if levels are run at 500 feet there will be an ample supply of water to run the mill night and day. Wood is used for fuel at these mills and it costs \$5 per cord delivered.

Gold Bronze Mine.—This claim was located on February 1, 1891, by J. K. Patton, R. C. Hall and S. King, and has been more extensively worked than any other property in camp. Upon this claim four shafts have been sunk on the main vein, and several other shafts on cross ledges, most of these having been sunk by leasers. The main shaft is 245 feet deep; the west shaft, 49; shaft No. 2, 50; shaft No. 3, 83, and the Taggart shaft, 69. Fifteen hundred feet of drifts have been run, with thirty feet of crosscuts, and 310 feet of winzes have been sunk. Considerable

stopping has been done. The ore is raised from the main shaft by means of a double-cylinder, flat-friction hoist of thirty-horse power. The steam is furnished by a sixty-horse power steel boiler for both the hoisting engine and mill. To give an idea of the quality of the ore shipped from this mine, we present a tabulated statement of the shipments for the year 1893. This was before the mill was built, and all ores had to be shipped by rail with the exception of 164 tons of second-class ore which was shipped to the Keystone mill, making a haul by wagons of forty-five miles.

TABULATED STATEMENT OF SHIPMENTS OF ORE FOR THE YEAR 1893.—GOLD BRONZE MINE.

DATE.	Works.	Weight, lbs.	Gold ounces	Silver, ozs.	Gross value per ton.....	Net value per ton.....	Shelling and freight per ton.....	REMARKS.....
Jan. 14, 1893.	Solby & Co.	35,810	4.45	5.00	\$96.48	\$70.58	\$25.90	\$1,096.33
Jan. 27.....	"	31,174	4.90	6.20	98.04	68.79	29.25	1,121.29
Feb. 20.....	"	31,810	4.20	0.71	97.14	71.24	25.90	984.35
April 6.....	"	3,520	10.19	12.33	211.23	183.39	27.84	322.96
April 6.....	"	19,820	4.34	18.10	105.23	79.36	25.87	755.13
July 10.....	"	20,660	3.32	8.40	80.82	61.82	19.00	588.00
July 15.....	"	26,530	7.04	14.44	156.80	130.40	26.40	1,560.04
July 15.....	"	4,320	7.20	13.32	154.60	126.17	28.43	273.20
July 15.....	"	20,000	8.02	2.28	70.41	41.91	28.50	411.97
July 17.....	"	28,100	2.62	7.40	60.21	37.74	22.47	371.61
Dec. 15.....	"	26,046	3.73	8.04	76.50	47.31	29.19	616.23
To Keystone Mill, 164.85 tons, value \$38.50 per ton.....								6,313.75
Total.....								\$14,405.48

Gold Bronze No. 2.—This claim was located as an extension of the Gold Bronze mine, by the same locators and upon the same day. Very little development work has been done upon this mine, although leasers have shipped some rich ore. Three hundred and twenty-four tons of ore, averaging \$90.47 per ton net value—after deducting \$62.94 per ton for transportation and working—were shipped from this mine by the company.

Gold Bar and Gold Bar West Extension Mines.—This property was purchased by Mackay, Flood and Siste from the locators for \$40,300 cash. This property is now known as the St. George mine. It is a good property, but not big enough for the owners to manipulate stocks on, so they prefer to let it idle, freeze out some of the smaller owners and continue to give the camp a black eye. I have it on reliable authority, from a gentleman who has made hundreds of assays from samples of this mine, that there is enough ore in sight in the drifts and shafts to pay for the erection and running expenses of a ten-stamp mill. There are four shafts sunk upon this property, the deepest of which is 325 feet. The ore at this depth will run \$37 per ton in gold. Three hundred feet of drifts have been run, in ore all the way. There is ample water in the shafts to run a ten-stamp mill. A hoisting engine and pumps are used at the main shaft.

Queen of the Night.—The main shaft on this mine is about 100 feet deep, showing a body of high-grade ore. A tunnel has been driven along the vein, and considerable other development work has been done. For the amount of work performed, this is one of the most promising looking mines in camp. There is about three feet of water in the main shaft, which, when hoisted out, will rise to the same level in twelve hours. A whim is used for hoisting purposes.

Boomerang Mine.—This mine is owned by A. G. Campbell. The main shaft is 600 feet deep, with ore all the way. Levels have been run from this shaft connecting with the east and west shafts, which are 100 feet deep. Three hundred tons of ore from this mine, run through the Campbell mill, averaged \$22 per ton in gold, eighty per cent of which was saved in the bullion and ten per cent in concentrates, leaving ten per cent in the tailings. Adjoining this mine are located the following mines, all owned by A. G. Campbell, and all showing more or less high grade ore: Brick, Little Brick, Little Brick No. 1, Iron, Webster, Alta, Mill Site, Mill Site No. 2, and several others. There are several other good-looking prospects in this camp, but the owners are waiting for some one to come along and pay them a good price for a piece of ground that a pick has not been

C.M.H.

Mining and Scientific Press

Dec. 6, 1894 p. 357 (cont.)

struck in. What this camp needs is capital to develop some of these prospects. Then, and not until then, will Vanderbilt make a good camp.

Crescent Mining District.—This district is located about twelve miles northeast from Vanderbilt, and is in Lincoln county, Nevada. The Legal Tender Mining and Milling Company has a five-stamp mill. This mill has one concentrator and crushes about ten tons of gold ore per day of twenty-four hours. This ore has averaged \$23 per ton in gold, 72 per cent being saved in the bullion, 22 per cent in the concentrates and 6 per cent going in the tailings. The water used in this mill is pumped from a well fifty feet deep, and the supply is inexhaustible. The Legal Tender mine is located three miles east of the mill, the ore being hauled this distance by wagons. Shaft No. 1 is 220 feet deep and shaft No. 2 is 160 feet in depth; from these shafts there are 900 feet of drifts run, with stopes, winzes and upraises. The footwall is composed of granite and the hanging wall of porphyry. The vein is four and a half feet wide and the pay streak will average eighteen inches.

Phelps Bros. have 100 feet of shafts and 120 feet of drifts at their mine. The vein is four feet wide and the pay streak from ten inches to two feet in

width. Thirty tons of ore shipped from this mine to the Legal Tender mill netted \$45 per ton.

At Hassett Bros.' mine they have a shaft fifty feet deep, with sixty feet of drifts and open cuts. The vein is three feet wide with a pay streak from ten inches to two feet in width. Twenty-nine tons of ore were shipped from this mine to the Legal Tender mill, which gave returns of \$20 to the ton in gold.

Keystone Mining District.—The mill, which has ten stamps, is situated about forty-five miles north of Vanderbilt, and is three-quarters of a mile east of the corner common to San Bernardino and Inyo counties, California, and is in the State of Nevada. The mine is located seven miles easterly from the mill. This mine has paid large dividends and is a first-class property. A few miles to the east of this property is the Goode Springs mining district, which is almost entirely a lead and silver camp. Thousands of tons of lead ore are anxiously awaiting the arrival of the Nevada Southern Railroad, which is going to start to extend its road on the first of next month.

Vanderbilt is the central point for the following mining districts: Goldstone, Ivanpah, Shadow Mountain, Crescent, El Dorado Canyon, Goode Springs, Keystone, Sterling and Montgomery.

Mining and Scientific Press
Dec. 8, 1894 p. 362

PERRIS DISTRICT.—It is reported that an Eastern mining syndicate has bonded the Convex mine, in the Perris district, for \$20,000. The bonders will, it is said, at once begin work on the property with a view to a thorough development. A stamp mill will be one of the improvements made.

San Diego.

PICACHO MINES.—*Union:* The Picacho placer mines have produced more gold in the past thirty-five years than all the placer mines put together that are found within 100 miles of Picacho, while one gold quartz mining property alone has turned out \$2,710,000 during the twelve years it run.

ARIZONA.

PROBABLE LITIGATION.—*Times:* The English Company at Picacho, above Yuma, recently took out \$500 from their mines in two hours. The great pumping plant is working successfully. This is the property just located by Montana capitalists on the ground that it is held by English aliens contrary to the United States mining laws. Injunctions have been served and one of the fiercest struggles over mining property ever seen on the Pacific coast will be commenced, as both sides are backed by millions of capital.

AN AUBREOUS PROMISEY.—*Yuma Sentinel:* Some sixty miles east of this city and two miles south of the Mohawk section house on the Southern Pacific Railroad can be seen a large force of men at work. This is the mining camp of Professor Howland of San Francisco. It will be remembered that last summer the Professor located in that section several miles of placer country and did considerable work on one of his many claims. Hot weather came on and work was stopped until cool weather set in. The Professor claims that in the prehistoric age of Colorado a river ran where he is now at work. He says that with the assistance of his diving rod he has traced the Colorado river bed of ancient times from its fountain head in Utah to the Gulf of California. Near the ranch of George W. Norton, in the Mohawk valley, is where it crosses the Gila river, and from that point the old channel takes a southerly course until it reaches the gulf. At the place where the Professor has his men now at work he feels positive lies buried untold wealth. He has a large number of men at work night and day sinking two double compartment shafts. They are working in shifts of eight hours. They get good wages and their money is well earned. It is the prophesy of the Professor that when the bed-rock of the ancient Colorado river is reached

Dec 15, 1894 p. 371

✓ SIXTY MILES from Banning, Cal., on the desert, is the new mining camp of Langville. J. and G. W. Lang have twenty men at work mining and milling gold ore, and considerable prospecting is being done.

D. C. LANE is mining silver and lead in the Darwin district in southern Inyo, about twenty-five miles south of Owens lake. He hauls his ore twenty-five miles by team to Keeler, the terminus of the railroad, and ships it from there by rail to Selby's Smelting Works here, clearing \$100 by each operation.

THE Pinacate district, so long worked, and around which hangs so much legendary lore, is given fresh prominence by recent developments. The Good Hope is the most celebrated of the old mines of the district. In the old Spanish occupancy it was worked by Mexicans and Indians, who carried the ore to the surface in skin bags. About a year ago a Colorado company bought it. They put up a twenty-stamp mill, and the mine is now a good paying property. The Santa Rosa, Santa Fe and Alice mines also send good reports.

Dec. 15, 1894 p. 378

Inyo.

MINING DEAL.—*Index.* The sale of a group of gold mines in Snow Canyon to Cleveland, Ohio, capitalists has been consummated, and

it is expected that the promising property will soon be thoroughly developed and early prove dividend-paying. The Snow Canyon mining sale, it is hoped, portends a new era amongst the thousand and one varied classes of mining interests in the Panamint and Argus ranges, as we understand that the intention of the Eastern capitalists is to place a comprehensive reduction plant capable of handling all classes of ores.

Dec. 27, 1894 p. 387

W. G. RIFENBURG, an old-time smelting man and miner, would put in a thirty-ton smelter at the Needles if he could get the lease of the reduction works. He has a smelting plant now idle at San Diego, which he had removed from Esenada, Lower California, being forced out of business by the excessive taxes and duties imposed by the Mexican government.

THE Crocker-Woolworth Bank last week received a lot of gold bullion from the Hidden Hill mine, near the Needles, San Bernardino county. The gold is very pure and was taken from a point less than twenty feet below the surface. The richness of the find has created a sensation in the region of the Needles.

THE Mohave Miner says the bars of the Colorado river are to be worked for the gold in their shining sands, but gives no particulars of the project. An hydraulic process of working the bed of the Colorado river would contribute considerable gold annually to the world's supply.

Mining and Scientific Press
Dec. 22, 1894 p. 394

Riverside.

PINACATE MINING DISTRICT.—At the Alice there is a fifty-foot vertical shaft and seventy-foot incline in a good body of ore, with considerable upon the dump. Preparations are being made to put up a mill. Twenty dollar ore has been taken from the Briggs mine, about fifteen miles from Perris, in a southeasterly direction.

At the Monieca several shafts have been sunk, and considerable \$20 ore run through the five-stamp mill. But with the ore being crushed as fine as it is, but little is run each day.

At the Missing Link the necessary hoisting and pumping machinery has been put in and the shaft is down 200 feet. The ore taken from this has averaged \$18 a ton.

The Golden Chariot is a promising mine on the same vein with the Santa Rosa. The Santa Rosa is a comparatively old mine, having been worked by Mexicans with arrastras. There is now a ton-stamp mill there, with power for twice this number of stamps. At the bottom of the 200-foot level a drift has been run south for 300 feet, all good ore. The machinery and equipment is excellent, and is owned by the same men having the Good Hope. It is eight miles from Perris, which is thoroughly modern in all its appointments. It is being worked most at the 450-foot level, though at 530 feet there is being opened a drift through good ore. All the rock taken out is rich enough to pay for working. At the 430-foot level the vein has been explored for a long distance, without any indications of a termination. It is estimated that the present product is about \$30,000 a month, but as there is some ten thousand tons of ore in sight, and is expected to double the mill capacity, the output will be greatly increased. This mine has been worked for about fifteen years, Mexicans locating it and working it with arrastras.

At the Santa Fe, another old mine, first worked by Mexicans with arrastras, the five-stamp mill from the Tomocul tin mine has recently been set up, and is crushing fine ore. The owners believe that they have a bonanza in the mine. The great beauty of this mining district is that it is located in the midst of good farming lands and near the railroad, with plenty of water, wood and coal easily obtainable.

Kern.

Californian: In the Rodgers mine at Agua Caliente, a ledge three feet wide has been struck which mills 2700 ounces of silver and \$200 in gold to the ton. Twenty-six sacks—about 2500 pounds—sent to San Francisco, cleaned up \$1800 in silver and gold.

Dec. 22, 1894 p. 395

—H. E. Huntington proposes to use an immense water system in San Bernardino county. He says: "We shall use the water from the Mohave river, taking it out of the river four miles above Daggett. We already have four miles of main canal built and seven miles of laterals, putting about 1500 acres under irrigation. The land has been experimented with sufficiently to prove that it will grow vegetables of all kinds and deciduous fruits. As soon as the rainy season is over we shall put in a submerged dam and have works planned which will cost \$300,000 or \$400,000. There will be tributary to our system about 240,000 acres of land, though it will take several years to put it all under irrigation. We will develop power there, too. Near Mineola, our new town, there will be a waterfall of a vertical drop of 100 feet. Out of every 1000 inches of water we are going to get 250-horse-

Mining and Scientific Press

Jan. 12, 1895 p. 26

San Bernardino.

San Bernardino Sun: The new year is likely to be marked with renewed energy in mining in San Bernardino mountains. The persons who own stock in the Rose mine are to be congratulated on a Christmas present of a substantial nature. A rich strike at the depth of 425 feet has just been made, probably the richest strike yet made, and certainly the most important one. The ore has been struck in a good solid formation, which means permanency. The Rose can now be called a mine, not a prospect. The striking of this ore at this depth is of the greatest importance to the mining industry of this county, and especially to the San Bernardino range. There has been a prevailing opinion that paying ore bodies did not continue to any great depth in this county. This will prove to the doubting Thomases that the greater the depth the richer the ore becomes.

Jan. 26 p. 52

"Mining in California"

There are, too, numerous new enterprises where capital has been interested in the development and equipment of promising prospects. In San Diego county the Gold Rock mines were purchased by an Eastern corporation, known as the Golden Cross Mining Company. The mines are six miles from Ogilby station, on the Colorado desert, and fourteen miles from the Colorado river, from which water is pumped to the mine, being forced to an altitude of nearly 500 feet. A forty-stamp mill crushes 100 tons of rock daily. The ore shoots are very large. This concern demonstrates the possibilities on the desert.

In the Julian district, also in this county, all is activity after fifteen years of stagnation. Twenty or more mines are in operation, mostly by leasers, who have the rock crushed in custom mills. Pine Valley and Mesa Grande districts are also active.

In Riverside county the Good Hope has passed into the hands of Eastern people and has been completely equipped. The Lost Horse and Pinyon Mountain mines, on the Colorado desert, have produced several thousand dollars in the past year.

In the San Bernardino mountains several new companies are at work, and it is said Baldwin's Gold Mountain mine is to be equipped once more. This mine was abandoned years ago, and the camp—Blairstown—was completely deserted. Tools were left lying promiscuously about, doors of houses stood ajar, and the place presented every appearance of sudden desertion. Since then the eighty-stamp mill burned, and all but two or three of the houses have been moved away; but the sound of the whistle and the thunder of stamps are again to reverberate among the pine-clad hills of that vicinity, so it appears. In the eastern portion of San Bernardino county the mines of Vanderbilt district have proven valuable and at least two of the companies there are operating successfully. Two new districts—Shadow Mountain and Gold Stone—have been discovered in that section, and near Calico mountains gold has been found at the east and west end of the range.

There is a renewal of activity in the counties east of the Sierra Nevadas—in Alpine, Mono and Inyo counties. Many of the old mines are once more being worked by new owners or leasers. . . .

Although there has been such a revival of interest in gold mining in the State within the past year, the general result has not been effected in a marked manner. But the year 1895 will undoubtedly show a very considerable increase in the total gold production. A great deal of time has been spent in rehabilitating old mines, constructing machinery, etc., and getting ready to work, and the increased production may be expected to follow in the near future.

The silver mining industry is still centered chiefly in the Calico region, in San Bernardino county. The litigation so long pending has been compromised and the several properties placed under a single management, and it is currently reported that these mines are to be again operated on a large scale once more.

The mining of borax has continued uninterruptedly and indications are that the output will be materially increased by reason of the discovery of large deposits of rock near Calico which contain considerable quantities of calcium borate.

The mining industry as a whole, however, is most promising, and every feature of it points to a long continued era of prosperity.

Within the past two years electricity has been successfully introduced in mining in California, and there is no doubt it will in the future become a very important factor in mining economics, particularly in the transmission of power to points difficult of access or where fuel is expensive. Thus, in Mono county, an electrical transmission plant has been established at the Standard mine, which has for a motive force a mountain stream more than twelve miles distant from the mine. It is in practical and successful operation and effects a large saving in operating expenses.

The perfection and cheapening of metallurgical processes is also doing much toward assuring success. The cyanide process is evidently also destined to work wonderful results when more thoroughly understood.

W. H. STORMS.

San Francisco, January 21, 1895.

Feb. 2, 1895 p. 65

Mrs. A. R. GARRISON is one of the few women in California who follow the profession of mining. She has discovered some new prospects in the Panamint Range, fifty miles from Red Rock, and says she will build a ten-stamp mill as soon as the weather permits at Rasper Canyon, the name of the new mining

CAMP

Mining and Scientific Press

Feb. 2, 1895 p. 67

At the Golden Cross mine, Ogilby, San Diego Co., the forty stamps will soon give place to 100 stamps. Thirteen miles of pipe bring water from the Colorado river. The twenty-stamp mill at the Cargo Muchacho, in that district, is also kept busy.

Feb. 2, 1895 p. 74

San Bernardino.

Our Vanderbilt correspondent writes: Shipments of ore and bullion from the Gold Bronze mine up to date amount to \$50,000. The main shaft is now 287 feet deep, showing better grade of ore than at any other depth. The ten-stamp mill is running daily. Twenty-five men are employed at this mine.

At Boomerang mine, owned by the Brick Consolidated Mining and Milling Co., main shaft is 535 feet deep, showing good body of ore, sufficient water is hoisted from this shaft to run ten-stamp mill about twenty-two days a month. About thirty-five men are employed by this company.

Feb. 9, 1895 p. 90

Inyo.

At Mountain Spring, on the east side of Salt Wells valley, on the old Darwin stage road, about twenty miles from Indian Wells, there are about fifty men in the new camp and more are going there. There has also been a revival of the old mines about fifteen miles west of the stage station at Red Rock. These mines were worked many years ago and abandoned. The old tunnels have been cleared out and good strikes of ore are reported. F. Fitzgerald and W. Smith have struck a good mine about two miles west of Modoc, which will yield a large quantity of good ore carrying both gold and silver. The Sorba mine, at Darwin, owned by D. C. Lane, is being exclusively developed and put in condition to be worked on a large scale. It is said that J. J. Morton has an excellent property at Snows Canyon, a rich strike having been recently made. There is a good deal of activity in mining interests all over southern Inyo and 1895 will undoubtedly be a prosperous year.

San Bernardino.

C. O. Barker of Banuing and J. C. Fish are the owners of the Somersfield gold mine near Salton on the Colorado desert. This property has been developed by a shaft 300 feet deep, and at that depth a drift is being run, all in ore.

Mr. Stewart, who formerly owned the store at Keystone, has bought the five-stamp Shadow Mountain mill, and as soon as a few alterations are made will start up the mill on ores of that district. The mill is eight miles distant from the principal mines.

Both the Bronze and Boomerang mines at Vanderbilt reduced their force of miners during Christmas and New Year weeks, and have put very few of them back to work again. There are several idle men in camp and more coming in daily, most of them needing work very badly.

The Holcomb Valley Gold Company has had supplies cut short by the storms, the road to Holcomb being completely blocked by large piles of snow. The company expected to get in all their new machinery this winter, to make an early start in the spring, but it is doubtful now if they will be able to accomplish it. They are sinking several shafts, a large one for water and another (the Nelson) for bedrock. When they reach the deep bedrock you may expect to see the yellow metal at a discount.

Metzger Bros. have been working their two-stamp mill successfully, now having plenty of water.

"Lucky" Baldwin and the Budd Doble Company have split on terms. Doble has dissolved his company and will haul away what preliminary machinery they had on the ground. Baldwin is said to be forming a company of his own, to start the old Gold Mountain mines again in the spring.

The Black Hawk gold district is coming to the front again. Two important strikes have been made within the past few weeks.

Joseph Zanini and brother have a chloriding contract on one of the Black Hawk Company's mines (the Santa Fe). They have struck a large, rich body of gold ore and are now unstraining some of the richer rock. The strike is of considerable importance, as it is in a good, solid formation and the highest point on the company's ground. The ore runs from \$20 to \$100 per ton.

O. C. Leach has made another rich strike on his Opera mine, the eastern extension of the Black Hawk group. He has uncovered a vein of considerable width, two feet of which is high-grade gold ore, perfectly free milling and soft. The footwall has a nice clay wall and gives every indication of a permanent body. The ore has not yet been assayed, but from panning, tests would indicate \$50 per ton.

The Morongo Gold Company, Morongo mining district, have settled their difficulties and paid up. Judge Campbell has now the management. The company have let a contract to run a tunnel some 400 feet to connect with two shafts now down 170 feet each. This will give good air, and at the same time develop the mine. They expect to start up their ten-stamp mill in the spring.

The Altama Gold Company of the same district have also let a contract to strike their ore ledge at the depth of 300 feet by running a tunnel some 200 feet. They then intend to upraise on the vein to the 100-foot level. They think this will open up enough ore bodies to justify good reduction works.

The Rose mine people were about to start up their mill on their new strike at 425 feet in depth, when the snow intervened. F. A. Reed has been appointed mill superintendent. The snow did not fall so heavily in this part of the county, and they expect to commence operations in a few days.

Feb. 16, 1895

A MINING revival is reported from the Panamint mines, southern Inyo Co., which have been sold to W. Remsen, P. A. Graff and Y. D. Dechert, of New York city.

MINERS and others living at Picacho, on the Colorado river, have in public meeting organized and formed the old Picacho mining district, opposite Eureka on the Colorado river.

PINACATE DISTRICT, Riverside Co., is reported producing from \$30,000 to \$50,000 in gold, and paying out for labor and supplies \$10,000 per month.

THE Argus Gold Mining Co., of Cleveland, O., have bought several locations in Snows canyon, Modoc district, Inyo Co., and propose building a 20-stamp mill.

Mining and Scientific Press

Feb. 16, 1895 p. 106

Riverside.

NEW LIFE.—Till recently the mines in the western part of Riverside county have been worked on a par with the pick, shovel and pan plan of the average Mexican miner, operating in this State and Lower California, in which a living only was secured, and all that was wanted. But there is new life and blood in and about these mines, and many of the camps remind one of early California days, with the added improvement of machinery. Many of the best-paying mines have recently passed into the hands of Eastern capitalists, and the stamp mill is heard on every hand. As an example of the development and progress made, Good Hope has grown from a miner's cabin or two to a nice little village, with a fine new schoolhouse, boarding-houses, etc., in a few short months.

The great value of these mines is evidenced in the sale of the Good Hope mine recently, for \$500,000. With the exception of a few days during the recent heavy rains, when coal could not be hauled, the twenty-stamp mill, put in by the new owners several months ago, has been running day and night, with two shifts of thirty men each. But little is said by those managing this mine as to the amount of gold being taken out, they, perhaps, thinking this their own business. However, when it is considered that this mill, with a capacity of twenty tons per day, is running continually on \$20 ore, and that the men have been paid regularly from \$3 to \$4 per day for months, is pretty fair proof that some gold is being taken out. The forty or more mines are now delving away at a depth of 500 feet, with plenty of ore in sight.

The Alice, which lies thirteen miles to the east of the Good Hope, has passed into the possession of a stock company, the principal members of which are J. M. S. Egan, until recently superintendent of the Good Hope; W. H. Griffith and M. Cantan, all recently of Colorado. A new five-stamp mill is being put in, with machinery of a capacity of ten stamps. The plant will be ready to commence pounding out the metal within two weeks. The shaft is only down eighty-five feet, but there is in sight enough \$18 to \$20 ore to keep the mill running for two years. There are on the dumps 500 tons of ore ready for the mill. The locators of this valuable mine were J. R. Cheatham, L. M. Wilson and L. Crain, the former still retaining an interest. Mr. Cheatham was formerly night superintendent of the Good Hope.

The Rosalia, or more familiarly known as the Santa Rosa, one of the oldest mines of the group, has a ten-stamp mill in operation, running night and day, on \$15 ore, the ledge growing more valuable as greater depth is reached. This mine is largely owned by Massachusetts men. Messrs. Egan, Griffith and Cantan have interests, however. The output of this mine is bringing good money on the investment.

A new company has been formed to control the Santa Fe mine, and most of the stock having been sold, the mine has been lifted out of the financial embarrassments which have impeded its development heretofore. Work will be resumed on the mine in a few days, or just as soon as the details can be arranged. The grade of ore is on a par with that of neighboring mines. It is proposed to sink a shaft at the end of the big tunnel to a depth 500 feet below its present level.

The old Menifce mine continues to be operated day and night, and is making good money for its owners, with a five-stamp mill running on \$10 to \$12 ore. There is good profit in \$8 ore.

The little Maggie has a ledge of only eighteen inches in thickness, but the ore is of high grade, yielding \$60 to the ton. The mine is being rapidly developed.

The Gold Prince, a mine but a few hundred yards from the Good Hope, and which has been lying idle for the past two years, for want of capital to develop it, is considered equally as valuable as its big neighbor.

Kern.

HAVILAH AND VICINITY.—Havilah, at one time the most flourishing mining camp in Kern county, lies six miles north of Koyesville and in the center of one of the principal gold-bearing regions. Most of the mines are located in the granite, just west of a belt of metamorphosed slate and limestone, which stretches for a considerable distance in a general northerly and southerly direction along the slopes of the mountains west of the town.

As late as 1887 a number of mines were worked regularly and in good ore, and several ten and twenty-stamp mills were running. After these were destroyed by fire on the 13th of November of that year, the people seemed to have become discouraged, and to-day most of the old mines, among them several that produced rich ore to the very last, are lying idle and have caved in. Among these are the Oriental, the Warrington, the Rochefort, St. Charles, Surprise, Eustacia, Confidence, Relief, Sovereign, New World and Claybank. Work is done from time to time on some of the old claims and new prospects are opened up; but it requires capital and its judicious expenditure to reopen these mines and extract the gold which still remains in unquestionably large quantities. It is the unanimous opinion of men who have worked in these mines that the supply of pay ore is by no means exhausted. Mr. Charles E. Sherman, a gentleman who for years was superintendent of several of these properties, states that work on the Warrington mine was stopped in \$16 ore, while the Rochefort averaged \$40 a ton to the very last. The ore contained from one to two per cent of sulphurata which ran \$400 a ton in the Rochefort and Warrington and \$80 in the Claybank.

The proper way to reopen these ore bodies would be by means of a drain tunnel, which would have to be about 1200 feet long, and to cost \$5 a foot. Kern river, only five miles distant, might be harnessed and would furnish electromotive power for all necessary work.

On Bald Eagle mountain, northeast of Havilah, are several good prospects. There is also in this locality an antimony mine—the Black Jack. Ore is shipped regularly from here to the reduction works in San Francisco, and brings \$20 a ton on the dump.

San Diego.

CARGO MUCHACHO.—Thomas Wiltor has sold to Z. H. Lowman, for \$3000, the Fair West, Eastern Extension, Homestake, American Girl and Black Quartz mines, in the Cargo Muchacho mining district.

Inyo.

DRY PLACERS.—Placer gold was discovered near Independence in paying quantities twenty years ago, but at that time the miners, where they could not obtain water, had to haul or pack their dirt, but with the dry washer those diggings are now being worked. Gold was discovered last May in Mazourka canyon by some Mexicans, and about thirty men have been engaged in mining there ever since. This discovery led to others, and now there are a number of places where gold has been found in paying quantities. The gold is found in the Inyo range of mountains, although not very rich or very extensive, yet in the aggregate a considerable quantity has been taken out, and from present indications more will be taken out the coming season than there was last. The season for dry washing will commence in May and last until the first rains in the fall, probably November, when it must cease, as the ground gets too wet to be worked by that process.

E. C. Garlick, superintendent of the Argus group of mines, has concluded all the arrangements for water and mill sites and has gone out to Snow's Canyon with a supply of provisions and tools.

Mar. 9, 1895 p. 147

SAN DIEGO county is putting up sign posts in different parts of the desert in that county, which give directions as to distance and position of springs and principal places. If this were done on the Mojave desert several lives would be saved. The miner who risks his life in the search of mines, which are afterward a benefit to many, deserves such consideration.

WILLIAM WOODBURN, prospector, returned from a 900-mile trip from San Bernardino, ranging across the Mojave Desert to Death Valley and down through the San Jacinto mountains and across the Colorado desert. He located seven ledges. He says that in Pinon valley a two-stamp mill pounds out \$4 an hour, some of the quartz yielding \$1000 per ton in gold.

Mar. 9, 1895 p. 154

Riverside.

PROGRESS AT PERRIS.—A year ago there were but two mills at work in the Perris district—one a diminutive five-stamp prospector's mill and the other an antiquated rotary, which for several years had been worked on the Good Hope. There was also a five-stamp mill lying idle on the Menifee mine at Menifee. Since then a twenty-stamp mill has been erected on the Good Hope, a ten-stamp on the Santa Rosa, a five-stamp on the Santa Fe and a five-stamp on the Alice mine. Besides these, mills have been put up on the Infidel and Briggs mines, and all are bringing in fair returns to their owners.

San Bernardino.

RICH GOLD STRIKE.—McHanly Bros. report locating a ledge in the Pinon district, sixty miles east of Banning, on the borders of Riverside and San Bernardino counties, which gave \$915 gold from three tons worked at Tingman's mill.

San Diego.

Thomas Kaine has sold to Amanda J. Pago for \$400 the Bonanza quartz mine and the Golden Deposit placer claim in Mesquite mining district.

Kern.

RED ROCK MINING DISTRICT.—In 1834-36 hundreds of placer miners were rushing into what is now Kern county. This was the great southern rush. Following the placer miners came a set of bonanza quartz miners. These men built mills right and left, some on three and four-inch stringers of quartz and all on undeveloped veins.

As a natural result, with the exception of two mines—the St. John, 720 feet deep, and the Piute Mountain mine, 300 feet deep—that happened to be very rich from the grass roots down, the tide began to turn to some new strike.

Following these \$10-per-day men came a set of \$10-per-month men. One by one the mills were destroyed and the mines gutted out, as far as the ore could be got at without using timbers or powder.

Sageland, once a prosperous town of several hundred inhabitants, to-day has not one board standing—nothing to show that there had ever been a town there except a few cellars and the ruins of her three mills. Such was the history of the old Sageland mining district from 1800 to 1834.

In 1804 the discovery of placer gold was made at Red Rock on the Mojave desert, fifteen miles east of the old town of Sageland. With the rush to the placer mines came the quartz prospectors, who, finding no quartz mines in the placer field, turned their attention to the old Sageland district. One by one the old abandoned mines were opened up, and in nearly every instance the ledge had temporarily pinched or had run down in value to from \$8 to \$15 ore.

The former owners in 1800-06 had to haul supplies overland from San Pedro, 170 miles, and this, together with the lack of experience in quartz mining and poor machinery, made their enterprise unprofitable.

But to-day, with thirty-five years' experience and improved machinery, with cheap supplies, and with labor at the present rates per day, mining should pay well. As depth is attained, and the ground thoroughly explored, in all probability ore as rich as any of the surface will be found. Recently the prospectors have opened up over thirty promising claims, most of them new discoveries. The prospectors seldom have money enough to develop their finds, and therefore have to depend on outside capital for means to work their claims, and, as a general rule, they sell out for what they can get or abandon their claims undeveloped, saddle their burros and wander on, ever looking for "a poor man's mine"—that is, a mine rich enough to make expenses with a hand mortar or horse arrastra. These veins are fissures in granite and kindred rocks. They run from two inches to several feet in width, with wood and water reasonably near for milling purposes—all free-milling ore.

We, the prospectors, have done our part, and with this letter hang out our shingle, "Capital wanted."

The McMasters-McEwen Company have a group of ten old claims in Kettle valley. They have cleaned out the old tunnels and, in many instances, opened up new works. They estimate to have several thousand tons of from \$10 to \$20 ore in sight, and are making preparations to put in a mill by April.

Frank Hale has a force of men at work cleaning out the old Esperanza mine, an old-time producer and formerly one of the best mines in the district.

D. L. Applegate has leased his Gold Hill mine. It will be worked by water arrastras.

The Shoemaker mine, on Shoemaker mountain, shows a clean vein of from one to three feet, from which 112 samples, reduced down, assayed \$14.47 per ton.

Mr. Moore, on Piute mountain, has his twenty-seven-foot water arrastra finished, and will soon begin crushing. He has two claims, one of about eighteen inches and one of six feet, of \$8 and \$10 ore.

Mining and Scientific Press
Mar. 16, 1895 p. 170 (cont.)

THE BUTTERBREAD SPRINGS GROUP.—Butterbread Springs is on the desert side and has plenty of water, but all timber will have to be hauled twelve miles. There are about fifteen promising locations within three miles of the springs.

The Mexican mine—R. N. Binford, owner—has closed down. I hear he refused \$15,000 the other day for the mine, from San Francisco parties.

J. Artex and several others have uncovered a vein of from two to four feet, which assays \$30 to \$75 per ton.

Messrs. Howe and Itlee will soon thoroughly prospect the Padre and Sixty-four mines.

The pioneer claim of the camp, the San Juan—J. Whitrock, owner—shows eight feet of ore that assays from \$9 to \$47. This claim is lying idle.

Mr. Benson's North Star shows four feet of low-grade ore. There are several claims joining the San Juan and North Star, but not enough work has been done on them to determine their value.

Near the Sixteen-mile House is the Harrelson ledge that averages sixty feet and assays \$2.70 across the vein. This is the last claim on the mineral belt, and it is where the desert and mountains meet.

San Diego.

PADLOCK MINE.—Potter brothers and Cook, who recently purchased the Padlock mine at Julian, are hard at work developing their property and feel much encouraged over their prospects, says the *Sentinel*. They have opened up a good-sized ledge and are pretty confident there is money in sight for them. They have granted two leases on different parts of the mine, at which work will begin right away.

Apr. 6, 1895 p. 218

Orange.

REOPENING THE BLUE LIGHT.—*Orange News:* The Blue Light mine, in the Silverado canyon, is being reopened. The trail to the mine has been cleared and widened, and Mr. Dunlap has just returned from San Francisco, where he purchased all the machinery necessary to break, pulverize and concentrate the ore. A ditch is being constructed along the north side of the canyon, where, in a distance of half a mile, over 124 feet fall can be obtained. The water will be utilized as power and will operate the machinery by means of a Pelton water-wheel. The ore contains both gold and silver in paying quantities.

Inyo.

NEAR INDIAN WELLS.—J. Lee and F. Meysan are reported to have discovered the biggest gold ledge and property ever found in the county, near Indian Wells. Some rich samples are shown in Keeler. About ten claims have been located and all the available ground has been taken up. No flattering reports have been received only from the first location, which may only be a small rich pocket.

Riverside.

AR AND PERRIS.—At the Good Hope mine fifty-three men are now employed; the output is about fifty tons of ore daily. The Santa Rosa, six miles distant, has a 320-foot shaft and about 1440 feet of drifts. A ten stamp mill daily handles twenty-five tons of \$30 ore. Thirty-two men are employed. The Santa Fe is close to the Santa Rosa and is being reworked by Supt. Stover with good indications. There are about forty claims in the vicinity in which considerable developing work is now being done.

San Bernardino.

VANDEBILT DISTRICT.

Montgomery is still pushing ahead, and will in all probability make a lasting camp. There is not only one good mine there, but several. A large portion of the ore is of very rich character, running as high as \$500 the ton in gold, and is also very free milling. There are at the present time twenty-five tons of machinery on the road for this camp, and two six-horse teams have been busy for some time past hauling provisions alone from Vanderbilt. There are forty men employed, with a likelihood of several more being put on in the course of two or three weeks. Montgomery is about 120 miles from Vanderbilt.

Gus Williams and Pete Wagner are having ten tons of Shadow mountain ore milled at Campbell's mill.

Several of the men who worked for Gaselle at the Shadow Mountain mines have placed an attachment on the property for two months' pay. It is reported that there is plenty of good ore in sight, enough to more than pay off the indebtedness, providing the mill can save a large proportion of the gold.

IN HOLCOMB VALLEY.—The Holcomb Co., an English company, is working twenty-five men on their placer property, using a steam shovel and revolving screen amalgamator, the six feet gravel bed going from forty cents to \$1.00 per yard. Considerable money has been spent on this property and present indications favor satisfactory returns.

San Diego.

RICE DISTRICT.

At this new district, near Warner's ranch, the Daisy and Bertha shows a three foot vein of \$20 ore. A 350-foot tunnel is being run. The Morning Star and Yellow Hammer are being developed, each showing a four-foot vein of pay ore. A fine stamp custom mill will be built this season.

Borax.

Like some other California productions the borax industry is not particularly active just now. The borax deposits in this State and Nevada have been worked

for the past twenty-three years, a vastly larger proportion of the total production being from California borax marshes and beds during the past four years. The different borax companies have derived nearly all their product from "marshes." Near Daggett, in San Bernardino county, borate deposits of an entirely different character have been partially developed, being found in hard, dry, stratified masses among sedimentary rocks. In the southern part of Inyo county, borates of lime and soda are being worked at Salt Wells valley. Cuts of the works and of the team used in hauling from the mine thereto, typify the desolate desert character of that region.

San Bernardino.

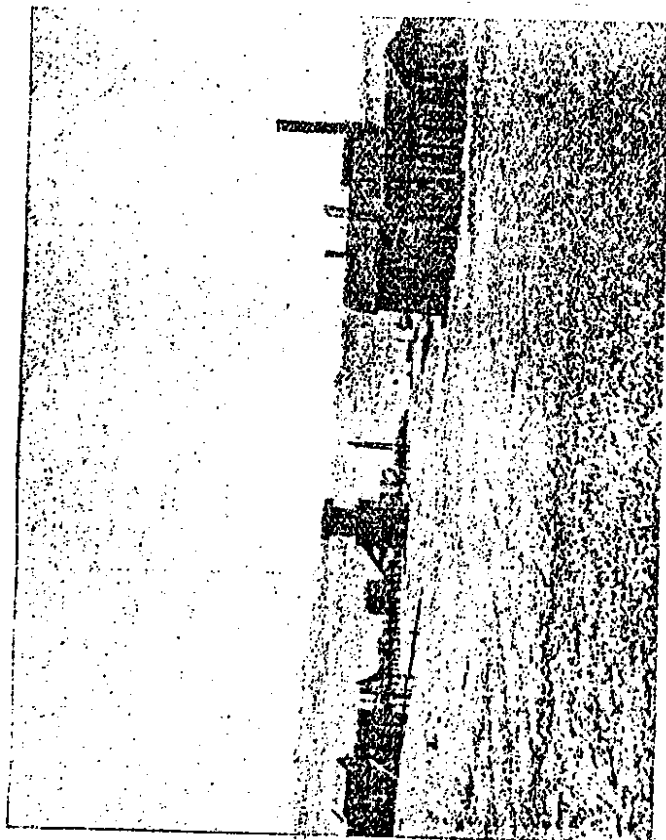
AT VANDERBILT.—In the Gold Bronze mine there is more ore in sight than at any previous time in the 250-foot level, there being a block of ore 200 feet long and 100 feet high. There is also considerable ore in sight in the 150-foot level. There are twenty-three men on the payroll. A carload of concentrates averaging \$90 to the ton was shipped last week.

Robert Patterson of White Hills has bought a two-thirds interest in the Phelps mine at Crescent, and taken men to work there.

San Diego.

AT PINE VALLEY.—Twenty men are employed, working night and day shifts, in J. G. Cortelyou's mines. A two-horse team takes the ore down the new mile and a half grade, keeping the five-stamp mill busy pounding out gold. Hauck brothers are developing a rich ledge, sinking a shaft which is now down over thirty feet. They will ship ten tons of ore this week to the National City reduction works.

THE RICE GOLD CAMP.—Several new strikes are reported in Rice gold camp, east of Warner's ranch. The prospects now being developed are looking so well that mining men are showing an interest in the district. Mr. Moulton of Porris, believed to represent the owners of Good Hope mine, has acquired control of the Hillside and Pine Ridge mines at Rice, and, in company with Foreman McGearry of Warner's ranch, is developing the properties by sinking a shaft, running a tunnel and making arrangements for a mill. The Bertha and Daisy, owned by Harrison and Rice brothers, are showing extra good rock.



BORAX WORKS, INYO COUNTY.

Mining and Scientific Press

May 4, 1895 p. 241

Owens Lake: Carbonate of Soda Manufacture.

California's mineral wealth comprises almost everything that can be classed as mineral, much of which is as yet undeveloped. In Inyo county the Inyo Development Co. many years ago established works for the manufacture of carbonate of soda from the waters of Owens lake, which industry is in operation through the summer months. The accompanying cut gives a very good idea of the lake and the evaporating basins. The works are one mile north of Keeler and are owned in Carson, Nevada.

The lake itself is as unattractive in character as a somber surroundings. In its waters are great

quantities of green, slimy vegetable organisms of some low order, one of which forms small globules or spheres about one-fourth of an inch in diameter. There are also several different species of flies which swarm around the lake, and one small species, a particular, which in many places literal-ly blackens the shores with its myriads. There are also in the waters of this lake myriads of small larva,

each from one-fourth to one-fourth of an inch in length, with many legs and two very black eyes, which somewhat resembles the larva or "wiggler" of the ordinary mosquito, and which are believed to be the larva of the small and multitudinous fly. Each one of these larva is inclosed in an almost transparent sack of gelatinous matter. How he makes his way through the water inside of this sack is not known; but he does it, and goes where he pleases. As to the

white worms which also exist by millions in this lake, and which by some sort of sticky excretion form sandy cases or coatings for themselves, and which, when washed ashore in masses by the surf, the Indians used to gather, and after drying them and rubbing off their coats, use them for food, it is not known whether they are an intermediate state of the insect between the above-mentioned larva and the fly, or what they are. The fact remains that they exist. Strange as it may seem that a lake, whose waters have the composition which those of Owens lake have, should support life of any kind, it is nevertheless, not only that those waters are full of life, but also that the decay of such life, when washed ashore by the surf, and thus left exposed to the sun, often taints the air by its stench for miles

around. No ordinary fish can live in Owens lake. There are fish in Owens river, but whenever these find their way down into the lake they quickly die, and are washed ashore.

North of Keeler, on the shore of the lake, are the chief works of the Inyo Development Company, manufacturing carbonate of soda from the waters of the lake. When last visited, for purposes of illustrative description, they had about fifteen acres of ground covered with evaporating vats, made by plowing and then carefully leveling, and afterwards heavily rolling the clayey ground, so as to make it water tight. The water of the lake in July registered 9° Baume, corresponding to a specific gravity of about 1.063.

Three months earlier it was 7½° Baume, corresponding to a specific gravity of 1.052. The salts which it contains are chiefly chloride of sodium (common salt) and the monocarbonate, bicarbonate and sulphate of soda.

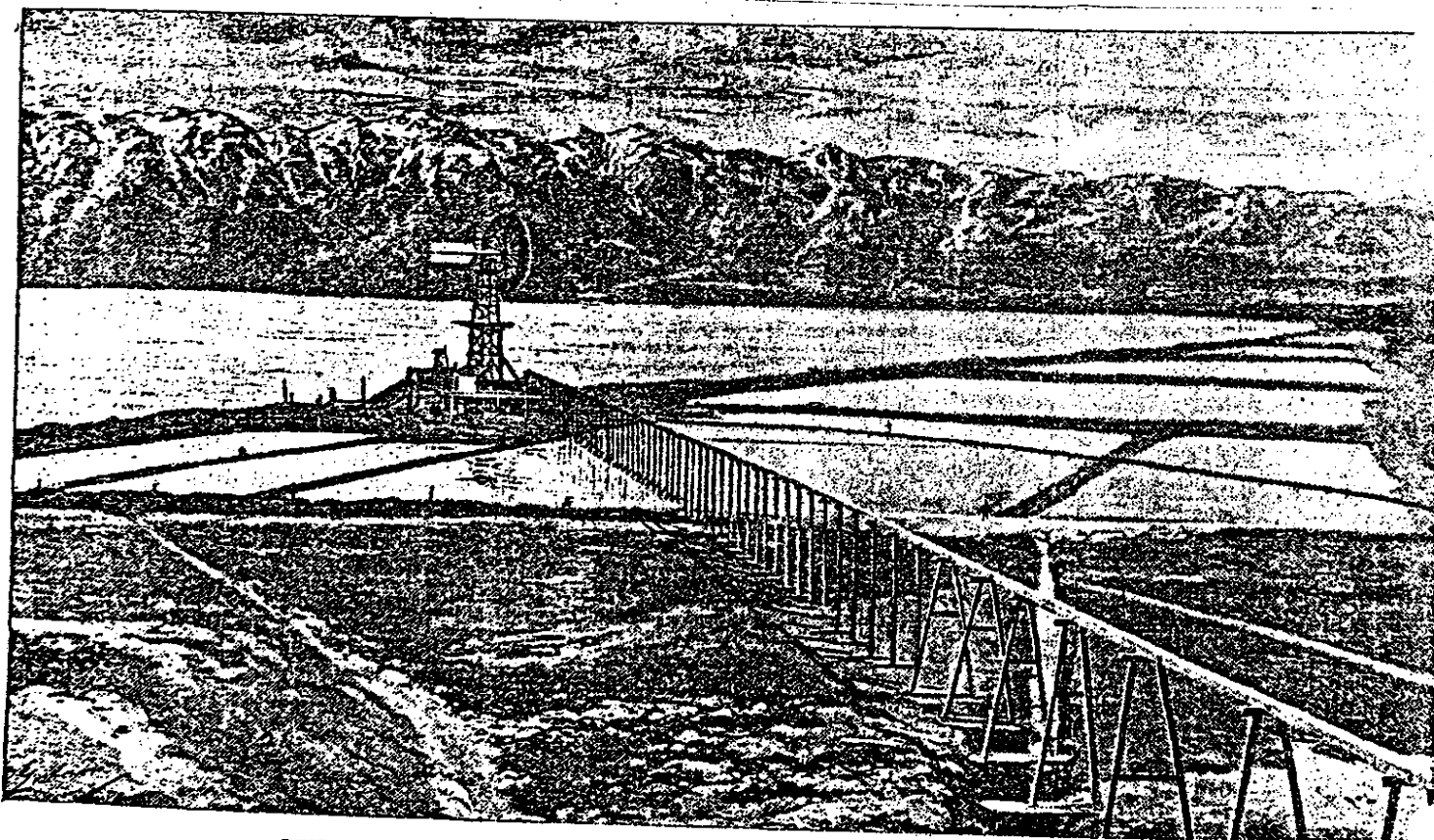
There is at a low temperature but little difference in the solubility of these salts; at a higher temperature the monocarbonate and the bicarbonate will crystallize out together in the shape of a definite chemical combination with its own form of crystallization, while nearly all the chloride and sulphate yet remain in solution; therefore, their "cold weather soda" is a compound of all the salts, while their "hot weather soda" is a nearly pure combination of the two carbonates with very little of either the sulphate or the chloride.

The crystallization takes place, at a proper temperature, at from 30° to 35° Baume, corresponding to a specific gravity of from 1.245 to 1.299. The substance thus crystallized out at this stage is a definite chemical compound of the two carbonates of soda, which has its own peculiar form of crystallization. This peculiar combination of the two carbonates of soda will only crystallize in this way, in the presence of the chloride and the sulphate. inasmuch as. if it be

cont...

Mining and Scientific Press
May 4, 1896 p. 241 (cont.)

dissolved in pure water, it cannot then be made to recrystallize in the same form, but will be decomposed, and the monocarbonate and the bicarbonate will then crystallize separately in different forms. On this principle works were erected for the resolution, recrystallization, and thus the separation of the two carbonates. The water of the lake is lifted twelve feet to the highest vats by a windmill. The mother liquor, containing chiefly the chloride and the sulphate of soda, is returned to the lake.



OWENS LAKE, INYO COUNTY, SHOWING SODA EVAPORATING BASINS.

Mining and Scientific Press

May 4, 1895 p. 282

1895.

NEAR MODOCK.—The south tunnel of the '95 mine shows sixteen inches of ore in the face, 130 feet from the surface, assaying \$80 in gold 24 ozs. silver per ton. The north tunnel of the Gold Ridge mine has six inches of ore averaging \$94 in gold and 153 ozs. silver per ton. Two hundred and nineteen sacks of ore from the last named mine were shipped April 20.

The Inyo *Index* reports that the Caster brothers lately found a \$65 nugget in Mazourka canyon.

ARRANGEMENTS CONCLUDED.—Geo. T. Rives has concluded arrangements with the Inyo Canal Company to furnish water for a mine in Inyo that he has sold to St. Louis parties. He will be superintendent of the mine, and will commence the erection of a mill immediately.

Mining and Scientific Press
May 18, 1895 p. 307

A YEAR AGO some Massachusetts men bought the Good Hope mine in Riverside county. It is now alleged that they paid \$250,000 for the property and have invoked the assistance of the law to have \$100,000 taken off, they, for cause, claiming that the mine was "salted." They charge that Jas. Sigafus, the former owner of the mine, fooled their expert, Col. Jack Egan, and selected the particular pieces of ore that he used for sample run. J. B. Doran, a former foreman, testifies that during that run selected ore was used, and that Sigafus put gold on the plates. A. L. Jepson, the millman, makes additional statement corroborating the theory. All this is in the form of an answer which Messrs. Morse, Hobson and Porter of Haverhill, Mass., make as defendants in a suit to foreclose the \$100,000 mortgage. A motion to appoint a receiver for the mine is also pending. Any attempt to "salt" a mining claim is always sure to be found out, and the knowledge of this fact militates against the successful prosecution of the practice. It is a common occurrence to make such a charge, but in nine cases out of ten the facts do not bear out the allegation.

May 18, 1895 p. 318

Los Angeles.

NEW YORK CAPITALISTS AFRAID.—Los Angeles Times: The Times is in receipt of a letter received by a gentleman in Los Angeles from a correspondent in New York in reference to mining properties in California and Arizona. The writer states that at the present time New York is, without exception, the poorest city in the United States to float any enterprise—mining or commercial. Capitalists, he says, have lost all enterprise, all that they think of being to loan money on call on securities dealt in on the Stock Exchange. He adds that this state of affairs has been produced by the demonetization of silver, which makes gold perform a double function, with the result of increasing the purchasing power of gold as the consequence, the lowering of prices of manufactured goods, as well as agricultural products. The writer, in conclusion, says that such a condition of affairs has unsettled trade and produced a want of confidence which, in turn, has caused capitalists to shut down on new enterprises, and that for all this there is but one remedy, the remonetization of silver relieving gold of its present double duty.

San Diego.

PICACHO BARRIX.—Colorado men have figures from a San Francisco firm for a 100-stamp mill, and will probably arrange to have it built. The district is looking up, and attracts considerable deserved attention.

San Bernardino.

THE McHANEY MINES.—It is difficult to get a conservative or authentic report from these new discoveries. All the statements hitherto received appear somewhat inflated. The following is a dispatch from San Bernardino:

"McHaney arrived in this city to-night direct from the mine, and brought in 100 ounces in gold slugs, and left 30 at the mine which had not yet been retorted. This 130 ounces of gold is the product of a three days' run with a two-stamp mill, in which twelve tons of ore were worked, making the run almost \$200 to the ton.

"Notwithstanding the richness of the ore there is hardly a limit to the amount in sight. The ledge is located for 700 feet, and shafts have been put down thirty feet. The vein at that depth is more than four feet wide, and the ore richer than on the surface. McHaney now has twenty men at work sacking ore, which will be transported five miles to the site of the new five-stamp mill, which will be in operation in three weeks.

"McHaney talks of \$1,000,000, and says he will not consider any proposition naming a lower figure. If the ore which is already in sight should average as well as that which has been milled it would not take long to run out the amount which McHaney offers to take."

A REPORTED STRIKE.—Los Angeles Times: Two prospectors who came into Los Angeles bring word of a good strike in the region about forty-five miles northeast of Indio, in the Gold Blossom claim, where they say Ralph Marshall and Pete Leinhart have found a one foot ledge which assays from \$400 to \$600 in gold. The same authority says that Lano & Kingman in that vicinity have struck a four-foot ledge of solid galena which yields 80 ounces in silver and \$30 in gold.

Kern.

THE TALC MINE.—The Talc mine is located twenty-six miles from Delano and thirty-five from Bakersfield, in the White River country, in granite formation, the claim being 1300x600 feet.

The gouge is four feet in width, the pay streak six inches to two feet. The vein crops the whole length of the claim, and there is pay ore at all points.

The workings consist of a double compartment shaft, four feet by eight at the mouth of tunnel No. 1, a depth of sixty feet. In the face of the drift at the fifty-foot level pay ore is exposed. Tunnel No. 1 is in 600 feet—all the way on the vein and in pay ore—the longest continuous ore chute in the district.

Forty feet from the mouth of the tunnel No. 1 a winze has been sunk to a depth of 80 feet, exposing a ledge of varying width all the way down, the vein in the bottom being stronger and better than at the top. This tunnel taps the vein 150 feet below the apex of the hill back of the mine.

The mouth of tunnel No. 2 is fifty feet farther up the hill and is driven in 400 feet, and is connected by air shaft with tunnel No. 1, securing perfect ventilation of all the workings.

A 3½-foot Huntington mill, of eight tons capacity every twenty-four hours, is kept running day and night nearly all the time.

THE BALD MOUNTAIN MINE.—The following is from the Californian: A. P. Ellis of Glouville has been working at Bald Mountain mine, White River district. Walter Williams and William James leased 100 feet of the mine and entered an old shaft and drifted

to the ledge. They found a vein of rich iron ore bearing gold estimated to carry \$500 to \$2,000 per ton. They have taken four tons of ore by working ten feet in length and eight feet in height. They know that the vein goes at least four feet deeper, and it is about eight inches wide in the bottom. You can see the gold everywhere by candle-light in this vein. They have fifty feet above them to stoop out. It beats everything ever seen in the mine, or ever heard from Indian stories. Mr. Ellis offered to take one hundred and fifty pounds of the rock for a month's work and was refused. They think they can easily get a carload of this ore within the next ten days. The mine is owned by an English company and superintended by Nelson Halleck. In the main lead they have a vein two and a half feet thick that yields forty dollars per ton. The same company has a force of eight men taking out good ore from the Eclipse mine.

Riverside.

GENERAL NOTES.—Work begun this week at the Briggs mine. When a depth of 250 feet is attained it is supposed that at that depth water sufficient to run the mill will be obtained.

The Alice is still in litigation.

The Santa Rosa is pushing matters with a

full force of men. In the level at the bottom of the shaft the richest ore ever found in the mine is being taken out.

Kern.

AMALIE DISTRICT.—From our special correspondent: The Amalie mining district was organized April 14, 1893. It is situated in the Agua Caliente canyon, Kern county, about fourteen miles from Caliente on the S. P. R. Its laws outside of the U. S. laws are very simple. They require ten feet of work done prior to recording location notice, allowing sixty days in which to do the work. It also requires twenty-five days' work or an expenditure of \$100 each year on every claim and an affidavit of said work or expenditure, to be filed with the district recorder.

Since the organization of the district there have been several good strikes made on which the required amount of work has been done and the notices recorded. There is probably no better field in California for the good, close, industrious prospector. There is plenty of wood and water, with as fine a formation for mineral as one could wish to see. There has been work enough done on some of the mines to establish, without a doubt, the fact of the existence of precious metals. The first of these is the Amalie, from which our district takes its name.

This mine was originally located by C. Moore, and in March, 1894, was bought by W. E. Rogers et al, and the Amalie Company was organized for its development. At the time of the purchase by this company there was but a few feet of work done, although this work showed a good lead of fair-milling rock with a streak averaging about two inches of shipping ore. In April of the same year there was a crew of men put on to develop the property. The ore was a chloride, carrying both silver and gold, about one-third of its value being in gold. They began sinking in two places on the lead. When at the depth of 100 feet they began a tunnel which connected the two shafts. Up to this time there had been no material change in the character of the ore, but the vein had gradually widened and the shipping ore had reached an average width of twelve inches. After connection was made, the tunnel was continued, following the lead for about fifty feet, when a round of holes brought a change of ledge matter, and for the next seventy feet they had an average of sixteen inches of high-grade ruby silver ore as ever came out of the ground.

In about the center of this ruby shoot they started a winze which is now down 100 feet below the tunnel, making a total depth of 200 feet, and the ledge has grown stronger and richer with every foot in depth. On the 200-foot level the silver, in combination with the gold, is in the form of a chloride, sulphide and native wire. Every fifty feet drifts have been run from 100 to 200 feet each way from the winze and a second winze has been put down to the 150-foot level, which gives the mine a fine ventilation. So far no water has been encountered, and the company is putting in a gasoline hoist and making other necessary preparations to do some rapid sinking in the next few months. They have at present about twenty men employed and are shipping several cars per month to the smelters. They have a twenty-ton mill more than busy, and have now on the dumps about 300 tons of chloride and 400 tons of sulphide ore. This has ceased to be a prospect, and has as a mine a bright future before it.

G. E. F.

Riverside.

THE GAVILAN MINE.—Work has been resumed on the old Gavilan mine, owned by a syndicate of English capitalists. Considerable bullion has been shipped from the Briggs mine, near Winchester, but only a small portion of the top of the ledge has been worked, and preparations are under way for carrying on the work on a larger scale.

A REPORTED STRIKE.—A strike is reported about a mile south of the Santa Rosa mine. At a depth of twelve feet the ledge discovered opened out to a width of six feet. One assay of the ore went to \$120, and another as high as \$400 per ton. As soon as the fact became known the country for a distance of 12,000 feet all around was taken up.

San Bernardino.

BIG COTTONWOOD DISTRICT.—Messrs. Sweeny and Muir have located a gold-bearing quartz mine in the Montenegro district, which they have named the "Leoti."

It is located on base line, about 120 miles east of San Bernardino, one mile northwest of the McKinley Bill mine, two miles southeast of Virginia Dale, thirty-five miles from Bagdad, on the Atlantic and Pacific Railroad, about fifty miles from the Southern Pacific, and about twenty miles from the celebrated McHaney mines, with plenty of water within five miles. It is a different ledge and rock from the latter, and is evidently a portion of the ledge of the Supply mine, located from one-fourth to half a mile from it, where they averages \$65 per ton. The Leoti commences at the top of the mountain and runs down. So steep is the mountain at that point that the end of a tunnel run in 500 feet at the bottom of the claim would be 1000 feet from the surface above it.

THE ROSE MINE.—At the Rose mine, three miles from the Morengo King, beyond Bear valley, a large force of men is in a seven-foot vein, 400 feet down, in which there is a strip about twelve inches in width yielding from \$300 to \$500 a ton.

THE JOHNNIE MINE.—The new Huntington mill at Montgomery, in the Vanderbilt district, is completed and the old one repaired. Both are running on their full capacity on ore from Johnnie mine.

The *Times-Index* of San Bernardino claims that gold was discovered in that country long before the discovery of gold in the northern part of the State by Marshall. It says the precious metal was discovered in the San Bernardino range as early as 1841, and that the first shipment of gold to the East from California came from that range of mountains. The shipment amounted to over \$1000, and the gold was remarkable for its purity. It also says that the location of valuable mines in that section was known to the priests long before Marshall's discovery in Northern California.

Mines in the Calico district are reported working to their full capacity, and the thirty-stamp mill is kept running day and night.

Some more borax deposits have been partially developed near Daggot.

THE DESERT QUEEN.—*Times-Index:* The Desert Queen, in the Pinon Mountain district, was discovered by the exposure by the operations of nature of a large plover-out on the

cont...

Mining and Scientific Press
May 25, 1895 p. 334

brow of a hill. There the ore is denuded for about ten or fifteen feet in height and is traceable for several feet along the vein until it becomes a simple stringer at either end.

The surface croppings were rich and the property has been a producer since its discovery, sufficient ore having been milled at the two-stamp mill of Holland & Tingman to pay all expenses to date. Not much free gold appears in the ore, but it is rich, as the mill returns conclusively show.

But little development work has been done beyond the construction of roads, etc., for the hauling of the ore and bringing in supplies. The vein appears to be quite flat, as it can be traced on two sides of the hill. The development thus far bears this out, as the incline is now about four feet wide.

The mine was visited by F. H. Lane, of San Francisco, to see if it would justify the investment of \$2,000,000. It is only a prospect as yet, and no agreement could be reached with the owners as to developing the property before purchasing.

Mr. Lane stated that after they had completed sufficient development work to demonstrate the value of the property he would make another visit and take the property if the showing justified it, and pay a good round figure for it.

In the meantime the owners will continue development work, and soon expect to have a five-stamp mill of their own at work.

San Diego.

THE RICE CAMP.—Several new strikes are reported in the Rice gold camp, east of Warner's, San Diego county, and mining men are beginning to show an interest in the district.

STARTED UP.—The El Capitan or Rising Sun Company will start their new ten-stamp mill this week. The ledge is of good size and looks well.

June 1, 1895 p. 350
Inyo.

THE HIRSCH MINE.—Register: Mr. Geo. T. Rives, who will superintend operations for the Eastern company which recently purchased the Hirsch mine, arrived last Friday evening, accompanied by Mr. J. D. Bancroft of Chicago, one of the parties interested. With them came Surveyor S. P. McKnight, who is now engaged in making surveys of ditch to utilize the water power of the Inyo canal. A mill site and tramway from mine to mill. A ten or fifteen stamp mill will be put up as speedily as material and machinery can be procured, also required buildings at mine and mill. The tramway will probably be a little more than a mile in length. A few men will be put to work in the mine at once, and it is hoped to have the stamps dropping within ninety days.
Riverside.

"INVESTIGATING."—Five Englishmen, representing the San Jacinto Estate, Limited, who own 47,000 acres, known as the Gavilan grant in Riverside county, are investigating the mines on the property with a view of opening up the most promising. The Temescal tin mines are located on the company's land.

THE GOOD HOPE.—Perris Record: During his visit at the Good Hope mine last Monday, Receiver Naftzger paid off and discharged all but a few of the men. These will be kept at work doing only what is necessary for the protection of the mine, such as pumping and keeping up the timbers. How long the mine will remain closed it is impossible to say, but it is believed operations will not be resumed until all litigation is settled, which may be several months distant. We are sorry for this, as the Good Hope has been of great financial benefit to Perris. Nearly all the late employes of the Good Hope have left for new mining sections, many of them going to Arizona and Colorado.

June 8, 1895 p. 359

THE Yuma Times reports that the Cargo Muchacho mine, after years of successful working, closed down last week and all hands were paid off and discharged. The ore body has been exhausted in the levels and stopes and the company decided not to push prospecting any further at present.

June 8, 1895 p. 366

Kern.

AMALIE DISTRICT.—(Special Correspondence.) Development work is being pushed as rapidly as possible on many of our claims. The Occidental which was originally located by A. Sausser and sold in November, 1884, to Messrs. Young, Foster & Co. has had some seven hundred feet of work done on it since the purchase.

There is now about three hundred and fifty tons of good milling ore on the dump which was taken from three different leads and four different shafts, the deepest of which is down seventy-five feet, showing good milling ore all the way. From these shafts there have been drifts run to determine the widths of the ore shoots. While drifting from shaft number three on a three foot ledge of good milling ore a contact was struck, being the junction of the Amalie and Occidental lodes. At this junction a raise was put up to the surface and sinking begun. The ore has gradually grown richer as they went down and at present there is a two foot vein of fine milling with some shipping ore.

At shaft number four, which was commenced about six weeks ago where the Amalie lode enters the Occidental property, they are also taking out some fine shipping ore; the ore is a chloride silver carrying about one-third of its value in gold and is of the same character as that taken from the Amalie mine at a comparative depth. On the first of last January the Occidental Co. started a tunnel which is now in four hundred feet, and when completed will cut three leads at the depth of one hundred and seventy-five, two hundred and ten, three hundred and twenty feet respectively. The last of these, which will be cut at the depth of three hundred and twenty feet, is the Amalie lode from which so much rich ore has been taken and which is now developed to the depth of 200 feet on the Amalie property. The completion of the tunnel is looked forward to with great interest by all who are familiar with the property. The best mining experts have predicted that it will open up some remarkably valuable bodies of ore. This property joins the Amalie, and its development so far shows chloride, ruby, sulphide and native wire, about one-third the value of each being in gold; while from the Occidental there has been taken equally as rich chloride and horn silver as was ever taken from the Amalie at the depth to which the Occidental is at present developed. This property when thoroughly opened up will no doubt be equally as productive as anything in the camp.

The Amalie Co. has just put in a gasoline hoist which is doing fine work, using three pints of gasoline and raising five tons of ore per hour.

Mr. W. E. Rogers of the Amalie Mining Co. has gone to San Francisco to purchase some supplies for the company. He will return in about a week.
G. E. F.

San Diego.

THE SHENANDOAH.—The Shenandoah mill at Mesa Grande is being repaired. The mine will be in working shape by August 1st.

Mining and Scientific Press

June 22, 1895 p. 398

Kern.

AMALIE MINING DISTRICT NOTES.—Special Correspondence: Mr. George W. Cline, one of the proprietors of the Picnic mine, is making Los Angeles a visit. He is looking up mining men and mining interests.

The Dull brothers are taking from their new discovery, the Mayflower, some fine-looking ore showing horn silver.

Mr. J. B. Ferris let a contract to Mr. Z. E. Foster to sink his thirty-foot shaft on the Darling Rosa fifty feet deeper. The work is about one-half completed and shows a fine lead. The Darling Rosa joins the Amalie on the southwest and is a promising piece of property.

The milling test made on the ore from the Picnic, as completed, shows up very nicely, running about \$40 per ton in gold. This is a recent discovery, with about a two-foot lead, and is to say the least a very promising prospect.

Mr. Lanterman, Deputy U. S. Mineralogical Surveyor, has completed the survey of the Amalie mine for a patent and also the preliminary surveys on the Occidental, Darling Rosa, Sauser Extension, Little Jim, Horn Silver, Amalie Extension, St. John and Ferris mines. He has also set mineral monument No. 70 on the summit of the Amalie hill, which formed a basis for all these surveys, and from which can be obtained a view of the entire surrounding country. The monument is a solid block of granite planted four feet in the mother earth, in the top of which is set a copper plate bearing the monument number and points of compass. G. E. F.

San Bernardino.

OF DOUBTFUL VALUE.—A prospector named Feeny, just in from India, tells the Los Angeles *Herald* of the discovery of wonderfully rich placer grounds about twelve miles east of the Cargo Muchacho, by a man named Smith and his partner. They are said to have picked up by hand \$16,000 worth of nuggets in nine days, they having no dry washer and no water to pan with. Feeny says the location is one of the most dangerous on the whole desert, and that it would be suicidal for anyone not familiar with the trail and location to go there without competent Indian guides.

June 29, 1895 p. 407

G. W. ENGLISH, a well-known miner, lost his life at the Calico, San Bernardino, mine last Wednesday. He was trying to clean out a chute which had become gorged with ore, when it burst, covering and smothering him before assistance could be procured.

The Sather bank contemplates operating the Stouewall mine, San Diego Co., or disposing of it to an English company. It was recently experted by an Eastern gentleman named Miller, who got \$4000 for his report, which is now in London.

Despite the depression in silver, Calico, San Bernardino county, sends out 1000 ounces of silver bullion daily. The Silver King 80-stamp mill is working continuously.

The proprietors of the Golden Cross mine at Ogilby, San Diego county, say they have ore enough in sight to keep a hundred stamps dropping for a year. Nearly 400 M. feet of timber were used in the recent 60-stamp addition to the mill.

July 6, 1895 p. 10

San Bernardino.

THE DESERT BONANZA.—*Record:* Boone and Souter returned Thursday from a five weeks' trip to the desert. They visited the McHaney properties, seventy-five miles northeast of Banning, and from what they say the reports regarding these prospects have not been misrepresented in the least. The McHaney are stockmen and almost stumbled on their properties, they having been passed over for years by experienced prospectors. There are four claims in the group and each shows up gold ore in immense quantities, some of it having the appearance of having been shot in. On one of the claims a tunnel has been run in thirty feet on the ledge. At this point the ledge takes a sudden dip and runs nearly perpendicular. The ledge varies in width from thirty inches to six feet, and through it runs a ten-inch pay streak. From this rich ore has been taken. A five-stamp mill is now being put up six miles from the mine by the Messrs. McHaney, and a number of teams are steadily employed hauling ore. Much of the ore that will be worked has come from the croppings along the ledge, and it is very rich. The McHaney have already received \$10,000 from ore that has been worked at custom mills. Messrs. Boone and Souter say they believe this section of country is destined to become a prominent mining camp, as there is no doubt that fine ledges and immense deposits of ore exist there. The one drawback is water, but wells are now being sunk and it is believed that with depth water will be obtained.

July 13, 1895 p. 30

Inyo.

THE HIRSCH MINE.—Sup't Rives is pushing work at the Hirsch mine. Men are grading and lumber is on the ground for the tramway, etc.

Kern.

AMALIE MINING DISTRICT.—The Amalie Mining Company have put in a compartment shaft and ordered a new six-horse power gasoline hoist to take the place of the one now in use, it being too small to raise the large amount of ore that is being taken out. In widening the shaft four feet for 100 feet in depth they took out fifty sacks of shipping ore. This company also struck a new shoot of rich ore in tunnel No. 2, winze No. 8. While sinking and following a two-inch streak and breaking the hanging wall only when at a depth of sixty feet and preparing to do some drifting, a set of shots were put into the footwall to give sufficient room. After these shots were fired it was found that there was a thin streak of waste on what was supposed to be the footwall, and behind this was a three-foot ledge of high-grade shipping ore. This ledge has been sunk in on four different places by the Amalie Company, showing fine shipping ore in each place. From each of those shafts or winzes there have been drifts

run from 50 to 100 feet each way. The Occidental Company have also sunk in two different places on the same lead, both shafts showing good ore. These six different workings cover a distance of 800 feet on the lead.

The Dull Bros. have made a remarkable strike in the Mayflower, with an eight-foot load of milling and a small streak of shipping ore.

A. Sauser has located a lead carrying both gold and silver, and, it is said, has bonded it to some Colorado men. G. E. F.

Mining and Scientific Press
July 13, 1895 p. 30

San Bernardino.

THE LOST HORSE.—The Lost Horse mine, forty miles east of Banning, is down 120 feet at which is two and a half feet of ore. Levels were run at 100 feet and sinking will go on until the 200-foot level is reached. At present a two-stamp mill is run, operated by a gasoline engine. It is the intention of the owners to put in a five-stamp mill as soon as the main body of ore is reached.

San Diego.

RENEWED ACTIVITY.—*Union:* Gold is coming from the Banner and Julian districts. Assayer Aubury has two bars of bullion aggregating over \$2,100, from the Elabada mine near Banner, the product of ore taken out in sinking a fifty-foot shaft. The ore is very regular in character and the vein shows no indication of being "pockety." The shaft will be continued down to the 100 foot level before drifting is commenced.

The Ready Relief mill at Banner, last week crushed nineteen tons of ore from the Ranchito mine.

A project is on foot to open up the old Mission mine, sixteen miles from this city. Every evidence goes to show that at some time this body of quartz was worked by the Indians. A large dump of broken quartz is to be seen, but so far no openings or workings have been found.

A. G. Adams left for the desert country on Wednesday last, to inspect and open up a number of gold properties near Piocho. H. Harrison and Mr. Curtis are doing some prospecting near the Colorado river, above Yuma, and are meeting with fair success. R. S. Dunlap was in from Dos Palmas last week with samples of ore for assay from a large ledge of galena, which he is opening up.

T. V. James, A. D. Richmond and Harvey

Carr, Chicago capitalists, will leave for Pine Valley on Tuesday and after inspecting the mineral resources there will continue overland into Lower California. The Cortelyou mill at Pine valley has been grinding ore from the Hawkes Bros.' mines on Indian creek. The results are very satisfactory.

July 27, 1895 p. 62
San Diego.

THE GOLDEN CROSS PROPERTY.—Hedges, the site of the mines and mills of the Golden Cross Mining and Milling Company, is near Ogilby, on the S. P., 16 miles from Yuma. The company about two years ago bought thirteen claims and took up fourteen more, built a 40-stamp mill, with an engine of 120 horse-power, and began developing the low-grade gold ore property. The Queen mine has an inclined shaft of 40 feet, with four working levels. The Golden Cross has a vertical shaft of 125 feet and an inclined shaft of 150 feet. The Golden Crown has a shaft of 250 feet. The Talmage has a 50-foot vertical shaft, with a tunnel running into it of 200 feet. The Beecher has two tunnels, 30 and 60 feet respectively, the Ingersoll a tunnel 55 feet in length, extending through the mountains. The company is building a new 100-stamp mill, which will be in operation next month, with a Corliss engine of 300 horse-power, a surface condenser and air compressors for running power drills, and all modern auxiliaries, including an electric light plant. A six-inch pipe line is being extended to the Colorado river, twelve miles away, and 350,000 gallons of water will be pumped every twenty-four hours. The assays show all the way from \$4 and \$5 up. The bullion is shipped to this city. It is free milling ore.

Aug. 3, 1895 p. 78

Kern.

AMALIE DISTRICT.—A. Sausser has sold to Mr. McKnight the David mining claim for \$1000. Hugh Mann sold the old Tehachapi mill to Mr. McKnight, and it will be put up on the David immediately.

Mr. Mead, of Los Angeles, has bought the Brogan and commenced work. The Brogan is a free gold proposition, although the rock is not of a remarkably high grade. The lead is very large.

J. B. Ferris has bought the Caliente mine of Mr. McKay, and expects to put a crew of men to work on it immediately. Mr. Ferris also sold an interest in the Lime Kiln lead to San Francisco parties, and work will shortly be pushed on that.

J. Miller has sold a half interest in the Berry mine to some Los Angeles and Bakersfield parties, and they have men at work.

The Occidental mine has been bonded to Los Angeles and Nevada City men; consideration, \$30,000.

The Amalie Co. are putting in a raise over winze No. 3 to surface, where they expect to put up a permanent hoist. They already have one hoist in operation at tunnel No. 2, winze No. 3, and are taking out large quantities of shipping and milling ore at that point. The new hoist is being put in order. They expect to continue sinking at this place, where they have already attained a depth of 250 feet.

G. E. F.

AROUND GOLER.—*Democrat:* At Mesa Springs a dozen men are at work getting gold. Summit Camp has only twelve men at work now.

Swartout, Kuffel & Harrison have a shaft fifty-two feet to bedrock and are drifting. They work five men dry-washing and take out about \$100 per day.

At Red Rock S. James has leased the Bonanza Company's property. He employs sixty men running three dry-washers, and is getting considerable gold.

At Last Chance J. D. Richardson has, at 90 feet, struck an old river channel that promises to be very rich. He has two drifts, each 300 feet long. The gravel prospects from surface to bottom of shaft, but only two feet next to bedrock is being worked. About a dozen men are at work in Last Chance gulch.

Los Angeles.

AT ACTON.—R. E. Hudson has bought the old Tejunga mill and will remodel it. The Mount Mieso Company, which started its tunnel about 200 feet below the upper tunnel, have made a good strike.

Riverside.

THE GOOD HOPE.—At the Good Hope twenty men are employed at the mine and mill. The latter is being run part of the time and enough ore is being put through to pay running expenses.

THE BRIGGS MINE.—Eight men are employed at the Briggs mine. The new shaft is down 100 feet and a nine-foot ledge has been opened up. The ore is better than any ever before found in the mine.

On the Glory mine, the second extension northwest of the Briggs, a shaft thirty-three feet deep has been sunk, and a three-foot ledge developed. Water has been struck and a pump will have to be put in.

San Bernardino.

TAILINGS TO BE WORKED.—A trial lot of 100 carloads of tailings from the mines tributary to Victor are to be brought into San Bernardino and worked. If the venture proves successful on the first hundred carloads it will result in the establishment being increased in size.

Miner and Scientific Press

Aug. 3, 1895 p. 78

San Diego.

JULIAN AND BANNER.—Sun: A. P. Frary, who has been working the Hidden Treasure mine in the Julian district, brought in \$7000 in Bullion, taken from 8½ tons of ore. This mine has been abandoned three or four times by different parties, but the present owners seem to have found some good rock. They are working about 200 men below the surface, and on a new chute of ore. Frary reports a big revival in mining interests in the Julian and Banner districts. The Sun says the records show nearly \$6,000,000 in gold taken out of the Julian district alone from the beginning to the present time.

Aug. 17, 1895 p. 106

Riverside.

A SUCCESSFUL RUN.—Record: On Wednesday the Good Hope mill made a run on two tons of ore from Smith, Hamett & Hancock's Federal Loan mine. The ore was selected and taken from the pay streak of the ledge. The run netted 11 49-100 ounces of amalgam, which, at \$15 per ounce, a safe estimate, gave a net result of \$172.35. The owners of the mine are considerably elated over the result of the run and will immediately put several men at work on the property developing and taking out ore.

AT THE SANTA ROSA.—Orders were given at the Santa Rosa mine Tuesday to begin sinking on the main shaft, and work will be pushed with zeal till a depth of 1000 feet is attained. Should the ledge hold out to that depth, and it is to be hoped that it will, it will settle beyond any question of doubt the permanency of mining in this district.

IRON MOUNTAIN DISTRICT.—The Enterprise reports the sale of several mining properties by C. H. Gray to Alonzo M. Wells. The mines sold are: The Arica, Red Butte, Lometa, Frixie, Gray Eagle, Alabama, Colorado, Washington and St. Louis, all located in the Iron Mountain district. The consideration is said to be \$40,000.

San Bernardino.

GENERAL MINING NOTES.—The Lone Star Mining District is eight miles north of Leach's Point and about seventy miles from Daggett. Ore is reported found there assaying from \$75 to \$250 per ton.

The Holcomb Valley Company is running its dredges and amalgamators to only about one-tenth their capacity, owing to a scarcity of water. Superintendent Thame is sinking for water.

The Rose is shipping its high grade ore. The five-stamp mill is kept busy on the low grade rock.

MORONGO.—In the Morongo mining district, the Altura Mining Company has ordered a five-stamp mill which will be put up at once. The Morongo King Mining Company is still prospecting.

Aug. 24, 1895 p. 122

San Bernardino.

SUIT BROUGHT.—Employees of the Gold Bronze mine, Vanderbilt district, have brought suit to recover \$2720.50 claimed to be due for labor.

San Diego.

IN THE PICACHO BASIN.—The Old Blossom mine is turning out rich ore from its 12-foot vein.

It is thought that the Ogilby district will have three more quartz mills built there this year.

The Figueros mine at Pot Holes, twelve

cont..

miles above Yuma, on the Colorado, has been sold to Davis & Wetmore for \$30,000. They will build a 10-stamp mill. The shaft is down 72 feet; the ore averages \$10 per ton.

The old Dahnoga mine at Buena Vista is to have a 10-stamp mill. Beatty & Co. own the property.

Louis Jaeger is sinking a new shaft on his Oro Grande mine.

BANNER DISTRICT.

Stewart, Egan and Moulton, have bought the Ranchita mine. The property has been in litigation for some time but all conflicting interests have been satisfied. The mine has not been worked to any considerable extent.

C. F. Holland, of San Diego, has bought out the interest of Santillanes, Lopez, and Savoris in the Elebada mine, and is now directing operations.

Aug. 31, 1895 p. 138

Inyo.

THE SACRAMENTO MINE.—Register: Work is going along steadily at the Sacramento. The water pipe is laid for 300 feet, from where the end of the flume will be to the wheel. The ten-inch V-flume will be put up at once, but owing to the rough character of the country it must be built in sections and carried to its final location. The arrastras are nearly completed, and will when in running shape be well worth an examination by any one wanting a new idea in such machinery. The plant includes two pits, the drag-rocks in both being run from one seven-foot belt wheel.

The Sacramento is one of the oldest mines of this section. It has been worked for years by leasers, whose idea was to get the most money for their time, consequently it has been "coyoted" rather than mined. Such a system—working the rock which looked as if it would pay best and discarding all other—has left hundreds of tons of fair ore lying on the dumps. Samples have been picked up horning into the hundreds, though most of it is of course low grade. These dumps will be worked at once, work in the mine being pushed along at the same time.

The resumption of systematic work on the Sacramento has led to renewed prospecting in the neighboring canyons, particularly by Mexican miners.

Sept. 7, 1895 p. 154

San Bernardino.

SOLD HIS INTERESTS.—A. G. Tingman of Holland & Tingman has sold his interest in mines in the Pinon district, including a half interest in the Pioneer mill for \$25,000. That mine is now running on ore from the Lost Horse mine.

MINES BONDED.—Isaac Reed, E. E. Rowell and Judge A. Brunson have bonded the Sweden mining claims, in the Virginia Dale district, three miles south of the Virginia Dale mine, to San Francisco miners, for \$10,000, to run 30 days.

At the Rose mine they are down 400 feet with a bigger body of ore in sight than ever before. The ore which is shipped runs \$200 to \$300 per ton. Dr. Shugart, the superintendent, expressed the opinion that they were now below the breaks and the ore hereafter would run more even. The low grade ore milled at the mine runs about \$30.

Lewis and Townsend's mine, a half-mile from the Rose, though a small property, shows up well. Metcalf, in Rattlesnake canyon, cleaned up \$400 in bullion on a 30-days run with one horse and an arrastra.

In Holcomb Valley, Upper Holcomb, Gold Mountain and Morongo King, everything is flourishing. The mountains are full of prospectors, there being more men at work than ever before known and all of them feel encouraged.

HOLCOMB VALLEY MINING Co.—At the Holcomb Valley Mining Co's mine the steam shovel and 30 men are at work sluicing rich gravel which pays for the first time in the history of the company.

Mining and Scientific Press

Sept. 7, 1895 p. 154

Kern.

AMALIE DISTRICT.—(Special Correspondence): There is considerable prosperity in mining circles nowadays. Mr. A. Sausser the superintendent of the "Brogan" is pushing work as rapidly as possible and taking out some fine ore.

The Amalie Mining Co. expect to have their new hoist in operation in a few days, having completed their raise to surface making a shaft 250 feet deep. As soon as the hoist is ready they expect to begin sinking from the 250-foot level.

Work is being pushed on the "Picnic," a contract having been let for sinking. Since the work was begun there has been some very fine ore taken out.

The Dull brothers have put on a night shift and are sinking on the "Mayflower" with all possible speed. They have good prospects and it is thought that depth is all that will be required to increase its richness.

Mr. J. B. Gault has discovered and located a claim showing some very nice ore.

Mr. Brooks, a mining expert of many years standing, is giving this country a thorough inspection. This is the kind of people the Amalie district likes to see, for her mines and formations will bear the closest inspection.

There is being considerable assessment work done and a number of good leads have thereby been opened up.

Mr. F. D. Lanterman, Deputy U. S. M. Surveyor, discovered a lead and located a claim which joins the Occidental on the southwest and thus it is that new leads are being discovered within a very short distance of our richest mines. This shows that our country has never been thoroughly prospected, this lead being within a five hundred feet of the boarding house and mill of the Amalie Co.

Considerable excitement was caused among the miners here when it was ascertained that Frank Dean, who had been so long in the employ of the Amalie Co., was under arrest for stealing ore; it also put mine owners on the lookout and a watchman was placed on both the Amalie and Occidental mine.

Messrs. Young, Foster and Parker struck ruby silver in a claim recently located. This is the second mine in the State from which this character of ore has been taken—the Amalie, from which this district takes its name, being the first.

San Diego.

THE GOLDEN CROSS.—E. M. Browder, the representative of an English company, is again reported making overtures for the purchase of the Golden Cross mine and its entire plant. This is the same mine for which it was reported \$2,500,000 was offered by another syndicate of English capitalists and refused about a month ago. It is thought a sale of the property could be effected were it not for a fear of legal complications. The new 100-stamp mill of this mine will be working this week which, with the present mill, will make 140 stamps in all.

Sept. 14, 1895 p. 170

Los Angeles.

NEW COMPANY.—The Piramide Mining Company has incorporated; capital stock, \$3,000,000. Directors—P. L. Griffin, G. R. Weeks, Los Angeles; W. E. Howard, San Diego; L. Hahn, Hastings, Nebraska; B. Morse, Riverside; G. Bratt, Hemet, Cal.; W. S. Oliver, Escondido, Baja California.

cont...

San Diego.

REPORTED BONDED.—The American Girl group of five claims, near Ogilby, is reported bonded by Lowman & Johnson for \$120,000, to an English syndicate.

REPORTED BONDED.—Messrs. Johnson, Olson and Moad are reported to have bonded the Homestake, Black Hills, Stonewall, Comstock, Good Hope and Aurora gold mines, in the Ogilby district, to George C. Tilden of Colorado for \$45,000.

LOCATION AND TRANSFER.—C. B. Richards, C. L. Josselyn, C. Jaynes and S. Clark, says the San Diego Sun, have in the office of the county recorder a notice claiming the location of the Double Standard mine, situated in the White Gold Basin of the Picacho district. In the same connection, a transfer is made by which Miguel C. Marliuz sells the Silver King mine to Josselyn and Edwards.

San Bernardino.

The Holcomb Valley Mill and Mining Company will, it is reported, soon start up a new mill at their Holcomb Valley mines, north of Redlands. The new mill will have a capacity

of fifteen tons a day, and there are now about 400 tons of ore on the dump which runs from \$15 to \$20 a ton.

Sept. 21, 1895 p. 183

On account of the uncertainty of the boundary line between Riverside and San Bernardino counties, owners of mining claims on the borders of these counties are confused in recording the locations of their claims. The supervisors of those counties owe it to the miners to have definite maps and records made to obviate such confusion.

Good reports come from the property of the Boulder Mining Co., in San Bernardino Co., thirty-five miles southeast of Salton. The company has six claims, on which eight shafts have been sunk and four tunnels run, \$20 ore being reported in considerable quantity.

Sept. 21, 1895 p. 186

Riverside.

GENERAL NOTES.—*Record:* The Alice mine and mill has started again. About eight tons of ore are being crushed daily. The ore being worked is sulphuret in character and runs about \$75 to the ton, the proportion being about ten to one. Enough free gold is taken from the ore to pay expenses.

The Menifee mine is now shut down. A deal is now on by which the property will in about a month pass into the hands of a Boston company.

The Good Hope started up this week after being shut down for a few days, pending repairs in the mine. The mine and mill now employ between thirty-five and forty men.

The newly organized Leon Mine and Milling Company will work the Briggs mine and extensions. The Briggs will soon resume active operation.

cont...

Mining and Scientific Press
Sept. 21, 1895 p. 186

San Bernardino.

GENERAL NOTES.—At Blackburn station Miller & Gram are shipping ore that nets \$140 per ton after paying freight and milling.

At Vanderbilt mine owners are waiting for the extension of the California and Eastern railroad, when they will be able to handle ores more cheaply. The Campbell mine is being operated on ores taken from the St. George and Boomerang claims. The last cleanup from fourteen days' run produced \$4200. There are twenty men at work about the mill and taking out ore from these two mines.

The Gold Bronze mine is now in the hands of Receiver W. N. Crandall. The stockholders of the company had run behind about \$20,000 in the last year and a half; under the management of Mr. Crandall the mine is beginning to pay and the receiver is hopeful of being able to pay off all the debts from proceeds of the mine. The Gold Bronze is opened up to a depth of 250 feet, with fifty-foot levels extending 150 feet east and west from the main shaft.

Oct. 12, 1895 p. 238

San Diego.

INTERESTS TRANSFERRED.—The interests of D. O. Lane and Col. Rhorer in the Gold King and Gold Queen mines, as well as in the

position. The Tuolumne ditch to convey the water for mining purposes is at present at a standstill, as the final surveys have not yet been completed.

H. M. MacLymont of Fresno is at Coulterville to take a personal supervision of the mine. The present arrastra is found to be inadequate and a mill is to be built. A fine body of ore has been met with in the tunnel which is being run to connect with the shaft. Work in the tunnel is being pushed night and day and about ninety feet more will make the connection, which will drain the shaft and make an exit for the ore through the tunnel.

Philip Corcoran, who has a bond on the eight mines of Messrs. Lindsay, Downey and Martinez, located in the Flyaway section, is about to begin active operations.

Isaac Salhinger of the Red Banks Mining Company reports work in the mine is going ahead with unabated energy. The drifts and raises are being pushed along to open up and uncover the ore bodies and new work is under way.

O. F. Paulsell of Gentry Gulch, who is interested with L. N. Wilson says the five-stamp mill will be there this week.

SALE OF THE SANTA ROSA.—The Santa Rosa mine has been sold by Cox, Roberts, Stockton and Beyfogle of Madera to Lane, Hayward & Co. Theodore Allen will be the superintendent. The mine is on Little Bear creek, seven miles north of the town of Mariposa. There is a 10-stamp mill on the property.

Kern.

AMALIE DISTRICT.—The Amalie Mining Co. has struck a new shoot of ruby silver on the 200-foot level.

The country is overrun with prospectors, and all the ground for miles around the first discovery is being thoroughly prospected. Under the rules of this district there must be ten feet of work done and all monuments upon each claim prior to recording. The ore is of a concentrating character, carrying considerable free gold. The leads are usually large, in some instances being from ten to thirty feet in width.

Oct. 26, 1895 p. 270

Inyo.

THE NEW RATES.—Register: The new rate of \$13 per ton for working charges on lead ores by Selby & Co. at Vallejo Junction is generally accepted as very reasonable by mine owners and shippers in this and Darwin districts.

Riverside.

THE GOOD HOPE.—Record: About 45 men are now at work in the Good Hope, most of whom have leased ground and are working it for all there is in it. They work in pairs and the ore they take out is milled for \$3 per ton, and they also pay a royalty to the company of 20 per cent. Some very rich ore has been struck in pockets, and some of the men have made as high as \$8 and \$7 per day in wages. This will not average all through, however.

San Diego.

ATTACHED.—The sheriff has levied an attachment on the Cargo Muchacho mine, owned by the Paymaster Company, to secure the payment of a claim for \$5000 alleged to be due Hass & Burt of Los Angeles for supplies. The property levied upon also included eight miles of pipe line connecting the mine with the Colorado river, and a carload of supplies at Ogilby station.

THE GOLDEN CROSS.—Sentinel: The Golden Cross people started up 50 stamps of the 100-stamp mill. The machinery worked perfectly and everything gave complete satisfaction. As soon as the new pipe line is completed, which will be within a few weeks, the entire plant of 140 stamps will be dropping upon ore from one of the biggest gold mines in the country. Taking the working of the old mill as a guide it is safe to say the output from the old and new mill combined will reach \$125,000 monthly.

Nov. 9, 1895 p. 306

Los Angeles.

THE BIG HORN.—Times: F. V. Layton, until recently general manager of a large St. Louis syndicate with a paid-up capital of \$3,000,000, operating a large silver mine in Sonora, Mexico, is now manager of the Big Horn Gold Mining Company of this city. It is capitalized for \$2,000,000 and owned by Senator S. M. White, Judge E. M. Ross, L. W. Blinn, J. A. Graves and a few others, all of Los Angeles. He is here gathering good and experienced miners to take up to the Big Horn, as Mr. Layton is doubling the force and pushing the work as fast as possible on the mine, as well as pushing the construction of a road to the mine. The mine is developed to a depth of 300 feet and has been crosscut in several places for a distance of some 1200 feet in length, showing a body of gold ore of over fifty feet in width between walls, containing two million tons valued an over \$3,000,000. November 1, 1890, will see a mill of one hundred stamps, capable of crushing 300 tons per day, in full blast on the mine and giving employment to over 250 men, who will all look to Los Angeles for a market. The mill and other machinery will be run by waterpower, as there is over 600 horse-power to be had within one mile of the mine.

San Diego.

JULIAN DISTRICT.

THE ELEBADA.—The owners of the Elebada are working two shifts. The main shaft is down 110 feet. Levels in both directions have been run part way down the shaft and also at the bottom aggregating 150 feet. A block twenty feet square was recently stoped out which yielded 100 tons of milling ore.

TO PROSPECT ON THE DESERT.—*Times-Indec.*: There are more prospectors going out on the desert at the present time than during any corresponding period of previous years. Gold Rock mining camp (Hedges postoffice), and neighboring localities are enjoying quite a boom. Prospectors are purchasing tickets to all points along the railroad between Banning and Yuma.

IN THE GAVILAN COUNTRY.—*Union*: The English company working on the San Jacinto grant in the Gavilan country, who have been prospecting and crosscutting the country thereabouts for several months past, have discovered a number of fine ledges, and on some of them sinking has been commenced. Much of the ore is rich in character, some of it running into the hundreds per ton. This is being sacked and put in houses built for the purpose. The company is composed of a number of rich Englishmen, and it is their intention to develop their estate to the amount of \$100,000 before any machinery is put up. When they are satisfied that they have some good mines, they will put in a larger plant than there is in southern California.

Inyo.

ONLY A REMOR.—*Register*: It is reported that a forty-stamp mill will be built at Copper Mountain above Mono Lake. It is understood that the owners are negotiating with an Inyo mill owner for 200,000 feet of lumber.

OPERATIONS AT MAMMOTH.—At Mammoth, the mill started last week. The ditch has been completed from Lake Mary, and every-

thing is now ready to run. The tramway is about $\frac{2}{3}$ completed.

San Bernardino.

A NEW DISTRICT.—A. J. Hellerman who has been prospecting throughout southern California, Arizona and southern Nevada has made several locations in a district twenty-five miles northeast from the Desert Queen. The White Star and the Ivanhoe are the two locations in which he has most confidence. On the former he has a shaft 100 feet in depth, and drifted on the ledge forty-five feet. The free milling ore yields an average of \$35 a ton.

On the Ivanhoe a shaft has been sunk sixty feet, from which drifts have been run about thirty feet in either direction. The ledge is wider than the White Star—about thirty inches—and is free milling ore, averaging so far as tested \$48.50 a ton.

San Bernardino.

ON THE DESERT.—J. Ingersoll, owner of the Gypsy mine, Virginia Dale district, near Twenty-nine Palms, left San Bernardino last week with a supply train of three wagons, with 12 horses and 16 men, in addition to machinery and camp equipage. They carried supplies for two months for the whole force. At the Gypsy mine the ore runs from \$40 to \$125 per ton in free gold. The mine has already been worked to a limited extent and the owners have had a little stamp mill run by a gasoline engine at the mine since last spring. The mill will be added to and its capacity increased during the winter.

PROSPECTS FOR THE ALTURA.—*Sun*: The 10-stamp mill for the Altura mine at Holcomb valley has been put in place and will start up next Monday with 400 tons of low grade ore, that will run from \$5 to \$10 per ton, on the dump, and with work so arranged that enough more can be supplied to keep the stamps pounding away for the season. This mine is situated in a bluff, at the foot of which stands the mill, on Antelope creek, where there is plenty of water, and as the ore is obtained by tunnels into the mountain, and not by shafts, the cost of getting out the ore and milling it is so light that even on this grade of ore there is a good profit. The mining and milling only costs \$1.50 per ton, and at that figure even the \$5 ore will pay. The ore is run out from the levels, of which there are three, direct to the mill, the bluff rising 1000 or more feet above the mill at an angle of over 45 degrees. It is a gold-bearing, free-milling ore and is easily worked.

San Diego.

AT JULIAN.—Horace Orlikow, one of the owners of the Gold King group of mines, consisting of the Gold King, Gold Queen and Cincinnati Belle, is arranging for opening all three mines.

The Ready Relief Mining Company has sunk a shaft on the Redman mine to a depth of 130 feet, and commenced drifting both ways on the ledge. The east drift will be under the creek and will connect with the Ready Relief mine 150 feet below the lowest levels of the latter. A raise will then be made to make the connection complete.

Riverside.

GENERAL MINING NOTES.—*Record*: The English company is working zealously on a number of its claims in the Gavilan country and they are showing up in fine shape. Edgar Battye finished a contract on one, a mile north of the Santa Rosa, this week, and from all accounts it is a promising prospect. He sank a sixty foot shaft, at the bottom of which he drifted north and south 100 feet. The drift has opened up a fine ledge over a foot in width and it assays well. The company is running the Santa Fe mill night and day on ore from its claims, and the results are said to be entirely satisfactory.

Messrs. Hutchinson, Murphy and Moulton have put up a whim on the Leona, an extension of the Santa Rosa, and will begin sinking on the mine next week. J. B. Dennis has recently moved the old Santa Rosa mill to the Indian Queen mine and expects to have it in operation in a short time. The company that Mr. Dennis represents own a number of good claims in the vicinity and as soon as development justifies it they will put up adequate works.

The framework for the Santa Rosa company's additional ten-stamp mill is now up, the foundation for the mill in, and the work of putting up the machinery will begin at once. The latter is now on the ground.

Efforts are again being made to straighten out the affairs of the Santa Fe Mining company, and if successful the mine will be started up under new auspices and will have considerable capital to back it.

The miners who have leased ground in the Good Hope mine are all making big money, and all regret that their leases will soon expire.

Cont...

Mining and Scientific Press
Nov. 23, 1895 p. 342 (cont.)

A number of them are making from \$7 to \$10 per day. Nearly all of this rich ore has been taken out of the ground that was abandoned years ago and many of the drifts had filled up with debris.

Kern.

AMALIE MINING DISTRICT NOTES.—McKay, Stuter and Stewart have filed three new claims.

The Amalie Mining Co. have completed their drifts from shaft No. 1 to No. 3 on the 250-foot level which shows ruby silver.

Sauser, Young & Co. have located and are now working on some mines near the head of Harper canyon having considerable ten dollar free gold in sight.—G. E. F.

GOLER DISTRICT.—The Bakersfield Californian says that at Goler attention is now turning to quartz prospecting, and some good strikes have been made. A lawsuit is being tried at Bakersfield over the right to extract ore from the Rand mines at Goler.

Nov. 30, 1895 p. 358

San Bernardino.

THE ALTURA.—Supt. Maude has started the new ten-stamp mill of the Altura near Victor and has opened a body of \$20 ore on the 200 ft. level.

San Diego.

PROSPECTS PURCHASED.—Messrs. Dorsey and Grant have been examining gold mines at Picacho and in the White Gold Basin, twenty miles above Yuma, on the Colorado river, and are reported to have purchased the Mina Rica and Dulcinea group. Messrs. Selleck and Gaines of New York have options on twenty-one mines in the Picacho Basin and ten in the White Gold Basin. The three companies have a project to build a narrow-gauge railroad from the mines, four and one-half miles, to the Colorado river at Picacho, where the ores from the mills will be crushed. The ores are low grade, but free milling.

(Special Correspondence): The most important mining transactions ever consummated in Southern California were those made this week whereby United States Senator Stephen W. Dorsey and associates secured the Mina Rica group of mines at Picacho on the Colorado river, twenty miles north of Yuma, in which the rich strike was made some three or four months since. The group consists of the Mina Rica, Dulcinea, Apache, Rica Tierra, Eastern California, and eight others, which adjoin and nearly surround the Dr. Jayne groupe, consisting of the Mars, Venus, and San George, which have turned out so much gold. The second transaction of note was that by which Jesse R. Grant and associates have secured thirty of the most promising mines in the White Gold Basin, lying two miles east of the Picacho basin and from one to two miles back from the Colorado river, which they will at once prospect, open up and develop.

The third deal was made by H. F. Selleck and E. A. Traves, of New York, by which they bonded twenty-one mines in the Picacho and ten in the White Gold basin, upon which they already have a force of miners at work opening up ready to supply ore for a large mill which they will erect on the bank of the Colorado at Picacho.

Senator Dorsey and associates will construct a narrow-gauge railroad from their mines, $4\frac{1}{2}$ miles to the river, at Picacho, where they will at once erect a 100-stamp mill. Selleck and Traves will join them in building the railroad. These three deals, all made during the week, involve an outlay of more than a million dollars at Picacho within the next six months and the opening up of this gold belt.

cont...

Wm. A. Farrish, with a force of thirty-four miners, spent seventeen days in experting these properties. He experted the Dr. Jayne group some years since, and was not a stranger to the formation of this mineral belt.

Judge A. B. Richards, one of the owners of the Pueblo smelters, and C. L. Josselyn, of San Diego, have bought some seven or eight very promising claims.

J. L. Curtis and associates have also secured some twelve or thirteen promising properties. Mr. C. is from West Virginia.

J. M. Hay has two fine claims in which Denver parties are interested with him.

Mr. Farrish and Senator Dorsey found in their examinations that the strike made in the Mina Rica mine extends into the Dulcinea and crosses the Fleetwing, West Goshen, and runs into the Del Mar mine, and that on the first two it covers an area of 1200 feet in length by more than 400 feet in width.

Thirty-four miners were employed during the examinations of nearly three weeks by Mr. Farrish in crosscutting the veins, clearing out the old works and in opening new ones, and in prospecting and testing the ores, the samples covering more than one hundred tons of different ores from the different veins and mines, the result of which has been to convince the mining men present that the Picacho mines, in the tests made, more than confirm all that has been said of them. Senator Dor-

Dec. 7, 1895 p. 374

Kern.

RANDBOROUGH.—Fifty miles N. E. of Mojave, ten miles east of the Goler district is Randborough mining district in the desert, 5000 feet above sea level, where 100 men have about twenty-five locations that show free gold. Dry washers are mostly in use. Wood and water are the great wants and until the latter is found in sufficient quantity and transportation facilities are better the camp cannot attain the height of its fortunes.

THE CONFIDENCE MINE.—George Montgomery will haul freight from Daggett to the Confidence mine, in Death Valley, over a hundred miles distant. It is eight miles northwest of the Ibox mine, and has a ledge 50 feet wide, of fine milling ore. Fifteen feet of this mills \$40 to \$75 to the ton, while the remainder runs \$15 to the ton. He is putting in a 30-ton Bryant mill, and is seven miles from the mine. Gasoline is used to run the engine, that being the cheapest fuel obtainable.

Riverside.

THE GOLDEN CHARIOT.—A ledge of ore has been uncovered in the Golden Chariot mine in a drift driven twenty-five feet from the bottom of the 300-foot shaft. The Golden Chariot is an extension of the Santa Rosa.

Dec. 14, 1895 p. 390

Inyo.

THE CASEY MINE.—Register: The new hoisting plant at the Casey mine is now in operation. The mine has been prospected to a depth of 450 feet, and Supt. Duenweg expects to sink as far as the cable will permit, or 800 feet in all. He has an offer for working the tailings by the cyanide process.

Riverside.

THE GOLDEN CHARIOT.—At a depth of 300 feet a four-foot ledge has been struck in the Golden Chariot mine at Perris.

THE SANTA ROSA.—The Santa Rosa is now down to a depth of 450 feet, and the drifts extend both sides of the shaft 750 feet. The ten-stamp mill which has been running has recently been doubled in capacity.

San Diego.

AT JULIAN.—A crushing of twelve and a half tons of ore from the Golden Rule mine took place last week at the Ready Relief mill. The lot was sorted into two patches. Seven tons of high grade ore went \$107 per ton and five and a half tons second-class rock went \$21 per ton.

Mining and Scientific Press
Dec. 28, 1895 p. 430

Riverside.

MORE GOLD FOUND.—A topic of local importance is the new discovery at the Leon mine, six miles southwest of Winchester. S. H. Porter, president of the company, reports that the owners are highly elated over the prospect. Stock in the mine has advanced from 50 cents to \$1 a share.

San Diego.

AT JULIAN.—*Scuttel:* The Venturina Mining Company has men at work fixing up the mouths of the two tunnels which they propose to run into the hill to tap the ledge. The upper tunnel will be 400 feet long and the lower 550 feet. They will cut the vein 200 and 350 feet below the surface. The Fraction mine has been recently purchased by the company and lies above the Cable. The tunnels being run for the development of the latter will cut the ledge of the Fraction farther on in the hill, so that both mines will be worked together. The ledge of the Cable mine is about a foot wide and several good crushings of ore, averaging about \$25 a ton, have been taken out. When preliminary work has been done, it is proposed to put on a larger force of men.

A force of eleven men is at work on the preliminary operations at the Owens mine and the shaft has been retimbered down to the water line, 175 feet from the surface. The large building which covers the hoist and the machinery connected with it, is nearly completed and work can now be carried on uninterruptedly, regardless of weather conditions. The pumps will be set to work in a few days,

and it is expected that in the course of a month or so ore will be taken out. The mill and other appliances have been put in good order.

Mining and Scientific Press

Jan. 11, 1896 p. 23

SINCE silver was found in sandstone and gold in coal nothing is surprising, yet it is, to say the least, a little startling to hear that at Perris, Riverside County, the Good Hope mine is running on adobe that averages \$7 per ton. Feeding adobe to a stamp mill is new. The local paper says "It is a surface formation." It certainly is.

Jan. 11, 1896 p. 30

Inyo.

AT DEATH VALLEY.—Both mills, the Johnnie and Chispa, are running steadily, operated by a Salt Lake company, John Q. Cannon being its president. They are also operating the Confidence mine, which is situated on the western slope of the Funeral mountains in Death valley. These seem to be the most difficult and expensive mines to work in the country, owing to the scarcity of fuel and water principally, but freighting from Daggett is equally as arduous a task. A mill is now upon the ground and will be hastily constructed, and run by gasoline, the same as at Montgomery. There are no accommodations to be had; everybody is camped in the open air, as it seldom rains. In that isolated spot men are camped at springs awaiting a chance to get employment.

Kern.

AMALIE MINING DISTRICT.—(Special correspondence). One year ago there was but one prospect on which work was being rapidly pushed, that being the Amalie, which had been opened up to a depth of 100 feet, at which point ruby silver had been struck. During the past year this property has produced some of the richest ore of southern California, and is to-day the only ruby silver producing mine in this State. Work has been pushed forward till at present the mine is opened up to the 300-foot level, with drifts run every 50 feet. A good hoist has been erected and perfect ventilation secured by a system of winzes and air courses, and the mine is now in the best possible condition for further development, the ore having increased in richness from the grass roots.

The company has also erected a new boarding house, with a large cellar; a good store, with a large stone cellar; an ore house; a blacksmith shop; barn, and several dwellings for the use of employees; added two Frue concentrators to its mill and otherwise improved their facilities for general operation, and to-day have one of the best properties of its kind on the coast.

The Occidental company, which began its work here about a year ago, has done about 900 feet of sinking, drifting and tunneling; and have now in sight some good ore and has both worked and shipped ore which proved very satisfactory.

Within the past year the Amalie mining district was formed with laws for the regulation of assessment and location work which require ten feet of work, with all monuments up before the notices can be recorded, and one hundred dollars' worth of work on each and every claim for each year, an affidavit of which must be filed with the District Recorder. The district was formed April 18. Since that time there have been recorded 22 locations on which the required amount of work was done, prominent among these was the Picnic, from which was taken \$400 in the first 40 feet, it being practically free-milling gold ore. The slate wall, from which there has never been a mill test made but shows considerable free gold, carries sulphurets heavily. Messrs. Young, Sausser & Co. have also discovered and located some mines on the Piute and are showing some handsome gold specimens which they have taken out, their lead being from 12 to 16 inches in width.

One year ago we had no mail service. To-day we have a postoffice and a stage line running through camp to Piute, making three round trips each week.

Our district is well watered and wooded; is 15 miles from the railroad by the county road; has an elevation of 8000 feet, and a climate almost perfect. All in all, we consider the past year a very prosperous one for this section, and it is to be hoped that its progress will be unabating in years to come.

San Diego.

AT JULIAN.—The Elevada mine has 120 tons of ore at the mill. The mine is worked by an incline shaft, which is now down 101 feet.

Feb. 1, 1896 p. 90

Inyo.

RELOCATED.—Register: The Dark Horse mine, fifteen or twenty miles north of Bishop in the White mountains, which was sold to English capitalists a few years ago for \$30,000, was relocated this month, the assessment work not having been done. L. E. Girard, M. J. Bradshaw and C. Duarte are the locators.

Feb. 8, 1896 p. 110-111

SAN DIEGO.

ESCONDIDO AND VICINITY.—(Special Correspondence).—I will endeavor to give you an authentic report of the mining interests at this place, as they now exist. We came to this locality the first of last April and have been carefully prospecting the country for our interests, our only object being to discover a deposit of gold that would pay to work. Our attention was first attracted to this locality last winter, while on a visit here, and having had several years' experience in mines and mining at Aspen and Leadville, Colorado, and over four years of prospecting and investigating through California, we were thoroughly convinced that gold existed in this locality in paying quantities. Our first investigation was at the old Spanish mines, that are situated about three miles southeast of town. For the last forty years the Indians and a few white men have been taking out free gold at these mines. The gold is in particles or broken pieces of quartz, which is deposited in narrow stringers through the loose earth of the hillsides; these stringers of quartz having a roofing of granite that slopes to the west with a dip of 45°. Some very rich pockets have been found, but up to the present time the "mother ledge" has not been found. Having discovered that the gold in this quartz was deposited in spots of black manganese and brown hematite, and that the formation was of the old primary or glacial age, and that the secondary rocks came up from the north and formed a junction with the primary, which circles the valley in the form of a horse shoe and extends in length for a distance of about twelve miles in this shape, with a spur of the same formation jutting into it from the southwest and extending to the ocean, some ten miles away, and that the granite that capped the mountains in the primary range was showing fissures both large and small that were highly impregnated with iron and zinc, and that these fissures ran parallel with the granite ledges, as well as at right angles, and that the base of the mountains and the low range of hills that lie between the primary and secondary showed fissures of spar and quartz, we concluded that our time would not be lost if we made a thorough and intelligent investigation. Our first discovery of importance was made after thirty days of careful prospecting at a point about four miles southwest from the old Spanish

Cont--

Mining and Scientific Press
Feb. 8, 1896 p. 110-111 (cont.)

mines and on the banks of the Bernardo river, a stream of considerable size, that cuts through the old primary on the east and follows base of the mountain in a southwest direction, where it enters into the ocean. This first discovery was situated almost directly in the center of the mineral belt, which at this point is about one mile wide, and consisted of a well defined chimney of apparently volcanic origin. This chimney is about 50 feet across at the top and is filled with a decomposed quartz, carrying large quantities of brown hematite and red oxides of iron, with manganese and a trace of tellurium. Several quartz ledges intersect this chimney, varying in width from 2 to 6 feet. All the veins of quartz at this place, as well as the vein matter in the chimney proper are decomposed by the action of chlorine. This

chimney was situated on private land, formerly a Spanish grant, so that it was necessary to purchase the land before sinking. We secured 45 acres and sunk a shaft 30 feet from the chimney between two ledges of quartz. We are down 60 feet and have a drift 20 feet long at the 25-foot level. The assay from this shaft ran 30 in gold and 47c silver at the grass roots, and has increased satisfactorily as we went deeper. All the matter from this shaft is chlorides, and no colors could be horned until after passing the forty-foot level. At the present writing we have just tapped a ledge of solid quartz, the body of which only assays \$3 in gold, but the seams are coated with brown hematite, which is covered with oxidized gold and silver, apparently deposited by the action of electricity on tellurium. Specimens from these seams are very beautiful, showing all the colors of the peacock; but the green, blue and purple are of the brilliancy of emerald, sapphire and the richest amethyst. By applying nitric acid and blowpipe we produced beads of gold from these colors. No assays have yet been made from these specimens, as they were too valuable as cabinet specimens. This chimney is known as the Mountain Lion mine and is owned by Messrs. H. C. Brown, J. M. Best and C. Dewitt Chapman.

The next discovery of importance was north of the old Spanish mines, some three miles, and about the same distance from Escondido, and consists of a large body of quartz. Situated at the foot of the mountain of the primary range, and at the exact junction of the primary and secondary formations, this body of quartz is of such immense proportions that it took months of study and careful investigation to determine that it was in place, and that it all carried gold and silver. The vein matter is exposed for over half a mile and has an average width of 300 feet. It is constructed of numerous fissures, varying from ten inches to twelve feet in thickness. These veins are grouped together so closely that they have the appearance of a solid ledge. The entire vein matter is quartz of various colors and structure, and over fifty assays from different portions of the deposit all show gold from \$1 to \$27 per ton at the surface. The north end of this property is filled with sulphurets, while the south end of the ledge, where it is exposed, shows few sulphurets. Iron oxides and a black substance, supposed to be manganese, show in the seams. There is a layer of micaceous slate about four feet thick that overlaps the quartz where it runs under the granite at the base of the mountain. This immense ledge lies parallel with the mountain, which bounds it on the east, and although a width of 300 feet of this ledge is exposed, it still seems to continue under the mountain. This property has recently passed into the hands of the Geneva Gold Mining and Milling Co., whose main office is at Santa Ana, Cal.

After leaving the above property, we will pass on down to Bernardo river to a point half a mile below the "Mountain Lion" property. Here the formation still shows the primary granite as the cap or body of the mountains. The base of the mountains on each side of the river is gashed with veins of quartz and beds of chlorides, some of the latter showing immense quantities of brown hematite and red oxides. Down to this point there has been no development work done, excepting where Mr. Ables has a shaft 12 feet deep. His last assay was \$500 per ton in the red oxide. The land down to this point was homesteaded years ago and the valley used for farming, the owners little dreaming that they were the possessors of mineral deposits. Half a mile down the river from this shaft the Government land comes in and the granite changes to syenite of a close-grained structure, showing a slight greenish tinge and filled with small particles of hornblende, sprinkled with yellow sulphurets of the flat and round variety. This rock forms the body of the mountain, while the summits are crowned with round boulders and ledges of blue granite. The bed of the river at this point shows narrow fissures filled with black lava. On the north side of the river a kind of black, hard state crops at the water line. These mountains on the north are literally filled with large ledges of quartz, running in various directions, ranging in thickness from 6 to 100 feet. Some of them are broken at the top, but all are in place and vary in structure from the hardest syenite quartz to the finest sugar-loaf. Up to date no ledge has been assayed that failed to assay gold with some silver, the assay running from \$1.50 to \$12. All these ledges carry sulphurets in profusion. An assay of the syenite caprock gave a result of \$1.13 gold, 11 cents silver. This formation continues to exist for a distance of about five miles in width on the north side of the river and for about eight miles toward the ocean from this point. No free gold has been discovered, with the exception of a small quantity that has been washed from the bedrock of the river and from the bedrock of one gulch. The land here for many miles is still Government land. Some 150 claims have been staked out by the ranchers, but as none of them are miners and no nuggets are in sight they are doing very little development work. Perhaps the most remarkable find in this locality is what is known as the "Jolly Boy" claim, situated at the border of the valley, half a mile west of the river and at the foot of the mountain on the east side. Here an immense ledge of sugar-loaf quartz 100 feet wide runs under and into the mountain in a southwest direction. This ledge is so solid that it was impossible to break into it without blasting, and as the outside where it is exposed was discolored by iron, that settled from the water flowing over it, it has up to the last three weeks been taken for granite. The end of this ledge is exposed for something like 300 feet on the top and is cut square down next to the valley, exposing a face 50 feet high. This quartz is so completely filled with bright yellow sulphurets that it would require four concentrators to handle the output of ten

cont...

stamps. This ledge assays \$4 in gold and 30 cents in silver at the top.

There was a blast put in a few days ago which dislodged some ten tons of the ore, and assays are now being made. On the north of the ledge, next to the mountain, is a granite wall, while on the south, where the land slopes for some 300 feet before the ledge enters the mountain, is a bed of decomposed matter of gray and yellow. The discoverers of this claim cut a tunnel into the body of chlorides near the surface, and struck the ledge at the end of the mountain. Just before reaching the ledge, and lying directly against it, was a vein of dark blue clay. This body of matter is so highly charged with chlorine at the present time that on entering the tunnel one can smell the gas arising therefrom. All the walls of the tunnel are now, after a few weeks, covered with crystals, and samples of the decomposed matter taken from the sides of the tunnel are being saturated with water and boiled. The chlorine was of sufficient strength to dissolve gold and silver. Assays of ore gathered from this tunnel ran as follows:

	Gold.	Silver.
At the entrance.....	26	11
Ten feet from entrance.....	51	13
Twenty feet, next blue clay.....	86	16
Blue clay.....	103	13
Ledge, back of clay.....	206	16

The ledge rock was broken from the outside with hammers, as no blast has been put in. The top of the tunnel is in no place more than ten feet below the surface. The bed of chloridized matter is of an average width of 100 feet, and if the surrounding formation is taken as a guide it reaches hundreds of feet deep. This property, along with the Oxide claim, which adjoins it on the north, was purchased last week by Q. R. Smith, a capitalist of Santa Ana, Cal., for \$20,000. He expects to commence operations as soon as he has demonstrated the proper treatment for the ore.

Near the river, directly east of Mr. Smith's property, is a shaft forty feet deep, owned by Mr. Worthing. They have been digging through a decomposed quartz colored with red oxide, but have now struck a ledge of solid quartz of a dark blue color, filled with sulphurets. The ledge is between granite walls and has a layer of hard blue clay about four inches thick. Between the south wall and the quartz this clay hardens on exposure to the air. There has been no assay made of the blue clay and I failed to get the assay from the ledge. A double shift will be put on the shaft next week.

Aside from what I have mentioned there is no work being done. It is rumored that the Geneva Co. will begin development work in a few days.

At the present time this is no place for those seeking employment, as the camp is too new, and it will require capital to develop and open up the bodies of ore; and until something more is known as to the richness of the deposits I would advise all poor people to keep away.

C. DEWITT CHAPMAN.
 Escondido, San Diego Co., Cal., Feb. 1, '96.

Inventor: The chief mining activity in this section is now in the Perris country, where a number of promising claims are being steadily developed. Efforts that have been made to interest capital in this section are likely to prove successful in several cases during the next few weeks, and there is a prospect of important developments in this gold region very shortly. Mines around Perris are within five miles of a railroad, with country roads running to them that are far better than some of the streets of Los Angeles have been for the past week or two. Then, again, the cost of fuel and supplies is less than half what it is in many mining camps which have paid millions of dollars in dividends. When ore can be milled and mined for \$2 a ton, or even less, as can be done in Riverside county, it is easy to see what a great advantage this gives the mine owner over sections where fuel, transportation and supplies all cost from two to five times as much.

SHIPPING CONCENTRATES. — Record: The Good Hope Company recently worked over a lot of its tailings and as a result this week shipped 32,000 pounds of concentrates to Pueblo, Colo. This makes the second shipment that has been made within the past two months. Under the Sigafus regime the Good Hope concentrates netted about \$75 to the ton, and if this can be taken as a criterion, the last two shipments will net the company quite a revenue.

Inyo.

D. C. Lane intends putting in a 12-H. P. gasoline engine at the Sorba mine to be used in operating a hoist. A 15-H. P. plant is to be put in at Snow's Canyon to run the new mill.

REOPENING THE PANAMINT MINES. — J. W. Keeney of Riverside has relocated several claims at Panamint and has nine men doing development work. These mines were famous as the base of supplies of Senator John P. Jones twenty years ago, when silver was in demand. From September, 1875, to May, 1876, a period of eight months, the yield was \$344,338.82, or an average of \$38,250.20 per month. Although the price of silver has declined, there is still profit to be made in working the old mines. The company has thirteen claims in all, some silver and some gold. The mills of the old company, under the Jones regime, are still there and have been leased by the new company, and within two weeks Mr. Keeney says he expects to have them under full blast and will add to the force of men from time to time.

Riverside.

The Briggs mine, in the Menifee district, will reopen next week with a large force of men.

The Indian Queen and Golden Chariot mines, near Perris, have received new hoists and pumps.

The Morning Star mine will soon have active development work.

Mining and Scientific Press

Feb. 22, 1896 p. 150

San Diego.

(Special Correspondence).—Mr. Q. R. Smith, the owner of the Jolly Boy and Oxide mining claims in Crescent Valley district has begun work.

The Geneva Gold Mining and Milling Co. begins development work on its property in Escondido this week.

Several owners of prospects are now at work in this section trying to ascertain the value of their properties. B.

Escondido, Cal., Feb. 18, 1896.

PICACHO MINES.—*Sentinel*: Work is being crowded days, nights and Sundays on the six new shafts now being put down on Senator Dorsey's mines. The seventh shaft was begun Monday and the eighth on Tuesday. The first six are now down from 45 to 70 feet each. The miners are able to sink from two to three feet in twenty-four hours.

Judge O'Connor has decided to sink three shafts, each 100 feet deep, on the mines he purchased from Richards, Josselyn and Adams.

The Santa Rosa has laid off a number of miners and hung up ten of its stamps the past week. The reason for this is attributable to a scarcity of water in the mine. Some method will shortly be adopted by which a supply of water will be obtained sufficient to keep the twenty stamps running steadily.

Feb. 29, 1896 p. 170

San Diego.

ON THE COLORADO RIVER.—(Special correspondence)—Eight shafts are now being sunk on the two bodies of free-milling ore at Picacho, one of which was discovered on the Mina Rica mine a few months ago and crosses that vein, also the Mars, Venus, West Goshen and Del Mar mines. It is 400 feet wide on the Mina Rica and averages \$15. The other body of ore was found a few days ago. It crosses the Helen Mar, Apache, Eastern California, and runs into the San George, and averages about the same. It is from 40 to 100 feet wide. These new bodies of ore are, in addition to the veins, already known to exist in the above mines and add new interest to this camp, now being opened and developed. The work on the eight shafts is being pushed, with flattering results. The shafts are now down from 40 to 100 feet each. The veins are crosscut at every fifty feet. Gold Basin Mining Co., headed by C. B. Richards, vice-president First National Bank, and A. J. O'Connor, receiver of the Consolidated National Bank, San Diego, has secured seven good mines in the White Gold basin, one mile east of Picacho, where it will at once put down three shafts, each 100 feet deep. The company will also put up a forty-stamp mill. With the present developments going on at Picacho, and the good results obtained, the camp is fast coming to the front as one of the most promising mining sections on the coast.

Yuma, Ariz., Feb. 20, 1896.

A deed was filed in San Diego this week transferring the Champion, Golden Bell, Mina de Ore, Fortune, Painted Rock, Mount Pedro, Silver King and Horseshoe mines in Old Picacho district, to the Gold Basin Mining and Milling Company for \$1,000,000. The signers of the deed are C. L. Josselyn, A. J. O'Connor, M. O'Connor and C. B. Richards, of San Diego. The deal has been on foot for some time and is believed to mean the beginning of development of the ledges at Picacho.

The Owens mine force at Julian has reached the bottom of the shaft and discovered the Cornish pump and the tank that was lost at a former attempt to bail the mine out. Workmen are now engaged at the 250-foot level crosscutting to the Owens ledge and a large force will be put on as soon as the conditions justify.

cont...

(cont.)

San Bernardino.

J. B. Osborne has opened up a new ledge in the Ord mining district, near Daggett. It is ten feet across, and averages \$18 per ton.

Mar. 7, 1896 p. 190

Gasoline Engines and Borax Mines.

Herewith is illustrated a new use to which the gasoline engine has been put, showing a twenty-five-horse power Union gasoline engine attached direct to an air compressor of sufficient size to run three rock drills. This compressor was built by the Abner Doble Co. of San Francisco. It is for use in the borax mines of the Pacific Coast Borax Co. at Daggett, Cal. These engines are becoming a factor in mine development, and have done much to develop many properties which otherwise would have remained non-paying, owing to the lack of fuel in the section.

Reference to cut shows engine on the right, with a vertical double-cylindrical compressor on the left. The plant is self-contained, as both engine and compressor are fastened to one base, and the base is so arranged as to carry the necessary oil, also the igniting batteries. This is the fourth engine that this company has used; it now has three hoisting plants, all driven by Union gasoline engines, and the above-mentioned compressor plant. These engines apparently solved a problem for this company, that had given it considerable trouble. Before the introduction of these gasoline engines the hoisting was done by mule power, and water was so scarce in that section that the drinking water for the animals had to be hauled quite a distance. There are other properties in California that have the same natural handicap.

cont...

Mining and Scientific Press
Mar. 7, 1896 p. 190 (cont.)

The Union Gas Engine Co. recently shipped a twenty-five-horse power engine to the Confidence mine at Death Valley. This property is owned by the Sterling Mining & Milling Co., a corporation of Utah. It appears that it had been known for some time that the property was valuable, but owing to the impediments that nature had

placed in the way—scarcity of wood and water—the property remained undeveloped until purchased by the company, and as it had had previous experience with this form of motive power, it knew that no difficulty would be had in operating the property. Having purchased some 150-horse power in various sized engines for use in its several mines, the company knew that the gasoline engine was not an experiment for mining purposes. The recent improve-

ments that have been made in gasoline engines have made them reliable, apart from the readiness with which they can be gotten into motion.

At the Marguerite mine in Auburn, Placer Co., one of these engines is in operation. The engine-room and blacksmith shop are one. The engine is

used for hoisting purposes, and when there is a bell from below the blacksmith stops blowing his bellows, starts the engine inside of ten seconds, hoists the load, empties the bucket and proceeds with his work.

Many undeveloped properties that are now standing idle, owing to the great cost of putting in power, could be worked to good advantage with the gasoline engine.

The lower illustration portrays the borax mines at Daggett, where the engine is to go. These mines are owned by the Pacific Coast Borax Co. It is a desert country—a dreary, desolate waste—mule power being almost the sole means of transportation.

This valuable salt is found in considerable quantity in this country only in this State and Nevada. The commercial history of the borax industry on this coast is one of loss and disappointment. Prior to any production being made in Nevada, the price of borax ruled everywhere at 28 to 35 cents per pound, figures that held with but

little variation up to 1872, when the price dropped during the next two years as low as 6½ cents in the San Francisco market.

After touching this low figure the price of refined borax underwent some slight improvement, and, advancing slowly, reached present rates, 7 to 8 cents per pound in New York. The Nevada producers met with disappointment; their deposits were not fruitful; they were unable to put their borax upon the market in satisfactory shape, the product of their refineries was disposed of hastily and through such diverse channels as soon placed them in the attitude of mutual competitors.

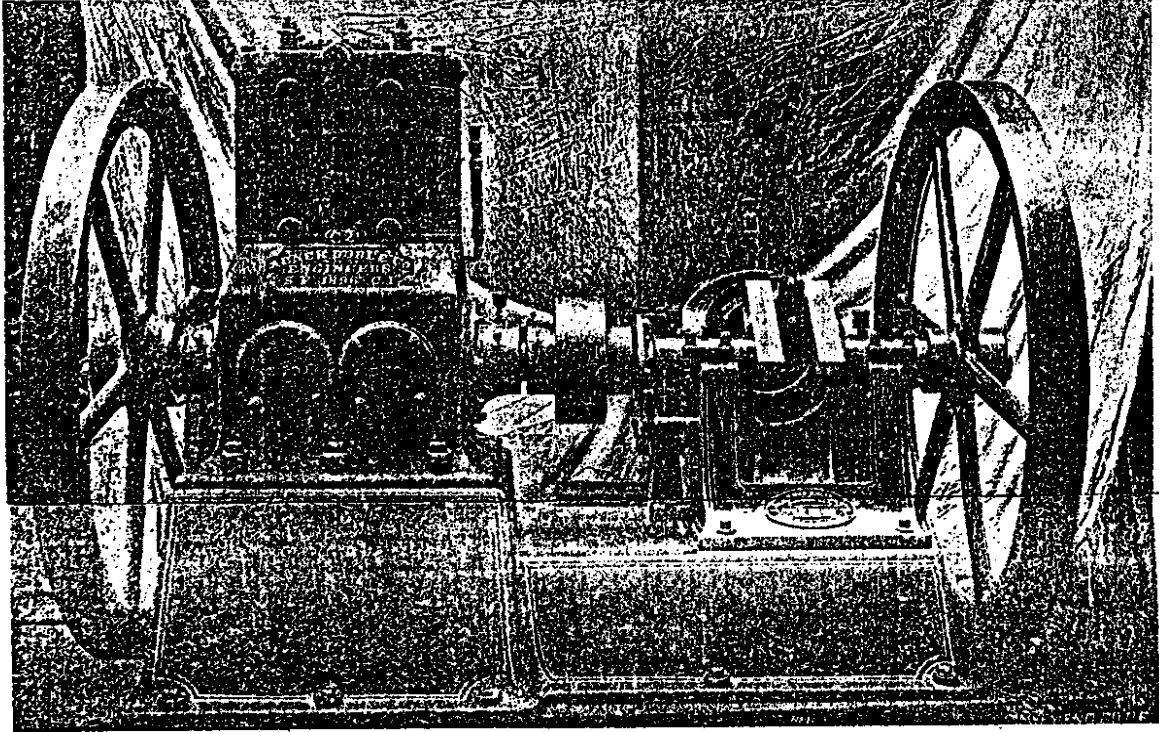
These evils and errors developed such obstacles as, in the course of a few years, forced every one of these

companies to greatly curtail or wholly suspend operations, the production of borax on the Pacific coast having fallen off before the end of 1879 more than 75 per cent from the largest amount previously made.

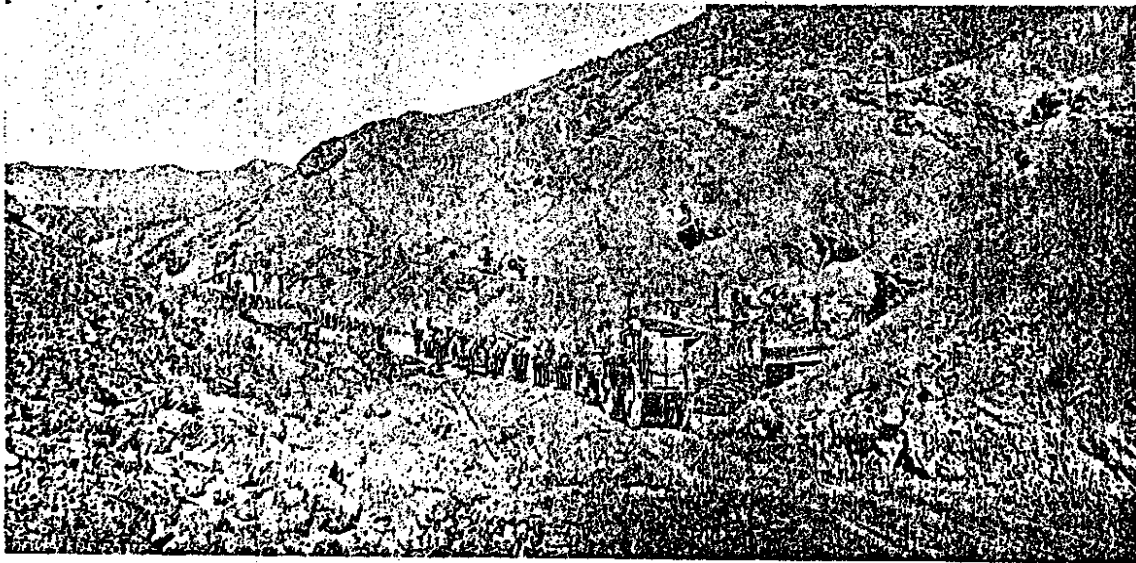
In calculating their chances for success, the Pacific coast manufacturers made the double mistake of overestimating their own and underestimating the resources of the foreign producers. It was supposed that the previously prevailing high prices of this commodity the world over were due to a scarcity of the raw material, or to the difficulty of obtaining it in the countries where the principal supply was drawn—a manifest error, inasmuch as the borate deposits of Europe, India and Peru, at the time the new industry was striving for a foothold on the west coast of the United States, were

ample to meet all the requirements of commerce. The Pacific Coast Borax Co. is now the largest single producer of this bi-borate of sodium, and is introducing it into general use. Borax is a flux for nearly all metals, a solvent for resins and fats, a cleanser, an antiseptic and a preservative of animal tissue. Its production has increased from 24,304 pounds in this State at 39 cents per lb. in 1864 to nearly 10,000,000 pounds in 1895 at 7½ cents per lb.

Miner and Scientific Press
Mar. 7, 1896 p. 190 (cont.)



GASOLINE ENGINE ATTACHED DIRECT TO AIR COMPRESSOR.



PACIFIC COAST BORAX COMPANY'S MINES AT DAGGETT.

Mining and Scientific Press

March 7, 1896 p. 190

Inyo.

The Confidence Mining Company of southern Inyo has started up its mill in Death Valley, eighteen miles north of Saratoga Springs. The company has about twenty-five men employed.

The Sterling Mining Company at Montgomery has suspended issuing checks, and lately several checks which were sent out to be cashed have been returned protested, but all are assured that payment will be made in thirty days.

At the Hirsh mine twenty men are employed. Three hundred buckets of ore are handled every day, the buckets of the tramway holding about forty-five pounds each.

The Owens River and Big Pine Canal Company has levied an assessment of 20 cents per share, delinquent April 4th.

Riverside.

A. H. Naftzger has been removed as receiver for the Good Hope Company. The property has reverted back to the company and E. H. Wilson is reinstated as general manager. The late superintendent, I. E. Boicourt, has paid off all the men, discharged them and work will be suspended temporarily.

The Pinacate mining district, near Perris, is attracting considerable attention.

The Golden Chariot mine, south of the Santa Rosa, and on the same vein, has completed a steam hoisting plant.

The Ophir mine, to the south of the Good Hope, has been developed by a shaft about eighty feet deep.

The Briggs mine at Leon, south of Perris twelve miles, will soon be equipped with a ten-stamp mill.

March 14, 1896 p. 210

Riverside.

At Perris the Santa Rosa mine was attached and the Good Hope closed down, forty men being thrown out of employment at one mine and thirty at another, with no assurance of an early resumption of work in either.

The Santa Rosa mine has filed a petition in insolvency. The liabilities amount to \$18,904.53; the assets to \$103,414.57. The assets consist of three mines and new machinery, valued at \$25,000.

The closing of these mines is the outgrowth of litigation, and in no sense reflects upon their value.

March 21, 1896 p. 225

Tributary to Yuma.

Present Conditions in Southwestern Arizona and South-eastern California.

TO THE EDITOR:—The mining interests of the section tributary to Yuma are receiving considerable attention, not only from local capitalists, but from Eastern States. There are several promising fields for the investor both in southwestern Arizona and in California. One of the latest transactions in this section is the purchase of the Thomas mines by C. D. Lane and others of Angels, California. This mine is one of the most promising in the southwest. It is twenty-five miles southeast of Yuma.

cont...

There are some other enterprises hereabouts of less prominence, but the field of greatest activity is on the California side of the river. The Duncan mine at the Pot Holes is being developed. An inclined shaft is now down 150 feet in a vein the width of which is not really known, the shaft being all in ore, and sunk on the footwall. No mill will be built until the development of the mine warrants it.

In Picacho district a score or more of Mexicans are "dry washing." From a responsible person I learn that the average earnings are about \$1 per day per man. As a rule, they work only five or six hours and spend much of their time resting. It was here that a pumping plant was installed two or three years ago. It proved a dismal failure. The pumps were unsuited to the work. It would be a much better plan to screen the gravel and haul it to the river.

Several lode locations are being developed by Hon. S. W. Dorsey of Denver, who has purchased a group of claims surrounding the old Jayne mines. The latter were worked several years ago, some of them being over 200 feet deep. The rock was all hauled to the fifteen-stamp mill on the Colorado river, five miles from the mine and crushed. It is said that the rock returned about \$9 per ton. The mill is still in fair repair and could be put in shape to run at small cost. There is, however, no immediate prospect of a resumption of operations on the Jayne mines. Senator Dorsey will develop his newly acquired mines; and if the result is satisfactory, Picacho will become a lively camp. The gold-bearing ledges occur here in altered country rock (mica schist, hornblende schist and diorite), vein quartz being rarely found, and, where encountered, almost destitute of gold. The ore is heavily stained with red, brown and yellow iron oxides. Some of the ore bodies are very large, though low grade.

About three miles east of Picacho basin is what is called White Gold basin. There are numerous veins in this section also; but, like those in the Picacho basin, are zones and lenses of crushed country rock, which here are diorite, felsite and other intrusive rocks. These zones lie in a system of parallel fissures joined by cross fissures similar in character. One of the lodes the mineralization on the surface is more than 100 feet wide, and can be followed several thousand feet along its strike. The gold in this ore is alloyed with silver to such an extent as to

give it a silver-white color. A great deal has been said about the rarity of this metal, its enhanced value, etc., but merchants and others in Yuma pay about \$12 to \$13 per ounce for it. The lode is known as the Oro Blanco (White Gold), and is one of the strongest in the district. Another zone of great width and continuity is the Golden Sunshine. The gold in this lode and in fact in all the others, except the Oro Blanco, is higher grade and consequently yellow.

The region is a very interesting one. The hills are almost entirely destitute of vegetation, and the rock exposures are all that one could ask. The older crystalline schists have at one time been overlaid by masses of rhyolite and tufa to a depth of several hundred feet. Of the vast field only a few outlying remnants are left. No mineral deposits of value have as yet been found in the rhyolites or tufa. They resemble the liparites of Calico somewhat. Further southward the rhyolites are overlaid by a later formation of andesites and black eruptives ranging from augite andesite to true basalt.

cont...

Mining and Scientific Press

March 21, 1896 p. 225 (cont.)

In the Cargo Muchacho mountains there is considerable activity in the neighborhood of the Golden Cross mine. Colorado capital has been interested and several vertical shafts are being sunk in the hanging wall country of the Golden Cross Company's deposits, with a view apparently of depriving that company of the right to follow their ore shoots beyond their side lines. The prospect for lengthy and expensive litigation is excellent. No suits have been commenced, but they will surely result if the newcomers attempt to extract ore from any of the deposits now being operated by the Golden Cross Company.

The gold-bearing deposits occur as impregnated masses in the country rock, which is normally hornblende and micaceous schist. These rocks have become very silicious, as a rule; the hornblende has altered into chloritic scales and epidote.

A slight incrustation of copper carbonate and chrysocolla is noticed at many points, particularly near the surface. The whole formation has been cut by a perfect network of coarse granite (pegmatite) dykes, which in some parts of the mine are gold-bearing.

These zones lie parallel, or nearly so, conforming as far as known with the dip and strike of the coun-

try rock. The shoots, however, lie in a series of swells, which make up into the hanging wall, being thickest at the middle and thinning out in either direction along the strike of the lodes. They occur at varying distances of 100 or 200 to 1000 feet, so that a line drawn at a right angle to the strike of the formation may pass through several of these shoots. The Golden Cross Company has two stamp mills, the old one of forty stamps, weighing 850 pounds each, and a new mill of one hundred stamps, weighing 1000 pounds each.

Claims are staked out all over the hills of the vicinity, and hundreds of acres have been taken up on the desert wash. Only one company is in operation besides the Golden Cross, and that is a Colorado concern, sinking a vertical shaft in the hope of finding the Golden Queen shoot within the lines of their own claim. The result will be watched by Californians with much interest.

CALIFORNIA MINER.

Yuma, Ariz., March 16, '96.

March 21, 1896 p. 230

Inyo.

At the Hirsch mine, near Independence, now owned by the Howard Mining Company, the new ten-stamp mill is at work. Supt. Rives states that it crushes twenty tons in twenty-four hours. The ore is brought from the mine by buckets suspended from an endless wire cable. These are attached one hundred feet apart, and hold about one hundred and thirty pounds of ore each. They are arranged with hinge bottoms, and a trip over the ore bin at the mill releases the catch so that the ore drops and the bottom goes back to place as soon as the ore is out. From the bin the ore is shoveled into a rock crusher and passes down to the self-feeders. The slums pass over two six-foot concentrators. Supt. Rives has eighteen men working in the mine, and four at the mill—two on each shift.

Riverside.

R. P. Winters of Perris has been appointed assignee of the Santa Rosa Gold M. Co.

San Bernardino.

An *Examiner* dispatch says: A five-stamp mill belonging to the Virginia Dale Mining Company at their property on the desert has been "sanded" out of sight and abandoned. The Virginia Dale is about 120 miles east of San Bernardino, and its output has been worked in the five-stamp mill of the company which has been located in a depression, probably in the dry bed of what was formerly a lake. Recently one of the sandstorms for which the desert is famous visited the locality, and when the storm ceased blowing the mill had been completely buried in the sand. To dig it out and clear away sufficient space to permit of its being again operated or to raise it to the new level, was considered to involve an outlay of more than the value of the mill. It was therefore determined to abandon it and a new ten-stamp mill has been ordered.

San Diego.

AT JULIAN.—At the Owens mine men are at work on the 250, 300 and 350-levels, the objective point being the Owens ledge.

Sun: A large number of quit claim and warranty deeds, contracts and mining locations arrived at the county recorder's office this morning from Yuma. They all refer to the recent heavy transactions of ex-Senator Stephen W. Dorsey, of Denver, Colo., and Frank S. Ketchum of the same place, who has given Dorsey complete power of attorney to attend to his business for him. Senator Dorsey has acquired by purchase, trade, locations, etc., nearly 100 mines and claims of more or less value in the Old Picacho district about thirty miles north of Yuma on the Colorado river. Among the more important of these are the Golden Casket, the Golden Horn, the north Belt and the Eastern California. The prices paid run from \$1 to \$5000 per claim. R. C. Cotton of Los Angeles has also bought a lot of claims of S. D. Northcutt of the same place, also in the same district, for \$5000.

March 28, 1896 p. 250

Riverside.

Riverside men have taken hold of the Honsch mine and are developing it with excellent results.

San Bernardino.

The McHaney (Desert Queen) mine, which has so far contributed considerable to the mining literature of southern California, is again distinguishing itself. Workmen are now reported to have struck "in a new shaft a big body of black iron ore heavily sprinkled with free gold." When "black iron ore" gets to showing "free gold," the locality becomes an interesting one.

A. F. Judson of Colton has just sold an interest in his group of four mines in the Virginia Dale district to Eastern men, and a ten-

stamp mill will be erected at once and a pumping plant erected to bring water from a lake, three and one-half miles to the mill.

It is reported that the Ibez mill and mine will start up with a full force soon.

The rush to the Ibez district continues, and a number of the claims that have been prospecting run well in gold. A townsite called Smyzerville has been laid off.

San Diego.

AT JULIAN.—The Owens Company will sluice the tailings which have accumulated below the mill.

Mining and Scientific Press
April 4, 1896 p. 270

Riverside.

The Santa Rosa mine, near Perris, has straightened out its financial difficulties, and resumed operations. C. A. Winters is the receiver in charge of the property. James Noonan is the foreman. Twenty-five men are at work, and the ten-stamp mill is running.

San Bernardino.

Judge Welborn of the United States Court has appointed John D. Polk Master in Chancery to examine into the accounts of the receiver of the Vanderbilt group of mines.

San Diego.

At Hedges 300 tons of ore pass under 140 stamps every twenty-four hours.

At Picacho considerable development work is under way.

At the Adslit camp, American Girl, Blossom and Cargo Machacha a number of men are employed; also at various other places on the desert. The Buena Vista mine, near the river, twenty miles above Yuma, is patented and is the property of the Beaties, who are at present erecting a new stamp mill.

According to the *Express*, J. H. Carpenter of Yuma, A. T., who is manager and agent of the Denver capitalists who bought some mines in the Picacho district, will build a 200-stamp mill and a narrow gauge electric railroad to carry the ore from the mine to the mill, on the Colorado river. The veins developed are from 20 to 150 feet in width, averaging from \$6 to \$8 a ton. It is the intention to burn crude oil.

April 18, 1896 p. 322

San Diego.

Samples of rich copper ore have been received in San Diego from mines in Picacho district, on the Colorado river, owned by a company in which G. L. Jesselyn of San Diego is interested. The specimen shows the ore to be at least 75 per cent pure copper, and it carries enough gold to pay for being worked.

S. W. Dorsey, who is becoming largely interested in mines at Picacho, has filed in the recorder's office notice of his purchase from J. M. Mendivil and others of all their right, title and interest in the Apache, Control, Eastern California, Western Pacific, Golden Casket, Mina Rica, Riva Tierra, Gold Seal, and Mars southeastern extension, with millsite.

At Julian the Owens Mining Company has opened a ledge at the 350-foot level, two feet

wide, which shows free gold. Fifteen men are continuously at work.

H. E. Holland has sold his third interest in the Elevada mine to V. E. Shaw, of San Diego, for \$3500.

On the desert in the eastern portion of the county, the headquarters of the Chucawalla district is the mine of the Sterling Gold Mining Company, where a ten-stamp mill costing \$27,000 is being erected. The company owns several mines in a group and have sunk several shafts to a depth of 75 and 100 feet, enough to show something permanent. One by this mine is the Bowler mine, down 75 feet, and the Granite, down 100 feet, which crosscut 75 feet across the ledge. The Red eye mine, three miles away, is owned by R. Kellar, of Los Angeles, and is down 90 feet

April 25, 1896 p. 342

Kern.

Randsburg attracts attention. If one-half what is reported from there is one-half true it is a rich spot.

Garlock's eight-stamp mill at Cow Wells is running.

The owners of the Olympus have resumed development work. The Trilby claim adjoins it. The question of water has been a problem, but there are 1000 inches at Kane springs. Cudderback wells are an inexhaustible supply. There are 200 men in the camp.

Riverside.

Dudley Porter and others of Haverhill, Mass., in a suit against J. M. Sigafus for \$1,000,000 have secured a verdict in the United States circuit court for \$330,375. The plaintiffs charged that the defendant sold them a gold mine in Riverside county, and misrepresented its character. The defendant claimed that the misunderstanding arose over the incompetency or the negligence of the experts employed by the plaintiffs to inspect

the mine. They also claimed that the mine was mismanaged after the sale.

Sacramento.

The Golden Land Placer Mining Company has levied an assessment of 1 cent per share delinquent May 20th.

San Bernardino.

E. J. Baldwin is credited with intention to reopen and develop his mine on Gold mountain, near Holcomb valley.

Thomas and Wood report a discovery of a deposit of borax, five acres in extent, sixteen miles north of Barstow, and show samples of the rock, which assays better than that taken from the mine of the Pacific Coast Borax Company at Calico.

San Diego.

The Chucawalla Mill and Mining Company has incorporated in San Diego: capital stock \$1,000,000; president, H. E. Crepen; secretary, A. Crepen; superintendent, H. Santee.

May 2, 1896 p. 355

The trustees of the Golden Cross Mining and Milling Co. will sell the Golden Cross, Golden Crown, Golden Queen, Miles, Sutton, Black Hawk, Leighton and Los Angeles properties, Hedges, San Diego Co., at Los Angeles.

May 2, 1896 p. 362

Inyo.

The *Register* hears that a hill of phosphate has been located east of Alvord, by G. D. Rochford, representing Denver men. The principal source of this fertilizer is in Florida, and most of the phosphate used in southern California comes from there. The deposit now reported from Big Pine is said to carry 83% per cent of the necessary chemical.

Kern.

The owners of the new prospects at Randsburg write to the *Bakersfield Californian* that the stories of the strike have not been exaggerated in the slightest. Their claim is called the Hector.

San Bernardino.

A strike is reported in the McHaney district, east of Banning, by the Eagle Cliff Mining Company, at a depth of seventy-five feet of twenty inches of ore.

Mining and Scientific Press

May 2, 1896 p. 362

San Diego.

In the Picacho gold belt, says the *Sentinel*, are a large number of white quartz veins which carry no mineral whatever, the gold in that section being found in the porphyritic and schistose rocks, carrying a good per cent of silica in their makeup. Mining men not acquainted with this fact and accustomed to the white quartz veins in other mining regions which carry gold have been puzzled whenever they have visited Picacho and seen an entirely different formation and the mineral-bearing rocks of another character.

A small vein of copper carrying rock has been found in the Alcyon mine in the White gold basin, carrying free gold. It was only a stringer in appearance, four or five inches in width. Development shows a body of ore carrying gold, silver and copper.

Senator Dorsey has had a large amount of thorough prospecting and development work done on his twenty-six mines, with satisfactory results. Work will be prosecuted during the summer.

At Galanal, twelve miles west of Picacho, rich ore has been found in the Matilda, Silver Prince, Rainbow and Estrella mines.

May 30, 1896 p. 446

Kern.

At Havilah, some of the old works at the Warrington are being retimbered. G. Miller is working an antimony deposit. The Amalio mine at Rogers sends encouraging reports. The Carolina shaft is expected to strike the lead at 150 feet.

The *Eyrie* reports that Jones' stamp-mill is at work. The old Gold Hill mine is turning out good ore. In Randsburg the well-boring at the Cow wells is at an end, as they have struck sufficient water to run the eight-stamp mill. Stockton, three miles from Randsburg, expects to put up a ten-stamp mill at once.

Koehn and Stanton will soon have a five-stamp mill in operation at Kane springs.

Riverside.

The Good Hope mine at Perris has resumed. W. J. McIntyre, for H. D. Johnson, the owner, has paid \$12,000 in settlements of bills incurred by Receiver Naftzger, and the mine is now run by him. The main shaft will be sunk 400 feet, the levels extended and a reservoir for water made. Then, under the management of Supt. Sigafus, the stamp mill will resume.

San Diego.

W. H. Storms of the State Mining Bureau has been making an examination of the mines near Mesa Grande. He will examine the Banner, Julian, Rice and Pine Valley districts. He is quoted as saying, after spending a week in the Escondido region: "There may be possibilities for the development of some good mining properties in that section, but in the absence of definite, reliable assays of the ores in the ledges now being opened up, I must decline to express an opinion as to the mining situation there."

June 13, 1896 p. 479

Nor since Moses smote the rock from which gushed the water in the wilderness has anything in that line been more remarkable than the report of the discovery of a flow of water on the Mojave desert. A ten-stamp mill is being built at Kane Springs, about thirty miles northeast of Mojave station. A shaft 6 feet square was sunk to obtain water for the mill. Last Tuesday the well was down 20 feet when, according to a Bakersfield account, the bottom seemed to drop out and the water came in so fast that workmen could scarcely get out in time to save themselves from a good wetting. In forty-five minutes the whole well was filled up, and the water was running over the top. This gives great abundance of water for mill work, and it can be run directly into the battery. The mill and spring are the property of O. B. Stanton.

June 13, 1896 p. 486-487

Inyo.

Register: The Comett mine at Fish Springs is working six men. The ledge runs from 8 to 15 inches in width averaging \$30 per ton. The Rose mine near by is also working six men.

Some of the dry-washer placer mines in Midzourka canyon are doing well. Labarge & Hamilton average about one ounce a day. The ground generally is yet too damp for effective work.

Kern.

The Barossa Mining and Milling Co., No. 150 South Broadway, Los Angeles, is pushing

the erection of the stamp mill on the Christopher Columbus claim in Kern county. This is one of the six claims owned by this company. M. P. Freeboy, president of the company, now at the mine, reports that the stamps will be dropping by June 15th.

Riverside.

The Bess mining claim, about one and a quarter miles southeast of the Good Hope properties in Riverside county, is improving daily. According to the Perris *News Era* this is probably the most valuable mining property in the section. The shaft is down 25 feet and there is a ledge about 10 inches in width that sparkles with free gold.

San Bernardino.

Redlands Outlook: The Mint group of mines, near Kleinfelter station, west of Needles, was sold last week to an Irish syndicate for \$120,000, who will soon begin active work on the property.

Investor: Reports of rich strikes continue to come in from the desert, which seems destined to become the great mining section of southern California, although various other sections are rapidly becoming better known as promising mining fields. But while there are many parts of this southern country which will well repay investigation, there are a few places which will not. Such an instance is given in the Goler mining district, which, according to a San Bernardino miner, is a good place to keep away from. Last February there were about 400 prospectors around Goler and now only fourteen can be found. Wood and water are scarce and very costly, and the high winds, which blow the sand in all directions, make work almost impossible. The Goler placer mines, which are believed to be rich, lie from 25 to 75 feet under the surface.

cont...

Mining and Scientific Press
June 13, 1896 p. 487 (Cont.)

San Diego.

At Julian the Owens mill started on the 1st, improvements are being made so that as much as possible of the concentrates can be saved. It is estimated that not a larger average than fifty per cent of the gold in the Julian ores can be saved from the stamp mills by the most experienced and careful mill men, and from some recent assays of tallings even a less per cent than that is free milling. The Owens ore in common with others contains a larger amount of sulphurets as depth is reached and as the ores have always been considered free milling, no particular effort was ever made to reduce them. The amount of Julian or Banner ores ever treated in a smelter is very small.

The Cincinnati Belle Company is making preparations to resume operations at the Gold King. J. M. Farley is superintendent.

The Golden Cross Mining and Milling Co., with mines at Hedges in San Diego county, has brought suit against the trustees, to whom the company recently turned over its mines for the benefit of its creditors. The mines, among which are some very valuable properties, were to be worked by the defendants as trustees, and the proceeds were to be devoted to paying off the company's debts. The company prays for their removal, and for the appointment of new trustees; \$150,000 is also asked for alleged damages.

June 20, 1896 p. 510

Inyo.

Register, June 11: P. W. Palmer, who returned from San Francisco yesterday, informs us that he has purchased the Mammoth mine, millsite, and everything connected with the property except the mill itself, which belongs to J. S. Cain. The terms of the sale are private between himself and the Bank of California, which has owned the property since the boom days of the camp. Work will be vigorously pushed in the mines and mill this summer, we hope with rich returns.

Kern.

At the new mines recently noticed, there is now a postoffice known as Garlock. There is also one at Randsburg.

Water was struck at 207 feet sufficient to insure the running of the mill.

The ores milled since May 20th show:—
May 20th, 11½ tons, 14½ ounces, \$18 per ton.
May 21, 10 tons, 18½ ounces, \$2,388. May 20th, 5½ tons, 190 ounces, \$2,800.

The 5 stamp mill erected at Kane Springs, twenty miles away, is completed.

Robert Taylor of Mojave, contemplates putting up a stamp mill.

Willard and Harrison in the Rand district are putting in a five-stamp mill and 10-horse power engine and pushing the work on two of their claims—the Itawhite and Ophir. They have a 4½-foot shaft down 160 feet and about

100 tons of ore on the dump which they will go to work on as soon as the mill is in running order. They report about 1000 people at and near Randsburg and Cow Wells, with three stages daily from Mojave.

San Bernardino.

(Special Correspondence).—On April 15th I discovered gold on Porphyry mountain, a reef of conglomerate or sedimentary porphyry carrying gold, 800 feet north of the Waterloo silver mine. This reef is several hundred feet

in width, about 2,000 feet in length, which carries gold all through it. This deposit is soft porphyry, small particles of broken quartz and carrying red oxide of iron. It seems to be perfectly free—no sulphurets or other base material that would interfere with its working.

H. B. STRYKENS.

Calico Mining District, June 12th, '96.

The San Jacinto Register says the gold mines in San Jacinto mountain, near Strawberry valley, are attracting a great deal of attention, many have taken up claims.

According to R. G. Dun & Co.'s circular, the Vanderbilt Mining Company has looted an assessment.

June 27, 1896 p. 523

An employe of the Golden Cross M. & M. Co., Hedges, San Diego Co., reports a temperature of 126 degrees last week. That sounds terribly torrid, and would be fatal to many in a humid climate. But in that locality 126 degrees implies about the same relative discomfort as 76 degrees in San Francisco. He adds that the company pays \$525 per month for water, which seems reasonably dear.

At the Golden Cross mine, at Hedges, Cal., which has the largest number of stamps under one roof in the State, W. W. Stewart, of San Diego, is receiver at a salary of \$8,000 per annum. About 175 men are employed. The present debt of the company is reported to be \$150,000, and it is thought that sufficient can be taken out of the mine this year to pay that in full. The property is considered an excellent one, and the cost of mining and milling the ore is stated to be but \$1.50 per ton.

About eighty men have been employed during the past season at the borax mine of the Pacific Coast Borax Co., near Calio, San Bernardino Co.

In southern California, including Kern county, there are now 135 quartz mills, aggregating 980 stamps.

Cow Wells, Kern Co., is eight miles from Randsburg and twenty miles from Goler. A postoffice—Garlock—has just been established.

Dredging is a form of river mining now receiving considerable attention. On the Colorado river, about fifteen miles above Yuma, Arizona, dredging machinery has been anchored on two large flatboats and a system of sluices is placed on others. The debris from the bottom of the river is scooped up and run through the sluices, which are placed a little below the surface of the stream. The Distcheorst Bros. have been operating dredgers on the upper Sacramento river, this State, for two years with very satisfactory result, and the same plan is to be tried this season on an extensive scale on the Klamath. A California company is also putting in a big plant to dredge on the upper Frazer, B. C.

June 27, 1896 p. 526

SAN BERNARDINO.

The mill at the Altoona mine, Morongo district, was started last week. The Rose mine, which has never been closed since its discovery, is now working eighteen men and the mill is running at its full capacity.

The Fremont district, eighty-five miles from San Bernardino, is midway between Or Grande and Barstow, ten miles from a railroad switch. A shaft has been sunk to a depth of thirty-feet showing a ledge twenty inches wide carrying rich ore. The Robert L. at ten feet from the surface is producing ore. Kerr Bros.' mine, the Razzle Dazzle, has a shaft ninety feet in depth on a four-foot ledge, the ore going \$30. A mill will be erected.

cont...

cont...

Mining and Scientific Press

June 27, 1896 p. 526

San Diego.

It is reported at Escondido that some of the stockholders in the Geneva Mining Company have decided to a stop. They refuse to sell or allow any work to be done on the property, and things are in a bad shape, according to the *Advocate*.

W. H. Bradley is developing the Messenger mine, forty-five miles northeast of Salton in the Eagle Mountain district. There are said to be several good mines in the district, and a large number of men are at work, mostly prospectors. A stage line runs from Salton. The Messenger mine employs fifteen men sinking a shaft and doing general development work. Mill tests of the ore show a general average of \$23 a ton. A mill is to be erected, the ore at present being piled on the dump.

An assay of ore from the Owens, at Julian, sent to San Francisco went free gold \$34.19 per ton, free silver \$401. The mine will save the sulphurets and ship them to San Francisco.

July 4, 1896 p. 10

Inyo.

At Mammoth Palmer & Judd have a 10-stamp mill running on ore from the old Mammoth tunnel. Wm Couch is superintendent.

Kern.

The following is from a private letter written by a mining engineer whose experience and reputation justify attention. Speaking of Randsburg, which he has just visited, he says: "The camp has the finest showing on the surface that I have seen in many a day, and if the ledges hold out in depth it is certain to become a very important mining district. It is free gold of high grade, running

from \$25 to \$150 per ton. The deepest mine I saw was down 60 feet and still sinking; the incline does not show any footwall and the width of the ledge is undetermined. There are about fifteen or twenty very promising locations that are being developed. There is no wood or water at the mines. The water has to be hauled about twelve miles from Cow Wells and sells at \$3 per barrel. If the district develops as well as it now promises to, they will probably secure power to pump water up from the valley and to drive the mills by electrically transmitting energy from Kern river, about fifty miles distant. I think the district is located on Section 35, T. 30 S., R. 40 E., and is about twelve or fifteen miles from Goler and Red Rock, where the placer mines are."

O. B. Stanton has bonded the Blue Chief mine on Greenhorn mountain, forty-five miles northeast of Bakersfield. It has a ledge five feet wide, assaying in gold and silver.

Advices from Randsburg report another strike in the Yucca mine, a mile and a half south of the Olympia group. The ore is said to run \$400 per ton.

The owners of the Olympus mine at Randsburg will erect a 20-stamp mill thereon.

San Diego.

At Hedges the mill of the Golden Cross Company in charge of Receiver Stewart, E. W. Mellarkey and G. W. Bothwell is running to its full capacity.

The Queen mine which was closed up on account of fire in the timbers is again furnishing ore. A new pump is unwatering the mine.

The incline shaft of the Cross mine is down to the 300-foot level from which ore is being taken out.

The Crown mine is turning out 100 cars daily of \$6.50 to \$7 ore. The mill is crushing 350 tons per day.

Yuma Sentinel: The Golden Dream group has been secured by New Jersey men, who will crosscut the two veins in two places on each and also sink a shaft 50 feet in depth on each, and crosscut the veins at the bottom, in order to test the ores in each vein. They will erect a mill on the bank of the river one-fourth of a mile distant from the mines early in the fall.

The cut and tunnel have been run across Alcyon vein 31 feet reaching a depth of 24 feet from the surface at the end of the tunnel, where a pay streak of very rich ore was found showing a large amount of free gold, visible to the naked eye. The white quartz underlying the rich pay streak on the foot wall is also rich in free gold. The vein 2000 feet south of the tunnel is not as wide but much richer in gold, while 3000 feet farther south the vein is wider, prospecting good \$3 ore. Taken as a whole, in 415 tests made of the ore all but thirty showed well in free gold with an average of from \$7 to \$15 per ton in gold.

Out of 460 tests made for 1400 feet in length

on the Oro Blanco mine, which joins the Alcyon, all but 20 made a good showing in free gold, averaging from \$5 to \$7 per ton. The vein is from 20 to 100 feet in width, all of which carries good paying free-milling ore. The vein is cut nearly its whole length by an arroyo from 20 to 100 feet in depth. Cross arroyos expose large bodies of \$5 ore.

S. E. Shankland and his associates, Brown and Graham, are opening a large vein of free-milling ore near Gariso gulch, four miles from the Colorado river, that is 107 feet wide.

July 11, 1896 p. 34

Inyo.

Inyo Register: The Hanchett Co. is working twenty-four men in the Soldier Boy mine at Silver Peak, and has sent to Austin for about twenty more. With an increased number of miners the mill can be kept running two-thirds of the time. The stamps are dropping at present.

Kern.

Porterville Enterprise: Murry, Putnam and Hayes had been prospecting near Lander's mill on the Mojave desert, township 28, range 40 E., for a lost mine called the Yellow Jacket, which they found and re-located. They also located another claim and did considerable work on it. While working the latter Putnam and Hayes came across some black looking float rock which they found to be gold bearing quartz, shortly afterward finding the ledge it came from. They hauled 2150 pounds of the ore seventy-five miles, over the desert and Walker's Pass to Tibbett's mill at Kernville and realized about \$60, demonstrating the ledge to be rich enough to be practically worked in that out-of-the-way place. This ledge runs almost north and south with hanging wall porphyry, foot wall granite, and talc seam on each side of the ledge. The country around is very broken, with dykes of porphyry cropping out. It has not one redeeming feature outside of its gold properties, as the only wood is sage-brush and the nearest water is at Lander's mill, six miles north.

Cont...

Mineral and Scientific Press
July 11, 1896 p. 34

San Bernardino.

The Memphis quartz mine at Gold Mountain has been bonded for \$17,500 to Chas. Lane of the Utica mine. Under his direction some development work has been done and a satisfactory mill test made. Operations have been temporarily suspended by shortness of water supply.

At the Rose quartz mine, in Marengo district, the company is preparing to sink a new main shaft. East of the Rose mine several claims are being prospected in a small way, with results that promise the development of some good mines.

The Holcomb Valley Co. L^{td}. has fifteen men employed drifting in Coarse Gold gulch. A new steam-power hoist has been put up.

July 18, 1896 p. 47

A GOLD discovery in Soledad canyon, Los Angeles Co., has caused several speculators to locate mining claims on patented "agricultural" land. While it is a question of fact as to whether the land is "agricultural," yet the possession of a U. S. patent by its holders renders useless any attempt to locate a mining claim thereon. It is a waste of effort to attempt the location of a mining claim on land held by a U. S. patent by any one other than the holder of the patent.

July 18, 1896 p. 54

San Diego.

Sentinel: The Owens mine shipped one and a half tons of sulphurets to San Francisco this week.

The mines of the Rice mining district are all being worked, and one of the main things the camp now needs is the building of a mill to handle the ore close at hand.

A strike in the Golden Crown mine, one of the Golden Cross Company's group, is reported.

In the 300-foot stope there is now uncovered, between 7 and 8 feet in thickness and about 40 feet in length, a vein of very rich ore. Selected samples from it assayed \$170, and an average sample, taken from top to bottom of face, assayed \$58.50.

The indications are that this ore chute crops on the surface some 450 feet from the point where it has been opened in the 300 stope.

July 25, 1896 p. 67

RANDBURG, in the desert, fifty miles northeast of Mohave, has grown from nothing to a population of 1000 in less than four months, despite the limited facilities for mining. The water supply is still short, though the eastern part of the dis-

trict has developed well supplies sufficient for its present needs. A pipe line, estimated to cost \$10,000 to \$50,000, on which the preliminary work is being done, will bring in sufficient water to admit of running large mills. An incident of the development of Randburg is the revival of interest in the old Panamint mining district in the mountains west of Death Valley in Inyo county. Several sales of mines in this district to Colorado and Utah capital are reported.

July 25, 1896 p. 74

Inyo.

Independent: J. Baste brought into Independence a few days ago 63 ounces of gold, nearly \$1200, the result of a cleanup from the crushing of 12 tons of ore from the Uncle Abe mine, in the Alabama Hills, about 12 miles south.

Kern.

Pick and Pan: Frazier and Bunker Hill mining district, over near where Kern and Ventura counties corner is alive with miners and prospectors who are opening up many prospects. The only mine that has been worked to any extent is the Frazier. The Bunker Hill mine is more developed than any of the latter discoveries, and is bonded to New York men, who have a tunnel in 300 feet.

Times-Index: Between 60 and 70 men are working at Goler. There are twelve claims operated, but in each several men are employed at fair wages and the camp is regarded as reasonably prosperous. While there are no big strikes reported as at the opening of the camp, there is an occasional find of a valuable nugget. A few days ago P. Jackson, who purchased the Bald Eagle No. 2, found a nugget valued at \$100. There have been several smaller lumps discovered, the largest of which was worth \$20.

San Bernardino.

The Rose is reported to have been sold for \$100,000 to R. L. Grant of Chicago and O. O. Howard Jr., nephew of Gen. O. O. Howard. Mr. Grant is largely interested in Colorado, having recently sold one at Cripple Creek for \$300,000. The first shot after the change of ownership opened up a new body of ore that will run from \$30 to \$40 per ton.

August 1, 1896 p. 87

VANDERBILT, San Bernardino Co., is reported to be reviving. A. G. Campbell has ordered machinery to the extent of \$20,000. The Boomerang, which is now down nearly 600 feet, will be run down 300 feet farther, which will, it is thought, uncover ore and develop water to assist in working it. The 10 stamps now working will shortly be doubled in number.

August 1, 1896 p. 94

Inyo.

Register: The Red Jacket is eight miles south of the Tule canyon placers. The ledge is nearly 3½ feet wide, with a 9-inch pay streak and quartz seams in clay giving \$20 assays. The ledge is red and brown oxidized porous quartz, and the pay streak is on the foot wall. The country rock is syenite, the ledge having clay slip walls. When the owners wish to get out a few dollars they can easily get it by putting down a canvas, taking down loose pay ground and running it through a dry washer. At present they have about twenty-five tons of \$40 rock and an equal amount of \$20 ore. The nearest water is a 70-foot well two miles distant, the quantity being sufficient for milling but not enough for any power except steam. Wood is abundant and there are good roads to mine and water. It is about five miles to Cottonwood creek. A horse arrastra has been built.

P. Keyser lately shipped 4400 pounds of silver rock from his mine in Alida valley to Selby & Co., and received in return, after paying all expenses, \$3412. Silver glance and native silver constituted the ore.

cont...

Mining and Scientific Press
August 1, 1896 p. 94

San Diego.

(Special Correspondence).—A half interest has been sold in the N. G. mine, Rice mining district, Warner's Ranch, to Captain Farnsworth and Perry Bevington, both of Escondido. The main shaft is down 123 feet; two drives, one at the 30-foot level and the other from 85-foot level, run 15 feet into a chute of honeycombed quartz. The chute is perpendicular.

The N. G. is the only mine in which a force of men are at work in the Rice district. At Chewawa, twelve miles north of the Rice mining district, some good ledges have been found by the Rice brothers. One in particular the surface rock goes by assay \$12½. This ledge is 15 feet wide—good live quartz of a honeycombed nature, impregnated with iron. There is plenty of wood and water. There is a little surface gold found in places. Bill Rice took out \$35 worth in less than a week in a small creek which is close to the big ledge.

July 25, '96.

The Golden Cross Mining Company's group of thirty claims is at Hodges, Ogilby Mining District, five miles north of Ogilby station, on the S. P. R. R., eighteen miles west of Yuma, Arizona. There are a number of quartz ledges. The strike is N. E. to S. W. and dip south-east. The country rock is granite, gneiss and hornblende schist. The ores are gold and free milling. A little silver occurs. Much of the ore is copper stained, some stained with iron oxide. These do not affect amalgamation. The company has done most of its development on three mines, the Golden Queen, Golden Cross and Golden Crown.

The Golden Queen surface croppings show a length along the course of the ledge 700 feet and 150 feet wide. Work was commenced in the first croppings, an incline shaft at an angle of 30° is down 650 feet with ore in the bottom. The working levels in this mine are at 100, 150, 200, 300, 400 and 500. The great mass of ore is low grade. The 100 is worked out except pillars that support the roof of mine. The 150 is only partly worked out, ore is being taken from that level at this time. All this ore will average \$10 to \$15. A 4-foot streak of white quartz, spotted with copper and iron stain, nearly 100 feet long, in this working averages from \$10 to \$200 per ton. On July 1st, '96 there was estimated 6000 tons of ore on this level. The 200-foot level contains a stope 200 feet by 150 feet and 54 feet high. The 150 and 200 are timbered with square sets. There is some good ore yet in 200, probably 4000 tons. The lateral development on these workings is about 200 feet. The 300-foot level is a stope 160 by 80 feet, 54 feet high, with a wing 30x100, 54 feet high and a wing 60x40, 30 feet high. There is yet probably 12,000 tons of ore in this stope which will average \$10. The 400-foot level is a stope 150 feet by 60 feet and 54 feet high, east wing 80x60x30. The vein or ore body in the 400 becomes more concentrated, cleaner and a more even grade than any ore in the upper workings; there is yet some 10,000 tons in this stope. The ore from this working graded up all the ore mined for seven months to a battery assay of \$9.75 average. The 500-foot level is the continuation of the same ore body and is practically the same ore as the 400. This level is opened up and beginning to furnish ore. The indications are that the ore in the bottom of inclined shaft is the ore from the second or southerly surface cropping; the ore from the 400 and 500 should be found farther east on the 650-foot level. If this is the case there will be two veins or ore bodies to work on at this level. The gold from this mine grades high, varying from above 800 fine to 940 fine, and has yielded at mint from above \$18 to \$19 per ounce.

The General Miles mine, joins the Golden Cross on the south line; the ore of these two mines being the same, and the two claims side by side being necessary to cover the area of the deposit. The Golden Cross is developed on the 200-foot level only, 200 feet by inclined shaft 45° pitch. The stope is 185 feet long, 135 wide, and 100 high. A winze from floor of 200 is now down 45 feet, and shows higher grade ore than anything above it, assays from \$8 to \$15. The incline shaft is down 75 feet below the 200, and the 300-foot level will soon be opened up. The ore in the 200-foot stope is low grade, running from \$3 to \$5, with rich streaks running through it. The waste and very low grade rock is left in the sets, and the entire mass sent to mill runs from \$3 to \$5, occasional richer strata grade it higher. The 300-foot level will show a much better average. The company considers there is ore here for a 100-stamp mill for twenty years.

The Golden Crown mine is similar to the others, has the same general character of ore and grade is higher than Golden Cross. It has three working levels, 100, 200, and 300 feet, the best ore is at the 300, though there are rich streaks in both the other workings. The output averages from \$5 to \$8.50 battery assay. The incline shaft at an angle of about 40° will soon be sent down another 100 feet. Indications all point to the conclusion that the three ore chutes in this mine will unite at the 400 or 500 foot level. All the levels are timbered with square sets. The General Miles, the Talmadge, the Danube, the Beecher and the Ingersoll are not yet fully developed, although considerable work has been done on all of them.

The camp is a horseshoe canyon, and the several mines surround it and cover the ground of the canyon as well. The claims or locations all join end and end, and several of them lap; the ground is entirely covered.

The company has a 40 stamp mill, 850-pound stamps, all in running order, 20 stamps of which were started up September, 1893, and the other 20 were started March, 1894. The 100-stamp mill was finished November, 1895. 1000-pound stamps, and complete in every particular. The machinery consists of one double cross compound Corliss engine, capable of developing 350-horse power, an air compressor, electric light and power plant, four boilers,

four hoisting works complete and rock crusher. The company pumps water from the Colorado river, and has two pumping plants, each capable of furnishing 300,000 gallons water per day, and a twelve-mile, six-inch pipe line. The company also has two reservoirs—one for each mill and large enough for domestic supply also. The company's store and boarding house both do a good business and show good profits. The operating expenses run from \$500 to \$600 per day, and the minimum amount of monthly cleanup will not fall short of \$40,000. The camp has a population of some 450 people.

Following is the date and result of cleanups for the year ending June 18, '96:

Date of Cleanup.	Ounces Bullion.	Gold.	Silver.	Value.
June 8, 1893.	915.50	17,467.63	24.83	\$17,438.02
June 29, "	823.55	16,351.61	13.07	16,311.17
July 29, "	892.54	16,921.56	25.67	16,900.04
Aug. 17, "	1019.50	19,056.76	28.45	19,000.00
Sept. 10, "	785.30	11,919.19	10.68	11,899.30
Oct. 1, "	281.17	5,635.13	7.96	5,654.00
Oct. 17, "	238.90	4,170.73	5.35	4,168.00
Nov. 2, "	237.80	4,030.92	8.66	4,021.00
Nov. 13, "	.....	.....	.....	.....
Nov. 30, "	487.40	7,933.47	22.29	7,955.00
Dec. 14, "	353.50	5,827.72	23.20	5,824.00
Dec. 28, "	.....	8,108.84	67.08	8,164.00
Jan. 4, 1894.	228.62	3,393.25	30.59	3,407.00
Jan. 15, "	218.00	3,762.88	11.13	3,760.00
Jan. 15, "	230.85	3,593.66	40.78	3,634.00
Jan. 30, "	628.07	9,847.87	70.29	9,918.00
Feb. 15, "	608.34	9,173.83	77.92	9,251.00
Feb. 29, "	958.30	14,172.18	95.14	14,365.00
Apr. 2, "	357.30	5,832.74	24.43	5,857.00
Apr. 2, "	778.14	11,609.48	64.76	11,674.00
Apr. 21, "	1192.74	20,205.00	80.22	20,315.00
May 1, "	547.70	8,961.23	51.67	9,012.00
May 21, "	778.20	12,412.94	87.79	12,500.00
May 21, "	321.00	5,170.13	25.60	5,195.00
June 6, "	.....	.....	.....	8,810.00
June 18, "	.....	.....	.....	9,187.00
Total.	.....	.....	.....	\$210,204.00

Mining and Scientific Press

Aug. 8, 1896 p. 116

San Diego.

The Nectar mines, Picacho, San Diego county, have been bought by a Philadelphia syndicate. Development will immediately follow, and a large mill is to be added. Jesse E. Grant and ex-Senator Dorsey are owners of adjoining properties.

At the Golden Cross Mining & Milling Co. at Hedges for the week ending July 18th the years ago ore from this mine was shipped around Cape Horn to Baltimore, where it was smelted, and the business paid until copper fell below 10 cents a pound. It is now about 11 cents, and it certainly should pay if the ore can be reduced at the mouth of the mine.

Inyo.

The Confidence mine and mill is still closed down. The property is in the Amargosa range, in the southern part of Death valley. It is owned by Cannon & Langford, of Salt Lake, Utah, who also own the noted Johnnie and Chispa mines at Montgomery, Nye county, Nevada. These properties are also idle. The proposed new postoffice at Resting Springs, to be called Amargosa, which was petitioned for by all Federal and county officers along the line and strongly recommended by all California Senators and Congressmen, has not been established. Nevada has two postoffices over there—Pahrump and Manse, connecting with Daggott—only seven miles apart, but all Southeastern Inyo has none. An extension of only thirty-three miles would place the borax and mining interest of that region in communication with the rest of the county in which they are situated.

Kern.

Lattin and DeFrance have \$500 in gold which they have taken out by dry washer process during the month of June. Owing to the intense heat they were unable to work only in the morning and evening. A great deal of the gravel will run \$1.50 to the pan; from six hoppers they realized \$47.60. A hopper of sand will weigh about seventy-five pounds. The great drawback to mining in the new district is the lack of water, but this difficulty will be overcome in the near future. Wells are now being sunk with fair prospects of getting good water. Where water has been obtained it is so strongly impregnated with magnesia that it cannot be used.

Aug. 15, 1896 p. 138

San Bernardino.

A 20,000-pound boiler, 300 H. P., has been ordered for the Banner mine.

A 10-stamp mill is being erected for the Green Lead mine in Holcomb valley.

San Diego.

A deed was filed in San Diego last week by which D. K. Allen transfers to G. W. Ireland, for \$30,000, the Golden Dream and fourteen other mines in Old Picacho district, on the Colorado river.

The Escondido Gold Mining Co. has resumed work with a full force of men.

W. W. Stewart, receiver for the Golden Cross mining property at Hedges, has filed an inventory of all personal property belonging to the company and taken possession of by him as receiver. The property consists of groceries worth \$3008.06, dry goods \$1870.40, boots and shoes \$1944.35, notions \$278.77, drugs \$203.07, grocery and glassware \$172.85, hardware \$362.80, mechanical supplies \$3547.05, wood \$4500, 13 mules, 5 horses, 5 wagons. He has been directed by the court to report the quantity of ore taken from each mine and the amount milled each day, the amount of bullion shipped for each cleanup, and other matters pertaining to the receivership.

Kern.

The Mammoth, Little Mammoth and Tom Lane mines are reported purchased by the Los Angeles Gold Mining Company, who will put up a 10-stamp mill to be worked by water power from the Kern river, and a tramway to carry the ore from the mine to the mill.

Aug. 15, 1896 p. 139

ARIZONA

Arizona Sentinel: The New York company that purchased the Dr. Jayne group of mines at Picacho has had an estimate made of what it will cost to put the mines and mill into shape for crushing 125 tons of ore per day.

An English company has secured a group of twenty-one mines in the Picacho Basin, adjacent to the Goshen mine of the Dr. Jayne group, which they will open up when cool weather comes, and for the working of the ores of which they will put up a mill at the Colorado river.

Aug. 22, 1896 p. 158

Kern.

California: In the Randsburg district there is not an idle man in camp. The only drawback is want of water, which is hauled twelve miles from Garlock and sells for \$2 a barrel. At Garlock is an 8-stamp custom mill and six miles below another of 5 stamps. Patrick Reddy, the lawyer, who owns a one-fourth interest in the Burcham claim, has a project on hand to supply the camp with water by a pipe line from a water location at Garlock.

The Mammoth, Little Mammoth and Tom Lane mines, in Kern county, have been purchased by the Los Angeles Gold Mining Company. The company consists of H. M. Russell, N. F. Wilshire and O. Pooley of Los Angeles. The present owners will put up a 10-stamp mill at once, which will be worked by water power generated from the Kern river. They will also put up a tramway to conduct the ore from the mine to the mill. The ore, which is free gold, will be worked by cyanide process.

San Diego.

(Special Correspondence).—At Rico mining district Messrs. Frizoll, Bevington and Farnsworth took \$100 in gold out of three tons of N. G. ore last week.

All ore to be crushed from the Rico mining district has to be taken to Banner to Balle's mill, a distance of 17 miles. This shows a mill is required in the district.

Twelve miles distant from the Rico mining camp lies the Chewawa district. The ledge has been bonded to a Fallbrook company. They call it the U. S. Mint. Rice Brothers are there.

At Banner district, at Cout's mine, on Sunday, the main shaft is in 200 feet; they are still sinking. The "Raucheta" is the name of his mine. I met Frank M. Leland there. He represents the Riadon Iron Works in San Francisco. A mill of five stamps is going up immediately.

N. Bayley is at work on his mine, called the "Kentuck."

At Julian the Owens mine is at work, a force of men being employed. Things are brighter in Julian than usual in mining.

Julian, Cal., Aug. 14th, '96.

The Nectar mines, Picacho, have been bought by a Philadelphia syndicate. Development will immediately follow, and a large mill is to be added.

The Venturina Mining and Milling Company's mining claim is located one mile south west of Banner, and is composed of the Cuba, Vevay, Fraction and Switzerland mines. Three gold quartz ledges are on the property, all of which have been good producers. The company has lately let a contract for 400 feet of extension to a tunnel now in 260 feet. It is expected to tap a rich chute of ore at a depth of 400 feet, which has milled from \$120 to \$60 per ton near the surface. The address of the company is San Diego.

Mining and Scientific Press
August 29, 1896 p. 178

San Bernardino.

(Special Correspondence).—The awakened interest in mining matters in this section has partially solved the problem of work for the unemployed, for the latter are scattered out among the hills and on the deserts, wherever there is a chance for the discovery of gold or silver. The result has been the locating of more claims during the past few months than for the previous ten years. Scarcely a day passes but there is news of valuable finds. A prospector came in last week from Randsburg, in the northern part of this county, having located at St. Elmo, six miles south of Randsburg. A sample he brought in would probably go up into the thousands. There was an immediate rush of prospectors, and everything in sight was staked out within a few hours. The Board of Supervisors will immediately have a road opened up direct to this future great mining center. The Rose mine was sold recently to a foreign syndicate, and their first work uncovered a body of good ore. This mine is located within a few miles of this city, in the mountain range.

San Bernardino, Cal., August 25, 1896.

Inyo.

Register: The Mammoth mill and mining property is closed by legal proceedings, developed by dissensions among the Chicago owners. As we understand it, the merits of the mine have nothing to do with the shut down, therefore it is presumed that work will be begun again as soon as affairs are straightened out.

At Silver Peak the mill is running day and night, and Chiatovich is preparing to start up his mill in a few days. Two teams are hauling ore for his mine near Gold mountain. He has 400 tons ready to crush. Work is being pushed on the Silver Peak mines by L. J. Hanchett.

Kern.

California: In the Panamint district five claims, owned by Cole, Montgomery and others, have been bonded to San Francisco people for \$35,000.

Another strike has been made on the Butte mine, at Randsburg, showing free gold in the croppings and sulphurets.

The erection of another mill has been commenced at Goler by J. M. McKearnan of Porterville. It will be only two stamps and will begin crushing Burcham ore.

Sept. 5, 1896 p. 178
Inyo.

Register: Sanger and Danielson, of Big Pine, have returns from assays of copper ore samples from their lead east of Keeler, thirty miles. The lead is 75 feet wide and shows a good percentage of copper.

Riverside.

Fifteen of the twenty stamps of the Santa Rosa gold mines, in Riverside county, are at work and about forty men are employed.

San Diego.

W. W. Stewart, receiver of the Golden Cross Mining and Milling Company at Hedges, has filed a report in the Superior Court covering the period from the time he took charge of the property, June 7, 1896, to August 15th. Receiver Stewart states in his report that at the beginning of his receivership the 40-stamp mill was idle, but has been dropping almost constantly ever since. The total expenses of the company from June 8th to August 15th were \$48,269.73. This included \$20,548.43 paid to miners, etc., \$18,485.09 for milling, \$10,469.55 expended in construction, and \$8,959.53 for general administrative and office expenses. The sum of \$6,222.87 was realized from the stage, water account, house account, boarding house and store, leaving \$48,269.73 amount expended. The total receipts reached \$54,460.17, and included mint returns of about \$46,236.18. Bailey Bros., of Banner, have crushed 80 tons of rock from the Redmond mine, which went \$30 per ton.

At Picacho Deputy Sheriff Johnson levied an attachment on the California Picacho Gold Placer Mines Company's pumping plant and placer mines, which belong to the Picacho Gold Placer Mines Company, Limited, of London.

At Picacho the Golden Dream Mining Company has 7 men at work on its mines, which are situated in the Old Providencia mining district on the Colorado river, below Picacho. The men are paid every Saturday and the contractors when each shaft or piece of work is completed. The Golden Dream Company has secured the Alcyon and the Yellow Gold group of mines—fifteen in all—and will put up a new mill this fall.

The New York company that purchased the Dr. Jayne group of mines has had an estimate made of what it will cost to put the mines and the mill into good shape for crushing 125 tons of ore per day.

An English company has a group of 21 mines in the Picacho basin, adjacent to the Goshen mine of the Jayne group, which they will open up when cool weather comes, and for the working of the ores of which they will put up a mill at the Colorado river.

Twenty miners are employed in the Red Cloud silver mines, five miles from Picacho.

Kern.

The old Rocheford mill is being put into shape for running work.

The Burton Brothers have developed a ledge from thirty to forty feet wide on Piute mountain, near Mojave. They milled seventy tons that brought them \$14 a ton.

The Warrenton mine, near Kernville, is to be thoroughly developed before any of the ore is milled. Three shafts are sinking a shaft and the 800-foot level will soon be reached. Thus far \$22,000 has been expended on this mine.

A ten-stamp mill is crushing ore for the lessor of the Big Blue property, and the rock is turning out well. All the men are subject to a twenty-four hours notice to move, and should the mine be sold, the purchasers can take possession and proceed with the work the next day.

The new Tremain stamp mill at Garlock is up and ready for work on a quantity of Burcham, Mooers & Singleton ore.

A tailing pond is being scooped out in the wash below Garlock for the reception of the Rand Mining Company's slickens. Stalce boxes with blanketed bottoms have been put in, and it is argued that the saving in gold by this method will equal that of the best concentrators.

The machinery for the Rand Mining Company's pumping plant has arrived at Goler and is being set up. Water is coming into the shaft so fast that it cannot be bailed dry and pumping must be resorted to. The water supply is assured and the new forty-stamp mill will be put up at once.

Dry washing at Goler and back of Garlock is slightly on the increase.

Mining and Scientific Press

Oct. 3, 1896 p. 282

Kern.

Californian: Sixty-five tons of Randsburg ore has been cleaned up in the last ten days. A run made for the James Bros., Garlock & Simpson netted about \$75 per ton.

The Amalie mine, owned by W. E. Rogers, is said to be turning out a silver bonanza. The new hoisting works are now in operation, and rich ore is being taken out on the 300-foot level.

Oct. 10, 1896 p. 302

Inyo.

Independent: The silver and lead mining interests of Cerro Gordo, Darwin and Modock are practically at a standstill; all ore teams have been hauled off, shipments suspended and business generally is at a lower ebb than for many years past. Farther out, however, in the gold districts, there is considerable stir, indicating future activity.

Geo. Lewis has a working bond on the Wilson & Wibbelt property, near Mountain Springs canyon.

Across Panamint valley, in the Telescope mountains, the miners centering about Pleasant canyon have organized a new mining district under the name of South Park.

The late run of the Golden West mill, on ore from the Anthony mines, is reported to have resulted in a cleanup of about \$7000.

Register: L. Chlatorich has begun to enlarge his cyanide plant near Gold mountain. Cyanide has done much for that section and it will do far more in the future. The company (L. J. Hanchett & Co.) has struck a large body of good milling ore in the bottom of the main incline at the Western Soldier

mine. There is a great quantity of low-grade ore in sight in the Silver Peak district.

Kern.

Californian: The Rand Mining Company have let a contract, it is reported, for the erection of their 40-stamp mill inside of sixty days. It will be located about midway between Randsburg and Goler.

Both stamp mills at Garlock are working. A four days' run of one mill crushed forty-three tons of Randsburg ore that went \$45 per ton.

Another strike has been made at Randsburg northeast of Mt. Olympus, on the Richardson claim.

A strike is reported from the mountains back of Koehn springs, and sixteen locations have been made thereon. It is a succession of huge gold-bearing ledges that assay also in copper and silver. The ore is clearly a smelting proposition, and will have to be shipped until concentrators are put in at Koehn springs.

Oct. 10, 1896 p. 303

Yuma Sentinel: Dr. Jayne writes under date of Sept. 20th, from New York. "Senator Dorsey and associates have purchased my group of mines, the Mars, Venus, St. George and Goshen, at Picacho for \$250,000."

The Golden Dream Mining Co. is crowding the work with 25 men on its six shafts and two tunnels with excellent results. There has been a steady improvement on the quantity and quality of the ore bodies.

The Golden Dream Co.'s mill will be ready to ship on the 8th. The company will crowd the work on its other mines as fast as men and money can do it. It has already given orders to have the work pushed.

Adolfo Sambrano has struck ore rich in free gold, visible to the eye.

Villa Bros. have struck it rich in their tunnel on the Golden D. K. mine, taking out the richest ore ever found at Picacho. This vein has been crosscut for 54 feet with neither wall in sight. This tunnel and the Sambrano shaft are both about within 1,000 feet from the Golden Dream mill.

Oct. 17, 1896 p. 322

Kern.

Californian: At Red Rock on Friday a miner named Nelson found two big gold nuggets—one 4½ ounces and the other 3½ ounces in weight. In the Red Rock district everybody seems to be taking out pay dirt.

Another rich strike is reported to have been found along the Randsburg road in the foothills adjacent to Randsburg canyon.

Oct. 24, 1896 p. 335

D. K. ALLEN has sold for \$60,000, to George W. Ireland, the Golden Dream group of five mines, the Aloyou group of five mines, the Oro Blanco group of five mines, the Noon Day group of five mines and four millsites, situated in White Gold basin, in the old Picacho district, on the Colorado river, in San Diego county. The veins are noted for their great size. They are of low grade, but have the advantage of being near the Colorado river.

Oct. 31, 1896 p. 362

San Diego.

Los Angeles Times: A shipment of \$30,500 was made from the Golden Cross mines at Hedges last week. This is the largest single bullion shipment ever made from these mines. A body of \$10 ore has been struck. The Golden Cross Company has a mill of 140 stamps.

Kern.

(Special Correspondence).—Bower's mining camp, E. Bower, owner, is situated five miles south of the town of Mojave, about one mile east of Soledad Peak and one-half mile west of the S. P. R. R. The mines comprise some ten or twelve locations and are situated on low foothills running into the sand on each side. Considerable prospecting has been done, and there are a number of holes 40 to 50 feet deep. There are a number of quartz ledges running parallel to one another at distances from 200 to 300 feet apart. These ledges run nearly north and south and dip to the east at an angle of about 43°. They are traced across the hill for a distance of about 4000 feet from the sand on one side to the sand on the other. The ore is much decomposed, showing considerable sulphurets which increase with depth. It is charged strongly with iron and black manganese, and amalgamates between 60 and 75 per cent. The walls are bird's-eye porphyry in the hanging wall and granite in the footwall. There is considerable free gold and native silver. At present the ore is being shipped, but Mr. Bower is making arrangements to place a reduction plant on the ground. The first carload shipped by Mr. Bower went to the Selby smelter at Vallejo Junction. It consisted of sixteen tons and cost \$2.50 a ton to be hauled to the railroad, \$3.55 for freightage and \$18 a ton for treatment. The shipment netted Mr. Bower \$991. Since then eleven carloads have been shipped, but the returns have not yet been made. The later shipments are not expected to yield as richly as the first, Mr. Bower being of the opinion that in the desert country the best of the ore is near the surface. Formerly this district was regarded entirely as placer mining country; now, nearly all the prospecting that is being done is for quartz. While a large number of people are finding their way to this part of the desert, there are very few of them practical miners, and, for the most part, they are badly provided for the hardship that mining in this district involves.

Mojave, Oct. 26th, '96.

Mining and Scientific Press
Nov. 7, 1896 p. 382

Kern.

A five weeks' run of one mill on Rand ore netted \$21,000. The other mills are running night and day, and work is in progress in the construction of two more mills. Great quantities of ore are piled up, waiting to be worked. A cyanide process mill is also to be erected at once.

There are some very good mines in the district, but for want of water for milling, they labor under a great disadvantage. The ore is hauled twelve and twenty-six miles to mills, and it costs \$10 to \$15 per ton for working. Ore not yielding \$40 does not pay to mill. Randsburg district contains a population of about 500. There are very few wooden buildings. There is no lumber in camp. People do business in tents of various sizes. Lumber, when there is any, is \$40 per thousand rough. Hay sells for \$25 per ton; barley, \$1.40 per sack; water is hauled six miles from a well and costs 4 cents per gallon delivered.

San Bernardino.

San Bernardino Sun: Harrison & Willard have shipped to their mines near the Kern county line, in the Randsburg and Goler district, a load of lumber and equipment for a 10-stamp mill, which will be put up at Cuddeback's Dry lake, where a sufficient flow of water to supply ten to twenty stamps has already been developed. The mill site is fourteen miles from Randsburg, in this county. They will do custom work for such of the miners of the Randsburg, Fremont Peak and Goler sections as wish to haul their ore to the new mill.

San Diego.

The statement of the Golden Cross mines from August 15 to October 15th shows the bullion product from the mill to be \$45,349; total receipts, \$48,445; disbursements, \$37,091, of which \$20,059 was paid for labor. In the Cross mine on this property a 16-foot ledge of fine ore has been developed. The ledge has been opened for 60 feet, showing enough ore in sight to keep 100 stamps busy for at least six

months. In the Crown mine a ledge of high-grade ore has been opened. The receiver of the Golden Cross properties thinks he can soon apply \$20,000 monthly toward the payment of the debts of the company.

Escondido gold mines cleaned up \$4000 in seven days' run.

Nov. 21, 1896 p. 426

Kern.

Californian: At Garlock, Randsburg district, a well has been sunk and site graded for a new 10-stamp mill. Preparations are being made to put in a cyanide plant to handle about twenty tons of ore per day.

The only mines being worked at present are

those producing free-milling ore. There are a number of locations in the immediate vicinity of Garlock of good veins of base ore that will probably develop into paying mines as soon as provision is made to work this class of rock.

At Randsburg there are nine quartz mines being worked at present, the ore running from \$20 to \$150 per ton and some select ore as high as \$300 per ton. The majority of the ledges run from 4 to 6 feet in width, with the exception of one belonging to the Randsburg Mining Company, which is 30 feet wide and is completely uncovered for a length of 300 feet. This belongs to Burcham, Singleton, Mooers and Reddy, along with a group of eight others of less proportions. They are sinking on five or six of the leads. One is already down to the depth of 100 feet.

cont...

Los Angeles Herald: The total number of men working in all the quartz mines is seventy-six, not including the foremen. There are a number of men working in placer diggings with but little success, most of them making below \$1 per day, using dry washers for separating the gold from the gravel.

The strip of country monumented for mining purposes is about eight miles wide and about fourteen miles in length. Everything is located regardless of whether there is anything in sight or not.

The great drawback to the camp is the lack of water. The nearest point where it can be produced is fourteen miles. Water hauled into Randsburg sells for \$1.50 per barrel. The nearest point for milling ore is thirteen miles, where there is one mill with two stamps and another with four stamps, and they are unable to run steadily for lack of water. These mills are at Garlock. There is a small 5-stamp mill at Mesquite springs, sixteen miles from the mines. There is also a 5-stamp mill at Kane springs, about twenty-six miles away. All combined are not capable of crushing the ore that is being mined in that district. The population of Randsburg is about 500.

Nov. 28, 1896 p. 446

Kern.

Californian: A new steel whim, cars and skips have been recently put in at the Olympus mine, Randsburg, to expedite the handling of ore.

A Cripple Creek mining man has purchased the 4-stamp mill at Garlock. It is said that he will at once enlarge it to a 10-stamp mill and add concentrators.

A Los Angeles company has taken a working bond on George Barton's mine at Randsburg and will push development on the property at once.

Dec. 5, 1896 p. 466

Inyo.

Register: A strike has been made in the Mammoth mine. The vein has been cut for 20 feet and the wall is not found yet. Assays of the ore give over \$100 per ton. Col. Judd has gone to Chicago. S. D. Crosscup will set up the concentrating plant.

The copper claims of Sanger & Danielson, near Saline Valley, are showing up in good shape and, it is claimed, show permanent value.

Smith & Best are taking out pay ore at the Molus mine.

Dr. Doyle of Chicago has completed negotiations for the purchase of the Wild Rose mining property, above Benton, from McNamara Bros. & Dowd. The purchase price is said to be \$10,000.

R. J. Whittaker has finished a run of nineteen tons of ore from the Red Jacket, in Tule canyon, at Sam Piper's arrastra on Cottonwood creek. The returns were far in excess of expectations. The ore was hauled a distance of thirty miles.

Kern.

Californian: At Garlock the battery blocks and other timbers, as well as part of the machinery, are on the ground for the new 10-stamp mill.

They are starting a new tunnel in the Rand mine, also of the group, to connect with the

cont...

others. There are several other mines in this group, employing in all over forty miners at \$3 per day and the foreman at \$3.50.

The Big Blue at Knoxville, which was extensively worked many years ago, is reported to have been sold and will be opened up soon.

The cyanide plant belonging to Dr. Marshall & Co., which is now located on the Mojave river, is to be removed to Garlock.

The Walkover, belonging to H. Watson, was bonded a few days ago to a company for \$10,000. They will begin work at once developing.

The Olympus is down 100 feet, with 200 feet of a drift on the 50-foot level, and with a big body of ore above them, running from 6 feet to 25 feet in width.

The Yellow Aster, also belonging to the Burcham property, is in 200 feet on a level with a winze about 80 feet.

Riverside.

Southwest Miner: The Leon mine, near the center of the county, is said to have enough good ore exposed to keep a 20-stamp mill in operation for a number of years.

The Pinon group of mines near Indio, owned by Woodworth and Marshall, are showing up well. A body of rich ore was opened up in one of the mines last week.

The Santa Rosa Gold Mining and Milling Company at Perris has changed its name to Grand View Mining and Milling Company. They employ forty men, and ten stamps are kept running all the time. The ore is said to be very high grade. Their new double-compartment shaft on the upper end of the property is now down 280 feet and they have put a steam hoist on it. The entire place is lighted by electricity.

It is expected that Day & French of the Golden Chariot at Perris will start up again.

San Bernardino.

Southwest Miner: The Gold Mountain mine in Bear valley, owned by E. J. Baldwin, was about six months ago bonded to a syndicate. A few days ago the new superintendent sent word to Thomas Worden of this city to hire fifteen good miners at \$2.75 a day for an all-winter job in the mine. A 5-stamp mill will at once be put up and the ore taken out in developing the property this winter will be sufficient to keep the plant in steady operation. If the mine is what the purchasers believe it to be, a mill with at least 100 stamps will be erected early in the spring. This mine was worked on an extensive scale in 1874-5, but during a temporary shutdown early in '70 the 40-stamp mill was destroyed by fire and was never rebuilt.

At the Crowell & Morrow mines, out in the desert from Hinkley, a quantity of ore shipped to the smelter shows good returns.

On the Providence the shaft is down 50 feet and shows a clean vein of ore $4\frac{1}{2}$ feet in thickness. Regular shipments of ore will be made from now on.

San Diego.

Ramona Sentinel: Men are being put on at the Hubbard mine.

The rock from the Hassayampa went \$22 per ton; that from the Alpha mine \$16 per ton.

Stanley and Reeder have made a strike of silver ore to the east of the Golden Chariot, which assays 40 ounces of silver and \$4 in gold per ton.

The Rand Mining District.

From Our Special Correspondent.

The Rand mining district is located in Kern county, California, and is 26 miles north of Kramer, on the A. & P. R. R., and 40 miles northeast of Mojave, on the S. P. R. R. Daily stages run from Kramer and Mojave to the camp.

Mining men from all parts of the country are looking over the camp. Speculators are buying; conservative mining men are looking on.

There has been but little development work done, most of that having been on the surface in taking out rich bunches. The camp deserves thorough development work, and needs practical mining men; but until many of the present owners let go, there will be but little permanent work done. Many of the present owners are not able to develop their properties, and many others lack knowledge and are not willing to give practical miners a chance.

The country for miles around Randsburg has been located, some parties holding as high as twenty and thirty claims each, and some even more. Many of these claims have not been recorded, and no work done on them; still the prospector insists that he can hold the claims. Much confusion prevails at present, and much trouble is expected January 1st. Prospects are held at high prices, and as the terms are 30 days or spot cash, few claims are changing hands.

The ore of the camp is, with few exceptions, fit milling, which, with custom mills near the mines, makes it possible for the prospector to work his ore. Many of the prospectors are shipping ore extracted from or near the surface.

In some cases the ore extends down but a few feet, others are down 130 feet in good ore. The general strike of the ledges is east and west. Dip north 40° to 80° . The ledges range in width from a few inches to 30 feet. The free milling ore of the camp is shipped to Kane Springs and Garlock, a distance of 19 miles, the former place having one stamp mill, the latter place two mills, with two more in course of erection. The cost of shipping and milling ore is \$10 per ton from any part of the camp, which makes it profitable to ship all or nearly all of the ore in the camp, as no ore is worked that pays less than \$25 per ton.

The mills are not able to handle the ore offered. More mills are needed to handle the ore of the camp. The mines are all dry and require very little timbering, old railroad ties being the timbers used at present. Water is very scarce; in fact there is no wood nor water near the mines, and unless water is developed in the vicinity the cost of reduction will remain high.

This camp is a poor place for miners and laborers who are looking for employment. There is no work at present, the camp is full of idle men, and until things settle down to a solid basis and permanent development work is commenced there will be no need for miners. There is plenty of room for practical prospectors who have a few hundred dollars. There is an unlimited amount of mineral ground which is worth thorough prospecting, but a man without money can do nothing and should keep away from Randsburg.

Mining and Scientific Press

Dec. 26, 1896 p. 522

The population of Randsburg at this date is about 1500 and more are coming on every stage. At this date the mines working employ about 100 men at \$3 per day. More men will be employed as soon as permanent development work is begun, which will not be until most of the property changes hands. The present owners are working the mines

for all there is in them, taking out the best ore and leaving the low grade. The future of Randsburg looks very promising, and if the ledges go down it is sure to be a booming camp for years. The mines have all paid from the grass roots. Every dollar that has been put into the mines has been taken out of them. Rand, Butte, Wedge and Good Hope, have all produced thousands of dollars; besides that many smaller mines are paying handsome dividends. Poor men have come here without money, located claims and commenced shipping ore from the surface. Some of the surface bunches have been dug out, others are being worked to a depth of 60 and 80 feet with good ore going down. If the ledges "go down" the camp is a bonanza, and will be a great gold producer, but until more development work has been done mining men will be slow to invest.

ANDREW F. ROSENBERGER.

Randsburg, Cal., Dec. 16th, '96.

Dec. 26, 1896 p. 526

Kern.

RANDBURG DISTRICT.

(Special Correspondence).—The Rand mines, the Rand Mining Company owners, C. A. Burcham superintendent.—This group consists of twelve claims which are located on Olympus and Trilby hills, three-fourths of a mile south of Randsburg. The development work on the Rand group is as follows: The Rand claim has a shaft 70 feet deep, vein 9 feet wide; ore all mills \$50 per ton.

The Yellow Astor claim has a tunnel in 300 feet; average width of vein, 1 foot; ore mills \$150 per ton.

The Olympus lode is 30 feet wide from wall to wall and averages \$15 per ton. The development work consists of a tunnel on the lode, with shaft 180 feet deep on hanging wall; shaft all in pay ore averaging \$35 per ton. At the 50-foot level a drift has been run 300 feet on the hanging-wall side in ore averaging \$20 per ton.

The Trilby is a small stringer 10 inches in width on which a tunnel has been run 40 feet; value of ore, \$400 per ton.

The Rand group of claims was discovered in April, 1895, by C. A. Burcham, the present superintendent. The mines have paid from the surface, and every dollar expended on the property has been taken out of the mines. The ore from these mines is shipped to Garlock, the 8-stamp mill at that place being kept busy, and is not able to handle all the ore from the property. Forty men are employed at \$3 per day. Cost of shipping and milling is \$10 per ton.

Butte mine, A. T. McKenzie manager.—This mine is located a quarter of a mile north-east of the postoffice. The ledge runs east and west and is exposed on the surface for at least 1000 feet. The ore chute extends the entire length of the claim. Considerable ore has been shipped from the surface and paid well. The development work consists of a tunnel and three shafts. The tunnel is on the east end of the claim, 100 feet deep. A winze in the tunnel is 40 feet deep. The east

shaft has been sunk 100 feet. At 55 feet a level was run 115 feet west, connecting with a shaft 50 feet deep. The east level is in 90 feet, with crosscuts 10 feet. The west shaft is down 125 feet. Crosscut has been run 23 feet north to the ledge. Crosscut in ledge 7 feet and no hanging wall; all in ore that mills \$50 per ton. Ore from this mine is shipped to Kane Springs, a distance of nineteen miles. Cost of shipping and milling, \$10 per ton. Fifteen men are employed at \$3 per day.

St. Elmo Mines, St. Elmo Mining Company, owners; D. M. Pyle, manager.—The St. Elmo group are located five and one-half miles southeast of Randsburg, and consist of five claims. The St. Elmo ore is base, and has to be shipped to smelters for treatment. One carload of ore was shipped to Denver, Col., which paid \$100 per ton. There is about 300 tons on the dumps which the manager said was a good grade of ore, but would not pay to ship to the smelters. Development work consists of two shafts, each 40 feet deep. Width of ledge 2 feet, all pay ore.

The Wedge Mine, J. W. Rogers, superintendent.—This is a small claim, wedge shaped, between the Butte and the Good Hope mines. Development work consists of an incline shaft 100 feet deep; ore mills \$25 per ton; ore shipped to Kane Springs mill; fifteen men employed in mine.

The Good Hope Mine, Kinyon and Sons, owners; G. B. Kinyon, superintendent.—This claim is on the Butte ledge, and lies west of the Wedge mine. The development work consists of an incline shaft 110 feet deep. At 70 feet a level has been run east 75 feet, with a winze 20 feet deep at its east end. Width of ledge 10 feet, all of which mills \$100 per ton; six men are employed in the mine at \$3 per day; ore is shipped to Kane Springs.

The Bully Boy mines, Bully Boy Mining Company, owners; B. M. Atkinson, superintendent.—This group is located two miles south of Randsburg and consists of seven claims. The ore has paid from the surface and most of the work has been done on the surface along the ledge. One shaft has been sunk 40 feet on the ledge. Width of ledge in shaft from 6 inches to 2 feet, all ore, milling \$80 per ton, some having been shipped that paid \$110 per ton.

The Yucca Tree and Winnie mines, Charles Koehn, owner.—These claims are three miles south of Randsburg and were recently bought by Mr. Koehn for \$5000. On the Winnie claim there has been a shaft sunk 60 feet. Width of ledge from 18 to 26 inches. Ore taken out of shaft milled \$60 per ton. The Yucca Tree claim joins the Winnie on the north, has a shaft 90 feet deep, ledge 10 to 16 inches wide. Ore taken out of shaft milled \$100 per ton. Two other shafts have been sunk, each 30 feet deep, showing ledge 6 to 8 inches wide. Ore milled \$150 per ton.

The Marced mine, Stephenson Brothers, owners.—This mine is located three miles south of Randsburg. At this date the mines are leased to McBride & Co., who are extracting very rich ore, which will be shipped to the Kane Springs mill. The veins are very small but very rich.

Santa Ana mines, Munson & Layton, owners.—This group of mines is located $\frac{3}{4}$ miles south of Randsburg and consists of three claims which were recently purchased by Munson & Taylor of Los Angeles for \$10,000. The present owners are making preparations to prospect thoroughly. The ledges are very small but rich. A shaft will be sunk on one of the ledges.

Black Hawk Mines—This group of claims are located two miles south of Randsburg. At this date they are taking out pay ore which will soon be shipped to one of the custom mills.

Berlin Mine—A. T. Stewart, of Los Angeles, has purchased an interest in the Berlin mine and will commence development work at once.

At the St. Elmo mine the Line Mining and Milling Company, of Los Angeles, have erected a dry washer with daily capacity of 300 tons. The plant is run by a 10-H. P. gasoline engine. The company has leased 180 acres of placer ground and expect to make a profit on dirt that will pay 50 cents to the ton.

Mining and Scientific Press

Dec. 26, 1896 p. 526

Riggs Well—This well is located about four miles northeast of Randsburg and about two miles northeast of Johannesburg, and has recently been purchased by Charles L. Morrill, G. H. Curtis and H. A. Darling of Los Angeles. Curtis and Morrill are in charge of the work at the well; thirty men are employed laying a pipe line from the well to Johannesburg and Randsburg. At present the well supplies one inch of water, with water increasing very fast as they go down. It is confidently expected by the owners that ten inches of water will be developed in the near future. As soon as more water is developed a stamp mill will be built to work custom ore. The pipe line now being laid has a capacity of ten inches and will furnish water for Johannesburg and Randsburg. Johannesburg is a new town being laid out by Curtis and Morrill, and is between Randsburg and Riggs' Well. R.

Randsburg, Dec. 16, '06.

Randsburg Miner: The Walkover group, owned by H. B. Watson of Randsburg and A. S. Munson of Los Angeles, and located one and one-half miles from Goler, has been bonded to Ward & Co. of San Francisco for \$20,000, thirty days time. The character of rock is a copper carbonate of low grade, the reduction of which will necessitate the erection of either a smelter or cyanide mill.

San Bernardino.

(Special Correspondence).—In Kramer mining district, C. A. Peor of Colorado Springs, Col., has bonded a number of claims south of Kramer. Mr. Peor and his associates will build reduction works at Kramer in the near future. The ledges are large. Ore assays from \$10 to \$60 per ton. The ore is rebellious and cannot be worked by the free milling process.

Kramer, Cal., Dec. 19th, '06.

San Diego.

The Escondido *Advocate* declares that the old Escondido mines have cleared up more gold bullion at less expense during the past four months than any other mine in the State. The result of the last clean-up was twenty pounds of pure gold, besides amalgam sent away for retort.

A deed was filed in the San Diego county recorder's office last week, conveying from C. W. Ireland of Bridgeton, N. J., to the Golden Dream Mining Company of the same place, a number of groups of mines in the White Gold Basin of the old Picacho district, for \$70,000. The groups transferred are: The Golden Dream group, consisting of five claims; the Alcyon group, of five claims; the Oro Blanco group, of five claims; the Noonday group, of eight claims; the Little Frank group, of four claims.

Mining and Scientific Press

Jan. 2, 1897 p. 6

Yuma

Register: At Casey the new gold claims at the southerly end of the Inyo Gold Mining Co.'s group of mines is showing up remarkably well. Five or six large chimneys of fine ore were exploited and mined to the canyon's level without exhausting them, years ago. Two tunnels started on the vein show up large ore bodies.

At Darwin work has been commenced on the Lane mine with a force of eight men. The new shaft will be sunk 50 feet deeper.

Mr. Garlick of the Argus Gold Mining Co. is putting up cyanide works at the Snow's canyon mill.

San Bernardino.

Dale is a new postoffice at Virginia Dale mining district.

Independent: Don Palmer of St. Louis and others have gone in to develop the Van Slyke mines, eighteen miles southwest of the Needles. The ledge shows an average width of over 50 feet for a distance of 1000 yards or more. Assays from the surface rock returned \$8 a ton. Two or three thousand dollars will at once be spent in crosscutting the vein and other development work, and if all goes well an 80-stamp mill will be put up.

Jan. 16, 1897 p. 47

The new town of Johannesburg has been started near Randsburg by several Los Angeles people, who have formed the Johannesburg Water and Milling Company and have secured a section of land. They are boring for water and propose to erect a 30-stamp mill.

Jan. 16, 1897 p. 50

San Bernardino.

Independent: J. W. Wilson and Wm. Baldridge have sold their group of five claims at Twenty-nine Palms to H. U. Mudge of the Santa Fe, and development work is going rapidly forward. Four shafts are now down 45, 25, 50 and 18 feet, respectively, the ore body running from 2 1/4 to 3 1/2 feet in thickness and ranging in value from \$13 to \$220 a ton—free milling. They now have in contemplation the erection of a 10-stamp mill at Wilson's place, at Twenty-nine Palms, on Deadman's lake.

Two months ago Superintendent Church came down from the north for the people who had bonded the property from E. J. Baldwin, hired twenty men and put them to work on the old Gold Mountain mine, in the Bear Valley district, on which no work had been done since the burning of the large stamp mill twenty years ago. Work has been suspended and the men notified that there will be no resumption of operations.

San Diego.

Sentinel: At Picacho the assessment work has been done on 350 miles during the past two months.

The Golden Dream mill will soon be ready to run.

In the White Gold basin the Pleiades group of five mines leads off with the largest bodies of ores discovered in this section. Col. Allen has ordered a 60-ton mill for his group.

The Capella group of five mines, situated also in the White Gold belt, is being opened preparatory for another 60-ton mill.

Inyo.

Register: A syndicate has an expert at Fish Springs district with a view to getting most of the claims on the hill.

A. G. McAfee's copper claims twenty miles northeast of Alford are attracting attention since the bonding of the Sanger-Danielson copper properties at Saline valley. This is one of the most extensive copper croppings on the coast.

Kern.

California: Mining men are interested in the discoveries being made in Keysville and Havilah districts.

H. W. Blaisdel has closed down his works on the O'Brien property, but intends to re-sume shortly.

About eighteen mining claims were filed for record to-day, most of them from Havilah and Kernville.

Jan. 23, 1897 p. 69

The Skiff Mining Expert of the Lower Colorado River.

Written for the MINING AND SCIENTIFIC PRESS.

"Their cause I plead,—plead it in heart and mind;
A fellow feeling makes one wondrous kind."

Premising the gentlemen who, during the delightful winter season peculiar to this desert region, meander adown the Rio Colorado of the West by skiff, the initial point The Needles and the journey terminating at Yuma, have a knowledge, practical or otherwise, of mines, the writer, for their better understanding as a minor factor, and that the investigating public who employ them to expert the territory bordering the Colorado river more particularly, would mildly suggest that mineral deposits do not occur hereabouts radically different from those that are found in less uncongenial physical surroundings. A similarity of diverse geological conditions prevail, as they do in sections more kindly favored by nature. The mineralized lodes exist in the granites, porphyries, slates, etc., as veins of true fissure, contact, segregation, blanket, gash, and their modifications, and in the mountain ranges generally bordering the Colorado river, as a rule somewhat away from the river's brink, in fact, often some miles distant. Now, this is certainly unfortunate—not to say criminal—in that it conduces to the discomfort of some of these gentlemanly experts and renders inoperative their efforts to "Help the blasted country out, don't you know."

There is reason in all things, but who would expect a gentleman to tramp it, or, perchance, to ride an undignified burro anywhere from 5 to 25 miles in such a beastly, inartistic country! Certainly it would have been nicer had these several remote (?) mining districts moved their lode veins to the river's brink, stood them on end, and labeled their several virtues (they seldom have faults), for the edification of these meandering critics.

When the Roentgen rays shall have attained perfection, doubtless, one may mine expert the desert region bordering the Colorado of the West while floating down its yellow waters.

cont...

Jan. 23, 1897 p. 69 (Cont.)

There are many conscientious mining men, who, having "reported" certain properties on the Colorado river, have advices to continue on by skiff and look into any other "prospect" they may hear of.

Receiving no accurate information whereby he may to a certainty find some of the many mining prospects that are being exploited in a small way by the original locators, and with nothing to mark the steamer's landings save, probably, a small flag, this vast virgin field is but touched. To this class of "mining men" this letter has no application, as they never condemn wholesale an unknown territory. But the gentleman who, "girding up his loins," with advice and condolence from admiring friends and employers, more or less firmly seats himself in the stern sheets of a staunch skiff, with an old riverman and expert camper for motive power, braves the perils of the turbid Colorado—likewise the canned and bottled goods, with bedding galore—launches forth as a modern Columbus, in the interests of — and shekels, having returned to the fleshpots of Egypt, he invariably, and with a jauntiness that would be amusing were it not harmful, either "damns with faint praise," or literally damns and condemns a region of which he personally has absolutely no knowledge whatever.

The writer knows of several meritorious mining "prospects" bordering the Colorado river where the owners have been and are slowly doing legitimate exploratory work; they are earnest, industrious men, and, having faith in their claims, prove it by putting in their time and money as best they may, working under disadvantages residents of more congenial climatic surroundings have no conception of. These men generally do not wish to sell out entire, but would like development money for interests in their holdings. When working to that end—as an instance—the miner was met by the assertion: "Why, I have been told that there are no good mines along the Colorado." When cited to the Gold Rock, with its 150 stamps dropping on pay rock; the La Fortuna, turning out \$80,000 in gold each month with 20 stamps; the Senator, to be heard from, holding 12 feet of rich pay rock at the 200 level, and, from all evidence, a rival to the La Fortuna in the early future; the developments in the old Picacho district, on wholly new ground, with mills now in and those on road approximating 130 head of stamps—as some of the *going* mines on the Colorado river, near to Yuma, the reply was: "Yes; but the region you are in is a new territory; I have not heard of it." The wholesale condemnation of a vast, practically unknown territory by the gentleman in the skiff may have choked off this deal, for we know how ill news travels, however slight and trivial the foundation.

I sometimes wonder if it occurs to some people that there is an inception process in a mine—a *beginning*—just as there is in every other condition, from the founding of a world to the infant pulling in its mother's arms, who may in the course of events deliver harmful mouthings to cover up his personal shortcomings.

TAYLOR D. MACLEOD.

Yuma, A. T., January 18, 1897.

Jan. 23, 1897 p. 76

Kern.

Californian: W. C. Campbell, a placer miner, has become interested in several claims near Kernville and has invested \$40,000 and is now buying up adjacent claims and is having considerable freight shipped in.

Several parties of prospectors are settled at Plute and are systematically at work.

W. C. Wilson of Mojave has sold out his mine in the Slate Range district for \$16,000 cash.

The Good Hope is now bonded for \$125,000 by the Kenyons to Smith and Centre of Pasadena. The bond runs until February 1.

J. J. Brown of Leadville and James A. Shinn, his expert, have been investigating Randsburg. Mr. Brown has put in between \$20,000 and \$30,000 and has bought nine claims.

Jan. 30, 1897 p. 74

Inyo.

Register: Mr. Moore of Chicago has purchased a group of mines from Mr. Adler, on Blind Spring hill, and is running a tunnel to tap the ledge.

The Lane mine is looking well, the ore in the shaft being high grade.

The working force at the Snow's Canyon mine has been reduced, Mr. Garlick having enough ore out to make a test run of the cyanide plant.

Riverside.

San Bernardino Independent: The workmen in the new shaft being sunk on the Good Hope mine, near Perris, opened up a 20-inch ledge of rich ore last week.

Los Angeles men are backing Col. Hasson in developing the Little Maggie mine, west of Perris. There is an 8-inch vein that runs high.

W. Newport of Menifee lately purchased a promising free milling mine northeast of Perris. There is said to be a ledge 50 feet in width that will run \$10 or \$12 a ton. A tunnel will be run into the side of the mountain, tapping the vein at a depth of 700 feet.

San Bernardino.

Independent: At Ivanpah two or three of the mines of that old silver camp are producing pay ore, most of which is shipped to the Kingman sampler. Ivanpah has in days gone by produced over \$5,000,000 in silver.

Eastern capitalists are negotiating for the purchase of the old Copper World mine, lying nine miles southwest of Ivanpah. Ore from this mine is said to run as high as 60 per cent copper, with a considerable valuation in gold.

B. M. Lawrence is still operating the Stone-wall mine in the Ivanpah district. This mine has been on a paying basis for fifteen years.

The Bronze Mining Company at Vanderbilt will soon start up again.

San Diego.

Ramona Sentinel: The water has been pumped out of the Owens mine at Julian and the mine retimbered, and now, with the 10-stamp mill, about \$8000 per month in gold bullion is being taken out.

Inyo.

Register: J. W. Kelly has taken a force of men to commence development work on two groups of copper claims near Saline Valley. The first group, consists of the Copper Wedge, Tip Top, Copper Star, Copper King, Copper Queen and Clipper. The other mines include: Golden Eagle, Bismark, Bryan, Excelsior, Fairview, Standard, Butte and Summit. Assays from the Copper King, Star, and Tip Top show respectively 8 to 10 per cent, and 20 per cent commercial copper. All of these claims carry more or less silver with thousands of tons of ore in sight.

Kern.

J. H. Ellis of Frazier Valley, has sold his interest in the Rademacher to the Downing Mining Company of Visalia. They are working twelve men, running a crosscut, and have cut through 20 feet of good ore. They will sink a couple of shafts. The proposition of sinking for water is very encouraging. They are down 112 feet. So far water has not been struck, but the ground is very damp.

J. W. McNitt is milling thirty tons of rock at the Visalia Company's mill at Garlock.

Kern.

Times: The Winnie and Yucca Tree mines, in the Stringer district, have been sold by Cohen & O'Brien to O. H. Savage of San Jose for \$7500.

San Diego.

Sentinel: S. A. McDowell will start in soon taking rock out of the Hubbard mine of Banner.

The Washington mine has been leased to Grigsby, Plant and Howitt Bros. for two years.

F. E. Allbright, owner of the Alexandra mine, Banner, is having considerable development work done.

The Alpha mine of Banner is being worked by the Stanley Bros. and Reeder.

San Bernardino.

The North Star Mining & Milling Company, organized last October to work the North Star, Gypsy, Gypsy Maid, Bobtail and Broncho Jim mines in the Virginia Dale district, has received a report from an expert employed lately, showing that the company had one shaft down 130 feet with 125-foot drift, with 17,000 tons of ore in sight, valued at \$140,000, and it has been decided to push the work by

sinking the shaft from 500 to 700 feet deeper and develop the mines without milling any ore at present.

THERE have been filed for record at Bakersfield, Cal., agreements of F. L. Mooers giving to Patrick Reddy of San Francisco option to purchase a one-fourth interest in the Olympus, Tribby, Rand, Singleton, Desert View and Johannesburg mines, Rand district, for \$45,000, and one-fourth interest in the Triangle, Wedge, Yellow Aster and Mariposa mines for \$5000, and agreements of E. Rose, John Singleton and C. A. Burcham giving Reddy an option on one-half interest in the Tribby, Olympus, Triangle, Wedge, Yellow Aster, Rand, Mariposa, Desert View, Johannesburg and Singleton mines, in the Rand district, at \$100,000. Burcham, Mooers and Singleton were the first discoverers of the quartz mines in the Rand district. Shortly after the discovery a bond was given for their sale to Douglas Browne, a Colorado mining engineer, and his associates, and out of this grew a lawsuit, in which Reddy obtained as a fee a quarter interest in the properties. He won the suit and now it is proposed to interest capital to develop the mines.

Large quantities of copper ore has been discovered near Randsburg, Inyo county, Cal.

Statistics of the copper output of Arizona for 1896 place it at 1,100,000 pounds.

United States Pacific surveyors are at work between Mojave and Randsburg, Cal.

Telegraph line from Kramer to Randsburg, Cal., was put in operation last week.

San Bernardino.

Los Angeles Times: The mines of the San Bernardino range are being worked to advantage. At the Rose they are drifting on the 700-foot level, taking out good ore.

J. W. Smart is working a rich stringer in Cook's cañon, assaying \$200 to the ton.

O. G. Leach of the Black Hawk mining district has made a deal disposing of the Opera mine to E. F. Harrison, manager of the Rose, and the Llewellyn Bros. of Los Angeles.

Mr. Cochrane and others of Los Angeles have taken hold of the old Driscoll mine in Dry Lake district, and are down 75 feet in good ore.

Ed Dolch of Victor is having ore taken out of his mine that assays well.

E. C. Chappell is taking out ore from an adjoining claim.

The Valley Gold Company will resume operations in the spring under the management of W. E. Pedley.

The Green Lead people have struck ore that goes from \$15 to \$20 per ton.

Inyo.

Register: Best & Smith, owners of the Molus mine, have during the winter taken out enough ore to run their arrastra the coming summer. The shaft is down 80 feet and drifts 85 and 30 feet long have been run in two directions.

A deed was signed in Bishop last week conveying title to the Wild Rose mine from Harry McNamara and Pat Dowd to W. S. Couch and G. P. Doyle. The purchase price is \$10,000. The mine, eight miles from Benton, has been idle for years. The work formerly done was limited, comprising a 100-foot tunnel and 130-foot shaft; but in this over \$300,000 was taken out. Later Joseph McDermott sunk a 60 foot shaft, finding only base ore. The Banner mill, three miles distant, will be placed in shape to work the ore. This mill has not been used for thirteen years. A concentrating plant will be used at once, and if cyaniding experiments give satisfactory results a cyanide plant will be added.

Mining and Scientific Press
March 27, 1897 p. 262

San Bernardino.

On the Columbia mine, in the Macedonia district, one shaft is down 75 feet and another 30 feet is being sunk, also a crosscut tunnel 140 feet long. This tunnel taps the ledge about 100 feet deep. Two hundred tons of second-class ore is on the dump and ten tons of first-class ore.

The Occidental, Golden West and Good Hope are showing good ore.

H. U. Mudge is developing a group of five claims in the 20 Palms district. A 10-stamp mill will probably be put in in the spring.

Times: The Rose mine is putting on a large force of men and is sinking from the 700-foot level. Their 10-stamp mill is running night and day, besides shipping considerable high-grade ore.

The old Jeff Davis mine in the Morongo district has been purchased by San Francisco capitalists, represented on the grounds by G. L. Brown and M. E. and W. Barclay, the latter being superintendent. They have put ten men at work. The deepest shaft is down 120 feet. They have also purchased the Old Woman spring and two or three claims from J. Doyle and expect to put in a mill at the spring at an early date. They have also bonded a group of mines ten miles from Victor to be worked by a company called the Lafayette Gold Company.

E. McFee has run a tunnel on a well-defined ledge in Blackhawk mountain, showing a fine ledge of a large body of medium-grade gold ore.

San Diego.

Union: Twenty men are at work on the Aurora mine at Alamo under the direction of F. M. Bradshaw, one of the owners. The Aurora, before a granite dike was encountered a few years ago, produced \$100,000 for its owners, Russell & Rhodes of Los Angeles.

The new management at the old copper mine, four miles south of San Marcos, has sunk a shaft and got a new ledge which is not only richer in copper than the old one but bears considerable silver.

Apr. 3, 1897 p. 286

Kern.

Californian: There is decided interest in and about Havilah, in the mines. Several are being developed which show flattering results. Keysville is having a small boom of late. The mines there are turning out good ore.

From all indications Piute mountain will have a boom. There are large, well-defined ledges, and many minor ledges from 1 to 8 feet, that bear very rich quartz, and the miners are patiently waiting for the snow to disappear to resume work.

A stamp mill is to be built on the Surplus mine, there being sufficient ore in sight to keep a mill running for some time, and it is of a high grade.

The Amalie Mining Company are running their mill daily with good results.

H. W. Blaisdell is coming back to Havilah to resume operations in the mines there.

San Diego.

Union: At Julian the Helvetia has been idle, but work is expected to begin again this week.

Delgrove & Phillips are having fifty tons of ore hauled from the North Star mine to the Ready Relief mill.

Farley Bros. & Co. are sinking a shaft on their mine, the Gold Cup, in Banner. They are down 50 feet and are taking out good ore.

F. O. Potter has sold the Paddock mine to J. W. Bronning of San Diego.

Kern and San Bernardino.

(Special Correspondence).—The activity in mining circles which has characterized the past year has not abated. At Virginia Dale, Randsburg, Kramer, Needles, Providence, Picacho and other points a great amount of businesslike development work is being done, and in each of the camps above mentioned there are from one to half a dozen mines that are paying very well. At Randsburg the town lot boom which held sway in the bustling camp a few weeks ago has entirely subsided, but there is no decrease in the number of inquiries for safe mining propositions. It is expected a large force will soon be put on to work the Rand group of mines, and Reddy, one of the owners, says a 20-stamp mill will soon be put in at the foot of the incline, five miles from the mines, where a water supply can be easily obtained. In this camp are many idle men, who came expecting to secure employment. There is a shortage of capital and an excess of workmen in all that section. San Bernardino, March 29th, '97. G.

San Bernardino and Riverside.

(Special Correspondence).—In the Virginia Dale district, on the desert east of San Bernardino, there are perhaps 600 or 700 men in a region twelve by sixteen miles, and a great deal of quiet work is being done. Dale City, platted three weeks ago, is the business center, and already has a couple of stores, a saloon, blacksmith shop, postoffice, a wagon line to the railroad, etc. The town is located at the point heretofore known as Lyons Wells, and the site was chosen on account of the water supply the place afforded. The San Francisco company which lately acquired the old Virginia Dale mine at this place has erected a 40-ton mill, which was started up this week and is said to be working satisfactorily. This plant will be a great thing for the district, as it will do custom work most of the time. Development work hereabouts has been greatly retarded by the absence of milling facilities, but will go forward right well under the new order of things. The 2-stamp mill of the North Star Company started up again this week. For several months this company has been doing systematic development work and a short time ago an expert reported \$120,000 worth of ore in sight. The Leoti mine is also paying handsomely. The district contains several other notable properties, which will be mentioned in a future letter.

At Twenty-nine Palms, on the desert east of San Bernardino, the Desert Mining and Milling Co., under the superintendency of Mr. Mudge, have erected a 10-stamp mill, which was billed to start up some time this week. The mines of this group contain a great deal of rebellious ore, and the same company is figuring on the erection of a cyanide plant with fifty tons daily capacity at an early day.

At the Iron Chief mine, forty miles northeast of Walters station, on the Southern Pacific, Beach, Moore, Stephens & Stewart have a great deal of high-grade ore on the dump. Shipments to the Selby smelter will be made shortly.

At the old Santa Rosa mine, near Perris, Riverside county, sixteen employes have sued the company for back wages in sums ranging from \$50 to \$200.

A large body of very rich ore has been opened up in the lower workings of the Green Lead mine at Holcomb Valley. The 10-stamp mill will be started up at once.

The old Good Hope mine, near Perris, Riverside county, cleaned up \$11,000 last Saturday as the result of a two weeks' run. Under the management of Mr. Sigafus the property seems to be paying handsomely.

The late run of ore from the Alice mine, same district, gave good returns. G.

San Bernardino, March 30th, '97.

Mining and Scientific Press

Apr. 10, 1897 p. 306

Kern.

Los Angeles Times: At Randsburg some rich strikes have been made recently. A. Matheson in the Marvel mine, beyond the Stringer district, struck a pocket of ore on Friday last.

In the Reedly mine, Jenkins, owner, some rich ore has been found. This mine lies northwest towards the valley.

The Minnehaha, one and a half miles southwest, owned by Maginnis, Hanson and O'Leary, is showing up well. They are sinking a double compartment shaft and have a vein of ore running from 2 to 4 feet.

The owners of the G. B., on the Kramer road, have milled ninety tons recently which went \$20 per ton. The vein of ore runs from 2 to 4 1/2 feet and is easily worked.

Los Angeles.

For many years the part of Lytle creek between Santa Barbara and the mountain source has been successfully worked for gold. The recent find of a \$50 nugget gave a renewed zest to the work, but the prospectors had not given the quartz along the creek much attention until a firm of Los Angeles capitalists commenced last October to drive a tunnel into the hillside. It is now in 100 feet and the workmen are in a ledge of gold-bearing quartz that assays very high.

San Diego.

Union: The Glen Cliff Mining Company resumed work on its mines two weeks ago. A shipment of ore, has been made which justifies an additional force of men.

The Owens mine at Julian is to have its main shaft deepened 200 feet, making the shaft 550 feet in depth.

A new mining enterprise has been started in the Chihuahua district, northeast of Oak Grove and near the dividing line of San Diego and Riverside counties. Several of the claims are owned by Los Angeles men, who have secured mill sites and water rights and are preparing to put up a 10-stamp mill. There is a 90-foot shaft on one claim in the district, and the development work that has been done shows a promising vein of ore. Very good assays are obtained from the surface rock.

San Diego.

Union: The bonding of a group of mines in San Mateo canyon owned by W. S. Clark, to an English company, has caused renewed interest in that section. The mines were bonded for \$25,500, of which the first payment has been made, \$5,000 being due April 1, and the balance due in three quarterly payments. The English company proposes to erect a smelter at once. The mining district is about twenty-five miles from Fallbrook, in the Santa Rosa mountains.

Apr. 17, 1897 p. 326

cont..

San Bernardino.

(Special Correspondence). — Providence Mountain district is producing high-grade ore. The old Trojan district is evidently entering upon a prosperous era. It is a twenty-five-mile down-hill haul to Fenner, the nearest station on the Atlantic & Pacific Railroad. The cost from mine to car is \$10 a ton. A great deal of the ore runs about \$100 a ton; some as high as \$400 or \$500.

Notwithstanding the low price of silver, a number of shipments of ore have lately been made from the Ivanpah district, in the northeastern part of San Bernardino county.

Don Palmer of St. Louis and W. E. Van Slyke of San Bernardino are developing a group of mines—copper and gold—in the Sunrise mountains, eighteen miles southeast of Needles. They have a shaft down over 100 feet and have done considerable tunneling. Should the ore bodies hold as well as they now appear, a mill of at least forty stamps will be erected on the Colorado river, near the new Atlantic & Pacific bridge.

John and Rudolph Flynn are running an arrastra on picked ore at the Mountain Jewel mine, eighty miles north of Needles. Power is furnished by a gasoline engine.

There has been talk of erecting a smelter at Needles. A Denver expert named Davis, seconded by the business men of the desert town, has been investigating the mines adjacent to that point. It is said that, if his report is satisfactory, a plant with a capacity of at least 100 tons a day will result.

Everything seems to be going forward favorably in the Virginia Dale district. Miners at the Desert Queen are now taking out ore that averages 50 cents to the 100-pound sack. The forty-ton mill at the old Virginia Dale mine is running nearly all the time, and the owners express themselves as being satisfied with the returns. In the Pleasant Valley mine Prince & Christy have opened up an 11-inch ledge of rich ore. The county is building an excellent road from Amboy, on the Atlantic & Pacific, to Dale City. G.

Apr. 24, 1897 p 346

San Diego.

Sentinel: At Banner camp the Rody Relief and Redmond mines are being worked by Bally Bros., with the usual force of ten men.

At the Ranchita mine the mill is a new 5-stamp. An engine has been added recently for hoisting purposes in place of the mule used previously. The main shaft is now down 240 feet.

The Owens mine at Julian, which is the property of the Owens Consolidated Mining Company, is at present working only ten men, as the mill is not running at this time. The main shaft is down 350 feet. There are two ledges, one north and the other south of the main shaft with crosscuts, about 450 feet worked at each level drifting. The ledge varies in width from 1 to 4 feet.

Union: The stamp mill for the United States Mint mine, near Warner ranch, has arrived at Temecula, and will be hauled to the mine.

Mining and Scientific Press

May 8, 1897 p. 389

Gold Belt of the Lower Colorado River.

A dark-hued lizard on the dark-hued sand;
A rock, a short gray tree: above, an equal sky—
She sits and dreams. The whiteless blue of heaven
Comes down to meet the greenless brown of earth
And compasses her dream."

And this is Arizona and the desert bordering the Colorado river of the West. And the languor of the dreamer is passing, giving way to the promise of a glorious future replete with success from energetic efforts. It is said "nature equalizes matter;" and because of the unkind physical surroundings near to this region, it would appear compensation has been and will be had in the marvelous deposits of the precious minerals beneath the forbidding exterior. Values in gold, particularly, commensurate with the hardships and actual physical suffering endured in quest of the yellow metal in this zone of desolation, have been and will be had. Of the many meritorious gold strikes now in an embryonic state of "prospects" and being traced from Ehrenbergh northerly to the vicinity of Yuma, on and along the Colorado and Gila rivers northerly, we will not at this time touch. It is not known to exist, actualities, tangible values in this region found in better known prospects and mines, which latter will treat.

Beginning with the latest recorded and verified strike in the S. H. mountains, eighty miles northerly from the town of Yuma and thirty miles from the Colorado River. Though having no personal knowledge of the strike at the King of Arizona, or locally called the Gleason group, yet from reliable authority and from samples of ore in hand we find a very peculiar and interesting new condition. The lode vein crops out in three claims in length—4500 feet—and holds an average width of about 20 feet, in a diorite and porphyry contact. The great mass of the vein matter is a hard, reddish black, hungry-looking limestone, and a bluish and cream-colored sugar quartz 4 feet thick on the hanging wall threaded and shot with coarse gold of a value up to \$1 per pound of rock. In this vein, the highest values in this free metallic gold are held in a yellow carbonate of lead and a matrix of sugar quartz." Other samples are of a fine quartz conglomerate, through all of which iron as an oxide-carbonate and hematite appears. Along the average of the rock strata of vein stuff occur seams of calc spar.

All of this matter is impregnated with coarse, visible gold, though in much of the dense limestone there no gold is visible even under the glass, string and shot gold is had from the hornspoon. I am credibly informed that the 4-foot pay streak will not run below \$50 per ton and up to \$2000 gold per ton, and the remaining 14 to 16 feet of width of vein averages approximately to plate \$8 to \$12 per ton. Until the outcrop is broken it appears to be but ordinary "mal paies" (hard, black, porous lavas). Part of the vein is in high, serrated cliffs. Until a fresh fracture is made this appears to be valueless, a black rock. When broken it was first pronounced black quartz; investigation shows it to be limestone. This emphasizes the writer's reiterated advice to desert prospectors to pass no defined ledge of rock without breaking samples for a fresh fracture, for the sunburned, sand-polished outcrop of all rocks looks alike in blackened, shining surface in the desert. It is enough to say the King of Arizona

group is a tangible reality so far as extensive and high surface values in gold goes, and from a practical miner's standpoint this 4500 feet in length of regularly defined outcrop in a contact of primary rocks the future of the vein at depth is assured, presumably with its precious burden.

Next in order of discovery is the La Fortuna, on the Gila river, near Yuma. This, from all accounts, is a huge "pipe vein" some 400 feet in length along the strike, all pay and 2 to 12 feet thick, that has

attained a depth of 300 feet; and its record can be boiled down to the regular result in shipments of gold bullion from twenty head of stamps, running from \$80,000 to \$100,000 monthly. This holds in value and strength with depth.

Were these two late finds in Colorado they would long ere this rival the world-wide reputation of Cripple Creek. As it is, the La Fortuna is quietly pounding out fortunes every month and is simply a close corporate and quiet business affair; while in the really remarkable volume and values of gold in the King of Arizona, or Gleason group, local people of small means, having secured an interest, are putting in ten stamps thirty miles distant, at the nearest running water on the Gila river, and will make the mine purchase any additional plants required.

Let us see how Arizona and the desert compare with other and more favorably situated regions. In addition to the properties mentioned, we have the Harqua Hala with about \$3,000,000 to its credit, paying leasers handsomely, after the usual heavy English company shut down. Again, the Congress mine with no clatter, no blast of trumpet, sending out bullion regularly and at a depth of 2000 feet having ore blocked out for many years' work, to go through their 40-stamp mill. They have modern plants and methods in all particulars, and it is probably the equal as a dividend mine of any on the Pacific coast, and that means the world. The next in order is the old Vulture mine with \$15,000,000 production from the surface zone, and to the 600 level. This has at last got into the hands of men with money and nerve to drive down to the lower ore zone, when this old producer will doubtless continue a dividend property for years to come.

I wonder if it ever occurs to some of our California mining men, when they condemn by wholesale the desert mines as mere surface or infiltration deposits, that very much the same talk held back developments and driving for the lower ore zone on the mother lode of California for many years, until men having the money and doing a little single-handed thinking on their own account solved the problem of permanent ore bodies of great magnitude below the barren vein matter of the surface ore zones and made the mother lode of California a synonym for great and lasting mines. Diamond Joe Reynolds did this on the Congress mine, which, by the way, was originally worked for the copper, and depth made of it a gold mine.

point...

Mining and Scientific Press

May 8, 1897 p. 389 (cont.)

Pray, gentlemen, why should this happy condition be confined to northern California? However, this is a matter that will be defined in the early future, as this desert region bordering the Lower Colorado river is being thoroughly exploited by Colorado mining men who are corraling every tangible mining prospect of merit they can secure; and the energy, ability and nerve that have made Colorado what it is to-day will surely demonstrate more permanent paying mines in this region.

The Gold Rock of San Diego county, California, near Yuma, was condemned in its prospect state by at least two distinguished and able California mining experts, yet it appears to be doing pretty well with 60 feet thickness of \$6 to \$8 rock at the 300 level, and 120 stamps dropping. This, the Gold Rock—a segregation vein in porphyry—is certainly a property of merit and under competent management would never have got into the hands of a receiver. It was the old thing of "biting off more than you can chew." While forty stamps were making money, eighty stamps additional required some pretty low-grade stuff to go under the hammers to keep them all dropping. Then they started to economize at the wrong end by cutting down the pay of their millman—one of the best on the coast. He quitting, all sorts of tank men, crusher feeders and general mill swamper tried it a rattle and the tailings pond fattened, until the old millman was recalled at double his past salary. The Gold Rock is a good property.

The Senator mine (the old Buena Vista), fourteen miles north from Yuma, has a 12 to 40-foot vein at the 200 level, and 2 to 6 feet good pay. A mill will soon go up of twenty stamps, and the mine is regularly and systematically blocked out for stoping, with large reserves in sight. They are a mile from the Colorado river, in San Diego county.

To the contrary, Picacho district of San Diego county is erecting mills galore near the river's bank, with perfect confidence that mines must of necessity be found. Really, there have been more misleading reports from this district than any other in this lower desert country. They are not of the order of poor men's mines; they require capital to condition for successful work and the strictest economy of management. Excepting the Jaynes group, there is nothing demonstrated to be called a mine. There are many meritorious prospects in Picacho, of low-grade ores, but the wild, fantastic tales of 50 to 200 feet of \$20 to \$50 per ton rock are romances pure and simple. It is not the occasional hand samples of rich rock that make the value of a mine. It is what, day after day, in continual average of an ore body that the commercial value is found.

The "crosscutting of 50 to 200 feet of vein, and no walls," as reported, is eminently correct, as there are no walls defined and gouge-cased in the district, so they could not well be in sight. There are zones,

by courtesy called veins of segregation, with no regularity of system through the district. In these zones occur thin seams of quartz, pinching and swelling from a "shoe string" to a few inches thick; also detached pockets of rich rock. It is what is known to the miner as "spotted," like plums in a pudding. Now, to get these rich seams and pockets close enough together to be able to work the entire mass, is the problem. This, in many instances, is assured, so far as surface prospecting shows. Again, capping of a brecciated conglomerate in a calcareous cement, generally, and gold-bearing in pockets, oc-

curs in apparent flows having defined trends through the rhyolitic rocks. The entire basin is made up of a jumble of porphyries, granites, slates, etc., with an occasional intrusion of igneous rock, protruding as peaks through the unsystemized mass. Much gold has been taken out in places, derived in the opinion of the writer from these rich seams and pockets of quartz. In some instances concentrators will be required to recover the gold values iron coated and scattered through the vein stuff.

The mines of this district are exceptionally easy of access, and the ore may be mined cheaply. The probable value of the ore will run from \$2 to \$10 per ton in gold. It is specially free. By modern methods, under competent economical management, with the favorable location—twenty-eight miles from rail facilities at Yuma and a navigable river for five miles and to the river bank—this district may be made a dividend producer.

Stories of large deposits of \$50 rock and up result in harm. The posted mining man don't believe them. The novice, if of an economical (?) turn, does his own experting, builds castles in the air on the half-dozen colors of light gold in a pan test, really representing from \$3 to \$5 per ton and which he is assured is \$20 rock. Getting to the end of his financial rope he is choked off with a curse on the gamble of mining, when really he has not used simple business discretion in his preliminary investigation.

There are up, and on the way, one 10-stamp mill and six other mills, by one company, and not one foot of ground regularly blocked out for stoping. It is true, probably, as claimed that considerable development in a small way has been done by nature in the cutting of gulches through and across these ore zones. Yet a mining man would like more tangible values actually susceptible of measurement in sight than are found in a few shallow shafts and surface trenching.

This in a nutshell is the condition of Picacho district to-day. There are extensive bodies of low-grade gold ores with a friable gangue, and a straight-away free-milling amalgamating rock that may be mined, handled and reduced at a specially low cost, after the first expense of the installation of the required hauling and reduction plants.

Do not infer that these are all of the mining camps of the Lower Colorado river. There are many properties being worked and some now under bond to Colorado people that will be heard from in the early future. Reference is here made only to the better advertised camps. There is no boom on, but the burning of powder and breaking of ground is going on from above Ehrenbergh to the Sonora line, bordering the Lower Colorado, to an extent not known of before even in old Yuma, by a working, not a jaw-bone fraternity, having faith in their holdings.

Systematic prospecting of this desert region now nor at any time has been made. The country formations are the most promising and fruitful, and the Colorado river from the Grand Canyon to its mouth is highly mineralized on both sides for many miles back, and its vast possibilities have hardly been touched. More earnest prospecting has been done the past two seasons and the result is partly outlined above. The man with money has his agents in the field, and the dawn of a grand future for desert mining is here. A plain statement of facts that may be proven is of more ultimate value than the hysterical statements of stray news reporters, who enthusing on a hand sample of gold rock run to adjectives and gush when writing of this region.

TAYLOR D. MACLEOD.
Yuma, Arizona, April 25th, '97.

Mining and Scientific Press
May 15, 1897 p. 414

^{nyo.}
Register: L. F. J. Wrinkle went north last week to buy the Confidence and Mendocino mines, Funeral range, northeast of Panamint. The present owners are offered, for the two, \$100,000, a guarantee that \$100,000 worth of work will be done, and one-fifth of non-assessable capital stock.

Wm. Birchm will shortly begin developing his silver mine, the Indian King, east of the White Mountain summit.

Operations at Copper Mountain were scheduled to begin May 1st. Heavy storms have damaged the water ditches greatly, and repair work will be the first thing in order.

May 22, 1897 p. 429

Southern California Mines.

The southern part of California bids fair to soon attract much more attention from the mining world than it has for many years. The phenomenally rapid growth of the citrus and other agricultural industries during the past decade and a half has done much to prevent the mineral resources of the southern counties from attracting the attention they deserve. It has been for a long time almost impossible for those who believed in the mines south of the Colorado to turn the attention of the capitalists for their development from the citrus and similar industries. Probably in the end this will be all the better for the mines, for these pursuits have done much to make mining much easier and less expensive than it was a few years ago. Water has been developed, railroads and wagon roads built, and means brought into the country, and the mines are now easily accessible, the cost of bringing in supplies is much more, and in many cases less, than along the Sierras. Best of all, the capital is at hand, ready to take hold. During the past year there has been an increase in mining, proportionately more than probably in any other part of the State in San Diego and Kern

counties. The output of gold and silver of San Diego county in 1896 was \$344,907 and in 1896 \$560,618. In Kern county in 1895 it was \$277,497 and in 1896 \$625,516. The increase in these two counties was \$575,703, or

more than one-third of the total increase of the State. While there has not been an increase in Riverside and San Bernardino, there has been of late a large amount of development work and mines being opened with the promise of large increase this year.

A few years ago there was no part of the State inviting to the miner, owing to the difficulties in

the way of prospecting or working mines, while now all this is changed. In San Diego county, while a large part of it is desert in appearance, the mining districts have been of late years brought within easy and quick communication with the outside markets. The Rand district, in Kern county, will have one railroad, and probably two, within a few weeks. This means much to any mining district. In earlier days attempts have been made to open up mines in

some of these same southern counties, when the freight alone on mills and machinery was more than the total cost of purchasing and setting up would amount to now. As a consequence, there were many failures in large undertakings, such as that at Panamint and other places. These often unjustly gave bad names to mines that would now, with cheaper methods, pay well. A mine remote from cheap transportation, opened and condemned twenty years ago, is better worth investigating than any new prospects. Panamint has long been shunned because of its bad name; yet to one familiar with the manner in which money was expended in an attempt to open it there can be no reason for believing that the mine would not now pay, because they do not then under such circumstances.

In the counties of Riverside, San Bernardino, San Diego, Los Angeles and Kern there were, according to the last report of the State Mineralogist, 818 stamps in 1895, many of which were idle. While it is impossible to obtain exactly the number that have been added since, it is safe to presume that there are by this time over 1500 stamps. In many cases the mills which have been erected upon some of the larger properties are only small prospect mills, the forerunners of larger plants.

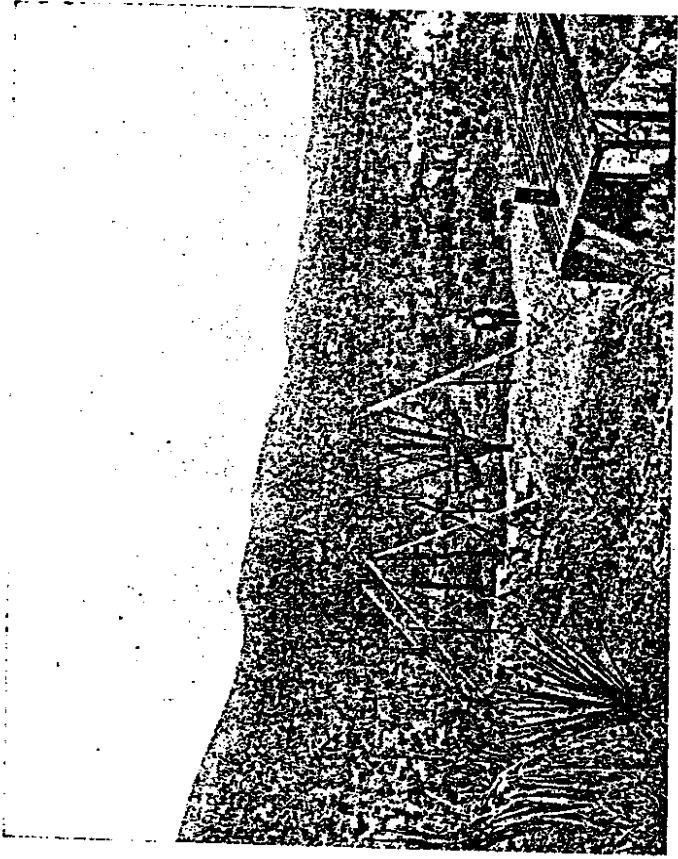
A great advantage possessed by these southern counties is the presence as residents of men of means and energy—men who have been the cause in large measure of the phenomenal growth of the country in other directions. Soon enough will have been done to prove the value and permanency of the mines and interest these people in their development.

During the past winter good work was done by prospectors in the south and the results are plainly

seen in the large amount of development work now going on upon their properties.

The accompanying cuts show three typical large mining plants in the land of the cactus. One is of the Royal Rock mine in San Bernardino county, near Oro Grande, and the others the Good Hope and Santa Rosa of Perris, Riverside county.

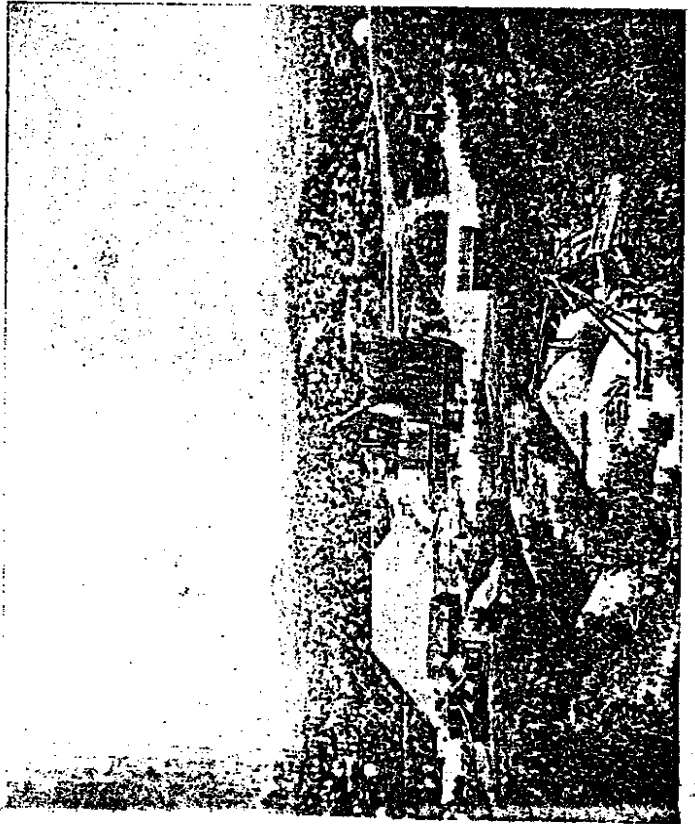
mining and Scientific Press
May 22, 1897 p. 429



ROYAL ROCK MINE.



GOOD HOPE MINE.



SANTA ROSA MINE.

Mining and Scientific Press
May 22, 1897 p. 434

Kern.

Californian: Garlock has another cyanide plant which will be in operation next week. This new plant will do custom work.

McNit, Snook and Baker in opening up a claim of theirs located on the desert about twenty miles from Garlock have struck rich rock.

June 5, 1897 p. 474

Inyo.

Los Angeles Times: Panamint mining camp, now attracting the attention of so many prospectors and others, is about seventy-five miles from Randsburg. The nearest and best road is by way of Garden station and Borax lake, going north between the Argus and Slate range of mountains until nearly opposite Postoffice springs, then crossing over Slate range on a fairly good grade road, thence down across Panamint valley.

The next water station on the road is at the borax works on Borax lake, where water is piped from the Argus range a long distance. Here a charge of 25 cents is made for watering a team, with an additional charge for hauling water away. Here a great deal of money has been expended in erecting expensive buildings, putting in costly machinery, houses for the men, vats and tanks to manufacture borax.

The next water station is Postoffice springs near the new town of Ballarat, and the distance thirty miles with Slate range to cross to reach it.

Ballarat is the new town built in the open valley, near the new mines, and will doubtless be the distributing point for supplies entering the camp for all the region embraced in the Panamint country. It now contains about a dozen houses and as many tents, with several new houses in course of erection. It also has several stores, two saloons and one food yard.

June 12, 1897 p. 498

Kern.

Randsburg Miner: The Val Verde has put on more men and is now producing pay ore.

There are about twenty men working on the Rand mine.

Good progress is being made on the shaft of the Butte.

A recent run of seven tons and 600 pounds of ore from the W. J. Bryan mine, owned by Montgomery Bros., produced \$800.

The King Solomon people are taking out good ore at a depth of about 300 feet.

The Little Butte's No. 1 shaft is down 135 feet, and they are drifting south to strike the ledge, which they hope to do within a week or so.

The Alameda is growing richer as greater depth is attained.

The owners of the Wedge are still pushing work on their shaft. They will be down 415 feet within a week or so, when the new power hoist will be placed in position and sinking to a depth of 1000 feet continued.

June 19, 1897 p. 515

The Golden Cross mine, Hedges, San Diego county, Cal., which \$1,000,000 was recently refused, is reported bonded for \$1,500,000 to Messrs. Carman & Rogers, representing New York men.

The district recorder at Virginia Dale, San Bernardino county, Cal., refuses to turn his books over to the county recorder without an order of court. This may bring up a test case on the new California mining law, which abolishes district recorders and requires records of mining locations to be made with county recorders.

June 19, 1897 p. 515

The Julian mining district in San Diego county, California, has nine quartz mills with a total of ninety stamps. Two mills are running and twenty mines are being worked.

June 19, 1897 p. 518

San Diego.

In the suit of Golden Cross Mining and Milling Co. vs. J. Spiers et al., a stipulation has been filed in the Los Angeles court wherein it is agreed that the matter in dispute remain in statu quo for 105 days. If by the expiration of that time the company has not paid the indebtedness due the defendants, judgment may be entered in their favor. In such case the property will be held in trust for all concerned. The claims aggregate nearly \$200,000.

Inyo.

T. B. Phebey of San Francisco has bonded several prospects in the Panamint district and has ordered windlasses and lumber for three shafts, and twelve men are at work sinking three separate shafts to a depth of 100 feet.

Kern.

At Randsburg Baker and Ferris have purchased the Philadelphia, a short wedge-shaped claim adjoining the Butte, for \$2000 cash. They have also bought the Whippoorwill claim.

Randsburg Miner: Fifteen men will be put to work next week on the Rand Mountain Mining Company's claims.

In the Wedge the shaft has reached a depth of about 350 feet, and in a drift being run off a new and rich pay streak has been struck. The work of sinking the shaft to the 415 foot level will again be taken up and pushed to completion.

In the Val Verde in the No. 2 shaft, which has heretofore been known as a low grade proposition, the ore running only about \$8 per ton suddenly changed front this week and is now producing ore of higher grade.

June 26, 1897 p. 546

Inyo.

Register: Southern Inyo is now receiving marked attention at the hands of persevering prospectors. As a result of their labors several new districts have been opened up with a very promising outlook for future prosperity, although not yet far enough advanced to determine their stability.

The Lano mine at Darwin is working three 8-hour shifts.

Mr. Newman of Tulare lately located 100 acres of placer ground in Mazourka canyon, east of Independence. It is the intention of himself and associates to run a long tunnel to secure a water supply, and develop the property on an extensive scale.

Mining and Scientific Press

Aug. 14, 1897 p. 146

Inyo.

The Mammoth cyanide plant is completed and ready to start. Stewart's mill at Soda-ville has resumed crushing.

Kern.

The strike on the Little Butte mine improves. Three shifts are at work. Shaft No. 2 at the west end of the ledge goes 50 feet deeper. A gasoline hoist goes in at shaft No. 1, which it is proposed to sink to a depth of 400 feet before any drifting is done.

Hollis and Curtis have bonded the Bower and Gold Bar claims and have men at work developing them.

Randsburg Miner: Manager Allen is working three shifts on shaft No. 1 of the Little Butte. The vein is widening and growing in richness. The new ore house is completed. A contract has been let for sinking the shaft on the westerly end of the claim 50 feet deeper.

The Yorkshire Lass Company has begun work on ore from the company's mines. The output of this group will be sufficient to keep the mill busy, and no custom work will be done. Twelve men are working on the Skookum and Yorkshire Lass.

The dry concentrator people are working

eight men, grading, erecting mill buildings, etc.

Los Angeles.

A gold bar valued at \$30,000, from the Red Rover mine, near Acton, has reached Los Angeles—the first run of the new mill started up thirty days ago.

Aug. 21, 1897 p. 170

Kern.

The Randsburg Miner says the shaft on the J. L. C. is down about 270 feet with good indications for the future. The crosscut at the 170-foot level is in 60 feet.

At Randsburg the Little Butte Mining Co. at the depth of 230 feet has ore \$471.90 in gold, 14 inches wide.

At Randsburg nearly 200 claims are being worked. The Magganetta drift has been extended 65 feet along the ledge. Small streaks of ore have run nearly the whole distance. The Merced has just shipped another gold brick. There are 30 men working on the Winnie.

Los Angeles.

At Old Baldy there are now about 100 men prospecting on the mountain. The new finds made in the George L. mine attract considerable attention.

The Red Rover at Acton is making another run on its high-grade ore from the 700-foot level.

San Diego.

The Du Quesne Mining Co. has twenty men working on the old Escondido mines day and night.

Capt. W. R. Farnsworth has purchased the North Star mine, an extension of the Ranchita, at Banner.

In the Mesquite district, six miles from Glamis, the Bay Horse reports averaging \$25 per ton. M. S. G. Todd of Los Angeles is secretary.

Aug. 28, 1897 p. 191

At the Golden Cross M. & M. Co., Hedges, San Diego county, Cal., the temperature is now 116° in the day and 114° at night. Seventy of the 140 stamps are crushing 240 tons of \$8 rock daily. One hundred and fifty Americans and Mexicans are employed. The Americans do the mining, the Mexicans shovel, cut wood, etc. The wood is brought twelve miles and is sold by the ton—\$4 per ton.

Aug. 28, 1897 p. 198

Kern.

Dean & Brand's cyanide plant at Kane Springs is ready for work.

Randsburg Miner: At a depth of 285 feet in shaft No. 1, Little Butte, the pay chute is from 14 to 24 inches in width. Assays show \$471.69 per ton in gold, \$5 in silver. E. L. Allen, general manager of the Little Butte mine, has bought the Little Butte extension.

Hafford and Bowman have sold to J. B. Black of Salt Lake one of their mines in the

Slate range, fifty miles north of Randsburg. Capt. Black will build a mill.

Inyo.

Jas. A. Yerington, R. K. Colcord, J. F. Parr and George T. Mills have bought the Molus mine and its eastern and western extensions, in Plute canyon, eighteen miles northeast of Bishop. Active work to develop the property on an extensive scale will begin at once. The Molus shaft, now down nearly 100 feet, will be sunk as much deeper as the first move and a mill will be erected. Gov. Colcord will personally superintend operations.

Ilverside.

H. T. Duff, at the C. and C. group, Perris, has bought the 5-stamp mill and machinery of the Alice mine, which will be removed and set up on the Virginia mine.

The work on the foundations for the new 20-stamp mill has commenced on the property of the English company at the Gavilan, adjoining the Santa Rosa on the north. The ore runs about \$300 per ton.

Work on the Cincinnati Belle is progressing. A 5-stamp mill is ordered to supersede the arrastra.

San Bernardino.

At Virginia Dale, Balrd's new quartz mill and cyanide plant will soon be in operation. The Index people are working the Montrose. The F. C. B., on the same ledge, shows a 14-inch ledge at 35 feet, which assays \$78.54. Sweesy & Arbos are down 100 feet on the Black Lead and are running a drift, getting out rock to mill. Moore & Sexton have a 50-foot shaft down on their property. Lee Bros. have the Desert King, a 2-foot ledge, which assays \$35 a ton.

At Mojave two incorporations have recently been organized—the White Peak Mining and Milling Company and the Mojave Mining and Milling Company and also a cyanide works with capacity of fifty tons per day. The Gypsy mine assays well. Colorado men have bought the mine for \$25,000 and will develop the property.

San Diego.

F. Holland will take charge of the Elvada mine, Julian, on which operations are to be resumed.

Mining and Scientific Press

July 17, 1897 p. 50

Kern.

Randsburg Miner: C. C. Lane, superintendent of the Rand Mining Company, reports that for the month of May the mine product of ore was 113 tons, 370 pounds, which milled gave \$5,170.70. The total mine expenses was \$2830.33. Month's profit \$2350.48. For the month of June the ore milled was 365 tons, 1530 pounds. Bullion produced 323 ounces, estimated value, \$13,811.41. Total expenses of mining, milling, etc., \$5926.51. Net profit for June, \$7914.93.

The Wedge shaft has reached a depth of 335 feet, with the ledge looking as well as ever.

Twelve men are working on the Minnehaha, sinking a shaft and driving a tunnel.

Considerable excitement has resulted from the discovery of good placer ground on the

flat between Randsburg and Goler. Enough is already known of the richness of the ground to insure a good field, for good wages can be made with the dry washer all over the placers from the surface of the ground, and many holes will be sunk that will pay to bedrock where the the best is to be found.

July 31, 1897 p. 102

Kern.

The Rand group employs thirty men. The Garlock mill is crushing ore therefrom. The Wedge and Kinyon mines are still milling good ore.

A coal mine four miles northwest from Garlock, with a vein about 13 inches thick, has been sold for \$15,000.

Randsburg Miner: There are ten tons of coal on the dump at the coal mine, the vein is growing thicker and the coal better as depth is attained.

The last fifty-six tons of Kinyon ore milled produced \$845.21, and the tailings, which assayed \$19 per ton, were sold for \$600, making a total of \$1445.21. G. B. Kinyon & Sons shipped out thirty-eight and one-half pounds of gold bullion last Sunday as the result of a recent run. This makes the product of the mine \$15,000 for the month.

The Little Butte No. 1 shaft is now down about 280 feet and the ore averages clear across the ledge, at the foot of the shaft, a little more than \$43 per ton.

Los Angeles.

In the northern part of Los Angeles county there is a good gold section. The Red Rover mine, near Acton, has the deepest shaft in the county, work having been extended to about 600 feet. A 10-stamp mill is running rock.

Aug 7, 1897 p. 126

Riverside.

The *Recorder* says the work of installing the cyanide plant at Kenworthy mine in the Tanquitz district is nearly completed.

The Tin Mine Grant Syndicate in the Gavilan mining district, has erected a 20-stamp mill on its property and will have a cyanide process plant in operation soon.

A new stamp mill is in operation near Perris, on the property of M. E. Bethurum. A 20-stamp mill is being arranged for by the Gavilan syndicate and the Riverside Gold Mining Company.

Kern.

Placer diggings in the eastern regions of Kern county are being generally worked with dry washers.

A 10-stamp mill at Garlock is making a thirty-day run on ore from the Skookum at Randsburg. The Gold Bar and Hand Bower, near Johannesburg, have been bonded by Hollis and Curtis, and work begun.

Three mills are running on ore from the Wedge mine. The Wedge is now down 400 feet and the ore is richer than ever. At the 415-foot level the company will put in a gas-line hoist. The Wedge is the deepest developed mine in the Rand district.

F. E. Gladwyn, manager of the Three Chimneys mine at Keysville, has a gold brick valued at \$1144, taken from four tons of rock from the mine, without the use of the concentrator, and says the mine shows a large body of ore of the same quality. The Three Chimneys mine is one of the group at Keysville, which was such a famous mining locality thirty-five years ago. Keysville is about seventy miles northeast of Bakersfield.

San Bernardino.

Twenty-five men are working on the Green Lead and the mill starts up this week.

San Diego.

U. S. G. Todd has organized a company to develop the Bay Horse and Irma gold mines in the Mesquite district, after having purchased the interests of various owners in the claims.

Los Angeles Times: The mines at Escandido, which hereafter will be known as the Rincon del Diablo mines, it is evident from present appearances, will be operated on latest improved methods and developed in a practical manner. Under the management of B. P. Little, active operations began some days ago, and twenty men are now employed retimbering shafts, erecting substantial hoisting works and placing a new mammoth boiler and engine in place. An assay office has been completed, also a tool house and shed for concentrators, which will be put in below the amalgamating tables. The old mill will be used for the present, having been repaired and improved. The first work will be to sink shafts to greater depths than the levels formerly worked.

Aug. 14, 1897 p. 146

Riverside.

At Gavilan, the English company's shaft is down 265 feet, with a 5-foot vein. About forty men are employed.

San Diego.

It is credibly stated that S. W. Dorsey is about to build a 100-ton stamp mill at his Picacho mines, and contemplates building a railway thence to the Colorado river.

(Special Correspondence).—A large body of auriferous stibnite ore has been discovered in the Laguna mountains, sixty-five miles east of San Diego. It has an assay value of over 65 per cent in antimony and about \$8 in gold per ton.

Quite a valuable find is the discovery "below the line," in Lower California, of two veins or ledges of manganese ore. The smaller vein is 3 feet wide at the surface and traceable readily for more than a mile. A good surface specimen assayed 57 per cent metallic manganese. It is soon to be opened up.

A report comes from the Jacumba valley, eighty miles easterly from San Diego, of the finding of a vein of galena ore 13 inches in width on top, an assay of surface ore from which yielded upwards of 4000 ounces silver per ton. It is being investigated.

San Diego, Cal., Aug. 10 '97.

Mineralogical and Scientific Press
July 3, 1897 p. 4

The Waterloo Mining Case.

Written for the MINING AND SCIENTIFIC PRESS.

The Calico Mines of San Bernardino county, Cal., after various vicissitudes, passed mainly into the hands of two separate ownerships—on the one side by T. S. Doe of San Francisco, and on the other the Waterloo Mining Co. of Milwaukee.

When the claims of these separate ownerships joined arose a number of conflicting interests, which resulted in long and expensive litigation. The most important of these suits, so far as the miner is concerned, was the conflict between the Silver King mine, owned by the Waterloo Co., and the Oriental No. 2, owned by Mr. Doe. This suit had its inception in a contract between the prior owners of the Oriental No. 2 ground and the prior owners of the Silver King mine, by which the Silver King owners were given the right of way to run a tunnel through the Oriental ground to reach their own mine, on certain conditions. At this time the miners of the district considered the ore deposits as merely superficial, and gave but little thought to any extra lateral rights which they might have. In the subsequent developments, however, of the Silver King mine the ore was followed to considerable depth and beyond the side line and into the Oriental No. 2 ground. After about \$300,000 or \$400,000 had been extracted from the Oriental No. 2 ground, Mr. Doe brought suit in the Superior Court of San Bernardino county for the value of the ore extracted from that ground. This brought up the question of the extra lateral right of the Silver King mine. The Silver King owners came into court with elaborate plans and models to try to prove that they had on the Silver King ground a lode on similar lines as was contended in the celebrated Eureka case. That the lode had a well-defined hanging and footwall, and that the ore which they had extracted was within these boundaries, and had been followed down continuously from their croppings, the counsel for Mr. Doe denied their right to justify. They contended that whether they had a vein or lode, or not, they had no right to trespass upon the ground of another because the end lines of their claim were not parallel. At this time the Silver King was not patented and their title rested upon their original location, which had widely divergent end lines. The Court took the view of counsel for Mr. Doe, and the jury were instructed to award the extent of damages.

An appeal was taken from this decision to the Supreme Court of the State, where the ruling of the lower court was reversed and the case sent back for re-trial on its merits.

Pending this decision the Silver King owners, about 1000 feet westerly from the original point of contention, again trespassed upon and extracted ore from the claims owned by Mr. Doe, who stopped them by a temporary injunction issued by the U. S. Circuit Court of Southern California. The testimony in this case was taken before an examiner of the court, which permitted all the testimony bearing on the merits of the case to be heard. Practically the same points were involved as in the original suit, with the exception that in the meantime the Silver King owners had obtained a United States patent, or Land Office receipt for patent, showing parallel end lines for the greater portion of their original location.

The experts for the Silver King owners, following the lines of the Eureka case, contended that the ore deposits of the Silver King were within a lode having well-defined hanging and footwall boundaries that the whole mass of rock between these boundaries should be regarded as a lode within which ore might be anywhere found.

The experts for Mr. Doe proved that the ore was found only along the planes of three distinct and independent fissures, constituting three independent veins. The apex of one of these veins, and that from which the ore in dispute had been extracted was within the surface boundaries of the Oriental No. 2 ground.

The main points therefore which were brought before the Court for decision were:

First—To what extent the non-parallelism of the end lines of the original location would affect the extra lateral rights; and

Second—Whether the ore deposits constituted an indivisible unity, or were several independent and distinct units.

As to the non-parallelism of the end lines, the Court finds that a patent having been issued showing parallel end lines, the presumption is that the Land Office was right in issuing it, as no attack was made on the patent.

It is believed that this ruling opens or leaves open a very wide field of uncertainty as to subsequent adjoining locators to a faulty location, and that a more radical decision would in the end be of greater justice to the miner. Space, however, does not permit of a discussion of this subject at the time.

After a careful consideration and thorough knowledge of the facts, it is not seen how the decision could be otherwise as to the constitution of the ore deposit. The question was stubbornly fought by able experts on both sides.

July 3, 1897 p. 6

Kern.

Randsburg Miner: In the Val Verde No. 2 last week a new 3-foot vein was uncovered. Since then the vein has been perceptibly widening and the ore has increased in richness.

On the Alameda ore is being sacked for shipment. Ore in the various workings continues to grow better as depth is gained.

Klyon & Sons have just received \$3,316.40 from the mint, the result of a cleanup on forty tons of ore recently milled at Garlock.

W. B. McConnell, F. A. Pratt, H. F. Parker, J. A. Haralson and H. C. Flanagan have just taken a bond on a group of four claims near the Petaluma in the sum of \$23,500, and will in a few days put men to work developing the property. The claims are the Skookum, Yorkshire Lass, Spokane and Superior.

San Diego.

Union: The placer claim of 120 acres twenty-five miles beyond Foster station, on the Cuyamaca railroad, owned by Pierce, Benton, Morse, Burk and Schafer, all of San Diego, has been sold to Colorado mining men, who will develop the property. The price paid was \$30,000. It is expected that work will begin in about a month.

Mining and Scientific Press
Sept. 11, 1897 p. 246

Kern.

The Rand mining district announces progress, outside capital coming in looking for investment, mining properties changing hands, claims being developed, etc. M. R. Richie, Los Angeles, expects to begin the erection of a mill next month. A pocket is reported struck in the King Solomon mine, the ore running from \$1200 to \$2000 per ton. A cyanide plant is to be erected upon the mine owned by the Gold Bug M. Co. The Val Verde has 200 tons of ore on the dump awaiting milling. The mill at Cuddyback is kept busy with custom work. The G. B. mine of Randsburg has been bonded to F. Cole, who has begun work.

Randsburg Miner: A run of seventy tons of Wedge ore has just been finished at the mill at Cuddeback lake. The ore ran \$150 per ton.

The Mojave Gold Mining and Milling Company is operating the Wonder, Wedge and Grachyte claims, on the southeast slope of Soledad mountain.

The White Peak Group Mining Company owns 200 acres of mining locations on the south and west slopes of Soledad peak, six miles from Mojave. It embraces fourteen claims.

San Diego.

The defendant in the case of the Free Gold Mining Company vs. James Spiers et al. has appealed to the Supreme Court from the order appointing C. N. Pauly receiver of the Golden Cross mines at Hedges.

A tunnel is being run on the Seventy-Six mine to tap the vein at a depth of 400 feet. A number of stringers have already been cut. Forty feet more and the main ledge will be encountered.

The Poor Man's Mining Company is being incorporated, based upon the purchase and development of the Mountain View and Poor-man mining claims, two free milling properties between the Stonewall and Ranchita mines, near Banner. It provides for 1000 shares \$10 each, payable in monthly installments.

A New York house has ordered from the Laguna Mining Company of this city, a sample car load of antimonial ore from their Laguna Mountain property for shipment to England, with a view to developing an extensive business. A 6-foot vein of antimonial ore has been found in the Alpine mine in the Laguna mountains while assessment work was being prosecuted in Mesquite district. A great many claims have been recently located—about ten miles square is taken up. Placers have been worked for years. As in the case of most desert districts, there is a lack of water for the working of ore. Water for camp purposes is hauled from the railroad station at Glamis, six miles away. The water problem will probably be solved by piping it from the Colorado river, twenty miles away.

Three thousand dollars per month is being taken from the Ranchita mine in the Julian district. The 5-stamp mill is kept busy on \$30 ore from development work only.

Sept. 4, 1897 p. 218

San Bernardino.

Near Mojave, the Gypsy has been bought by Colorado men for \$10,000. The White Peak has been incorporated and a cyanide plant is projected.

San Diego.

Mesquite, a new mining camp, is springing up. It lies thirty miles northwest of Yuma, six miles from Glamis, on the Southern Pacific railroad. The principal mine of the district is the Bay Horse, which was recently sold by Moreland & Co. to a Los Angeles company for \$40,000 and a share of the capital stock of the company, incorporated under the laws of Arizona, with a capital stock of \$1,250,000.

At Poway the Bidwell mine has a small smelter, furnished by W. Ober.

The Sun reports that the Itanchito mill is turning out \$100 worth of gold daily from 30 ore. Capt. Farnsworth is preparing to work the North Star at Banner.

In Laguna district, on the Glen Cliff, the shaft has been put down 83 feet and men are working developing the mine. The ledge is 2 feet 6 inches in width. The ore averages about \$20 to the ton. The company proposes to erect a small stamp mill, to be run by water power.

At the Escondido mines of the Duquesne Company the large main shaft is now down about 120 feet; another week will bring it to the water, when the big pumps will be put at work and sinking continue. In the meantime, the mill and concentrators will be put to work on the tailings of the old mill, which, it is understood, assay about \$20 per ton.

Inyo.

At the Sherwin mine, northeast of Bishop, is reported the proposed erection of a new mill and cyanide plant.

Duenweg and Girard at the Bullion, running parallel with and east of the New Year mine, one of the Inyo G. M. Co.'s properties, have a ledge between lime and slate, the former be-

ing the foot wall and the latter the hanging wall, averaging \$10 a ton in gold.

The Last Chance mines, Nos. 1 and 2, twenty-five miles from Keeler, were finally bought this week for \$80,000, half cash. The Inyo County Mining & Development Company, W. W. Boswell superintendent, has been working the property since Feb. '97 on silver-lead ore and is reported to have taken out \$55,000 in that time.

D. Driscoll of Panamint reports from Pleasant canyon removal of the 20-stamp mill, now four miles from the mines, to the property, and proposed addition of a cyanide process plant. On the property are three tunnels leading to a depth of 300 feet. The ledge averages 15 feet and runs \$30.

Ballarat, the town of the valley and the main base of supplies for the section, is building up.

Kern.

At Randsburg the Kibyon mine produced over \$9000 in July, with the greater part of the month devoted to dead work.

Miner: At Johannesburg the Val Verde has 200 tons of good milling ore on its dump.

One shaft of the Camperdown is now 90 feet in depth, and they are getting out some good ore.

A strike was made in the King Solomon mine last week at the 190-foot level.

Johnson & Ritchie of Los Angeles propose building reduction works.

The Randsburg Placer Mining Company has been organized with \$1,000,000 capital stock, of the par value of \$1; three-fourths subscribed by Randsburg men. Directors—J. M. Bracewell Jr., P. Carroll, D. C. Kuffel, S. H. Reynolds, W. H. Hevren. The property is three miles from Randsburg.

A Garlock correspondent of the *Herald* writes: "As an indication of the wave of prosperity, all the mills are running except one small one—and they are running on rich ore. The mines here and at Randsburg are producing \$60,000 per month, and there is little doubt that the amount will be increased to \$250,000 if the mills are kept busy, which is the indication. Their capacity is about 3000 tons per month, and the ore so far has averaged nearly \$100 per ton." Garlock is the milling point for most of the Randsburg mines.

Los Angeles.

The Mohawk-Acton Mining Company is organized in Los Angeles under the laws of Arizona, with 1,000,000 shares, par value \$1, non-assessable; B. Katzenstein secretary. The company owns three claims on the extension of the Red Rover ledge at Acton, Los Angeles county. Considerable development work has been done on the Banbury claim, showing a ledge of ore, upon which the company will sink a shaft.

Inyo.

Considerable life is reported from Ballarat, where several prospectors have good finds. Montgomery Bros. are operating their mill.

Kern.

At Randsburg the Wedge Company is down nearly 400 feet. Assays of the ore run \$50 to \$107. There is a favorable change in the character of the ore, now running in sulphurets, indicating a permanency of the ore bodies.

At the Durnal quartz mine, situated between Angua Caliente and Plute, improvements are in contemplation. An 8-stamp mill is to be erected at the mouth of the tunnel and an additional mill is talked of farther down the ravine. The *Californian* says the number of men prospecting for quartz and gravel mines in that vicinity is greater than any previous year since the pioneer days.

J. Waugaman, on Greenhorn mountains, in a recent clean-up, says he got \$6480 for a run of six days in a 6-stamp mill.

At Colorado camp, five miles from Garlock, the Cavil Gold Mining & Milling Company, incorporated under the laws of Arizona, has seven claims to be developed.

The Randsburg Placer Mining Company has incorporated with a capital stock of \$1,000,000, of the par value of \$1 per share. The incorporators are: J. M. Bracewell, J. P. Carroll, D. C. Kuffel, S. H. Reynolds and W. H. Hevren. The company will operate a group of eighteen placer claims two miles southwest of Randsburg.

Riverside.

A ledge which is said to assay \$2000 to the ton has been discovered by Superintendent J. M. Sigafus in the Good Hope mine, eight miles from Perris. The Good Hope has employed as high as one hundred and twenty-five men. Now thirty are at work.

San Bernardino.

Placer gold mining is being successfully prosecuted on Lytle creek and prospects are good for repeating the rich strikes of twenty years ago. Platt & Crawford are putting in hydraulic machinery. An \$86 nugget was recently found in the canyon.

The application of the Pacific Borax Works for permission to cross a county bridge at Daggett with a narrow-gauge road to the Board of Supervisors has called the attention of the management of the Santa Fe to the plans of the company. A conference was held last week looking to a change of route, and instead of building from the works to Daggett, a distance of fifteen miles, to bring down the borax and avoid the heavy freighting for shipment, it is now proposed to build from the works to Newberry.

The Golden Cross mines at Hodges, San Diego Co., Cal., could escape paying taxes this year on personal property valued at about \$100,000. The assessment was made to the trustees of the Golden Cross Mining and Milling Company and not to W. W. Stewart, at that time receiver. The statute requires that assessment of property shall be made to the receiver of a property when it is in his custody. The trustees, however, have notified the assessor that the taxes will be paid.

Mining and Scientific Press
Sept. 25, 1897 p. 294

Inyo.

A group of five free-milling gold mines belonging to Taylor, Mathes and Hayt, in the Death Valley mining district, are reported sold to an English syndicate for \$105,000. These mines are near Anvil springs, between Panamint and Death valleys.

Kern.

An artesian well is to be sunk 500 feet at Garlock.

D. N. Coffin, superintendent of the Visalia mill, has gone to Grass Valley to take charge of a mining property and mill.

The Meteor mine, Randsburg district, is reported sold for \$20,000.

The Rand Mining and Milling Company has leased the Visalia stamp mill. A. D. Marchand is the new superintendent.

San Diego.

The Yuma *Scout* says J. C. Beatty of the Senator mine, in the Picacho district, has men at work doing development work and erecting a 20-stamp mill, and expects to have the mill in operation within sixty days.

The Los Angeles *Mining News* says that Senator Dorsey has succeeded in raising \$300,000 for the development of his property in the Picacho district, and will soon begin the erection of a 100-stamp mill.

Fifty men are at work on the mines on Sac Matco canyon, on the northern line of the county. The ore averages \$16 per ton, and a live camp will probably be established there.

Oct. 2, 1897 p. 318

Kern.

Randsburg Miner: The clean-up of a twenty-ton run of Val Verde ore showed a value of \$25 per ton. The ore came from the No. 2 shaft, out of the 3-foot ledge.

Los Angeles.

Parsons and Neiswender have located a placer mining claim in the Los Angeles river, in the Los Angeles city limits, and claim that they will go to work with machinery, pumping, etc.

Riverside.

At the Leon mine, seven miles from Winchester, owned by the Leon Gold Mining Company, the main shaft is down 220 feet and about 1500 feet of development work has been done. It is intended to erect a 10-stamp mill, 1200-pound stamps. There is a good mill site with plenty of water. The mine is patented.

San Diego.

According to the *Union*, a San Francisco prospector named Louderville has made a strike near Warner Ranch in that county. The half-column account of the find closes as follows: "An assay of a lot of the ore showed a value of \$152.13 a ton. Louderville has four claims on the ledge. He has just returned from San Francisco with an expert, who will report on the property in the interest of San Francisco capitalists. The discovery is 75 feet outside the boundary line of Warner Ranch and adjoining the Indian reservation."

Oct. 18, 1897 p. 366

Kern.

Ledges in the Goler placer district are being uncovered; some prospect free gold. Superintendent Coplin of the Visalia Company is sinking a new 14-inch well at the Rand mill. The Rand Company has two mills running day and night on ore from their mines. Considerable assessment and development work is being done on claims east of Garlock. Webb & Harney have started up on the Hard Cash mine. Rose & Co., who bonded the May Queen mine of Kelley & Price, have paid \$3000, the balance of the bond, although it was not due until Jan. 1, '98. They have twelve men at work and will put in a hoisting plant. A. D. Glace of Golden Gate has bonded from Clifton & Barman the Galena City, Dell and Modoc claims, near Garlock, for \$15,000, on which the first payment has been made.

Postal Inspector Flint says that within three months Randsburg will be a Presidential postoffice. In order to attain this standing it is necessary to show receipts amounting to an annual income of \$1900. Although Randsburg has been in existence but a year, it already shows receipts of \$1700 and a rapid and steady increase.

Riverside.

Gold is reported discovered in Mill Creek canyon, near Redlands, which goes \$75 to \$150 a ton.

San Bernardino.

Near San Bernardino a plat of ground has been purchased, equally distant from both railroad depots, on which is to be erected the smelter now located at San Fernando.

G. L. Brown, manager of the Logan Gold Mining Company at Victor, reports that twenty men have been working the Calori group of mines in Rattlesnake canyon, near the Rose mine, and have uncovered a large body of ore which will average \$20 in gold per ton. The company will put in a power hoist and a revolving roaster of twenty tons capacity.

Sun: The Lytle Creek Quartz Mining Co., capital stock \$100,000, all subscribed, is incorporated to mine a ledge of cobalt at Colton, in Lytle Creek canyon, six miles north of the hot sulphur springs, 6,000 feet in length and from 10 to 20 feet in width. It assays 80 pounds of cobalt to the ton, besides low-grade gold and nickel. A smelter of ten tons capacity will be put up at the mine. This is the only known mine of cobalt in the United States.

[Cobalt is not uncommon in the United States, as high as 13,000 pounds having been produced in one year. It usually occurs in connection with nickel ores. The total world's production is about 250 tons annually. Its principal use is in the manufacture of a blue pigment. At present it is worth about \$1.50 per pound.—Editor.]

San Diego.

J. P. Frizell, who has a lease on the south extension of the Escondido mines, is taking out some rich ore. He is running a tunnel from the west side of the hill to connect with the old diggings on the east side, where he has men stopping in rich ground.

C. W. Witham & Co. have located some new copper claims joining the old Encinitas copper mines, and will build a dam 60 feet high for reservoir purposes. The *Union* says they intend to put in a smelter.

Mining and Metallurgical Journal: Speaking of the mines at Hedges, C. W. Pauly said recently: "The mines are in good shape. We have been running 50 of the 140 stamps until recently, and are now running 70. The gold is taken from the Cross and Crown mine. The rock runs about \$8 per ton, and we crush 240 tons per day. Just before I left we made a very satisfactory clean-up. Between 100 and 200 men are at work, partly Americans and partly Mexicans. The Americans do the export mining, and the Mexicans shovel, cut wood and do purely manual labor. The water is found on the desert, twelve or fourteen miles from camp, and it boils by the ton, instead of by the cord. We pay \$1 per ton at the scales. It is ironwood, very hard and good fuel. There are about 400 people in camp and about 100 more in the vicinity. All "

Mining and Scientific Press
Oct. 23, 1897 p. 390

Kern.

In the hills to the southwest of the town of Randsburg nature has shown strange freaks in the deposit of gold. Veins of quartz run in every direction, appearing above the ground, disappearing far beneath, running straight for a few feet, then diverging with as many angles as a streak of lightning. These stringers perplex all calculation. The tiny veins of quartz are rich in gold, and at first were supposed to descend only a few feet, and to be streams, as it were, cast off in the general upheaval, and scattered on the surface of the soil. When they were followed deeper, however, they were found to unite and form feeders to rich bodies of ore, and "the stringer district" bids fair to become the richest portion of the gold fields. From a consecutive run of 20 tons, 350 sacks of ore, \$3,500 was realized by one of these stringer mines in the month of June. Another averaged \$80 and a third \$130 a ton for the same period, and the total average of all the stringer mines for the same time would be about \$90 to the ton. The coyoting of a single mine in the Rand for six months produced \$30,000, and in nine months the same amount was taken from the shaft on a triangular claim 300 feet on a side, the only machinery in use being an ordinary whim.

At Randsburg, the Meteor mine has been bonded for \$25,000 by Carpenter, Price and Kelly, to McGrew & Ellis. Price and Kelly have bought the Combination, an extension of the Meteor, for \$2000 cash. The Little Butte Company has established a level at a depth of 385 feet, and is now drifting both ways in a vein of good ore. The 25-horse power gasoline hoisting engine will be in position next week.

Wilshire and Blaisdell of Los Angeles have a working bond on the Pioneer, Garfield and St. Michael claims for \$15,000.

Oct. 30, 1897 p. 414

Riverside.

Recent assays of O. J. Ellsworth's mine in Hemet valley show \$26 gold per ton. The ore is said to be 26 per cent zinc.

Virginia Dale placers are said to be producing about \$1000 per week, with fifteen men at work. Some are not doing well, says the Redlands *Citrograph*.

A paint mine is being developed, the *Press* says. The mine is two and a half miles from Alvord. The supply of the paint rock is practically limitless. The colors being taken out are yellow ochre, chrome green and red. At Jackson's mill forty tons of the pure material are ground per day.

San Bernardino.

The Rose Cyanide Company has incorporated in San Bernardino to work over the tailings of the Rose mine in Holcomb valley, of which there are from 10,000 to 12,000 tons that it is said will go from \$5 to \$6 per ton; the mill is turning out twenty tons per day. The company will put in a plant capable of handling fifty tons per day. W. W. Burton, J. H. Playtor, F. M. Gallaher of Santa Barbara, and G. P. Brown of Mercur, Utah, constitute the company.

San Diego.

Receiver Pauly has filed his report as receiver of the Golden Cross Mining and Milling Company at Hedges. On July 7 last he took charge as receiver; there were 160 men in the employ of the company and fifty stamps were in operation in the 100-stamp mill. On August 10 the number of stamps was increased to seventy, on August 20 to eighty, and on September 13 to ninety-five stamps, and the number of men to 177. The 40-stamp mill has also been placed in good condition. When Receiver Pauly took charge a cleanup of the batteries realized \$10,417.47. There was at that time \$9100.09 due the employees, which was paid, leaving a balance of \$1277.78. A cleanup on August 1 realized \$17,498.46, the

cleanup on September 1 showed \$37,581.94, and another cleanup on September 30 realized \$31,233.84. He has paid out altogether for the benefit and operation of the property \$48,117.07, which does not include the September pay-roll, not yet due. There is on hand and in bank the sum of \$50,239.65. All receipts since Receiver Pauly took hold on July 7 amount to \$98,356.73, showing a profit for the three months of about \$50,000. The report shows that the net earnings are increasing and that large bodies of free gold ore are in sight.

The report comes from Gold Rock that that camp is in a most flourishing condition, more so than ever before, according to the Yuma Sun. A large quantity of ore is being gotten out, and the forty stamps which were shut down some time since will be started up on the first of the coming month, and the entire 140 stamps will be kept pounding day and night.

Kern.

The Pine Tree mine is being run day and night, giving employment to forty men.

The Randsburg Placer and Quartz Mining Company owns 320 acres of land near Randsburg, under which placer gold is believed to lie in great quantities on bedrock. The company's shaft is down 175 feet and is near to the bedrock.

Nov. 6, 1897 p. 434

Kern.

Garlock has the following quartz mills, all at work, aggregate capacity seventy-five tons daily, with a total tonnage of 2250 tons per month; average of the ore milled, \$76 per ton:

The Garlock, E. F. Garlock, owner; eight stamps, capacity fifteen tons every twenty-four hours; J. K. Hughes, superintendent.

The Maxon, Dr. Maxon of Oakland, owner; C. H. Belcher, superintendent; five stamps, capacity twelve tons daily.

The Visalia, owned by Visalia capitalists; S. N. Coffin, superintendent; ten stamps, capacity twenty tons daily.

The Henry, owned by E. E. Henry of Los Angeles; ten stamps, capacity twenty tons daily.

The Kelly, owned by John Kelly; two stamps, capacity five tons daily.

Parker & McConnell are running a 5-foot Huntington mill; capacity, twenty tons daily.

For the treatment of the tailings and ores there are also the Garlock Cyanide Works, twelve tons capacity, E. E. Carpenter, manager; Smith & Collins' cyanide plant, capacity ten tons a day.

The Rand Mining Company has leased the Visalia mill at Garlock, increased its capacity from five to ten stamps and doubled the well facilities. Garlock mills as yet operate the bulk of Rand district ores. A reduction works that cost \$20,000 is in operation on the Alameda mine, Johannesburg. A 10-stamp mill that will require 30,000 gallons of water every twenty-four hours is in process of construction at Johannesburg. Milling at Garlock costs from \$6 to \$8 per ton; at Cuddeback lake \$8 per ton. The hauling to both mills costs from \$1.75 to \$3. The Rand group, the pioneer mines of the district, have produced over \$100,000; the Butte, Kinyon and Wedge nearly \$80,000 each. The Napoleon and Morcod, now claims in the Stringer district, have each produced over \$15,000. The St. Elmo, Petaluma, Alameda, Val Verde and King Solomon group, also the Rookot mine, have also been producers. The total product of gold from the entire district to date is \$600,000. The first discovery was made April 22, 1895. The monthly product is now about \$100,000. The Wedge is down 415 feet, the Little Butte 385 feet, the King Solomon 370 feet, St. Elmo 300 feet; others have a depth of from 50 to 100 feet.

The Randsburg Placer & Quartz Mining Company's shaft is down 175 feet, without reaching bedrock, and they are arranging to sink 100 feet deeper.

Mining and Scientific Press
Nov. 6, 1897 p. 434 (cont.)

Rooster: The old Patsy O'Brien mine at Havilah has been sold to G. C. Kirby of Los Angeles for \$20,000, and the first payment of \$3500 made. Mr. Kirby will operate a 10-stamp mill. This property was known as the Warrington mine. The Warrington Company put in a 20-stamp mill and an air compressor, investing in all about \$100,000. Later the improvements were destroyed by fire. The mine has been idle for two years.

Los Angeles.

Ten miles east of Acon, at an elevation of 3500 feet, is the Black Cat mine, on which considerable work has been done. A 20-stamp mill is connected with the mine.

San Bernardino.

A strike has been made in the Itose mine between the 800 and 900-foot levels, enough ore being in sight to keep the 10-stamp mill running for years.

San Diego.

The receiver of the Golden Cross Mining & Milling Company at Hedges has filed his report. Ninety-five stamps are now in operation, employing 177 men. The debts of the mine have been paid, and there is now on hand over \$50,000. It represents the profits of three months' operations. The report states that large bodies of free milling ore are in sight.

Nov. 13, 1897 p. 462

Inyo.

Independent: The new dry concentrator is built somewhat on the basic plan of the old-time dry washer, the gold and sulphurets being separated from the pulp by agitation, causing openings or crevices in the latter which permits the heavier particles to fall by specific gravity to the riffle board. With the dry washer the blast which separated the pulp and mineral could not be regulated, but with the concentrator this is governed altogether by the operator. The ore is dumped from the wagons into a bin, where it is fed by an automatic feeder into the crusher, and as the pulp leaves the crusher it is taken by elevators to the cupola of the mill building, where it passes through a 100, 80 and 60-mesh rotary screen. Should any of the pulp be too coarse to pass through the 60-mesh it runs into a tube and is carried back into the crusher. Below the screen is a bin which catches the pulp as it falls, and from this pipes lead into the hoppers of the machines. An eccentric feed and automatic gate in the hopper regulates the flow into the sand chamber. This chamber must be kept full at all times. From the sand chamber the pulp drops upon the riffle board, which is made of silk bolting cloth, and across which wires are sewed on at intervals of half an inch. The riffles travel upward at almost a snail's pace towards the hopper, and below it the blast is placed in a tight-fitting compartment. The blast is variable, and can be regulated by the operator from naught to nine, according to the character of the ore treated, that carrying heavy gold and sulphurets requiring a light blast, and vice versa. As the pulp passes over the riffles interstices are caused by the blast, through which the gold and sulphurets are carried by gravity to the bottom and are held by the cross wires, while the pulp, which now becomes tailings, except for the chlorides and light gold, passes downward to the back of

the machine, where another blast forces these lighter particles into two pipes arranged on each side of the machine, and carries them into the chloride house, an airtight building erected outside of the mill. So far the percentage of chlorides and light gold has been so small that it could scarcely be treated. The gold and sulphurets, after being deposited against the riffles, are carried over the front of the machine and deposited in a box set for the purpose. The small amount of concentrates which may cling to the riffles is carried under the machine and is knocked off onto a blanket by a "knocker" automatically arranged. The concentrating power of the machine is governed altogether by the operator, who, by raising or lowering the tables on which the riffles are arranged, can reduce the concentrates to a minimum or permit them to carry a large percentage of pulp. With rich ore the reduction may be only five, ten or twenty into one, while with low-grade ore it may be run from forty to 800 into one. During a test run this week a reduction of 800 to 1 was made on some \$1.25 rock, and the concentrates assayed \$879 to the ton, while an assay of the tailings in one instance showed nothing, and in another a trace of gold. The machines cover a floor space of 3x8 feet. Each machine is claimed to be capable of handling ten tons of ore in twenty-four hours, and a 2 H. P. gasoline engine furnishes power enough to run four of them. During the mill tests the lowest percentage saved was 71½ and the highest 98. On the desert the success of the concentrator opens up, it is believed, a new chapter in mining there, for in the past ores that ran less than \$20 per ton were consigned to the waste dump. The Alameda plant consists of four machines, and thus far has cost about \$12,000. Two shifts of three men each will be able to handle forty tons of ore every twenty-four hours.

Kern.

The Times has an encouraging account of Soledad Mountain, in the Mojave mining district. Soledad Mountain is located about four miles south and one mile west of Mojave. It rises prominently out of the desert to 5000 feet above sea level. There are eighteen hills in the Soledad group, all of which are staked out into mining claims, and on a majority of them the assessment work has been done. From some of these claims a considerable amount of ore has been shipped to the smelter in San Francisco. With reduction works on the grounds, there are hundreds of thousands of tons which might be worked at a profit. A company known as the Double Standard Mining Company has been organized, which will work half a dozen claims that make a big showing on the surface. An offer has been made for the ore on the dumps of two claims at this camp at the rate of \$50 a ton.

Teams are hauling ore from the Aitken antimony mines in Lone Pine canyon, seventeen miles northeast of Mojave. A carload of the ore will be shipped this week to New York City, and regular monthly shipments will be made hereafter. The ore from these mines is of high grade, and free from all impurities, which makes it a very desirable ore for the antimony smelters. The mines are owned and operated by George Aitken, who is developing the property. About one-half of the mineral taken out of the mines is considered sufficiently clear to sack and ship without careful sorting, and the balance, which will run 25 or 30 per cent of antimony, is piled on the dump until enough has accumulated to warrant putting up a concentrating plant. There is wood and water in the vicinity of the mines.

F. O. Wilkenson says in the Times, of the Piute mining country: "The mines are on the top of a table mountain fifty miles northeast of Mojave in a basin 6600 feet above the sea. I bought the old abandoned Wheel of Fortune mine; went to the bottom of the 50-foot shaft; commenced sinking deeper; struck sulphide ores; have gone down 55 feet. About eighty of us are in camp now, and we are preparing for the winter. We have lots of snow upon the mountain, but we have as well

Cont.

Mining and Scientific Press
Nov. 13, 1897 p. 462 (cont.)

At Randsburg labor troubles which have been brewing for some time culminated on the 9th, when about 100 members of the Miners' Union went in a body to the Roxie mine and peremptorily ordered the superintendent and men out of the camp for working below the schedule of the Union, which is \$3 per day for eight hours' work. The men were C. N. Clark, superintendent and part owner, C. Couch, L. Richardson, F. B. Nutting and L. Butler. A. Dalley joined the Union in preference to taking a moonlight walk, but the others all started with their blankets on their backs.

San Bernardino.

Large loads of supplies have been going to Virginia Dale from San Bernardino during the past few weeks. There are quartz claims and placer mines, and some good specimens of gold are shown. The gold is coarse, pieces running as high as a dollar in value. Some of those who are dry-washing are said to be making from \$1.50 to \$5 a day to the man.

At Victor considerable activity is reported. The Sidewinder has men at work on the 400-foot level.

The Boston Mining and Milling Company has begun the wall for a 10-stamp mill, with concentrator. It is proposed to handle all qualities and grades of ore.

The Old Judge mine, twelve miles from the river, has men at work at 150 feet, with a 6-inch ledge of good ore.

The Rose mine continues shipping ore.

San Diego.

The Signal Hill Mining Company was incorporated under the laws of Arizona, October 29, 1897. Capital \$1,000,000. A stamp mill is to be erected at once.

Nov. 20, 1897 p. 486

San Diego.

Union: The Ranchita and North Star mines at Banner are being deepened, and drifting is also in progress. At the Alpha, owned by Dr. Stanley and Samuel Reeder, the men are drifting on two ledges which were encountered in the tunnel. The Elevada is in good ore in a drift about 80 feet from the 200-foot level.

At Hedges the 100 stamps may be increased to 140. Ex-Governor Markham has purchased a number of properties of which the principal mine is the American Girl.

Nov. 27, 1897 p. 506

Riverside.

The Perris district, as soon as the Gavilan is finished, will contain eighty stamps.

San Diego.

At the Contact mine the work consists of three tunnels, 28, 39 and 110 feet, and a 10-foot shaft. A ledge from 3 to 7 feet in width has been struck, of which an average assay shows the value of \$20 per ton, free milling. Fuel and water are reported plenty.

L. N. Bailey, owner of the Kentuck S. mine, has interested a New York company in his mine and will drive a crosscut tunnel to tap the ledge at a vertical depth of 320 feet.

Los Angeles.

R. E. Nickel says the Red Rover mine at Acton is locally reported to be taking out \$3000 in gold daily. The company owning the mine is arranging to develop electricity on the Big creek.

James S. Crawford et al., on July 21, 1877, located the Kentuck petroleum mine, in the Los Angeles land district. Entry was made January 23, 1893. Part of the patent was in conflict with the Southern Pacific Railway Company, and this company filed a protest, claiming that petroleum lands are not mineral lands. The protest of the company was dismissed, and its selection held for cancellation. The Secretary of the Interior recently decided that the entry of the mineral claimant may be passed to patent.

O. S. and William Bookhout, January 2, 1892, located land in the Los Angeles district as "the Bookhout placer oil claim," under the mineral land laws. January 27, 1893, the State of California filed its application to select this land as indemnity for lost school lands. The Secretary of the Interior has rejected the application of the State.

Secretary Bliss has rendered a decision in the case of the motion for review of departmental decision of August 27, 1896, filed by the Union Oil Company. On January 16, 1894, this company made mineral entry covering seventy-nine acres of land in the Los Angeles land district, known as the Central oil mine. A portion of it had been selected by the Southern Pacific Railway in 1857 as indemnity under its grant of March 3, 1871. The railroad company was allowed sixty days to show cause why its selection should not be cancelled, and the mineral claimant was required to show a discovery of a valuable mineral deposit for each twenty-acre tract or fraction thereof. From this action the mineral claimant appealed. The railroad company, in answer to the rule upon it, alleged that lands containing petroleum are not mineral lands. In conclusion, Secretary Bliss says:

"The decision under review is hereby vacated. The mineral entry in question will be allowed to stand, and if satisfactory in other respects, may be passed to patent."

Dec. 4, 1897 p. 526

Inyo.

Register: The Molus is being worked. The main incline is down 150 feet, with drifts 30 feet westerly and 60 feet easterly. The ore showing is good.

Cowser, Fish and De Witt made a bullion shipment Tuesday, the result of a 20-ton run of ore from the Plute.

The Sagehen shows 6 to 8 inches of pay ore at its present depth of 50 feet.

Assessment work has begun this week on the Pine Mountain group. The Baltic mine gives average assays of 87 ounces of silver, 68 per cent lead, \$9 in gold.

Kern.

The Kramer and Randsburg railroad camp is near Johannesburg.

In the Radmacher district a strike is reported in the Radmacher mine.

Miter: The Pinmore is taking out twenty-five tons of ore per day, and milling it at Garlock. The first milling run something over \$3 per ton, and the second over \$15.

A strike is reported in the Warrington mine, Havilah, a 9-foot ledge being developed on the 560-foot level. The Los Angeles G. M. Co. recently bonded the mine and has been developing it for the past month.

The new railway from Kramer, on the Atlantic & Pacific Railway, to Johannesburg will be opened for traffic December 5th.

Mining and Scientific Press

Dec. 4, 1897 p. 526

San Bernardino.

Nearly 300 mining locations were filed from Jan. 1st to Nov. 1st. There are 220 stamps, of which 145 are dropping.

San Diego.

Receiver C. W. Pauly, in charge of the Free Gold Mining Company's mines and mill at Hedges, says that 200 men keep 100 stamps busy, crushing 400 tons of rock per day. The Cross, Crown and Queen mines furnish the ore. The stamps weigh 1000 pounds each, and the power is furnished by a double compound condensing engine of 300 H. P. There is a dynamo, and the mill is lighted by electricity. The deepest shaft in the camp is 600 feet. The ledges run from 8 to 40 feet in width, the rock entirely free milling quartz of low grade. The gold is very fine—so fine that much of it is lost in milling. It is estimated that there are \$600,000 or \$700,000 in the tailings. They are to be cyanided. A pumping plant, which cost \$75,000, is at the Colorado river, twelve miles from the camp. October's clean-up netted \$16,000.

Dec. 11, 1897 p. 554

Kern.

Application for a patent is made for the Good Hope mine owned by G. B. Kinyon, located in the town of Randsburg.

Ore running nearly \$1000 to the ton, is reported in one of the shafts of the Rademacher mine. This is the first mine located in that part of the desert.

In the Stringer district, near Randsburg, there are fifty dry washers at work; in the Pumpkin Roller district and Goler as many more are taking out pay dirt. In the Stringer country dry washers are averaging about 12 cents per run of fifty shovels each. Twenty to forty runs are made in a day.

The *Miner* hears that the officers of the Kramer-Randsburg Railroad are figuring on putting up a 40-stamp mill, with concentrators, at Barstow, and that it is proposed to give a cheap rate for ores, so that it will be possible to haul and mill the ores at a price not to exceed \$4 per ton.

Riverside.

The G. C. M. Co. organized at Riverside. D. E. Mitchell, Pres.; E. B. Fish, Vice-Pres.; C. C. Doran, Sec.; First Nat. Bank, Riverside, Treas.

The company will operate the Gold Canyon mines, Riverside county. They consist of two claims, 3000 feet, a ledge averaging 7 feet in thickness. Two tunnels have been run on the vein, one 90 and the other over 300. The ore shows well, the poorest milling \$10 per ton. The company will erect a 10-stamp mill. The ore is free milling.

San Bernardino.

Los Angeles News: The strike in the Rose mine in San Bernardino county, fifty miles from Victor, at the 800 level, is said to be 4 feet wide and assays well.

San Diego.

(Special Correspondence).—In the Julian district work is to be resumed on the Cincinnati Belle. Report says a cyanide plant is soon to be put in at the Stonewall mine for working the tailings, which have been fully prospected. It is anticipated \$100,000 will be recovered. About twenty men will be employed. The Mountain View Mining Company is continuing work on its property on the backbone of the ridge running north from the Stonewall towards the Ranchita. It is taking out and sacking some fine ore. Work on the Laguna Mining and Milling Company's property in the Laguna mountains is temporarily suspended. Mining interest and prospecting in San Diego county is more active than ever before.

The Golden Cross mines at Hedges have passed into possession of the Free Gold M. Co., which among other capitalists includes I. Trumbo of Utah and California. Litigation has been settled. The purchase price and attorneys' fees amount to \$250,000.

(Special Correspondence).—A rich strike is reported in the Helvetia mine, near Banner, which until recently has been lying dormant. Men are at work on the Cincinnati Belle. Ore is being hauled to the company's 10-stamp mill at Banner.

W. R. Farnsworth is at San Diego from Banner with nuggets from the North Star mine, near Banner, believed to be on the same ledge as that of the Ranchita mine.

At Fallbrook the miners in the Defiance mining district have completed a road which joins the railroad at Murrietta. It is expected the smelter will be in operation Jan. 15th.

Dec. 18, 1897 p. 574

Inyo.

Supt. McDonnell on the line between Inyo Co., Cal. and Nye Co., Nevada, has a 20-foot ledge at a depth of 120 feet, and is erecting a 20-stamp mill.

P. Geelhoed and H. S. Kennedy have two locations near Benton, one showing a ledge assaying gold and silver.

Kern.

(Special Correspondence).—On the Gold Hill, incorp., the deepest shaft is 70 feet on a 2-foot ledge of \$60 ore. A tunnel on the ledge is 270 feet. The company owns six claims. The property is in the Rademacher district, fifteen miles from Johannesburg. E. Bind is superintendent.

Johannesburg, Dec. 18th, '97.

B. Maginnis and S. J. Montgomery have

struck a ledge on the Annex that mills \$47 per ton.

The Visalia mill started its pumps last week.

T. Hull has bonded a half interest in the Plimmore from F. W. Clift and F. G. W. Spencer for \$3000.

A mill test of 20 tons from T. Pheby's mine in the Panamint yielded \$15 per ton.

Randsburg *Miner*: From \$240 pounds of ore W. J. Bryan obtained 7 3/4 ounces of gold.

J. A. McCusker has uncovered a 3-foot vein on the King George. The rock mills \$18.

San Bernardino.

A strike of gold-bearing ore has been made within ten miles of San Bernardino.

San Diego.

Several mines near Fallbrook have been

sold to a company. Four of them sold for \$3000.

The *Union* reports the recent location of large deposits of gypsum on the desert, twenty miles southeast of Borrego springs.

A Kern Co., Cal., Mine.

In '97 the southern part of this State assumed increased mining prominence. For some years the largest number of stamps under one roof in the State have been operating in San Diego Co.; in San Bernardino Co. the dullness in silver production is being gradually overcome by increased activity in gold production, and in Kern Co. the comparatively new Randsburg district is attracting deserved attention. Three miles southwest of Randsburg is the Hard Cash mine, an exterior view of which is given in Fig. 1. Considerable work has developed a large quantity of free milling \$12 ore. Fig. 2 shows an ore chamber 30 feet wide 175 feet from the mouth of the shaft. At present the milling is done at Garlock, Kane Springs, Cuddeback Lake and Johannesburg. It costs \$10 per ton to mill and cyanide the ore. The company naturally proposes to build a mill of its own. Fig. 3 gives a view of the double compartment shaft.

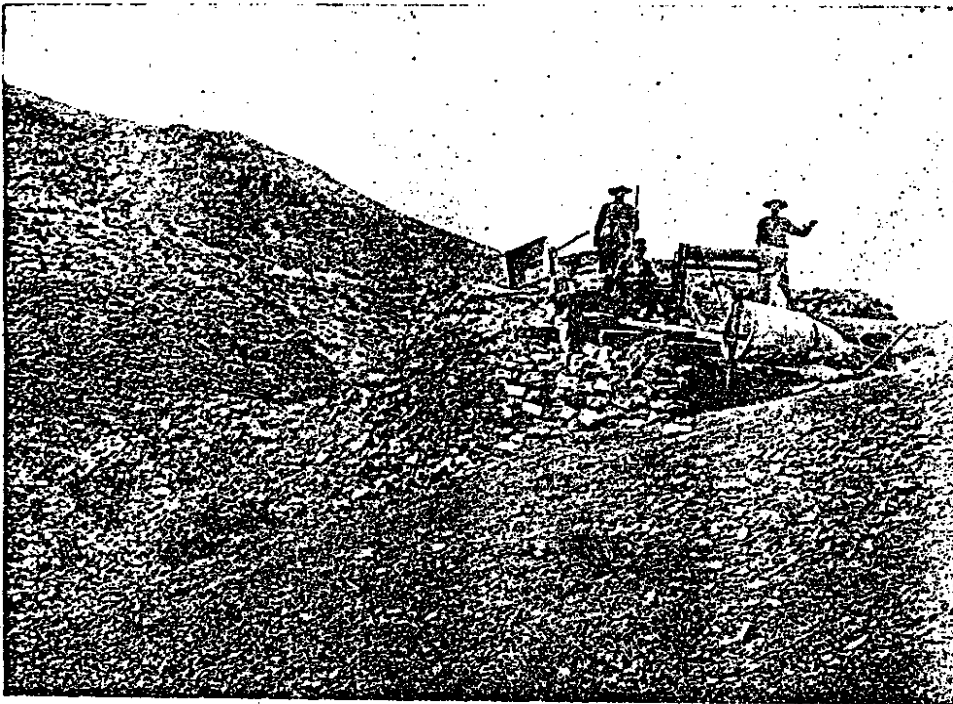


FIG. 1.—EXTERIOR VIEW OF THE HARD CASH MINE.

Mining and Scientific Press

Jan. 1, 1898 p. 1

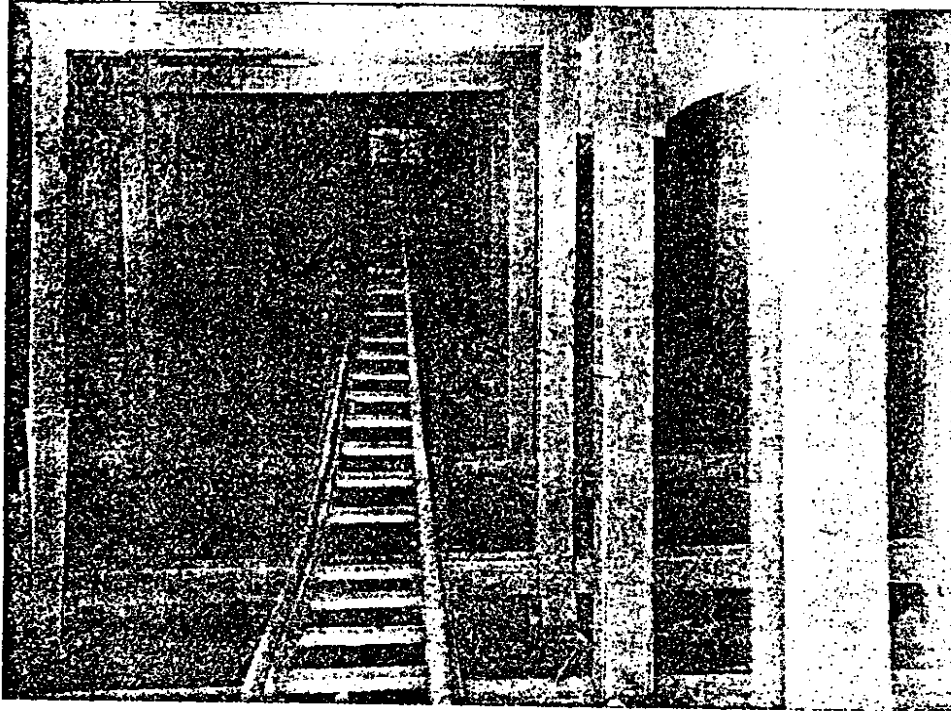


FIG. 3.—VIEW OF THE DOUBLE COMPARTMENT SHAFT OF THE HARD CASH.

Jan. 1, 1898 p. 10

Kern.

A 20-stamp mill and cyanide plant are to be erected at Kramer for custom work.

Miner: Eight tons of ore from the La Crosse mine produced 53½ ounces of gold, valued at

\$800. The La Crosse is in the Stringer district.

Riverside.

The mass of tailings accumulated at the Hoag mine were leased by Bates & Langford, who erected a cyanide plant, a small ten-ton affair. The tailings net a profit of \$5.40 per ton; the price for treatment is about 60 cents. Ten tons are treated every day. Mr. Langford took to Los Angeles last week forty-four ounces of gold, worth \$18.75 per ounce, \$800 for a seventeen days' run.

San Diego.

The new mining town of Camp Todd is in the San Mateo canyon, three miles from its mouth. The district is named Defiance, J. P. Small of Murietta recorder. The district lies in the extreme northern part of San Diego county, and is bounded on the west and south by the Santa Margarita grant, and on the east by the Santa Rosa grant.

Mining and Scientific Press

Jan. 8, 1898 p. 38

San Bernardino.

L. E. Aubury, from eastern San Bernardino county, reports a snowfall over an extended area. From Manvel to the edge of Death Valley from four to six inches of snow had fallen. The cold was extreme, and old-timers on the desert declare that such a blizzard had not visited that section in over twenty years.

At Dale City the mill owned by C. F. Baird is running day and night. In connection with this mill Mr. Baird has a cyanide plant with a capacity of ten to twenty tons a day. Gold bricks are shipped from Dale City every week. Mexicans working in the placers took out two nuggets recently, one a \$40 nugget and one a \$30 nugget. These same Mexicans took out \$200 in less than a month last summer and have taken out nearly as much in two weeks this fall. Ferguson Bros. intend to put up a 10-stamp mill.

San Diego.

The Mountain View M. Co., Julian district, has returns from a mill run of over \$100 per ton. The directors have let a contract to sink 100 feet, with a view to drifting along the vein.

J. R. Lowe has sold to R. Gardner for \$2000 the City of Richmond gold mine near Julian.

The Cincinnati Belle gold mine at Julian has been attached in the suit of H. Crinklaw against the Banner M. Co., brought to recover \$5000 claimed to be due for salary as superintendent.

Kern.

At the Wedge mine they are taking out ore that runs \$150 per ton.

The Little Butte has begun hoisting ore from the 300 level.

The Marced had twenty tons milled, which turned out \$1200.

Jan. 15, 1898 p. 58

Los Angeles.

The San Bernardino Sun announces that the Gold Bronze mine and mill were sold at receiver's sale to the J. M. Hale Co. of Los Angeles for \$470.33. This represents merely the claims which were a first lien on the property. The total amount of indebtedness was \$28,000, but the secondary claims will be unprovided for, unless the others take the plan of redeeming within the statutory six months.

Kern.

The surfacing of the Kramer & Randsburg Railway will be completed to-day and the road turned over by the construction company.

Near Randsburg the G. B. mine, Stringer district, has been bought by Koehn & Jewett for \$35,000, one-third to be paid Jan. 20th, the balance in thirty, sixty and ninety days. Ore is being hauled to Kane Springs for milling.

H. R. Bacon purchased a half interest in the Republic mine for \$600.

J. R. Parker had three tons of ore from the Juanita milled, which produced \$50 per ton. His shaft is 80 feet.

Ore from the Yellow Aster is crushed at the Pioneer mills.

Work was commenced on the cyanide plant this week under the direction of Dean & Brand.

Californian: F. K. Wilson of Randsburg deposited \$38,680 in payment of the Butte mine, Randsburg. There were several payments made before, amounting to \$20,000.

Riverside.

At Eagle Mountain district, besides the several quartz ledges opened up, work is progressing in Placor canyon, three or four miles in length. Some of the men are said to average an ounce a day.

San Bernardino.

The Victor M. Co. is working a large force of men at Oro Grande. A new mill has been completed.

San Diego.

(Special Correspondence).—The Helvetia mine, near Julian, is still supplying its mill with its full capacity of rich ore.

The first of January transfer of ownership of mining claims in this county was decidedly active. Everything believed to be good, upon which assessment work had been omitted or neglected for '97, was properly cared for by some one who had kept an eye to labor expenditures the year through. In some instances of the more valuable properties, two or more different parties were on the ground with the same intent at the same time.

The "mill crushing" of ore from the Mountain View mine, in the Julian district, recently made, gave a yield of over \$100 to the ton. The directors of the company have let a contract to sink a shaft 100 feet, preparatory to more active development in the spring. The work is now being executed and some fine rock is being taken out.

The Ranchita mine, near Banner, has secured the services of Mark Lamb of San Diego in the capacity of assayer and metallurgist. The mine is a constant producer.

Julian, Jan. 10th, '98.

Sale was made of the Dale group, Virginia Dale district, to the representative of an English company. The mines will be developed. It is said that the ore assayed \$30 a ton. The price is reported at \$45,000, which includes a small mill, buildings and 1000 tons of ore on the dump.

A mortgage on the mines of the Sweetwater M. Co., on the Colorado river, to Julius Wolff for \$10,000, was released last week.

Supt. Clark of the Stonewall mine at Banner has been prospecting the tailings deposited by that mill, and is convinced that enough money can be made from them by the cyanide process to possibly pay off all claims against the property. The Cuyamaca lake is so low that prospecting can be carried on where hitherto it was impossible. There are many thousands of tons of tailings, estimated to run from \$3 to \$5 per ton.

Jan. 22, 1898 p. 86

San Bernardino.

A sale is reported, twelve miles from the Needles, of a group of six mines by Seburn & Shafer for \$50,000 to Missouri capitalists, who will put on machinery.

San Diego.

One-half interest in the California mine in Defiance district has been sold to W. S. Clark for \$1000.

Kern.

The Wedge mine, at Randsburg, is being developed with encouraging results. From a recent millrun nearly \$5000 was obtained from forty tons of ore.

Valuable copper discoveries are said to have been made near Granite Wells, twenty-six miles east of Randsburg.

One hundred men are employed in the Yellow Aster Co.'s mines.

Ore was discovered in the W. J. Bryan mine last week, 16 to 18 inches in width, said to be high-grade.

The company that built the railroad to Kramer have let a contract for the building of a 50-stamp mill at Barstow.

Fire destroyed thirty buildings in Randsburg last Wednesday. The loss reaches \$50,000, with little, if any, insurance.

The Miner is informed that the Yellow Aster M. Co. will soon put in four gasoline hoists.

Mining and Scientific Press

Feb. 5, 1898 p. 162

Orange.

The crushing plant at the Dunlap mine, in Silverado canyon, is completed and will commence operations as soon as enough water will rise in the creek for operating power.

Kern.

A Johannesburg correspondent writes: The King Solomon mine is turning out \$1000 ore at a depth of 315 feet, and from the William J. Bryan mine a strike is reported of still richer ore. From the Nancy Hanks (of the Rand) fifty tons will be sent to the reduction works as an experiment.

The Butte M. Co., which has had an option on the Butte mine at Randsburg, has deposited \$50,000 in the Bank of Tehachapi, which will go to the original owners as soon as their

title is clearly shown. It is stated that they have struck a newly discovered ledge varying in width from 4 to 25 feet and running about \$40 to the ton.

Randsburg Miner: Arrangements are about completed for the erection of the first stamp mill in Randsburg, to be erected on the Kinyon mine.

The Yellow Aster mine, Randsburg, is producing over seventy-five tons a day of about \$30 gold ore.

San Bernardino.

Numerous miners are at work with their dry washers at the foot of the Pinto mountains, all making good wages. This is a large district and nuggets are found frequently. Some of them contain from \$25 to \$37 gold. One man brought in \$185 worth of gold, which was the result of two weeks' work. Another made \$22.50 in one day, \$45 were obtained by another party in one week, and \$85 in ten days. As the ground is now moist from the snow which recently fell, only the coarser

gold could be saved by the dry washer, and the finer gold is lost in the tailings.

Feb. 12, 1898 p. 182

Inyo.

The Inyo County Mining and Development Co., formed one year since, which purchased the Lane silver mines near Keeler, has three claims. Three shafts have been sunk, the deepest one 700 feet. In all, the tunnels and shafts now aggregate 2700 feet, all of which have shown ore. A smelter is being erected at the mine.

Kern.

The new district, eight miles west of Kernville, is attracting considerable attention. The greatest depth attained in the district is 80 feet, through a tunnel on the Welch Gillan mine, from which a number of tons of free-milling ore have been taken which assay over \$20, the ledge being 6 feet wide. On the Margaret mine the vein at a depth of 100 feet changed from porphyry to quartz. Ore from these mines is milled at the low rate of \$3.50 to \$4 per ton, the cost of hauling to the mill being only 70 cents. About forty claims have been located.

The pleasant weather has facilitated dry washing in the Stringer section and several machines are at work on pay dirt.

At Randsburg the Yellow Aster M. Co., the Rand group, is sending ore to the mills at Garlock. The new road has made a rate on ore, graded according to richness, \$1.25 to \$3 per ton to Kramer. A new stamp mill is to be erected on part of the ground belonging to the Kinyon mine. Figures show it cheaper to haul the water to the mill than to haul the ore to the water.

Ryan Bros. of San Francisco are building a thirty-ton cyanide plant at Rosamond, where there is abundance of water. Conklin & Baker, owners of the Elephant mine, Mojave district, are building a large ore-house. There is on the dumps and in the mines considerable sulphurets which can be reduced when local mills, concentrators and cyanide works are established.

San Bernardino.

The *New Era* says word has been received from New York that the application of Mr. Sigafus, the present owner of the Good Hope mine, for a new trial has been denied by the United States Court of Appeals, and that the judgment of \$300,000 obtained against him by the Good Hope M. & M. Co. over a year ago will stand.

San Diego.

Capt. Farnsworth is having 100 tons ore from the North Star crushed at the Ready Relief mill.

The second report of Receiver Pauly of the Golden Cross mines at Hedges covers from Oct. 1st last to Jan. 1st. At the time of the previous report, October 1st, the receiver had on hand \$50,239.65. A clean-up on Nov. 1st netted \$46,430.24, a clean-up on Dec. 1st netted \$47,066.61, and the clean-up of Jan. 1st, 1898, netted \$43,086.31. During the time covered by the report Receiver Pauly incurred and paid out \$141,407.96, and has in bank \$48,806.92, from which is to be paid \$19,161.59 for labor, fuel and merchandise in December. The receiver has paid to the defendants in the case of the Golden Cross M. & M. Co. vs. James Spiers et al., under which Mr. Pauly is acting as receiver, the sum of \$63,000; and according to the report the mines will produce sufficient bullion to pay off all indebtedness of the property. The average number of men employed is 214. The 40-stamp mill that has been lying idle has been put in repair and as soon as the ore is supplied will start up. H. W. Blaisdell has bought the old Dr.

Jaynes mines, in the Picacho district, and will erect a stamp mill.

At Hedges the Free Gold Mining Co. has 200 employes at salaries ranging from \$3 to \$8 per day. The monthly clean-up seldom amounts to less than \$50,000. The three big mines of the Golden Cross group are the Cross, the Crown and the Queen. The latter is being successfully worked beneath the fourth level. Above, the damage by fire was so great and the ore bodies so nearly exhausted that it has not been deemed prudent or advisable to attempt to clean the level out.

Southwest from the Queen a quarter of a mile is the Crown, where the working shaft is 350 feet deep. Between the third and fourth levels most of the work is being done in this mine, and almost daily new bodies of ore are being opened up. North of the Crown a few hundred yards is the Cross, the original discovery.

Mining and Scientific Press
Feb. 19, 1898 p. 209

Kern.

The shaft on the W. J. Bryan, at Johannesburg, is down 80 feet, with good ore on the footwall. Four lessees are at work in different localities of the mine and making good wages.

The Rademacher mine is down 150 feet, with some drifts and crosscuts, and has 500 tons of ore on the dump that will average \$100 to the ton.

The Blue Chief is improving as it attains depth. The ore averages \$40 to the ton.

The Forest Springs has a tunnel and drift aggregating 150 feet with a 6-inch vein of high grade ore.

Rand: Considerable development is being done in Dutch Gap and on Dead Horse Flat.

The main shaft on the King Solomon, near Johannesburg, is being sunk as fast as two shifts can do it. Good ore is found all the way down.

The Pinmore property has been shut down until a 40-stamp mill can be built.

J. Winfield discovered a vein in the Hector claim on Bull hill and has a 100-foot lease from the Ashford M. Co.

The Yellow Aster took out \$31,000 worth of gold in January. There were 136 men on the payroll at Rand Mountain.

Rodgers & Co. have a shaft 93 feet on the Income mine, with a vein of ore 2 feet all the way down.

Conklin & Baker of the Elephant are taking out good ore.

Walley & Thompson are taking out ore from the Gipsy and having it milled at Kohen Springs, with good returns.

Riverside.

The Blue Rock has a 50-foot tunnel on the ledge and intends to go 50 feet farther. Where it left off it has a 20-inch ledge of good ore and about sixty-five tons of good ore on the dump.

San Bernardino.

On the Hidden Hill over 100 feet of work has been done, consisting of a 30-foot shaft and a 76-foot drift on the vein, which is 4 feet wide. About \$15,000 has been taken from the property in development work, and it is now idle owing to litigation. The mine is 20 miles north of Fenner.

San Diego.

(Special Correspondence).—A complete compressor plant is being placed on the Kentucky, near Banner. It is the intention to run a tunnel 1200 feet to intersect the rich Kentucky vein at a depth of about 450 feet.

By request of Mr. Brice, who claims to be able to extract gold from antimony by secret process, a sample of high-grade antimonial ore was sent him to his Chicago office about four weeks ago, under promise that he would give it a thorough test, but up to this time the Laguna Mining Co., which sent the ore, has heard nothing from it or him.

The unusually deep snow (about 3½ feet) in the mountains bordering the desert in this county put a quietus on prospecting for a time, and very much retarded mining development for a time.

Julian, Feb. 10th, '98.

Union: D. B. Melvor of Poway has discovered tin ore on his ranch, which is said to be identical with Temescal ore.

A ledge of gold-bearing rock has been discovered in the Fallbrook section.

Feb. 26, 1898 p. 233

San Bernardino.

A deed was filed February 13th wherein J. A. Comer, K. A. Comer, J. K. Hawk, A. Hawk, C. H. Parker, D. Gillelen and G. Borden convey to G. W. Brown a one-eighth interest in thirty-two borax placer mines, for a consideration of \$208,800. The mines embrace a territory of 4480 acres, and are located in the Brier mining district, Salt Lake valley.

The work of construction now on the new line of railroad from Daggett to the borax mines, twenty-six miles away, is being pushed rapidly. The borax works are shipping forty tons per day and the road is a necessity. A 32-mule train is at present hauling the product of the mines to the railroad.

San Diego.

The North Star mine at Julian suspended operations for the present and made a satisfactory cleanup. The owner is erecting a mill and after its completion will resume operations.

Kern.

The Wedge people have sent fifty tons ore

to the new mill at Johannesburg. The ore is high grade.

A new 10-stamp mill has gone to the State range, ninety miles from Mojave and forty from Randsburg, for the Meredith mine. The mine shows a ledge 7 feet in thickness, and part of it is rich, all paying for milling.

The Yellow Aster Co. had 136 men on its payroll last month.

Mar. 5, 1898 p. 262

Kern.

The new mill of the Johannesburg Reduction Works was seriously damaged last week by the breaking of the main shaft of the engine. They had been making some repairs to the mill and had just finished them and started the mill at 5 o'clock in the morning, and were hammering out the yellow stuff contained in the Wedge ore, when about 10 o'clock the main shaft broke and one of the big fly wheels went whizzing through the side of the building. The engine is a total wreck and beyond repair. It was a 20 H. P. Foss engine; there was a flaw in the most vital part of it, and to this the accident was due. Mr. Griffith, one of the proprietors, had a narrow escape, as he had just been standing where the big wheel went through the side of the building, and had stepped away a moment before the accident occurred. Another engine will be procured immediately, and the work will be delayed but a short time.

Miner: When the plowing for the pipe line was being done at Randsburg, H. Watson discovered some ore. Upon further development a ledge 16 inches wide was shown, and there is a pay streak of about 8 inches that yields a good prospect.

The Rand people have increased their force, and their daily output of ore is near 100 tons, running from \$30 to \$150 in value. They employ 120 men.

At Randsburg a company is figuring on an electric plant to supply 500 lights, with power sufficient to develop twice that number.

Cont.

Review: The Garlock cyanide works were leased at the beginning of the year by Bell & Heydlouff. The weather in early January was too cold for satisfactory work, yet the first clean-up at the middle of the month showed well. Since the weather became warmer the work has been progressing successfully. They are working from 200 to 240 tons per month. The percolation process is used with wooden tanks. The precipitates are recovered by the acid process. The tailings are job lots from various mills, one of the largest being the Plimmore product, milled at the McKiernan mill in November and December, 1897. They are paying 85 per cent of the assay value of the tailings, and deducting \$3 per ton for working them. The assay value runs from \$4 to \$18 per ton, averaging probably \$6 per ton. The work since the beginning of the year has been on tailings where the slimes were, during the stamp-milling process, separated from the essential parts simply by letting the water carrying the slimes flow off. This has proved to be the most satisfactory way of working these tailings. The slimes carry very little gold and seriously interfere with the percolation process. There are large quantities of low grade tailings at the various mills not yet worked.

One of the most interesting mines near Garlock is the property of E. B. Beecher. The ore thus far has been confined to a series of chimneys or "blow-outs," six of which have been worked 12 to 15 feet deep. These chimneys are in a line with each other, showing that they are off-shoots from the same ledge. Some of them are 16 feet lengthwise and 2 to 3 feet wide. The ore is high grade. There have been several mill runs which yielded good results. Mr. Beecher has temporarily ceased working the chimneys and is running a tunnel 100 feet below the lowest shaft. He has gone 40 feet and is working two shafts. W. S. Brigham has located the extension of this mine and finds the same arrangement of chimneys carrying the same kind of ore. He plans to push his development work right ahead.

Hoffman & Fay have begun developing a newly discovered prospect near the Colorado camp in the Goler district, eight miles from Garlock.

Los Angeles.

The Los Angeles Reduction Co. has incorporated to build and operate reduction works and smelters; principal place of business, Los Angeles; capital stock, \$30,000; amount subscribed, \$16,000; directors—H. Wickizer, A. Granville, J. W. Ghiselin, J. B. Hawley, A. B. Thomas, of Los Angeles.

Riverside.

The machinery of the Alice mine will be shipped to Mexico. After considerable experimenting it has been found that it is unsuited to the reduction of the refractory ore, which must be treated by the cyanide process.

The Blue Rock, near Winchester, is 60 feet on the ledge, which is 20 inches, and has eighty tons of ore on the dump.

San Diego.

Ramona Sentinel: At the North and South Hubbard a crosscut tunnel on the dividing line about 340 feet in length taps the lead 200 feet in depth, and is used for a working tunnel by both properties.

The Ready Relief and Redmond mines, with a 10-stamp mill, are in constant operation.

The Alpha has a crosscut tunnel 230 feet tapping the ledge which is 2 feet of low-grade ore.

The Kentucky S. is cutting the vein 300 feet in depth with a 900-foot crosscut tunnel. The

elected, J. W. Paw Sec. and R. G. Brown Supt. The company has \$55,780.13 on hand.

The Desert Mines.

Stretching northward from the Sierra Madre range, and occupying the entire northern portion of Los Angeles and San Bernardino counties, and the

southeastern portion of Kern, Riverside and San Diego counties, is the extensive region popularly called in southern California the "Desert." In distinct contrast to the fertile southwest corner of the State, it is an area of isolated, barren mountain ranges; approached for the most part by long washes which, in some of the ranges, run almost to the summit. Each range is separated from its neighbor by greasewood-covered valleys, dotted with dry lakes on whose alkaline surface not even a salt weed can grow. Water is scarce, but the quality generally very fair, except in the neighborhood of the saline lakes, where it is somewhat brackish. There is no fuel of any value, except the occasional clumps of mesquite and willow found on the banks of the Mohave and Amargosa rivers, and the yucca, of which patches are scattered at wide intervals.

"Sandy" is the answer whenever one asks what sort of road there is to any point on the desert, and wide-tired wagons are the only type suitable for desert travel, and the patient and hardy mule is found to be best suited to the long journeys.

It is only to be expected that the development of mines under the difficulties imposed by remoteness from railway transportation, scanty water and fuel supply, and poor roads should be a slow and expensive process; and if we add to these difficulties that of at times extreme heat, we can give due credit to the men whose energy and persistence have enabled the desert to

make such a good showing as a mineral region.

The rapid development of the Rand district is familiar to every one interested in mining, and the work so far done has shone that an extensive mineral zone exists there, so that although there will be places and workings where the veins will pitch and apparently disappear, further exploration can be undertaken with a reasonable certainty of picking up the vein, as is the case with most of the mother lode mines in Amador and Calaveras counties.

The Golden Cross at Hedges, sixteen miles from Yuma, is a good example of what can be accomplished in surmounting natural difficulties. The mine is in the side of a high, barren mountain, not a drop of water in sight, and to all appearances not enough wood to cook a dinner. Yet capital, backed by lots of pluck and faith, has made it a produc-

Mining and Scientific Press

Mar. 5, 1898 p. 266-267

tive section. The company owns its own pipe line, eleven miles long, its own pumping plant on the Colorado river; and fuel, though scarce, has far been obtained within fourteen miles of the mine in sufficient quantities to run a 70-stamp mill.

The mineral wealth of the desert region does not lie entirely in the precious metals. An extensive copper deposit is being developed at Peak, thirty-five miles northeast of Daggett, on the Santa Fe line, and the Resting Springs district, across the north line of San Bernardino county, in Inyo, are the Noonday and Gunsight lead properties, well de-

veloped and ready for work as soon as railway transportation shall enable them to sell their product to smelters at a profit. This region, which lies near the east arm of the Amargosa river, was worked early in the 70's, when everything had to be transported from Newport landing by mule teams. It took two weeks to haul the base bullion to the coast, yet, with silver at \$1.29, the mines paid dividends for some time. In the same district are many other lead properties and rich silver-lead properties which could be made to pay even now if a railroad could be brought within twenty miles of them. Besides these, there are extensive deposits of rock salt and nitre in this district awaiting cheap transportation, and from present indications it will not be long before they get it. Mines of this character are a greater inducement for a rail-

road than gold or silver mines, because while the precious metal mines yield some outgoing freight, yet they give very little return freight. Lead, copper, borax, salt and other minerals of like character have return freight for a railroad, and hence are more profitable to it. As to the character of the gold and silver veins in this region, the prevailing opinion, based on experience of the Amargosa, at Confidence and some other mines now developed, seems to be that the veins, although not generally over 4 feet wide, are fairly continuous, and of very good value. Several fortunes

are said to have been made from the Amargosa, yet its deepest known workings are not below 70 feet. The Ibex, situated in the Argus range on the east side of Death valley, is said to have paid even with wood at \$40 a cord. But it can be stated as a general proposition that in this district, as in most others on the desert, gasoline or other condensed fuel must necessarily come into use for continuous

work. The wood supply is scanty and widely scattered, and the water generally very injurious to boilers. With railway facilities it is probable that within certain distances fixed by electrical conditions in each particular case electric power generated at central stations along the railway can be used with economy. Concentrating ores will

have to be hauled to the rivers for treatment, and where electric power is impracticable gasoline seems at present to be the best solution of the power problem, and when intelligently manufactured by experienced mechanics and operated with reasonable care gives, within its limits, the most economical results obtainable outside of electric power.

In brief, the power problem and that of cheap transportation are the ones to be solved in developing a paying property on the desert. There, as elsewhere, ledges are found in the most unexpected places, and the successful

prospector must needs work closely and carefully. The country, being open and free from brush, is easy to examine, and anyone who has traveled the desert sufficiently to know where to find water when he needs it can travel through the country with safety, even in summer.

If the supervisors of the counties containing desert lands could only be induced to sink artesian wells, instead of the present dry lake wells, and erect proper tanks and pumps over the same when dug, travel over the desert would be relieved of the great inconvenience of "foul" wells, and the lot of the traveler on the main roads would be pleasanter. But these matters will, no doubt, be rectified in due time. Franklin Booth in Los Angeles Review.

Mining and Scientific Press

Mar. 12, 1898 p. 289

Luzon.

In the Argus range the Luzon Con. M. Co. has within the last month gone down 50 feet on its 21-foot ledge in the Belanciana mine, and is crosscutting. The company has 200 tons of ore on the dump, which is improving with depth.

Kern. -NYO

Near the summit of the Panamint range, 8000 feet high, is the Cooper mine, said to have a rich vein of ore from 2 to 8 inches thick, showing gold all through. Sixty-three sacks milled at Ballarat yielded \$10 per sack.

On the Comet and Starr, between Rand and Panamint, a shaft has been sunk 90 feet, following the ledge. Considerable ore is on the dump, assaying from \$3.50 to \$125 per ton. The ore is stained with copper and contains some silver.

An average of 2000 tons of ore is crushed by the mills of Garlock each month, producing between \$45,000 and \$50,000.

Miner: The Randsburg Railway Co. is delivering water in carload lots of 6000 gallons at \$20 per car at the depot in Johannesburg.

Hand: The St. Elmo mine has seventeen men at work and has shipped 115 tons of ore since February 15th.

Riverside.

Near Perris there are five mills in operation—the Good Hope, 20 stamps; Virginia Queen, 5 stamps; Santa Rosa, 20 stamps; Riverside G. Co., 10 stamps; Santa Fe, 5 stamps.

San Diego.

The Signal Hill group of twenty-six claims will be further developed. Shafts have been sunk and drifts run to determine that the deposits of ore are large, though probably low grade.

Mar. 19, 1898 p. 320-321

Kern.

The Rand says that Lucky Baldwin will soon open his mine on Red Dog hills, between the Pinmore and Val Verde.

The new dryer and separator have been placed at the Wood concentrator at Johannesburg. The rest of the machinery will soon start on ore.

The Red Dog mill, at Johannesburg, is in operation.

The Panamint furnishes a discovery said to run \$2000 to the ton. The vein is 14 inches wide.

The Butte mine at Randsburg is again producing.

The Petaluma mine, a few miles west of Randsburg, is paying well.

The Napoleon, in the Stringer district, is down 160 feet with \$100 ore at the bottom.

The new mill of P. Quinn began work last week.

The Wedge is sacking \$500 ore at the 100-foot level.

The Yellow Aster Co. produced last month \$36,000 in gold, which makes the total produced since December \$67,500. They are dropping twenty-eight stamps night and day.

The Gold Point is down 100 feet and turning out good ore.

At the Comet and Star there is a quantity of ore on the dump, assaying from \$8.50 to \$125 per ton.

The Uncle John and Desert King are producing ore, some going \$100 per ton.

The ore from the World Beater, near Ballarat, averages \$30 per ton. Twenty men are employed.

A milling of sixty sacks from the Cooper mine yielded \$600.

Los Angeles.

The Southwestern Smelting & Refining Co. has incorporated; principal place of business,

Los Angeles and San Pedro; directors—M. W. May of McElhaney, Mo.; L. W. Morgan of Los Angeles, E. H. Rose of Colton, D. T. Jackson of Kansas City, Mo.; E. H. Grunell of Riverside; capital stock, \$500,000; subscribed, \$100,000.

Mar. 26, 1898 p. 345

Kern.

The Independence mine, at Randsburg, has been sold to C. C. Thomas and E. W. Woods for \$1500. H. C. Oakley bought the Boston.

A 14-inch vein of ore has been encountered in the Camperdown.

San Diego.

Union: The American Girl G. M. Co., composed of H. H. Markham, Z. E. Lowman, T. Johnson, G. H. Coffin and F. S. Daggett, which recently purchased a group of claims, chief of which is the American Girl mine, is showing more activity than any other new company in this section. The properties of the American Girl Co. are situated about four miles northeast of Hedges, near the Golden Cross mine, and much development work had been done on them before they were sold. It is proposed to develop them extensively without delay. The ores of the American Girl are similar to those of the Golden Cross mines, low in grade but extensive in quantity.

The 10-stamp mill at the Helvetia mine, near Julian, is working on ore said to assay \$22 per ton.

The San Diego Sun says of the Golden Cross properties at Hedges, which were sold a year ago for a trifle over \$1,000,000, that a conservative estimate of their present value is \$4,000,000. Since C. W. Pauley took charge last July he has paid the defendants, Jas. Spiers et al, \$70,000.

It was agreed that the receiver should retain control of the property as long as he paid at least \$7500 per month to the defendants on the \$260,000 indebtedness. He has done more, and now that the property is paying \$30,000 net per month, he will wipe out the entire indebtedness in a much shorter time than at first contemplated.

The mines give employment to 214 men, and the monthly expenses are \$250,000. The 100-stamp mill is running day and night, and the repairs are completed on the 40-stamp mill.

In June, '97, the Golden Cross M. and M. Co. sold its interests to the Free Gold M. Co. for \$1,000,000 and the debts then due Jas. Spiers et al, amounting to \$260,000.

The shaft on the Crown mine is down 600 feet and 200 tons are taken out daily, while the ore is increasing in value with depth. On the Cross mine the 500-foot level has been reached, and the ore is being taken out practically as rock from a quarry.

In the Queen mine they are down 500 feet. This is the richest of the group, but no ore has been taken out of this mine since July.

The miners at Golden Cross get \$3.50 per day.

It is known that Col. I. Trumbo is one of the owners of the Free Gold Co., but as it is a close corporation the other owners are not known. It is generally believed that J. D. Spreckels, A. G. Gassen and Receiver Pauley are interested.

Mining and Scientific Press

Apr. 2, 1898 p. 373

Inyo.

The Reward mine, from a thirteen days' run, produced \$1800. A new ore body of silica has been discovered in this property, yielding \$60 in gold per ton.

The Jackson and Lake View property, at Sandy, will be re-opened April 1st.

Kern.

New discoveries are reported in the Panamint country; ore from that section running from \$70 per ton up has been handled at the Shannessburg sampling works. As the cost of reduction work has greatly decreased in later years, the low grade ore of this section may be profitably handled which were at one time considered worthless.

The Goldman mine, near Callente, is showing good rock as its development proceeds. The shaft is down 60 feet. The ledge is 2 1/2 feet wide, and assays from \$25 to \$70 per ton. The Maggenette had a mill run which netted \$100 per ton.

A run of 3225 pounds of ore from the Yucca mine realized \$432. The Merced from forty tons of ore netted \$75 per ton. Eight tons of metalums ore produced \$875.

Los Angeles.

The Puritan mine at Acton is producing pay from the 90-foot level. A new ledge has been discovered on this property that can be mined on the outside for 400 feet.

Riverside.

Review: The Leon M. Co. are erecting a stamp mill near Leon postoffice.

J. June has commenced operations with his cyanide plant a mile south of Good Hope.

Bates & Langford have finished their cyaniding on the old Hoag tallings. They have been occupied for six months and have produced 1000 ounces of gold.

San Bernardino.

Reports are received of rich finds in the placer-mining section of Virginia Dale. Two men with a dry washer are said to have taken out \$300 in less than thirty days.

Review: Six miles east of Danby the Jessie Lincoln group of mines, owned by Sherman Page of Los Angeles, is developing sulphate ores. A small stamp mill now on the ground is to be replaced by a larger plant.

Danby is the shipping point for the Los Angeles companies now developing salt mines thirty miles south of there. Here is the field for operating traction engines, and here lies the remains of Osborn's Leviathan—the huge monster that wouldn't pull. It is said that this experiment cost a good man an even \$100,000. After this failure Best came along with his motor and hauled salt so fast the market was soon glutted. Another start is to be made, and then salt will come in at the rate of thirty tons per day.

Apr. 9, 1898 p. 397

Kern.

(Special Correspondence).—There is an electric power plant proposed for this camp; the promoter of the scheme is J. W. Eddy, backed by capitalists of southern California. The plan is to generate power at the south fork of Kern river and transmit it to Randsburg, a distance of thirty-six miles. The different mines here have subscribed for over 500 H. P. Col. Eddy is now in Los Angeles completing arrangements to begin work immediately.

The water mains for the Randsburg water works are being distributed and laid in the streets to-day, and within a few weeks we hope to have water.

Randsburg, April 4th, '98.

(Special Correspondence).—The owners of the Mammoth mine are sinking a winze and crosscutting from No. 4 tunnel. They are reported taking out ore running \$40 per ton.

Welch & Gilliam have given a contract for an upraise on the Root mine, to be used as a working shaft.

The French Gulch Gold Dredging Co. have shut down and are selling off their machinery.

Riverside.

A discovery of an ore body of good value is reported from the north end of the county. Adams Bros. are the owners of the property.

San Diego.

(Special Correspondence).—The Helvetia

mine, in the Julian district, is reported sold at a good price. On the 1st inst. the Ranchita mill and mine resumed work, after a brief idleness. The Ranchita is one of the best producers in the Banner district. The air compressor is in place on the Kentuck, near Banner, and the 1200-foot tunnel will be commenced in a few days. M. Holland of San Diego, who owns an extension of the Ranchita, recently milled several thousand dollars worth of \$30 rock. The North Star mine, in the Banner district, is reported sold at a satisfactory but not named price. Development work was resumed on the Mountain View mine, near Stonewall, on the 1st, after two months idleness, owing to bad weather and snow on the ridge. The Laguna M. Co. has received a request for price per ton f. o. b. at San Diego for 100 tons of their high-grade stibnite ore.

San Diego, April 2nd, '98.

Receiver Pauly of the Golden Cross mines in his third report, which covered the month of January, shows that the clean-up amounted to \$44,941.48 and there was paid out \$29,009.60. Returns from other sources amounted to \$1136.88. There were 218 men employed during January.

Apr. 16, 1898 p. 422

San Diego.

The Hays and Bidwell mines at Poway are producing ore that assays \$16 gold and \$4 silver.—The Rainbow mine, near Oceanside, is yielding \$12 ore.—The Du Quesne Co. has resumed work and twenty men are at work under leases.

Kern.

The Kinyon mine, from a crushing of five tons of ore, received \$6500.—The Little Butte is taking out \$45 ore.—The output at the Yellow Aster last month was \$45,000. The company is said to contemplate putting in power drills, a dynamo and gasoline engine.

Mining and Scientific Press
Apr. 16, 1898 p. 422

San Bernardino.

(Special Correspondence).—The Stonehammer turquoise properties are located at the lower end of the Death Valley desert. The property derives its name from the number of stone hammers of primitive days found in the locality. Turquoise was discovered here last September. It is found in ledges of decomposed porphyry and bauxite between granite and limo. The ledge is 4 feet wide. The property comprises 500 acres. Surveys are being made at present for obtaining title. The largest piece found in this property to date weighs 210 carats. The greater part of the product is shipped to Amsterdam, where it passes through the lapidary's hands. There are three species of this jewel found here. The first shade, baby blue, is taken near the surface; a little deeper the robin's blue, and deeper down the Persian blue, which is of greater hardness and more value, though the last named is too dark for the American market, and the baby blue is the more popular. Very little blasting is done, most of the work being carried on by pick and shovel.

It is said that a stone weighing 80 carats was found at 80 feet depth in Lincoln county, Nevada, reputed to have been sold for \$4000 last September in Denver.

There is also a turquoise mine in Arizona and one in New Mexico. The Stonehammer property is the most extensive thus far discovered.

This jewel is described by Cuninghame Wilson as follows: Massive; comp. phosphorus pentoxide 22.5 per cent; alumina 47 per cent; water 20.5 per cent. Color, pale blue; luster like sealing wax. H.—6; G.—2.75. Dist.: Is harder and bluer than malachite; green feldspar is fusible; turquoise B. B. turns brown and colors the flame green. Occ.: A rare and highly valued gem. It is chiefly found in Persia, and is said to be derived from an ancient trachyte. It occurs in highly disturbed volcanic regions.

San Bernardino, April 11th, '98.

(Special Correspondence).—The Holcomb Creek M. Co. is developing a property near San Bernardino. A shaft is down 60 feet and a tunnel has been driven 200 feet. The ore thus far encountered is a red quartz and pyrites. Experiments are being made with the possible idea of putting up a cyanide plant.

San Bernardino, April 10th, '98.

Dehm & Luscomb discovered an ore body near Twenty-Nine Palms that yields good assay values.

The Iron Chief mine, recently sold for \$150,000, is sinking and drifting. The shaft is down over 200 feet.—A 2-foot ledge has been discovered by L. D. Jensen in Virginia district that assays \$80 per ton.

Riverside.

(Special Correspondence).—The Iron Chief property, which is under bond to R. M. Straus and W. L. Shinn, is building a 60-ton per day cyanide plant and a pipe line eleven miles long. This is at Eagle mountain, 140 miles south of San Bernardino.

The Pacific district, forty-five miles east of Salton and thirty-five miles north of the Gold Cross mine, is being developed by shafts on about twenty different claims. The ores are partially free-milling gold, carrying good values. The deepest shaft in the district is 100 feet. A 3-stamp mill is being erected. The Vennita group of five claims is being developed by V. C. Roche and associates of San Bernardino. This group has a shaft 75 feet deep.

The Granite mine, five miles north of the Vennita, has 750 feet of work, and shipped one car of ore which brought \$998. The values of the district are mainly gold, though there are some leads of galena. The veins are a contact between porphyry and granite. The district in general is in a low range of hills, surrounded by higher mountains.

Riverside, April 10th, '98.

There are 200 tons of ore on the dump at the Leon mine, near Winchester. The new mill will shortly begin work.

Apr. 23, 1898 p. 445

San Diego.

The recent ore discoveries on the edge of the desert are developing good results.—The Kentuck S. and Cheerful Moments mines in the Banner district are sold to New York capitalists, to be known as the California G. M. & M. Co. The price given out is \$1,000,000. Development work has begun. A 1200-foot tunnel will be run, from which a 400-foot shaft will be sunk. Power drills are in use. The mine is an old property, but no work has been done on it for twenty years.

—The Ranchita, Ready Relief, Antelope, City of Richmond and Elevada mines are all in operation.—Work is to be resumed on the North Star, Helvetia and Cincinnati Belle.

Apr. 30, 1898 p. 469

Kern.

Miner: G. M. Rose, near Randsburg, had ten tons of ore from the May Queen run at the Eureka mill, which turned out about \$90 per ton.—Men are working on the Blackhawk, taking out ore. A mill run will be made soon.—C. A. Burcham is working the O. K. mine with ten men and has a ledge 3½ feet thick. The ore is estimated from \$40 to \$100 per ton.—Louwers are shipping thirty tons ore from the Sister mine to the mill at Cuddyback lake. They are sinking a 200-foot shaft. It will run from \$15 to \$18 per ton.

Los Angeles.

F. C. Carmicle, near Acton, has taken out about five tons of ore to be tested by the cyanide process at Kane Springs.

Riverside.

At J. Knowley's mine, near Perris, the shaft is down 50 feet and a gold-bearing ledge over 2 feet thick has been struck that averages \$15 per ton.—Bates & Langford are putting their tailings at the old Hoag mine through the cyanide plant a second time. They secured 1000 ounces of fine gold, and the prospects are good for getting half as much more.

San Bernardino.

J. Goulding, near Box Springs station, made a strike in his mine of ore assaying from \$100 per ton up to \$700. Goulding has taken out about fifty sacks of ore, which is high grade.

Apr. 30, 1898 p. 469

San Diego.

(Special Correspondence).—The owner of the King mine in the Julian district will begin work immediately on that mine and also upon the Cincinnati Belle, near Banner. The King has long been idle.—The Helvetia mine is to be unwatered by the 20th to admit of examination.—The Kentuck is reported sold to a New York company. A local company will develop and operate the property, in the interest of the New York purchasers.—The Roady Relief and the Antelope mines, near Banner, are actively prosecuting development work and at the same time raising some good ore.

Julian, April 22nd, '98.

Work has been resumed on the Elevada mine at Banner. The 300 tons of ore on the dump will average \$30 per ton.—On the Ranchita mine a new vein has been found with 100 feet of ore in sight, while on the old ledge there is still 40 feet in sight.—On the North Star the shaft is all in ore to the 200 level, the depth of the shaft; it will average \$40 per ton.—The tailings at the Owens mine are being worked by a cyanide process.—Ore from the San Diego mine, near Julian, to the amount of several hundred tons is being

crushed at the Owens mill. The Pierce Bros. are operating an arrastra with good returns.

May 7, 1898 p. 493

anyo.

At Mono lake two cyanide plants, one at Lundy and the other at Copper Mountain, are to be put up this spring, and a hydraulic outfit will be placed between the lake and Lundy.

Kern.

Miner: G. M. Rose had ten tons of ore from the May Queen run, which turned out \$90 per

ton.—A force is working on the Blackhawk taking out good ore.—C. A. Burcham is working the O. K. mine with ten men and has a ledge about 3½ feet thick; the ore is estimated from \$40 to \$100 per ton.—The leasers made a shipment of thirty tons of ore from the Sister mine. They are sinking a 200-foot shaft. The ore runs from \$15 to \$18 per ton at present depth.

The King Solomon mine at Garlock has been improved by an air shaft from the 315-foot level.—Miles & Buckley are taking out some low-grade ore from the Sunrise mine.

Rich ore was milled at the Red Dog mill from the Butte mine.—The Red Dog mill is running regularly; several ore teams are bringing ore all the time.—The Mineral Hill group in Panamint has been sold to M. Day of Los Angeles for \$3000.—Twenty men are employed at the St. Elmo mine and ore is being shipped to the Victor mill daily.

San Diego.

The ledge on the Stratton mine, in the Mesquite district, is 3 feet wide and goes about \$25 per ton.—W. D. Luce is working the old tailings of the Cargo Muchacho mine with a cyanide plant of 100 tons capacity. There are about 100,000 tons of tailings going about \$2 per ton in gold.

May 14, 1898 p. 517

San Bernardino.

P. Kahl is successfully working the tailings of an old silver mine near Fontana. He is using a dry concentration process.—Roed Bros. have found a property on the desert in the Virginia Dale district from which they took \$300 last month. They found pieces ranging from \$1 to \$8.

San Diego.

The High Peak mine at Julian has resumed work.—The shaft on the Elebeda mine has reached 200 feet on the vein.—The Alpa has a crosscut tunnel 230 feet long tapping the ledge.

Kern.

The Waugaman mine, on Greenhorn mountain, is sold for \$45,000 to Los Angeles men. This included about \$11,000 worth of machinery. The milling test went \$40 per ton.—J. B. Clifton, placer mining near Garlock last week, picked up a nugget on the Grenada claim. It was flat and thin, of irregular shape, 6 inches in length and 2½ inches wide; it weighed 15½ ounces and is worth \$250.

Nugget }
The Rand: The Red Dog mill at Johannesburg has run for the last ten days on ore from the Butte mine that averages over \$62 to the ton.—A company is trying to bond the Pinmore mine which belongs to the Ashford M. Co. This mine has a blanket ledge and about 1000 feet of tunnels and inclines.—The St. Elmo mine has shut down, as the Boston & Famosa M. Co. could not afford to ship to their mill at Victor with a raise of \$3.25 per ton on freight.

Miner: H. R. Bacon has started develop-

ment work on his Republic group, and the shaft is down over 50 feet. A mill run of fifty tons will be made to test the worth of it, while the sinking of the shaft will be prosecuted.—Kleist and Paris have sold their wells to the Yellow Aster Co., which gives that corporation an abundant water supply for any emergency. Development work is being prosecuted.—The run of Blackhawk ore turned out something over \$100 per ton.—The Yellow Aster people are surveying for a reservoir site at their wells, preparatory to piping the water to their property on Rand mountain. Rumors of building a mill are premature, though this may be expected soon. It is probable the mill will be forty stamps and so constructed that sixty more may be added.

May 21, 1898 p. 541

Kern.

The Hard Cash M. Co. at Randsburg shipped twenty tons of ore to be treated with a dry concentrator. The ore averaged \$16.50 per ton. The experiment proved satisfactory to both the owners of the mine and the concentrator.

Riverdale.

Considerable work has been done on the Alice mine, near Perris, during the last few years. A short time ago a mill was erected, but after it was put up it was found that the ore could not be worked by the mill process. It is stated that the owners of the mine, L. M. and H. D. Wilson, have associated with them several Los Angeles men of capital, and active work at the mine may begin before long.

San Diego.

Union: The fourth report of Receiver Pauly of the Golden Cross mines has been filed. There was on hand at the time of the last report \$55,267.69, and the clean-up on March 1 netted \$38,704.84. There was received from other sources \$1332.81. The receiver says that he continues to make a profit out of the property and believes he will be able to continue the payments provided for in the stipulation recently made.

The receipts of gold bullion from Lower California this month are in excess of last month's receipts. Gold to the value of \$1000 was received from Alamo, and the steamer Pacheco brought up forty small lots of gold aggregating \$1200.—New placer ground has been discovered between San Diego and Campo.

Mining and Scientific Press
May 21, 1898 p. 541

Inyo.

F. Meysan, near Lone Pine, is developing a group of claims on which he is said to have a

40-foot ledge nearly the length of three claims. Assays show an average value of \$5 per ton.

The Inyo M. Co. near Darwin made a strike on the 700-foot level of a body of copper ore, large in extent, which will make four different ores now being taken from this mine—gold, silver, lead and copper. A smelter is being put in which will add materially to the output, as heretofore all the ore was shipped. Owing to the recent copper strike, additional mechanism for smelting that ore will be put in, and within three weeks the smelter will be in operation. The payroll of this concern is now about \$2000 a month. The mine has been a heavy ore shipper for a year.

May 28, 1898 p. 569

Kern.

The Rand Mountain mine is one of a score or more claims on Rand mountain, owned by the Yellow Aster Co. The regular income of the Rand mine each month for the past three months is said to have been over \$10,000, and some months considerably more. Much more ore could be taken out if milling facilities were more extensive. At present 1600 tons of ore are mined monthly by the Yellow Aster M. & M. Co. The ore from the Rand, which is milled at Garlock, averages considerably over \$30 to the ton. Plans are now being drawn for a big mill to be part of the Yellow Aster plant. Thirty stamps will be the first capacity of the mill, and steam power will be used. It will be arranged to add more stamps up to 100. The ore is said to be improving.

There has been a good strike of copper in T. Johnson's mine near Randsburg, at a depth of 162 feet.—Work has resumed on the Merced mine.—The first carload of ore shipped to the new mill at Barstow was shipped from the Kinyon mine last week. The car contained fifteen tons.—A number of men were discharged from the Yellow Aster group owing to the lack of milling facilities. The company has quit milling at Garlock, and it is said they intend to send much of their ore to Barstow as soon as the new mill begins operations. In the meantime the mill at Johannesburg keeps five stamps dropping on Yellow Aster ore.

San Diego.

Development is progressing on the tin mine of D. B. McIvers at Poway. Its area covers about five acres on the surface. No effort has been made to place the property on the market. The assays of the ore show 5 per cent tin.

Inyo.

C. A. Weaver's mill at Ballarat is running night and day on ore from mines in the vicinity. Enough is stacked up at the mill from different mines to run a month.

The Register says that encouraging developments are made at the Molus mine, near Bishop, and the mill on that mine will shortly be in operation.—A mill is being erected on the Smith & Co. mine and will soon begin crushing.

June 4, 1898 p. 593

Kern.

The Rand says that F. Fleming, while dry washing near Johannesburg, found a nugget that weighs \$315.—The Butte mine employs fourteen men and is using five stamps continuously at the Red Dog mill.—The Sunrise and other low-grade ore mines at Johannesburg will ship ore to the Barstow mill.—Work will not begin on the Alameda and Jolly Girls mines until October, when extensive development will be carried out.—The shaft on the Hector is nearing 200 feet.—The 8-stamp mill at the Little Butte mine at Randsburg began operations. It is expected that \$3 ore can be handled with profit.

Randsburg Miner: In the Butterfly mine at Rademacher at a depth of 40 feet a ledge has been opened 18 feet in width, carrying ore which will mill from \$60 to \$500 per ton.—H. Hirschfeld is developing several claims. T. A. Hall is Supt.—The Rademacher mine continues producing good ore.

Riverside.

In the Leon mine, near Perris, considerable development work has been done and there is a large ore dump that is said to mill from \$8 to \$12 per ton.

June 11, 1898 p. 621

Kern.

A cleanup of twelve tons of Kinyon ore at the Eureka mill yielded 135½ ounces, having a value of about \$100.

The 10-stamp mill at Johannesburg has had another accident almost identical with the first one. The engine shaft broke, one fly-wheel going through the side of the building

just as before. The whole engine was a complete wreck. They have now ordered a 20 H. P. steam engine, and will not again start the mill until the new engine arrives. The mill has plenty of ore to run on.—The Yellow Aster Co. has shut down all the mills at Garlock but one, and is having a portion of the output milled at Johannesburg.—The Eureka mill in Randsburg is running with ore enough ahead for three months.

The Magganetta G. M. Co. at Randsburg from 4½ tons of ore received \$550.—The Black Hawk mine near St. Elmo has eight carloads of ore which will be shipped.—In the Visalia mill at Garlock only five stamps are running, owing to the shortness of water. About twelve tons of Rand ore are milled there daily.

San Bernardino.

Ellerman & St. Germain, near Dale, have 200 tons of ore awaiting the completion of the new mills in that locality, of which three are in course of construction.

June 4, 1898
p. 593

Mining and Scientific Press
June 18, 1898 p. 645

Kern.

The Napoleon mine, at Randsburg, has reached a depth of 170 feet. From twenty tons of ore milled they received \$2500. Over \$24,000 have been taken the past year.—The Ophir mill at Cuddeback lake made a run of two and a half tons of ore from the Santa Ana mine, which turned out \$140.—The Eureka mill, Randsburg, two stamps, has turned out more than \$13,000 in bullion the past month.

In the Badger mine, at Rademacher, at 150 feet depth the ledge is 6 feet wide and assays about \$25 to the ton.—The Yellow Aster Co. expect to use ten stamps at the Red Dog mill and fifty stamps at Barstow.—The Black Hawk mine, midway between Randsburg and St. Elmo, will ship eight carloads of ore.

San Diego.

H. H. Douglas, representing Eastern people, has secured a working bond on the Bay Horse mine, situated in Mesquite district, near Hedges. Crosscutting and drifting on the 115-foot level is in progress. There are three shafts on the mine, which, together with surface cuts, show an ore body 90 feet wide, 600 feet long and 115 feet deep. The new company will pump water from the Colorado river through eighteen miles of pipe and erect a 20-stamp mill. They expect to be mill-

ing ore by December 1st. There are other mines in the district which will be worked after the pumping plant is established.—The Golden Dream Con. M. Co. has sold to the South Jersey D. Co. the Golden Dream group, Oro Blanco group, Noonday group, Capella group, Pleiades group of mines, and the Emilio and Gold King mill sites.

Receiver C. W. Pauly of the Golden Cross M. Co. at Hedges has filed his sixth report. He cleaned up \$45,018.61 in gold bullion as the result of the April run. During the same month he received \$1428.60 from other sources, making the total receipts for April \$46,447.21. He has paid since out \$42,323.06 for the company, which included \$11,500 paid to creditors, and on April 30th had \$56,941.03 on deposit. The cash to be paid on April claims amounts to \$21,500.

A strike of petroleum is reported near Encinitas on the property of P. Lux, who was boring for water. When down 150 feet a vein of coal was encountered, which, when pierced, gave out a good flow of oil.

June 25, 1898 p. 670

Kern.

Los Angeles Review: The Black Hawk at Randsburg is working twenty men. The ore milled paid a good margin.—At the Eureka 2-stamp mill they cleaned up a run of sixteen tons of ore for the Sunshine, which produced \$1950; six tons from the Santa Ana produced \$735; twelve and three-fourths tons from the Kinyon produced \$3165. They are milling thirty tons for the Butte that will average about \$80 per ton. During the past thirty days they have milled about 200 tons of ore of the average value of \$70 per ton, or \$14,000.—The Yellow Aster M. & M. Co. have sixty men working. They are preparing to ship to Barstow.

The Rand mine near Johannesburg has over 700 tons of ore in its bins and has begun shipping fifty tons a day to Barstow. Five stamps are still running at Garlock on Rand ore.

A big dump of refractory ore at Duval's mine beyond Garden Station in the Rademacher country will be shipped to Barstow.

—The engineers have completed the first survey of the route from Kern river to Randsburg for the establishment of the electric power line.—The Golden Rule mine near Randsburg, a new one, is showing up well.

—The Ophir mill at Cuddeback lake made a run of two and one-half tons of ore from the Santa Ana mine which turned out \$140.

San Diego.

(Special Correspondence).—A strike of free-milling ore is reported in the mine of R. Gardner, between Julian and Stonewall.

In the Washington mine, near Julian, a valuable ore chute has been encountered, after months of patient work.

The Ranchita at Banner reports another and still richer discovery. It has for a long time been a steady producer.

The Helvotia, between Julian and Banner, is attached by the miners, who demand pay for their services.

In the Mountain View, near Cuyamaca, the free ore chute continues better as depth is gained, and recently a sulphuret ore has come in nearly alongside the free ore but not allied with it. The value of the sulphurets has not yet been ascertained.

Lawyer Holland made a 100-ton crushing of ore from his Eleveda mine by the Ranchita mill, which gave him a twenty-pound brick—a value of over \$5000.

The Schilling Rancho mine, patented, between Stonewall and Julian, has been bonded for ninety days for \$10,000. Eastern capital is investigating. The ledge varies between 16 inches and 10 feet in width. Some good assay returns have been made.

San Diego, June 17th, '98.

The Richmond, near Julian, has started with a full force and has 1400 tons of ore.—The Bailey Bros. have their ten-stamp mill running.—The Ventura M. Co. has about thirty tons of ore on the dump.

San Bernardino.

Development continues on the properties on which tin was discovered in Holcomb valley.

—The dry year is profitable to the met working dry washers.—Matheson & McComb continue development on their copper property. They are said to have a fair-sized vein.—At Virginia Dale M. Ferguson is putting up a 5-stamp mill, and will mill ore from his White Star and Standard mines, from which he has 500 tons on the dump. The work on these mines consists of a 1400-foot tunnel and a 140-foot shaft. They have a 4-foot ledge of good grade rock. St. German & Coolidge in the Ivanhoe mine have a shaft 130 feet deep and 200 tons of good rock on the dump. The Evening Star mine has out about 100 tons of good ore.

Los Angeles Express: The new reduction works at Barstow have started up and 200 tons of ore run through the mills. It is expected that it will take about a week to get everything running in proper shape, when the works will be able to take care of all ore assigned to them. Five cars of ore were shipped in from Randsburg. It is believed there will be no difficulty furnishing ore to keep the works running at full capacity.

Mining and Scientific Press
July 2, 1898 p. 9

Kern.

Randsburg Mines: The Yellow Aster Co. has shut down the Visalia mill at Garlock and suspended all operations there. The last milling consisted of about sixty-six tons, which produced more than \$100 per ton.—About seventy tons of ore averaging about \$35 per ton have been run at the Johannesburg mill. —Another strike has been made in Trilby No. 2, and over \$4000 was taken out in one day.—Ore is being shipped to the Barstow mill, each car being loaded with twenty-five tons; a watchman accompanies each car. Thirty stamps of the new mill are dropping on this ore.

At the wells work is going forward in a satisfactory manner and the present supply amounts to about 30,000 gallons every twenty-four hours. It is the intention of the company to tunnel in from the bottom of the Skillings well, where they are now at work at a depth of 265 feet for a sufficient distance to get what water they want. Estimates are being made on putting in a 5-inch pipe line, a larger pumping plant and a 100,000-gallon tank.

Rand: Near Salt Wells much development work has been done by the Colo. & Cal. M. D. Co. Fully 300 miles of ditches have been plowed in looking for ledges and a dozen wells have been sunk. Shafts are plenty and prospect holes puncture the great flat in all directions. Water and fuel are plenty. The gold-bearing rock is of a refractory nature that cyanide will work. A phosphate ledge has been opened in the Salt Wells country that will prove valuable for fertilizer. It assays similar to the phosphate mines in South Carolina, and only needs slight treatment to be ready for fertilizing the soil.

San Bernardino.

Tracy N. Stebbins, near Victor, made a cleanup of \$500 in two weeks with an arrastra.

San Diego.

The Credit Commutation Co. of Sioux City, Iowa, claims to be the owner of 186 notes made by D. T. Hedges of the Golden Cross M. & M. Co. for amounts aggregating \$873,500, and alleges that Hedges is a three-fifths owner of the properties of the Golden Cross M. Co., worth \$1,000,000; that an interest in the properties in question has been sold to the Free Gold M. Co. of Nevada, and that they are about to pay for them, thus enabling Hedges to prevent its being applied to the payment of the notes in question. Plaintiff asks judgment for 68 per cent of \$873,500, with interest on the whole amount.

July 9, 1898 p. 37

Kern.

At the Butte mines at Johannesburg shipping ore to Red Dog mill.—A report, on the Golden Rule mine, is showing paying rock.—The Red Dog mill has a 500-ton run for the Yellow Aster mill averaged about twenty-five tons.—Work has commenced anew on more mines: several carloads of ore shipped to Barstow for a test run, and assays are satisfactory, work will be commenced. 10-stamp mill erected at the

Riverdale.

At the placer camp in the Platos the dry washers who are on the paystreak are making good runs. One nugget of \$38 and another of \$76 were found.

San Diego.

Good ore in an 18-foot ledge has been found in the Ranchita mine at Banner. The cyanide plant at the Cargo Muchacho mine, near Ogilby, is handling 100 tons of tailings per day.

July 16, 1898 p. 61

San Bernardino.

M. Bigler proposes building a cyanide plant at Victor.—The Lucky Star mine is pushing development with good results.

July 23, 1898 p. 85

Inyo.

The Inyo M. Co., composed of Pomona men, has begun smelting and is running through twenty-five tons of ore per day at the mine near Darwin.

Kern.

Four carloads of ore from Victor to the Barstow reduction works yielded seven ounces gold per ton.—A cyanide plant is in course of construction at Garlock to work the tailings of that camp. It is expected to handle sixty tons per day.

In the Yellow Aster group of mines at Randsburg the vein is 4 to 30 feet in width. There are a number of other veins. Some of the narrow veins show high assays. A mill of fifty stamps is running on ore averaging \$50 a ton, the bullion output having been \$40,000 a month since the beginning of the year.—The Wedge had a mill run of fifty tons of ore netting \$5038.

Los Angeles Review: The gold output of the Rand district the current year has been about \$400,000. The output for the month of July will probably be increased over that of the past three months, as the Yellow Aster Co. will have their usual amount of ore milled this month. During June the Eureka mill ran twenty tons of ore for the Merced mine, going \$70 per ton; twenty tons for the Napoleon, running \$100; twenty-five tons of Wedge ore at \$100; thirteen tons of Kinyon at \$150; forty tons for the Butte, running \$60 per ton.—The new 2-stamp mill at the Little Butte mine is running day and night on Little Butte ore. In this mine a seam was followed down 230 feet before gold was encountered; then a good ledge 3 feet wide was found.—During June the Johannesburg Reduction Works made a mill run for the Yellow Aster Co. amounting to \$20,000 and the Butte a \$7000 run.

San Bernardino.

S. S. Simon claims to have found a deposit of "fuller's earth" in the Tehachapi country. Fuller's earth of commercial value sells for \$20 per ton.

San Bernardino Sun: Work is about to be resumed at the Desert Queen mine, after a protracted period of quiet, both in court and at the mine.

Transcript: G. W. Sweesy of the Virginia Dale mining district took \$80 from a placer claim in four days.

July 30, 1898 p. 109

San Bernardino.

Ingersoll & Esler at Virginia Dale are putting up a stamp mill, which will soon be ready to crush ore from their property.

A mortgage for \$25,000, given by the Randsburg Santa Fe Reduction Company to the Union Trust Company of Rochester, N. Y., was filed for record with the recorder of the county last week. Sec. 1, T. 9 N., R. 2 W., with all improvements, was given for security to first bonds for \$25,000.

J. M. Wolbrecht, Gen. Mgr. Golden Slope mine near Victor, has specimens of honey-combed quartz threaded with gold, taken from a ledge 4½ feet wide. There is a 5-stamp mill at the mine.

Mining and Scientific Press
July 30, 1898 p. 109

Kern.

The shaft of the engine at the Little Butte mine broke recently and the mine has been closed down until a new one can be put in place. It is expected that work will be resumed about the 10th of August. This is the second time this year that the same accident has happened. The ledge in the drift at the 480-foot level is 4 feet wide. The Johannesburg reduction works cleaned up after a forty-ton run of Butte ore, running about \$75 per ton; at the present time the stamps are dropping on a fifty-ton lot from the same mine.

A decision has been rendered in the case of the Windy claim in favor of L. A. Scott and against the Ashford Bros. who in the spring of 1897 located the Rocket and did some work. At about the same time L. A. Scott located the same ground under the name of the Windy claim. One morning when the Ashford brothers went to work they found Scott in possession and ready to back up his claim with a shotgun. The case was taken to the courts with the results noted above. While Scott was in possession he sunk about 40 feet and took out in the neighborhood of \$1500, \$1200 of which is held by injunction in a bank awaiting the result of the trials. In the fall permission was given by the judge for both parties to do their assessment work.—The Yellow Aster is shipping fifty tons of ore a day to the Barstow mill.

The Los Angeles Review says that the Long Tom mine, near Bakersfield, has been sold to Pittsburg capitalists for \$160,000, of which \$30,000 was cash. There are about 7000 tons of tailings on the dump, estimated to be worth from \$7 to \$8 a ton, and which the new owners propose to cyanide.—J. W. Waltham has taken a bond on the Golden Bar mine at Johannesburg and prospecting has begun.

Aug. 6, 1898 p. 137

Kern.

J. Singleton has begun work on the Windy mine, near Johannesburg. This claim, which has been in litigation for some time, has been considered the richest prospect in the camp. —After six months of idleness, work is to be resumed on the Val Verde mine, under Geoggs & Fisher. —A run of twenty-one tons of rock from the Sunshine mine, at the Red Dog mill, turned out \$3600.

Riverside.

The Good Hope mine, near Perris, will be worked during the summer by contracts, and no man will be employed by the day except those in the mill and shafthouse and the firemen. The contracts will be in large sums, as the rock is hard to work. The shaft is 600 feet deep. Work will be prosecuted on the first, second, third and fourth levels.

San Bernardino.

Near San Bernardino, in the Rose mine, a new ore body has been found. It is on the seventh level, is 4 feet wide and averages \$30 a ton. About 1000 tons are being hoisted to await the rains or the flooding of water, for which a well is being sunk that has reached 200 feet, when the mill will be started.

Aug. 13, 1898 p. 161

Kern.

J. M. Waugaman has sold his mines on Greenhorn mountain to G. A. Bobrick for \$45,000. The mines are the Mayflower, Rose and Plymouth.

A mill run of four tons of ore from the Gold Hill mine at Handsburg went \$203 per ton. — In the Black Hawk a 12-inch ledge was discovered on the 70-foot level. A good discovery is reported from the O. K. mine.—A

mill run of twenty-five tons of ore is being made from the Golden Rule mine.—Twenty-one tons of ore from the Sunshine mine at Johannesburg, treated at the reduction works, yielded \$2400.

The latest discovery at Handsburg was an ore body in the Little Butte shaft, the deepest in the camp, at a depth of 480 feet, carrying \$15 in free milling gold and \$90 in the sulphurates to the ton. The Wedge mine produced \$50,000 and the Butte \$45,000 after their ore bodies were said by experts to be exhausted.

The Golden Rule mine at Johannesburg is shipping ore to both Eureka and Red Dog mills.—Machinery and tanks have arrived for the cyanide plant at Garlock. The plant will have a capacity of sixty tons per day and it will take about a year to clean up the tailings at Garlock.

Forty tons of rock from the Norvell mine, in the State range, are being crushed in Garlock from which good results are expected.

Handsburg Miner: The Yellow Aster M. Co. cleaned up \$25,370 at the Barstow mill last week, the result of the last half of July. In the middle of the month they cleaned up \$25,000, making with the last clean-up \$63,370 for the month. This is the largest run ever made in one month by the company. They are now working in a solid ore body in the Trilby mine, more than 40 feet thick, and milling every pound of it. The last clean-up was principally from Trilby ore and averaged, as near as they could estimate it, \$43 per ton.

—Their July dividend will be \$25,000, and this notwithstanding some heavy expenditures in water development. Their new pump, engine and boiler is on the way, and as soon as they are in place water development will again be carried forward. The pump has a capacity of 100,000 gallons in ten hours. The pipe line is 6-inch and the calculation now is to put up a 40-stamp mill, instead of thirty, as first contemplated. The pumping plant, wells, pipe line and tanks involve an expenditure of \$70,000. Work on the tank at the wells is going on. The ore being taken out is about 350 feet from the surface perpendicularly. The new Hercules tunnel, now in 300 feet, will strike the vein at a perpendicular depth of 600 feet.

San Bernardino.

The capacity of the Barstow mill is 150 tons a day, and it is said they could handle more ore at the mill than they are getting. The Yellow Aster Co. of Handsburg utilize thirty out of the fifty stamps.

At Dale there are few men taking out ore, nor will there be many before September. There is no one working in the placers. It is estimated that there have been \$25,000 taken out of the placers in fifteen months; they will be worked this fall.

Aug. 20, 1898 p. 185

Inyo.

Bradford & Harris propose operation of the borax marsh at Salt Lake valley. A plant with a monthly capacity of 100 tons refined borax will be built.

The Inyo Development Co.'s smelter on the Sobra-Lane mine, near Darwin, is daily reducing twenty tons of ore.

Inyo Register: The first shipment of bullion, amounting to over twenty tons, from the Darwin smelter was shipped last week. The smelter is running steadily.

Mining and Scientific Press
Aug. 20, 1898 p. 185

Kern.

(Special Correspondence).—G. A. Bobrick of this place has bought from J. M. Waagaman the Mayflower group of mines, including the Mayflower, Rose and Plymouth mines, with the 5-stamp mill and other machinery, for which he paid \$45,000.

Bakersfield, Cal., Aug. 10th, '98.

Randsburg Miner: M. Singleton has put men to work sinking in the Windy mine at Johannesburg, from which \$1200 was taken

Riverside.

The Good Hope mine near Perris is worked by contracts, and no man will be employed excepting those who work in the mill and shaft house.

San Diego.

San Diego Union: Receiver Pauly reports the Golden Cross group clean-up of bullion for July \$50,000. When Mr. Pauly took charge of the mines a year ago there was an indebtedness of \$355,000. This has been reduced 50 per cent. In the thirteen months of his management the mines have produced \$350,000. Besides paying part of the indebtedness every month, he retains a sufficient sum from the proceeds to carry on operations and provide for possible contingencies. The mines at present producing are the Cross, Queen and Crown. The Cross is producing more ore than the others. The Cross and Queen each have a 700-foot shaft. About 250 men are employed.

Aug. 27, 1898 p. 209

Kern.

A cyanide plant is to be built at the Eureka mill, Randsburg, with three tanks of ten tons each. One and a quarter pounds of cyanide are used to a ton of tailings assaying from \$10 to \$20. Usually tailings require four or five days' submersion in the cyanide solution, but it has been found that sixty hours' submersion is sufficient for the ores of that district.

Los Angeles Review: In the Butte mine at Randsburg at the 290-foot level several men are stopping. The ledge is 4 feet wide and the ore runs from \$200 to \$400 per ton. At this level 100 feet of stopping ground has been blocked out. A 2-foot ledge of good ore was uncovered at the 321-foot level. In the 373-foot level a ledge of hard, bluish-colored rock was uncovered, carrying both free gold and sulphurets. At the 480-foot level this same rock was found and it appears again in the main shaft at a depth of 500 feet, the vein being 7 feet wide. At a test run of four tons from the 480-foot level the result was \$18 per ton free gold, \$2 per ton tailings and \$104 per ton sulphurets.

Randsburg Miner: The Red Dog mill at Johannesburg has been running entirely on Butte ore the past week. Work on the Windy mine is active. Ten men are employed and two shafts being sunk on different ledges. More prospecting is going on about this section just now than at any time during the past year, and several very promising claims have been located which give evidence of good results. At Randsburg only high-grade ore is being hauled to the mills controlled by the Yellow Aster people. All the low-grade ore is saved until the company's mill is in operation. A strike has been made in the Buckboard mine, beyond the Stringer district, of ore 2 feet in width at 90 feet depth of high grade. The Wedge mine will soon begin sinking the shaft to 1000 feet depth. The company is taking out good ore.

Cont.

Inyo.

Montgomery Bros. at the Weaver mill at Ballerat cleaned up eighteen pounds of bullion, or \$4000, on ore from Tuber canyon.

The Independent says that a plant will be erected within ninety days at the borax marsh capable of manufacturing 100 tons of refined borax per month, and within six months borax will be placed on the market at the rate of 100 tons per month.

Independent: The new smelter of the Inyo D. Co. on the Sorba-Lane mine, near Darwin, is a success. Twenty-five tons of ore are daily reduced.

Register: The first shipment of bullion from the Darwin smelter amounts to twenty tons. The smelter is running steadily.

Los Angeles.

W. A. Perry, who has a bond on the Ojer mine, in the Holcomb valley district, is developing the property. There are several custom mills operating in that section.

San Diego.

The San Diego court has rendered judgment in favor of the plaintiff for \$341.85 in the case of Paul J. Johnson vs. the Senator M. Co. et al.: the Buena Vista, General Hart and Susan Dutton gold quartz mining claims, together with a 30-stamp mill, buildings, improvements and appurtenances, which are ordered to be sold to satisfy the judgment.

Sept. 3, 1898 p. 233

San Bernardino.

The Grable mines near Old Baldy, which were bonded a year ago for \$20,000, have been bought at the price named and are being developed by H. C. Oakley of Ontario, Cal. They are running tunnels and showing up a quantity of good ore, which is being sacked. Arrangements are being made to erect a mill there, on the completion of which the ore will be treated by the cyanide process. The ore assays from \$10 to \$100 to the ton.

San Diego.

The Union hears that operations will be resumed in the near future on the Stonewall mine, at Julian, the owners of the mine, the Sather Banking Co. of San Francisco, having contracted with a San Francisco firm to work the tailings on a percentage. There are about 20,000 tons on the dump, and it is thought they will yield at least \$5 to the ton. The cyanide process will be used. The Stonewall is one of the biggest mines in southern California and was at one time valued at \$2,000,000. The mine was closed on account of litigation several years ago and no work has been done on it since.

Kern.

The Eureka mill at Johannesburg is running on ore from the Kinyon mine. The tanks for the cyanide plant will soon be completed.

A ledge running from 12 to 14 feet in width is reported discovered in the Rebecca mine near Randsburg. The ore is said to horn well and shows specimens of free milling gold.

A strike is reported in the Buckboard mine in the Stringer district, Randsburg. The owners of this mine have worked steadily on it for eighteen months. The Little Butte mine is said to be keeping well up to the expectations of its owners. Some rich ore is being taken out 300 feet from the surface. At the Windy claim, owned by J. Singleton, Pres. of the Yellow Aster M. Co., the shaft has been enlarged and made a double-com-

partment shaft. They are now sinking a second shaft on the property.

A strike is reported in the Blackhawk mine of a ledge from 12 to 14 inches wide. It is estimated that the ore will run from \$300 to \$400 per ton. The gold saved from the borings amounted to several dollars the first day. Beginning the first of the next month they will have a mill run made at the Johannesburg Reduction Works.

Sept. 10, 1898 p. 259

Kern.

At Randsburg the Little Butte is sinking and has the same body of sulphuret ore, which yields \$16 in free gold. They are down 500 feet, and are sinking a new air shaft 200 feet from the main shaft. The 9-stamp mill has averaged since it started about \$5000 in bullion per month. The company have about 150 men on their payroll, including the men at the wells.—The cyanide works have started and three tanks have been filled.—The monthly clean-up of the Yellow Aster M. Co. at Barstow was made last week for August and resulted in \$42,000 of bullion, \$105,000 for July and August.—Work will be commenced on the O K mines Sept. 15. The development work on the Black Hawk has done much to show the value of the O K and the O K No. 2.

Sept. 17, 1898 p. 285

Inyo.

The independent reports a favorable outlook for a deal in the upper belt of mines around Pleasant canyon, Panamint mountains, including the Montgomery properties and Radcliff mine.

Kern.

Los Angeles Review: The Johannesburg Reduction Works cleaned up last week a fifty-eight ton run of Black Hawk ore that averaged \$27.40 per ton.—P. McMahon, Mgr. Wedge mine, has taken a lease to sink 100 feet and drift 100 feet each way on the Little Butte extension, and the Little Butte Extension Co. will soon resume work on the shaft.

Riverside.

At Winchester Mott Bros. have temporarily discontinued work at their asbestos mines.

San Bernardino.

At Canyon del Oro district the new gold find continues to develop. There are over fifty claims located, some producing high-grade ore.

The Colton Chronicle says the water question at Lytle Creek is apt to get into the county courts, as J. C. Christy claims that he will not stop his hydraulic mining, as his claim to the water is over a quarter of a century older than that of San Bernardino. He has taken out \$55,000 from his mine and does not propose to quit just at present.

Sept. 24, 1898 p. 303

ANTIMONY found near Havilah, Kern county, Cal., recently sent to the National School of Mines, Paris, France, by A. Blanc, of Alameda, Cal., assayed, quartz and argite, 9.30; antimony, 90.00; arsenic, trace; lead copper, silver, none; total, 99.30.

Sept. 24, 1898 p. 309

Inyo.

H. C. Ratcliffe of Ballarat is at Los Angeles to transfer his one-half interest in a group of mines in the Panamint mountains to a company of Eastern and Los Angeles people for \$30,000 cash.

San Diego

Receiver Pauly of the Golden Cross mines at Hedges reports the output of bullion for August as \$43,000, of which \$23,000 was paid toward the indebtedness of the company. This makes \$100,000 paid off the past year.

At Venus Camp, Picacho district, H. W. Blaisden has put in a mill and is crushing 100 tons of rock per day, and is also operating a cyanide plant of that capacity. Water is pumped from the Colorado river to the mines. There are seventy men on the payroll. The mines are well opened and large bodies of low-grade ore developed.

Sept. 24, 1898 p. 309

Kern.

There is considerable dry washing going on in the Stringer district. It is known that some are making wages, and some are getting \$5 and \$6 per day.

Randsburg Miner: The low price of hauling and milling ore is having its effect. The Wedge people will ship one car as an experiment, and, if satisfactory, will send in 1000 tons. The railroad people have put in a new chute for loading, and everything is convenient.—The Eureka mill crushed four tons of ore from the La Crosse mine in the Stringer district which went better than \$150 per ton, the result of two men's work for one month. They are now working on twenty tons from the Napoleon, which will go above \$100 per ton.—The cyanide plant at the Eureka mill is handling eight tons per day. This, with what the mill accumulates, will keep them busy for ninety days.

Los Angeles Review: Most of the mines in the Stringer district, which shut down during the hot weather, have resumed work. The cyanide plant at the Eureka mill, Randsburg, is in steady operation, and the results of the treatment are exceeding the expectations of the owners.—The Eureka mill started on Little Butte ore, and will give it both a milling and cyanide test. The ore is from the 520-foot level and runs from \$17 to \$19 per ton, a little more than half of which is base.—The Little Butte shaft is down 530 feet, and has a ledge of \$18 ore, whose width has not yet been ascertained.—The Yellow Aster Co. shipped 1400 tons of ore to the Barstow Reduction Works during August, the ore going \$30 per ton.—Depuy & Swarthout of the Ophir mine, Johannesburg, have had two carloads of ore milled at the Barstow Reduction Works, cleaning up \$37.50 per ton.

Oct. 1, 1898 p. 333

Kern.

Randsburg Miner: The Mayflower, Randsburg, is outputting good ore. It is owned by Brown & Delameter.—The Red Dog mill cleaned up \$8000 worth of bullion last week from a run of 100 tons of ore from the Butte mine.—The Kadenmacher mine near Randsburg is making a good showing. The shaft is 200 feet deep with drifts each way. It is sunk in the ore vein and neither hanging nor foot wall has been discovered. The ore varies from \$15 to \$75.—The Dean quartz mill has been moved from Oro Grande to the State range and they expect to start October 15th on the Hogan mine. From this mine 100 tons plated \$38 a ton. The shaft on the mine is 150 feet deep, with drifts in ore which runs from 2 to 12 feet in thickness.—The Wedge mine has struck rich vein at a depth of 350 feet in the west drift that yields \$200 per ton.—In the Buckboard mine the ledge is wide, running \$5 or \$6 all through, with streaks of rich ore up to \$100 per ton. The shaft is down 125 feet with drifts on both sides.—Harrison & Jewelyn have taken a bond on the Radcliffe mine in Pleasant canyon for sixty days and paid \$2000 down. They have begun work.—To the Barstow mill the Wedge people have shipped a carload of ore and the Little Butte 100 tons as a test, and the Big Butte will send a lot. This camp can keep the Barstow mill running on low-grade ores alone.—J. James has sunk a shaft at the junction of the Treasure and Nellie M. mines, and has a vein 5 feet thick, 2 feet of which is good and the balance will all burn a little.—At the Meredith mine in the Slate range they have a pipe line three miles long. Some ore shipped to Selby returned \$215 per ton, and altogether they have taken out over \$25,000.

Cont.

Mining and Scientific Press
Oct. 1, 1898 p. 333-334

Barstow: Supt. Meade will put in a fifty-ton cyanide plant at the Long Tom mine near Bakersfield. The Johannesburg Reduction Works made a 190-ton run for the Big Butte. The Esperanza mine near Garlock is opened by a 260-foot tunnel, on ore all the way; there is 3 feet of it that averages \$17.00 to the ton. The Yellow Aster Co. is shipping seventy-five tons of ore per day to Barstow. Their product last month was one of the largest in the history of the company. At the wells the 113,000-gallon tank has been completed and the work of filling it with water has begun. Work on the pipe line is progressing and will be finished the middle of

San Diego.

Union: About ten men are working in the Bay Horse mine of Mesquite district, which has been sold to a company of Eastern capitalists. The deepest shaft of the Bay Horse is down 165 feet and is in low-grade ore, in which pockets of rich rock are sometimes found. It is the intention of the company to run a 6-inch pipe line from the Colorado river, a distance of twenty miles, for the operation of a 20-stamp mill, which will be erected this fall, and as soon as practicable increase to forty stamps or more. The Irma, another property belonging to the Bay Horse Co., is being gradually developed and is displaying some good ore. Other promising properties of Mesquite district have been partially developed, but are idle for want of water. With the coming of that there will come a general revival.

San Bernardino.

There are four stamp mills at Dale crushing the quartz.

Oct. 8, 1898 p. 357

Kern.

F. C. Stader has bonded the Pioneer, St. Michael and Garfield claims near Kandsburg to Denison & Campbell for \$5000 for one year and a tunnel to be run in that time 300 feet long. The cleanup at the cyanide works was a gold brick worth \$1200, the result of 120 tons of tailings. A good find has been made by Brady & Parsons of a ledge about 10 inches wide.

The Red Dog mill, Johannesburg, cleaned up \$5000 worth of bullion last week from 100 tons of Butte mine ore. The Butte, Val Verde, and other claims, are shipping low-grade ore to Barstow. The Johannesburg and Eureka mills have been running steadily. In the

Stringer district, the Napoleon and Winkle groups are working full time. The Wedge continues sinking through good ore. The Little Butte is taking out ore; the cleanup last week being \$700.

San Bernardino.

Nearly a month ago J. J. Arbiou started his stamp mill at Dale and has been working about four tons of rock a day. He is making a 200-ton run for Sherman & St. Germain, the rock milling about \$18.

Oct. 15, 1898 p. 381

Kern.

Los Angeles Review: In the Rademacher district the Baron mine shaft is down 200 feet. Levels have been run and good ore bodies have been opened. Three thousand tons of ore are on the dump. The Badger is opened by a 200-foot shaft and 100 feet of drifting. Sulphuret ore is shown. McNeil & Co. have sunk a 100-foot shaft, showing 3 feet of high grade ore. McKinney Bros. are down 150 feet on their claim, and by drifting and cross-cutting, expose a good body of sulphuretic ore. The Eureka mill is running on Little Butte ore, as are five stamps of the Johannesburg mill. The other stamps of the latter are crushing Big Butte ore. The Little Butte, besides keeping its stamps busy on low grade ore, is shipping large quantities to Barstow. The Eureka mill made a four-ton run of ore from the Santa Ana mine, which netted \$400. De Roember Bros. had twelve tons milled which netted \$1600. The Eureka mill people are buying all the base ore that is brought to them, paying smelter rates of assay value, less transportation charges. At the borax works the Colo. & Cal. M. D. Co. is sinking on a 25-foot ledge of low-grade, gold-bearing quartz. They are down 75 feet, and at that depth there has been no diminution in the size of the ledge.

Kandsburg Miner: M. Scott, of the Merced mine, near Kandsburg, had twelve tons of ore milled at the Eureka mill which yielded \$1600. Another three tons brought \$300. This is the result of one month's work. At the Hard Cash mine, a dry concentrating plant is being built. The mine has large body of low grade ore. This is the first mill of the kind in this district.

Riverside.

The Good Hope mine at Perris is said to be working in a large body of good ore.

has a 10-stamp mill at work, while two other small mills are running in the district. From Oro Grande there is some good ore being sent to Barstow.

Oct. 22, 1898 p. 405

Inyo.

The Meneva M. & M. Co., made up of Pittsburg, Pa., business men, incorporated under the laws of New Jersey, will operate in mines in the Pahump and Tecopa neighborhood. C. C. McCarthy is Pres. and W. W. Hammond is Sec. and Treas. It is said that \$1,000,000 is to be invested in developing the properties in Inyo county, Cal., and Lincoln county, Nev.

The Halbert interest in a group of mines in Pleasant canyon, Paumint mountains, has been sold to M. Godmark for \$7725 cash.

Oct. 22, 1898 p. 401

California's Supposed Great River of Ancient Times.

TO THE EDITOR:—A great many hydraulic miners have been very much interested in the finely illustrated two-page article in yours of July 30th, about gold in ancient river channels. After years of research and careful investigation, geological theories with their various ages and fossiliferous evidence are sometimes confronted by other opinions, although not directly in touch with the many branches which go to make up its learned chart, yet we cannot always be too precise and disregard a logical argument from a practical standpoint, especially from men of intelligent speech.

During many trips through various mines of California I have often met the benign-faced miner of '49 who neither possesses nor lays claim to the title of "mining engineer" or "mining expert," but regardless of the absence of these, in some cases assumed, titles, these miners are intelligent and interesting, and have ideas of their own regarding the auriferous deposits of California that compare in reasonable composition with the others advanced by learned scientists. These do not follow the laws of "cause and effect" or the "survival of the fittest," being taken from personal observations which embrace many years of patient toil, hardship and research.

Previous to the Jurassic age our ocean coast line extended far into the interior and even over the seat of the various mountain ranges east of the Sierra Nevada, yet unborn. The presence of the impression of the ammonite fossil in some of the slates and also that of the belemnite go to substantiate the belief that the noble Sierras were born in the Triassic or Jurassic age. During this age the Sierra foothills formed the shore of the Pacific ocean, and the verdure-clad mountains of the Coast Range lay slumbering in the bosom of Mother Earth until the renewed activity of Cretaceous age forced them to the surface. This is as far as we can go geologically. This treats simply of the primitive formation of the coast and leaves the presence of the immense deposits of gravel, which in many cases overlay the summits of ridges, to be attributed to ancient tributary channels. To this the same old miners do not agree. One will say: "I've mined from the Mexican line to British Columbia and found the same gravel deposits in both directions, north and south. This gravel, I claim, had not been deposited altogether from the many small streams which have their rise in the mountains, but chiefly from one vast river whose bed now forms a portion of the makeup of the Sierra Nevada range. To the objection that this theory will conflict somewhat with past opinions and accepted truths, I may make reply that had others made the proper investigations, they might learn different." When we come to gaze over the great width of the Sierra range, it permits of a large number of geological possibilities. To be convinced of any extravagant ideas as to the presence of an ancient waterway of large dimensions, having its main channel through the central portion of the range, may tax the imagination of many who have studied the various forms and deposits of auriferous gravels, but an argument for or against its existence would not read any more inconsistent than the hypothesis which has been launched for consideration from the minds of many learned men on other subjects pertaining to geological science. An "Amazon-like" stream might have caused great denudation and cut into the surface so deep that the crust yielded easily to the dynamical forces which were so prevalent in

past ages, the result being one tremendous upheaval and the lifting of the gravel and other debris deposits which had accumulated during the life of this mighty river far up into the mountains and diverting its immense discharge into new and virgin channels.

In giving consideration to the theory in question, if we entirely disregard the idea of the presence of such a waterway we leave the long epochs which embrace the Jurassic age previous to the Cretaceous without any main river system, such as is represented by the Sacramento and San Joaquin rivers of the present day.

In speaking of the ancient gravel beds the title of "old channels" is customary with most people, simply attributing the deposition to the smaller mountain streams and thus scouting the idea of any great proposition that may have existed in past ages.

If one accepts as a fact the elevation from the direction of the pole during and preceding the first Glacial period, an immense body of water could have been discharged southward during the long period it took before a complete subsidence to the primitive level occurred, thus giving cause for the supposed large stream which may have had its rise in the far north with a southward course through the interior of the primitive formation of our present Sierra Nevada range.

HYDRAULIC MINER.

Oct. 22, 1898 p. 405

Kern.

Los Angeles Review: The Black Hawk mine in the Stringer district has large bodies of low grade ore, as well as considerable high grade.—The Baltic mine has been leased to miners, who are taking out ore and shipping to Kochun's mill.—The Gold Coin mine is worked by the owners, Mann & Co., who are taking out ore. They have a ledge of 2 to 34 inches. They are apraising from the 180-foot level.—The Merced mine is rapidly gaining depth. They are taking out ore running \$200 a ton.—The Winnie mine has a number of tributors working. Most of them are making good wages. The ores are rich, but the veins small.—The Buckboard mine has a large body of low grade ore, with some high grade. They are down about 150 feet.—The Kenyon, near Randsburg, has struck sulphuret ores at the 330-foot level, but they have not yet ascertained what values the new strike carries.—The Little Butte mine has reached a depth of 530 feet and shows a large body of sulphuret ore. The extent of the ore has not been determined, nor has the value which can be saved, nor the best mode of treating them. The ore bodies here in many instances are spotted, and to an uninitiated person the ore-bearing sand is almost identical with the ledge matter.

Riverside.

Crawford & Bowles, at the San Diego mine, in the Chucawallas, have begun further development.—Supt. Clark of the Chuckawalla M. Co. says these properties will resume as soon as reduction works to treat the ore are in place.

p. 406

The San Diego Union says that the Helvetia mine at Julian has been sold to a Denver Co. and arrangements made to drain the lower levels of the mine and outfit for a test of its ores. If it proves satisfactory they will buy the property and begin extensive improvements. It has lain idle for seven years and was filled with water.—The output of bullion from the Golden Cross mines at Hedges for September is reported at \$43,000. Receiver Pauly says this will enable him to reduce the company's indebtedness \$23,000.

San Bernardino.

Shipment of ore from the mines of the Peacock Co., near Lavo, has begun.

Bishop Register: The Inyo Con. M. Co. which owns fifteen claims in Mountain Springs canyon, in the Argus range, are putting in a 3-stamp mill. The company has been prospecting the mines for a year, and a good showing of ore has been made.—Fairfield, Sinclair and others composing the Geodetic and Coast Survey party which has spent several summers in these regions have arrived at Bishop and begun the winter's work. There are ten in the party. They work from the Pahruamp country to the Needles.

Kern.

Work on the Hard Cash mine near Garlock has resumed. The owners contemplate putting up a dry concentrating plant.—The gold mine discovered last year in Tollgate canyon, Amalie district, by J. R. Smith and sons, is proving profitable. In a recent cleanup of three tons of rock, which required ten days' work by Smith and his two sons, \$12.84 was yielded. The ledge from which this ore was taken measures 2 feet in width.

A find has been made near Garlock in the Little Mesquite canyon of a ledge 16 inches wide of fair value.

Randsburg Miner: The Wedge mine is taking out rich ore at the 350-foot level. They have a vein of about 1 foot of this ore.—The G. B. mine near the Stringer district has been sold to the owners of the Red Dog mill at Johannesburg for \$10,000. Much work has been done on it. The new owners will at once take out ore. The ore body is large but not high grade, though enough, however, to make it valuable property.—The Klynons have struck a good body of ore in their mine at a depth of 150 feet. The vein is nearly 3 feet thick.—The Yellow Aster M. Co. will have their 30-stamp mill in operation about the 15th of Jan. It will have a capacity of 150 tons per day. It will be lighted by electricity and run by steam generated by an oil-burning engine. They have water enough, it is thought, to supply their mill, but their wells have not yet been thoroughly tested.—W. T. Garrison at Havilah is getting out ore that will average \$40 per ton.—The miners in Pleasant canyon, in the Panamint range, are taking out considerable ore and have it crushed in the Anthony mill. At the Ratcliffe mine in Tuba canyon sixteen miners are at work. The ore is hauled to the mill at Postoffice.

San Bernardino.

The St. George mine, near Manuel, having been abandoned by previous owners and choloriders, is said to be paying well. A strike was made at the 200-foot level of 10 feet of ore. The whole ledge averages \$35 per ton. The mine has lately been bought by A. G. Campbell of Salt Lake City.—The cyanide plant on the Desert Queen mine is running successfully.

Redlands *Facts* says that considerable prospecting has been done in that neighborhood, and ore has been found that assays from \$5 a ton upwards, but is of a refractory nature. It is locally reported that arrangements have been perfected to build a chloride plant at Redlands.

Downey Champion: The Peacock M. Co. is shipping ore from the mines near Lavin. Considerable development work is being done in the neighborhood of Lavin.

San Diego.

In Pilot Knob district, near El Rio, development work has been done on the Carmen and Muy Bien mines. On the Carmen a 100-foot shaft has been sunk, and the first 50 feet displays a ledge 3 feet in width running \$25 per ton. The Muy Bien has two shafts, 54 and 32 feet, and the ledge averages 9 feet. The ore ranges from \$7 to \$72.

San Diego Union: Workmen at Cayamaca are building a tank-house 160x60 feet for a cyanide plant for the treatment of 200,000 tons of tailings from the old Stonewall mill. The tailings have been bought by Strauss and Shinn of Los Angeles and San Francisco. Experiments said to have been made by the cyanide process show the tailings to be worth from \$2.50 to \$7 in gold per ton.—Receiver Pauly of the Golden Cross mines, in his eleventh report, for September, shows that the clean-up amounted to \$42,146.63 and there was received from other sources \$950.10. The expenditures amounted to \$43,407.55, which included \$23,000 paid to the defendants in the action. The payroll for September amounted to \$7500 and the fuel bill to \$1300. There remained \$70,303.66. The receiver reports that the properties show an increase in ore deposits and a vein of ore has been struck in the Queen mine, which, it is thought, will prove profitable. Within a few months, the receiver states, the debts referred to in the stipulation will be paid.—The Pacific bank of San Francisco, which owned a half interest in the Helvetia mine at Julian, has sold its share to C. H. Dunsmoor for \$10,000, who transferred the property to E. W. Sebben for \$6000. Mr. Sebben is one of three Denver capitalists who have entered into a contract with the mine owners to give it a six months' trial; and should it prove satisfactory, they will buy it. The other half interest is owned by nineteen parties, represented in San Diego by Holcomb & Utley.

Riverside.

Los Angeles Review: Near Perris, cyanide plants have been established both at the Good Hope and the Santa Rosa mines to work the tailings of these mines.—J. N. Bolcourt has a force of men on his claim near the Good Hope. He has a ledge 30 feet wide, which by the cyanide process gives \$30 a ton. He will soon build a plant of his own.—Some work has been done lately on the Red Jacket mine, adjoining the Good Hope, and belonging to that company. The ledge is 3 feet wide, and assays well in gold and silver.—At the Good Hope things are quiet at present.—The Gavnon mine is working forty men, and the 10-stamp mill is running continually. S. H. Robb has been operating for several years a dry washer in the gulches about the Good Hope and making it a success.—The Santa Rosa cyanide plant shipped a bar of bullion weighing \$500. The plant is said to net its owners \$1800 per month.

Inyo.

Independent: A group of developed ledges in Haveridge district has been bonded to people representing a Chicago company.—Anthony's mill in Pleasant canyon is running on custom.—The O. B. J. mine, in Tuba canyon, keeps the mill at Postoffice supplied with ore.—Mgr. Harrison is working sixteen men on the Halbert & Ratcliffe claims.

Kern.

Randsburg Miner: A cyanide plant is to be erected at Cuddeback lake, to work the 5000 tons of tailings at the mill. Work will soon begin.—A small run of ore from the Val Verde mines was made at the Cuddeback lake mill last week, yielding fair returns.—The Eureka mill cyanide plant made a clean-up estimated at \$1200. The mill is running on a 15-ton lot of ore from the Napoleon mine in the Stringer district which will go \$100 per ton.

Los Angeles.

At the Red Rover Mining Co.'s property the mill started up on the 25th of this month. The shaft has been repaired and everything put in shape for a new campaign.

Mining and Scientific Press
Nov. 12, 1898 p. 485

city.

Riverside.

From the tailings at the Santa Rosa mine, near Perris, \$400 a week is the usual gold product.

San Bernardino.

The Pacific Coast M. Co. is putting up an ore crusher on the Fleming property, on Old Baldy mountain.

Mr. Somes of Los Angeles is in San Diego with a view of building a copper smelter. Ten acres of land have been tendered and a cash bonus is being worked up with probable success. Mr. Somes says ample copper ore of good grade is offered to keep the smelter in blast.

San Diego, Oct. 24th, '98.

Nov. 26, 1898 D. 533
Inyo.

Independence Independent: P. Reddy of San Francisco has bought the N. S. Thompson mine at Darwin for \$5000. The property is between the Defiance and Independence mines, both of which belong to Mr. Reddy. The central property has a long tunnel through which all the ground can be worked, and it will make low-grade ores profitable.

Kern.

The Comet mine, on the Greenhorn, has been sold by W. W. Steckton to San Francisco people for \$3000 cash. The new proprietors will erect a mill and push the work of extracting ore.

A strike is reported in the Tale mine near Woody of a body of high grade ore. The mining industry is thriving in the Smith district. The Big Horn Co. is putting in a 2-stamp mill to be run by water power and it will soon do its own work in addition to custom milling. The camp has good prospects of being a steady gold producer. There are about twenty bye men in the camp.

Blackhawk Mine: The shaft tunnel at

last strike is 530 feet from the entrance. About \$10,000 was quarried from the surface of this property. This new ledge is 3 feet wide; it ran \$50 per ton on top; 600 feet below it mills from \$150 to \$200 per ton. Forty feet of ore is exposed and the walls are not found. The whole will mill \$30 per ton. The pump is in place at the Yellow Aster Water Works, and tests will be made as soon as the 100,000-gallon tanks can be riveted together at the mill. The pipe line is all covered, and a week will see water flowing down Rand mountain. The Red Dog mill at Johannesburg is running ten stamps on ore from the Butte mine.

Riverside.

It is locally reported that the tailings from the Santa Rosa mine, near Perris, are giving returns of \$1500 a month. The stamp mill at the Eureka mine, owned by Thomas & Wheeler, has begun crushing ore. P. Hible has discovered quartz near Winchester. Shultz & Knapp have struck gold and silver bearing ore near San Jacinto.

San Bernardino.

The Index M. Co. will develop the Iron Mask, One Horn and Index mines near San Bernardino.

Dec. 3, 1898 p. 557
Inyo.

Independence Independent: The Roward mine has been closed down. Supt. Hoskins has gone to St. Louis to make arrangements to resume work. At Ballarat Supt. Harrison expects to resume operations on the Cleveland mine soon. Mine owners in South Park district are meeting with encouragement as their work progresses. At Mineral Hill R. Day, superintendent of a group lately bought, is meeting with success in develop-

Kern.

Near Tehachapi, A. Winters sold four claims of antimony mines to E. De Priestas, agent of the Rapid Transit R. E. Co. of New York, for \$20,000. A shaft has been sunk 60 feet, and antimony 90 per cent pure taken out.

Randsburg Miner: A strike of good ore is reported on the Black Hawk mine near Randsburg. The cost of the new 30-stamp mill for the Yellow Aster M. Co. is said to be \$41,500. The Red Dog mill people have given up their bond on the G. B. mine. Ten tons of ore milled from the Merced mine yielded \$1450 in bullion. The Eureka mill has been running on small lots of ore, but in nearly all cases of good quality. They are now at work on Wedge ore. On the Standard good ore was found last week. A new strike is reported in the Trilby mine, of the Yellow Aster group. The body of ore is said to be large and what has been milled averages \$30 per ton.

Randsburg Miner: Edmonds & Stassforth had three tons of ore milled at the Eureka mill, Randsburg, which yielded \$35 a ton. Ten tons from the Merced yielded \$1440. This is the second cleanup in three months, the result of three men's work, the first going \$1600. After paying a royalty of 25 per cent and expenses they have left \$2000. Twelve tons of Wedge ore yielded \$1200. This came from the 850-foot level. The Eureka mill cyanide plant made a cleanup last week of \$900. This is the third in three months, the first being \$1200 and the second \$1100. Fifteen tons of ore from the Buckboard mine netted \$50 per ton. This is the richest part of the mine; they have in some parts of it a ledge 25 feet thick, which will mill from \$5 to \$8 a ton. The Red Dog mill at Johannesburg is running on Butte ore. They cleaned up \$3000 from ninety tons. Willard & Harrison are moving their mill at Cuddeback lake to the Blackhawk mine near Randsburg, where there is a large body of ore that will run from \$5 to \$10 a ton. They will get water from the Squaw Springs system and connect with a pipe line.

Los Angeles.

Work on the Red Rover mine, near Acton, has resumed and a new reservoir has been built.

The Puritan mill at Acton will be shipped to the mine of E. D. Cot in Kern county.

Riverside.

A new vein of ore has been opened in the Gavilan mine, near Perris, at a depth of 400 feet. The men working on contracts in the Good Hope mine are reported doing well. Hook Bros. made a shipment of \$600 last week from the Santa Rosa cyanide plant, near Perris.

W. Vercos of Riverside, Supt. of Gavilan gold mines, has returned from England. It is locally reported that he effected the sale of the Santa Rosa mine to an English corporation. W. A. Doran, Pros. Gold Canyon G. M. Co., whose properties are situated near Salton, is preparing to build a 6-stamp mill. There are several hundred tons of ore on the dump ready to be crushed. Burke & Townsley, in the Chuckawalla mining camp, near Salton, have four men at work and fifty tons of ore on the dump.

San Bernardino.

At the Itose mine, near Victor, the new shaft is down 250 feet. It is believed necessary to go 150 feet more to get into the pay ore. They are working three shifts; erecting the new cyanide machinery will soon begin. Machinery and supplies continued to go to the Dale mining district.

San Diego.

Yuma Sun: The mines at Venus Camp, Pichacho district, owned and operated by H. W. Blaisdell, have a fifty-ton cyanide plant in operation. The second monthly clean-up was made recently and the value of the bullion brought down was said to be \$35,000, while the expenses were about \$12,000. The previous month's run was \$20,000.

Cont.

Kern.

Randsburg Attain: T. Johnson has sold a three-quarter interest in his copper mine at Pilot Knob and is in Kansas City, Mo., closing the deal. He gets a satisfactory price for it, with a large cash payment, and is to remain as Supt. of the property.—F. Goodman represents a company from New York developing the Copper City Camp near Johannesburg. They have a large force at work.—Pheby Bros. of San Francisco are mining near Babarat.—The Red Dog mill has been running on ores from the Gold Coin and Butte the past week.—Walker & Co. had a nice clean-up from a 6-ton run from their lease on the Butte.—Squires & Perdue on their Alpha claim have an 18-inch ledge of high-grade ore.—The Black Hawk mine is making a 50-ton shipment of ore to the Cuddeback mill. They are now taking out about five tons of good ore a day.—C. Collins' ore dump on the O. K. is assuming good proportions.

Los Angeles Review: In the Windy mine near Randsburg a 30-inch body of ore running from \$300 to \$400 per ton was encountered.—The Wedge has had ore crushed at the Eureka mill that has yielded \$100 a ton. The same mine is also having some low-grade rock run at the Johannesburg mill.—At the Yellow Aster the new mill will be in operation shortly after Jan. 1.—The Butte is preparing for a big mill run on high-grade ore, and shipping several hundred tons of low-grade.—The Kinyon is taking out some high-grade ore.—The Little Butte continues in good ore in the lower levels and is milling at their own mill at Johannesburg, and also at Barstow.—Willard & Harrison removed their Cuddeback mill to the Black Hawk mine near Johannesburg. It will be in operation Jan. 1. The Black Hawk people will use it for several weeks.—At the O. K. mine, recently bought by A. R. Collins for himself and New York associates, sifting on the large ore body has begun.—Campbell, Denniston & Woodard, who recently bought the Rader property near the Yellow Aster group, have uncovered a number of ledges of high-grade ore.—C. A. & A. A. Burcham have started extensive work on some claims they recently bonded in the Argus country.—O. Koehn, who has a lease

on the Ruby claim near Johannesburg, has a force at work sinking and drifting, and is shipping from twelve to twenty tons of \$20 ore to his mill at Kane Springs.—It is reported on good authority that the Yellow Aster output for November exceeded \$70,000.

Riverside.

The Mgr. of the Good Hope mine, near Perris, has leased portions of the mine to different people, who are working with good results. The cyanide works at the Good Hope and also at the Santa Rosa are in steady operation and good results are obtained.

Riverside Enterprise: The strike made in the Gavilan mine, near Riverside, is proving of a substantial character.

San Bernardino.

The Rose Cyanide Co. sold to the Rose G. M. & M. Co., for \$3500, the cyanide plant in the Morongo mining district.

Free Press: The Index M. Co. is making arrangements to work the Iron Mask, One Horn and Index mines, near San Bernardino.

San Diego.

The Ranchita mine, near San Diego, is working three shifts a day, and the 5-stamp mill is running twelve hours a day. The shaft is down 430 feet.

The San Diego Union says that a smelter for gold, silver and copper ores is about to be established near San Diego of twenty tons capacity. It will be running Jan. 1st.

Kern.

Near Tehachapi the Big Horn Co. is putting in a 2-stamp mill to be run by water power; it will do its own work in addition to custom milling. There are about twenty-five men in the camp.—The Matthews quartz mill is being built in Mojave. It will have a capacity of twenty-five tons per day.

G. Otterman has one claim at Bearville from which he has taken considerable ore, which is reduced with an arrastra.—H. Vincent Wallace of Bakersfield, will erect a 2-stamp mill at Bearville.

Los Angeles Mining Review: At Randsburg the Yellow Aster Co.'s engine and pump at the wells were started last week and in a few hours the pipe was discharging a heavy flow of water at the mill site on Rand mountain, six miles distant. It is expected that before Jan. 15th the mill will be in operation

and thirty stamps be dropping on Rand ore. The company now employs 140 men. The output of the mines for December will be fifty tons per day and the product will probably equal that of November, which was about \$70,000.—The Little Butte the past week added \$2000 to its treasury.—Meade Bros., Stamm & Bacon have bought the Cuddeback tailings dump, approximating 5000 tons, and will soon begin the erection of a 30-ton cyanide plant. The tailings are sold to be fairly rich.

The Eureka mill people have been successful with their cyanide plant and in a short time will do custom work with it. Cyanide treatment seems to work successfully with most of the ores of this camp.—Reports of good strikes last week come from the Standard mines, near the Little Butte, and the Chase-Cronshaw claim, south of the land.

Benson Bros., on one of their claims near Val Verde, opened a body of good shipping ore.—From the Ruby and Alpha claims near Johannesburg good ore is being extracted.—The dry concentrator at the Hard Cash mine was started last week and is working satisfactorily.

Randsburg Miner: The Red Dog mill made a crushing of ten tons of ore from the Ruatron mine. The same mill ran sixty tons of ore from the Butte and cleaned up over \$100 a ton.—In the Windy mine near Johannesburg a new strike was made that will go \$400 a ton.

Riverside.

At the Gavilan mine this week a gold nugget worth several hundred dollars is reported to have been found on the 500-foot level.

The Gavilan mine near Perris is down 300 feet and lately a good vein on the lowest level has been uncovered. This ore is having a separate milling. The vein is 18 inches wide. There are thirty men employed. After Jan. 1st the mine will be sunk deeper.—The Santa Rosa mine, which has been idle for nearly two years, will, it is said, resume operations.—The cyanide plant on the Santa Rosa tailings is giving returns of \$2000 a month.—The Good Hope mine is being run by leasers. Some of them are doing well. George & Johnson, two leasers, made a run of sixteen tons of ore which netted \$24 a ton.

Chatham & Tipton, controllers of the Good Hope cyanide plant, are producing good results.—L. N. Bolcourt has a claim near the Good Hope which he will soon cyanide on a large scale.—J. B. Dennis has started his mill on ore from one of his properties near the Santa Rosa mine.—The Pilot mine near Cotton is crushing rock worth \$50 a ton. The Chuckawalla Co. will put in a milling plant.

San Bernardino.

Near Vanderbilt the St. George mine, which had been long abandoned, has developed under its new management into a producing mine. The Bronze is also producing, and some late discoveries have been made on the Hong Kong group which prove it to be a meritorious property.

Inyo.

A 6-foot ledge of low-grade galena is said to have been found in the old Montezuma mine, near Independence.

The Molis mill at Bishop closed down last week because of cold weather.

Kern.

Los Angeles Review: At the Yellow Aster mines at Randsburg 140 men are employed. When the stamp mill now being erected is completed the force will be increased. In the Panamint district a 10-stamp mill and cyanide plant will soon be in operation on the Radcliff property. This mine at a depth of 150 feet has a 4-foot vein of \$30 rock.—The Burchams in the Argus have begun developing their claims.—At Copper City the United Copper Co. of New York have put a force at work developing their claims.

INyo

—At the China borax works men and teams are at work preparing for the reducing and refining plant, which will be in operation there within the next two or three months.—The Little Butte, Big Butte, Kinyon and Wedge were all shipping ore last week.—The Little Butte has taken out some high-grade ore recently. They had twenty carloads of ore hoisted from the 350-foot level in their bins last week.—The Black Hawk shipped fifty tons of \$40 ore to the Cuddeback mill.—In the O. K. mine Supt. Collins has men at work in two shafts. In No. 1 they are down 75 feet and crosscutting both ways. In No. 2, which is down 85 feet, they are drifting in ore. Last week they struck \$25 rock.—Men are at work on the Monkey Wrench and Independence. On the latter four shafts are being sunk on the ledge.—The Smith mill, ten stamps, which has lain idle at Garlock for several months, has been bought by several members of the Little Butte Co. and will be removed to Dove Springs, where it will be put up. The owners of the mill expect to keep five stamps busy with their own ore, and the other battery will be given to custom work.

Randsburg Miner: The shaft in the Little Butte is down 535 feet. At 500 feet they are running a drift and taking out good ore. Their own mill is running night and day on their richest ore, while a carload is sent to Barstow each week.—The new mill on the Hard Cash has started.—Wilson and Kohen have leased, and are taking out twenty tons per day and milling it at Kane Springs.

San Diego.

(Special Correspondence).—Pittsburg, Pa., people have secured the Owens mine and mill at Julian to develop it, and to determine the question of a sale.

The Helvetia near Julian having been unwatered and partially retimbered, ore is being extracted, which when milled, if of sufficient grade, will lead to close of sale to Denver people.

Work on the buildings, etc., for the cyanide plant at Cuyamaca, for the treatment of Stonewall tailings is progressing and sixteen men are employed. It will be about six weeks before the tailings go into the vats, of which there are to be eight, of a depth of 5 feet, and diameter of 30 feet. It is thought it will consume one year to work over the large dump.

A recent strike in the Rauchita is turning out some "specimen" ore which mills well. This mine has recently gone into the hands of a receiver, a Mr. Lane having been put in charge to represent the Julian Mercantile Co., which had Supt. Coutts ousted and Mr. Lane substituted.

There have been several transfers of mining property in the Deer Park country lately, notably that of the Nobles Bros., the price reaching into the thousands.

Galena has recently been discovered in El Cajon butte, its extent not being as yet determined; it looks like good ore.

San Diego, Dec. 15th, '98.

Kern.

The Ruby and Alpha claims near Johannesburg are shipping good milling ore.

The framework of the Yellow Aster Co.'s new mill building is completed. The company's well and pumps are in good working order. The capacity of the wells has been definitely determined to be not less than 100,000 gallons in twenty-four hours, more than enough to keep the thirty stamps in operation. The success of the Yellow Aster Co. in increasing by sinking and tunneling, their water supply from a few thousand gallons to 100,000 gallons per day, has encouraged others who own "water land" in the same range of hills to prospect for water and it is probable that new wells will be sunk.—The new mill on the Hard Cash started up this week.—The Johannesburg L. & W. Co. is pumping from 25,000 to 30,000 gallons of water a day.

Randsburg Miner: The Wedge mine near Randsburg shipped seventy tons of ore to the Johannesburg mill for two weeks and as much more will follow before Jan. 1st. This is mostly low grade ore running \$25 a ton.—(On the O. K. the shaft is down 75 feet and is in good ore.—The Black Hawk, owned by Wilson & Co., has twelve shafts sunk, ranging in depth from 10 to 100 feet. Some rich ore has been milled from this mine but it is generally regarded as a low-grade property, running from \$20 a ton down. The last eighty tons milled \$15 a ton. The mill being built will be in operation Feb. 1st.

Los Angeles.

The Victoria mine in the Seritas district is in good ore and also in a prosperous condition.

Riverside.

Tailings at the Good Hope mine continue being run through the cyanide process; but owing to the mineral existing, the yield of gold is not large.—Over \$1000 a month in gold is taken from the tailings at the Santa Rosa mine by the cyanide process.—The Riverside Gold Co. at Perris last week found a valuable pocket on the 200 level. The mill is running day and night. The mine employs twenty men.

San Bernardino.

The shaft on the Rose mine, near Victor, is down 250 feet. A cyanide plant will soon be erected.

San Diego.

The Hubbard mine, near Ramona, has resumed work.—The new hoist for the Helvetia mine at Julian was put in place last week and the mine is in operation.—E. W. Sabben is developing his four claims—the Denver, Portland, Anaconda and Rico Aspen.—The assay on samples of vein float ore from claim No. 2 of the recently discovered Pearce sulphur mines, near Coyote Wells, shows a gold value of \$0 per ton, iron 26.45 per cent and sulphur 30.89 per cent.—At the Rauchita mines the 5-stamp mill is running night and day on \$30 ore. C. J. Coutts says he must have a 20-stamp mill to handle the Rauchita's large ore body that has been opened up.

San Diego Union: Although only a part of the stamps in the mill at Hedges were in operation during November, the Golden Cross mines produced \$33,000 in bullion, about half of which is net profit. The machinery will be in better shape this month, and the output is expected to be large. Between Hedges and Yuma, including the former camp, the monthly output of bullion amounts to about \$10,000.

Mining and Scientific Press

Jan. 14, 1899

Inyo.

At Wilson's canyon in the Argus mining district a 5-stamp mill is in operation day and night. Some ore is shipped which bears a 100-mile wagon haul and smelter charges. At Mountain Springs canyon the Inyo M. & M. are running a 3-stamp mill on good ore.

Kern.

Review: The output of the Johannesburg Reduction Works for '98 was \$200,000. The dry-washing product was \$100,000. These two make the Rand gold product for the year \$1,125,000. The dry concentrator at the Hard Cash mine is handling twenty-four tons of rock per day, reducing twenty-five into one. The company treat the concentrates with settlers and amalgamating pans. J. Woodrough put a small force at work on his Monitor claim. The Wedge G. M. Co.'s report for '98 shows that about \$35,000 was milled; all debts were paid; machinery amounting to \$3000 was purchased; a new shaft put down and other improvements made. The December output was 121 tons. The first milling, for that month, of seventy tons gave \$3200. Last week fifty tons went to the mill, which will probably average \$40 per ton. Fletcher & Balch, who are sinking on the Little Nugget near Garlock, ran fifteen sacks of ore last week at the Eureka mill, which netted \$80 a ton. In the St. George mine at Vanderbilt, A. G. Campbell has developed a 10-foot vein of base ore, running from \$20 to \$40 a ton, at a depth of 175 feet.

San Diego.

In Michaco district S. W. Dorsey is doing the assessment work on his group of claims. The Tarantula group is being developed with encouraging results. Placer mining is being extensively prosecuted and much gold of this character is secured.

The Esccondido gold mine, which was recently sold to Denver capitalists for \$50,000, is to be developed by the new owners without delay. The mill has been started up and a 5-stamp mill has been ordered. The drifts and levels are being reopened and a new pump is being put in. In the Uncle Sam mine a large arrastra is being put in.

Jan. 7, 1899

Kern

Chase and Co. have a group of claims near Randsburg in which

have been opened panning

ledges on each of the claims and on one of them, the McKinley, there are three. The Little Butte is taking out high-grade rock, which is being worked in the company's mill, and the low-grade is being shipped to Barstow with satisfactory results. The Ruby mine keeps fifteen men at work and has blicked out about 900 tons of ore which will be shipped to Barstow this month. The Eureka mill has been running day and night the past month on Panamint, Striuger and G. B. rock, and has turned out several thousand dollars in bullion. The mill is now busy with low-grade ore from the Wedge. The Cuddeback mill concluded its run last week on fifty tons of Black Hawk ore, which netted about \$15 a ton. Machinery for the big Harrison plant at Panamint is arriving at Johannesburg daily, and from there it is being transported to Panamint by team. The Johannesburg mill is running on eighty tons of Windy ore, which will probably net \$30 per ton.

Randsburg Miner: Vice-President Tinker reports the dry concentrator of the Hard Cash near Randsburg a success. The company has bought five additional claims contiguous to the Hard Cash group, which gives the company about 200 acres of mining property in a single group. De Reamer & Richards are successful in their venture with a cyanide plant at Coso. They have 8000 tons of tailings. Their plant works about eight tons a day and they are clearing \$1500 as the result of the first three weeks run. They expect to double their capacity.

Inyo.

(Special Correspondence).—The Ratcliffe M. Co. have for some time been developing a property which is yielding fair returns. They have sunk several shafts and opened a ledge that is over 5 feet wide and plates \$15 a ton. The company is building a 10-stamp mill, which will soon be in operation. Steam power will be used. The property is near Ballarat. The gold belt that has been opened here in the Panamint mountains is about twenty miles long, and the encouraging prospects are rewarding the people who are developing the mining interests of this section. Ballarat, Jan. 24, '99.

Riverside.

The old Good Hope mine is said to be again producing rich ore.

San Bernardino.

At Virginia Dale 100 ounces of gold was produced in twenty days from the O. K. mine. There are 600 feet of work done, nearly all in paying ore. The Rose mine's new shaft at Victor is down over 300 feet and is opened into the 400-foot level of the old works. The management is erecting a cyanide mill with a capacity for sixty tons of ore a day, which will soon be completed. J. Arbois has a force at work on the Jean mine, in the Virginia Dale district, and is taking out some good ore. Reitz & Sherman are running their mill on high-grade ore from the Brooklyn. The Meacham mill is crushing ore from the Noble Grand, and Ferguson's mill on rock from the White Star. The Dasseret G. M. & M. Co. have three mines in working order. They are taking out ore running from \$18 to \$165 a ton. Ore is being taken from the Golden Chariot mine, the Summer Queen and the Gold Belt mines, which assays \$235 a ton. The new 2-stamp mill disposes of ten tons of this per day. J. J. Arbois milled out \$1000 in November and December.

San Diego.

The mill on the American Girl mine near Yuma is running on ore yielding from \$35 to \$40 a ton. This property is owned by a company headed by ex-Gov. Markham.

Jan 21, 1899

Kern.

Randsburg Miner: The Johannesburg Reduction Works recently crushed fifty tons of ore for the Wedge Co. which yielded \$40 a ton; seventy-five tons for the Big Butte, worth \$75 per ton; one hundred tons for the Windy, \$60 a ton; fifteen tons for the Minnehaha, which went \$25 a ton. The Eureka mill crushed thirty tons for the Wedge Co. recently which went \$100 per ton.

Los Angeles Review: Considerable ore from the Randsburg district is being shipped to Barstow. Excavation at the Blackhawk mine has been concluded and everything is in

readiness for the mill which will be in operation

soon. Water for running the mill will be furnished by the Squaw Springs Water Co., conducted three miles. The Quinn & Pridham mill has completed a run of twenty-nine tons on Wedge ore, yielding over \$3000. The December cleanup at the Yellow Aster mines, Randsburg, was about \$60,000.

Mining and Scientific Press

Jan. 21, 1899

Riverside.

The Gavilan mine made a big shipment of gold after a twenty days' run on high-grade ore. The mine is employing twenty men and good ore is found on the 200 and 300 levels.

San Bernardino.

(Special Correspondence).—In performing assessment work in December on the San Bernardino iron mines, indications of a body of copper ore underlying the iron were frequently visible. These mines are now under ninety days' bond to Pittsburg, Pa., interests.

The Peacock copper mines, near Lavic, are

The Pacific Coast Borax Co. is working a force at its mines, conveying the ore by its narrow-gauge railroad to the company's calcining works, between the mines and Daggett, on the Santa Fe Pacific. After calcining, the ore is shipped East.

The Waterloo mills, near Daggett, are now going on their sixth year of idleness, owing to the decline of silver; the plant cost \$240,000.

The plant of the new borax company at Daggett has closed down till warmer weather.

San Diego, June 10th, '99.

Jan. 28, 1899 p. 93

Kern.

Los Angeles Review: Last week A. W. Collins, who some weeks ago bought the O. K. properties for himself and New York associates, also bought the Black Hawk mine, near Randsburg, for \$12,000. Much high-grade ore has been taken from this mine and milled, but a vast quantity running from \$9 to \$12 has been left on the walls. When the Willard & Harrison mill, which is being removed from Guddeback lake to the Black Hawk ground, is in operation—probably within four or five weeks—this ore will be stoped out and milled. —In the Stringer country much work is going on. On the G. B. leases are taking out a good grade of ore. —On the Gold Coin, Nixon, Keller & Mann are taking out, at a depth of 150 feet, ore from a 2-foot ledge which will run from \$100 to \$200 per ton. A recent milling on a few tons of this ore netted them nearly \$300. —On the Orphan Boy, Kuffel & Nixon are sinking on the ledge; it shows good values. —On the Napoleon leases are taking out ore, some of which is high grade. —At the Sunshine, T. W. & D. M. Atkinson are taking out some high-grade ore. They are down 125 feet. The ledge is small, averaging not less than 6 inches; but from 30 feet down, when well sorted, has run up into the hundreds per ton. —The Buckboard mine, owned by Mathison, Donovan & Adams, has two shafts sunk, the deepest being 125 feet. At this depth the ledge has been crosscut for 20 feet, but no footwall has been found and the ore runs from \$3 to \$18. —The Butte made a cleanup last week at the Johannesburg mill, netting a gold brick worth several thousand dollars. Since work was resumed on this property \$75,000 has been taken out. —A gold nugget worth \$45 was found by Martin & Clifford, working some placer diggings in the Garlock district, near Koehn's mill. —The average value of all the Wedge ore milled during '98 was \$75.51 per ton. This was the average mill cleanup value of the ore, and does not take into consideration the tailings, which were afterward cyanided.

Randsburg Miner: The Ruby mine, near Randsburg, owned by Vanbrierson & Co., which has been under bond to Koehn & Wilson, has had the bond extended to February 10th. From this property 600 tons of ore has recently been shipped to Barstow and milled. —At the mines in Tuber canyon, in the Panamint country, the Montgomerys have milled the dump, all that came out of two deep shafts, one of them nearly 400 feet in depth, and it all averaged \$26 a ton. They are now milling the croppings and it all pays.

Los Angeles.

The late rains have enabled resumption of mining in the San Gabriel canyon. The finding of several good-sized nuggets have been reported, some running from \$30 to over \$60. Some of these were found considerable above bedrock.

Riverside.

A \$1600 gold bar was the result of a cyanide run on some tailings of the Santa Rosa mine, near Riverside. Another one, a little smaller, was cleaned up from some Good Hope tailings in the same district. The Ferris mines are shipping about \$5000 a month to gold bullion.

Feb. 4, 1899 p. 127

Kern.

Randsburg Miner: R. F. Harrison is putting up a 10-stamp mill on his mine in Pleasant canyon near Ballarat. —The machinery of the California Borax Works started up this week. They will make the first shipment of their product Feb. 15th. They will ship about 100 tons refined borax per month. —The Hard Cash mill near Randsburg is working. The Hard Cash is a heavy body of low-grade ore. The mill is capable of grinding and concentrating a ton an hour. The first concentration puts about 22 into 1, then a second size through reduces this about 15 to 1, making a total concentration of over 300 to 1. Arrangements are being made to amalgamate the concentrates. Another mill is on the way. —At Johannesburg C. A. Burcham has purchased the Golden Rule mine and will soon begin operations on the property. —Koehn & Wilson are sinking again on the Ruby mine. —E. Brydson is taking out ore from his Rustler mine. —In Tuber canyon in the Panamint country the Montgomerys have milled the ore from two shafts, one 400 feet deep, and it averaged \$26 per ton. —The Yellow Aster mill at Randsburg began crushing ore this week.

Riverside.

The Gold Canyon M. Co. is erecting a 10-stamp mill near Salton.

San Diego.

The Ready Relief M. & M. Co. at Banner have started their mill.

The High Peak and Roosevelt mines and a one-third interest in the Rossland mine in the Julian district have been sold to L. M. Smith by W. W. Boswell for \$6000.

In the Cargo Muchacho district E. Valdez made a strike near the Cargo Muchacho mine of a ledge 2 feet in width, and the ore runs \$37.70 in gold per ton. —The Philipines is the name of another strike in the same neighborhood of a ledge 4 feet in width. The ore has an average value of \$12 per ton. —H. W. Blaisdell has taken down the mill and other machinery with which he has been reducing the ores of his low-grade mines at Venus, in Picacho district. It is locally said that he is about to become interested in the King of Arizona mine and that the Venus machinery will be moved to that camp and a pipe line from the Colorado river will supply water. The closing down of the Venus property was a surprise.

Inyo

Panamints

Idaho.

The copper mine at Ubaheba has a tunnel 76 feet, all in ore. A shaft has been sunk 87 feet in the ledge. The ore is of good quality. Sufficient water can be had by piping.

Kern.

Randsburg Miner: The new mill on the Yellow Aster mine at Randsburg will be started up the 12th inst. The Yellow Aster people stopped shipping ore to Barstow on the 6th. More ore has been shipped in the past month than any other previous one. The pipe line to carry the tailings from the new mill to

the reservoir, 2700 feet, is being put in. It is a 5-inch, of capacity to perform the service of 100 stamps. —The Eureka mill made another cleanup of a month's run and shipped about \$600 of bullion last week. —Bentley & Wynn bought a two-thirds interest in the Baltic quartz mine at Randsburg and will soon erect machinery and develop the property. There are about 700 feet of development work, showing a large body of low-grade ore to pay expenses of development. —Last week a strike was made in the Annex mine of a 20-inch vein of \$150 rock.

San Bernardino.

The Anita M. & M. Co. at Ontario contemplates the installment of a stamp mill and other machinery on the company's property. (This company's property is in Sonora, Mexico.)

Los Angeles Review: Near Danby, A. W. Warwick is working ten men at his group of mines, developing water, preparatory to putting up a 10-stamp mill. —The Rosalind mine, owned by W. H. Gafford, has a 1½-foot ledge. He is developing the claim and has an 80-foot tunnel and a 40-foot shaft. Some good ore has been taken out. —The Brooklyn is owned by Sutter & McCarthy. It has a ledge 100 feet wide; the pay streak which is being worked is 2½ feet wide. The last assay of the rock was \$12.50 in gold. —In the Pioneer mine, near Warwick's Camp, they are sinking. The ledge is 1½ feet wide and the ore assays \$67.50 per ton. —The Chicago, at Sheep Camp, is having work pushed. The shaft is on an 18-inch ledge. —The Victorias, owned by McGarry & Co., is worked by two shafts and a tunnel. Last week a pay streak was struck in one of the shafts which assayed \$4.25 in silver and five ounces gold. —The Silver Wave, at Sheep Camp, owned by Smith & Jones, has four tunnels each over 100 feet long. The ledge is 3 feet wide. Considerable of its ore has been worked at Kingman, Arizona. Some picked ore from this mine ran 1200 ounces in silver and \$60 in gold. —The Parowan mine, owned by R. McArdle, shipped three tons of ore which netted \$300. —The Pandora, at Sheep Camp, owned by J. Huntsman, is now being worked. There is a shaft on it 80 feet deep. Two tons of ore shipped from this claim yielded \$336 in silver and \$97 in gold. —The Crystal Salt Co., which controls some 14,000 acres of a salt deposit on the salt marsh, thirty-three miles from Danby, has just finished assessment work on the property. The company has a macadamized road to the marsh on which they operate a traction engine, which hauls their output to Danby, their shipping point on the Santa Fe railroad. —Shields, Burg & Jenkins are working the Goldstone group. —Work continues on the Winchester mine, at Cannon Camp. —The Daggett mine, in Bethune canyon, in Old Woman's mountains, is showing well.

Idaho.

At Tuber canyon, Panamint, the Montgomerys have milled the dump, all that came out of two deep shafts; it averaged \$26 per ton. Phoebe & Co. of San Francisco have a bond on the property.

Kern.

The works of the California Borax Co. are about completed and are expected to start up during the present week, and will make the first shipment of their product this week. They will ship about 100 tons of refined borax per month.

A strike is reported in the Annex mine, at Randsburg, of a 20-inch vein of \$100 rock.

At Barstow the management of the mill has made contracts which will keep the fifty stamps busy throughout the year. From all points north of Barstow the present rates are, including freight from Johannesburg to Barstow and cost of milling, \$2.50 per ton on ore valued at less than \$15 per ton, \$3 for \$20 ore, \$4 for \$25, and \$5 for \$35 ore.

Randsburg Miner: The Butte mine people have settled their difficulties and the mine passed back again into the hands of the original owners. J. C. Wilson has held the property for nearly two years under a bond of something like \$50,000, but now he has given it up, and Rainey & Underhill, who are now here, will at once make arrangements to go to work on it themselves.

Los Angeles.

G. E. Metz and F. B. Brown have sued N. Bell for \$10,000, alleged to be due as commission on the sale of a mine in Pinos Altos, Grant county, New Mexico, to Mrs. Phebe A. Hearst of San Francisco for \$85,000.

Times: From the Red Rover mine, near Acton, a gold bar was received of the value of \$1440. Since then assay of ore from the 800-foot level shows values higher than any of the rock heretofore milled. The bar weighed 90½ ounces and was the result of a run of 125 tons; 20 tons came from the 100-foot level and 105 from the 800-foot level. The directors have decided to go down to the 1000-foot level. Among the improvements contemplated is the piping of water from Mt. Gleason. It is also the intention to increase the milling capacity from ten to twenty-five stamps. The Red Rover is the deepest mine in southern California. Among the stockholders of the company are Senator Stephen M. White and Governor Gage.

Riverside.

The Riverside M. Co. contemplates building a cyanide plant at its Granite group, forty miles from Salton. The Granite has about \$15,000 worth of ore on the dump.

A new gold field in the Mountain Beauty mining district, in the southern end of the San Jacinto mountains, is partly in San Diego and partly in Riverside county, forty miles south and east of Hemet. The nearest point to the district is Oakwood. The formation in the district is granite and schist, the trend of the lodes is north and south. Two tunnels on the Mountain Beauty are in ore averaging \$10. a ton.

San Diego.

Yuma Sun: The sudden and unexpected closing down of the mines and mill at Venus camp, Phebe district, twenty-five miles north of Yuma on the California side, has set afloat all sorts of rumors as to the probable cause. Mr. Blaisdell's explanation, that threatened trouble by heirs of the Jaynes estates who have appeared on the scene of action since the deal for the property was made, should be sufficient explanation of the shut down.

San Bernardino.

A syndicate has been formed to work the placer grounds of Temple bar on the Colorado river, 160 miles above Needles, and at the mouth of the Grand canyon. The company has shipped out a boat 175 feet in length, which is now being put together at Needles, and will ply between Temple Bar and Needles.

Mining and Scientific Press

Feb. 25, 1899 p. 211

NEWS.

John G. Stephens, a miner working in the Yellow Aster mines, fell from a ladder last Monday with fatal effect.

C. J. Berry, the successful Klondiker, who recently bonded Amador Co. property, is now in Bakerville with others to lease the asphaltum beds in the vicinity of Asphalto.

At Johannesburg the Red Dog mill is running on ores from the Gold Celo, Annex, Kinyon, Sunshine and Plomore mines. They have begun work on their 20-ton cyanide plant, to be in operation April 1st.

The Amarita mine at Randsburg is reported sold.

Randsburg Miner: In the Minnehaha mine a 5-foot ledge has been struck that is good for \$20, and in the middle of this ledge is a 6-inch vein worth \$200 per ton.—The Warrington mine at Havilah has been sold to the Warrington M. Co. by G. C. Kirby. As there are \$30 worth of revenue stamps on the document, it is probable that the price paid was \$30,000.

Los Angeles.

Mining Review: Dr. G. P. Gehring of Los Angeles has purchased the old Esccondido mines near Acton.

Elizaville.

(Special Correspondence).—The population at Virginia now numbers 150. This camp

is on the Colorado Desert fifty miles north-

east of Walters station on the Southern Pacific railway and about thirty-five miles south of Cadiz on the Atlantic and Pacific. The mills are on a dry lake north of the Monte Negras hills at an altitude of about 1500 feet. There are four stamp mills—three of two stamps each and one of one stamp. Water is obtained by sinking in the Dry lake to a depth of about 100 feet. The group of hills lying southerly from Virginia Dale rise 1500 feet above the valleys, are absolutely destitute of verdure of any kind and are blackened by the burning rays of the sun. The formations in which the veins occur are diorites of many textures and colors from rather coarse gray to dense black varieties. The larger masses are light colored and are traversed by the smaller green and black dykes and it is with these latter that most of the veins are associated. Some occur at contact of the dykes and massive rocks and others are wholly within the dykes themselves. The veins are fissures of probably great depth and continuity. Many of them outcrop boldly for hundreds of feet. The croppings usually contain large amounts of iron oxides, limonite and hematite, but in depth sulphides of iron, copper and zinc appear. The fissures range from a few inches to 6 feet in width and the ore is high grade, running from \$10 to several hundred dollars per ton. Gasoline engines are used for power. This is one desert camp where success is being made, and there are still good opportunities. On the south side of the range, about seven miles from Virginia Dale, are a number of very promising prospects which require some capital for their further development.

Virginia Dale, Feb. 20th, '99.

March 4, 1899 p. 239

Kern.

The owners of the Ruby mine, at Randsburg, are shipping from twelve to sixteen tons of ore per day. This is the claim on which C. Koshu recently had a lease, during which he milled over 215 tons, which brought him from \$12 to \$15 per ton.

A party of four dry washers from the Summit district, twelve miles from Randsburg, have recently brought into that town between \$500 and \$1000 in gold dust, as the result of a month's work.

G. Otis of Redlands has bonded the Hard Cash mine east of Randsburg.

The new mill recently built by the Union Iron Works of San Francisco, Cal., is in successful operation.

Randsburg Miner: B. F. Myers has bonded for ninety days the "9-Spot" mine near the Minchaba to V. Smith.

Los Angeles.

The Red Rover mine at Acton is being operated successfully under the superintendency of W. R. Shilling. The shaft is to be straightened and sunk to 1000 feet. A new hoisting plant will be put in and the mill enlarged to twenty-five stamps.

At Newhall is reported an oil well throwing oil at the rate of 600 barrels daily; the flow of gas and oil is so heavy that the well cannot be capped and the oil is only retained by hastily constructed dams which form reservoirs for the overflow oil. The well is located in Wiley canyon and is down 1400 feet with 6-inch casing.

The drill of an oil well that W. E. de Groot is sinking near West Lake Park this week penetrated a stratum of iron at a depth of 725 feet.

Riverside.

The Gold Canyon M. Co. near Salton has recently built a wagon road and will build a track 400 feet long to the foot of a tramway now being constructed. The ore at the mine is ready for stopping.

The new Mountain Bounty district is located in the foothills of the Chihuashon mountains. This spur forms the southernmost end of the San Jacinto mountain range, and is on the line of Riverside and San Diego counties. The district resembles that of Mesa Grande in San Diego county.

March 11, 1899 p. 267

Kern.

The St. Elmo near Randsburg is being worked again after an idleness of many months under a lease to the Johannesburg Reduction Works with W. Walker as Mgr. The lease requires that they sink a number of feet each month in addition to drifting and stopping.

Golden Bros. are shipping a carload of ore from the State range via Johannesburg to Selby & Co., San Francisco.

The California Borax Works northeast of Randsburg have commenced work and are shipping their first lot of borax.

The Little Butte Co. at Randsburg has built a stamp mill at Dove Springs which is now in operation.

A 20-ton capacity cyanide plant has been completed at the Red Dog mill. The mill is running on ore from the Klayon and Ruby mines.

Miner: It is expected that the cyanide plant at Cuddeback Lake will begin operations the first of the week. They have a complete plant and will be able to handle twenty tons a day.

San Diego

San Diego Sun: Receiver C. W. Pauley of the Golden Cross mines at Hedges has filed his fourteenth monthly report in court. The cleanup of the 100-stamp mill for December was \$30,796.60, and \$1626.99 was received from other sources. The payroll for the month was \$8000, fuel cost \$300, and the current expenses amounted to \$-900.

March 11, 1899 p. 267

Riverside.

The Mammoth mine near Menifee has a large vein lying at a low angle in granite. It prospects quite regularly. The vein has been opened by several surface cuts and tunnels extending into the hill from which crosscuts have been run. Over an acre of quartz is blicked out, having a thickness of about 7 feet.

The mines at Virginia Dale owned by Ingersoll & Esler of San Bernardino are turning out over \$100 per day.

March 18, 1899 p. 295

Inyo.

Bishop Register: Harrison, Goldsmark & Co. have their tramway ready to start up—Emerick & Dover will have a mill at Stone Corral in two weeks, the machinery being now at Johannesburg.—Parties who bought out Lambert, Grey & Tate at Anvil Springs will have a mill on the ground in less than a month.—A. Williams has bonded his property at Tuber for \$20,000.

Riverside.

Antimony has gone up in price recently. There is a deposit of high-grade antimony ore about four miles southwest of South Riverside in the brush-covered hills, upon which little work has been done. The rocks of that section are largely eruptive and intelligent prospecting may discover a good mine.

Numerous claims have recently been taken up in the Eagle mountain district, forty miles northeast of Walters station, in the Colorado desert.

The Good Hope mine, three and one-half miles southwest of Perris, is working about a dozen men. The tailings are being treated by the cyanide process.—The Santa Rosa mine tailings, six miles west of Perris, are also being treated with cyanide, it is said, with good results.

There are a number of small rich veins lying in the granite hills west of Perris, about the Santa Rosa and near Gavilan which were worked years ago by Mexicans, the ore being ground in arrastras. None of these mines have deep workings. At the first sign of a pinch they have been abandoned, no effort being made to learn whether the veins would open out in depth again; but as they do so longitudinally, it is not unreasonable to suppose that they will do so in depth. The ore is high grade, and most of the veins dip at low angles.

The shaft at the Riverside mines is to be sunk 150 feet additional, making 450 feet.

Winchester Recorder: Work has been resumed on the Utica mine, twelve miles west of Winchester, and the development of this property will go on steadily. The owner, C. H. Briggs, will build a cyanide plant of thirty tons capacity.

Inyo.

The Electric Gold Extraction Co., with its object the extraction of gold from ore, headquarters at Bishop, has filed incorporation papers. W. W. Waterson, J. C. Unthank, P. Somerville, P. P. Keough, T. E. Leece.

Kern.

The supervisors of Kern and San Bernardino counties are considering the advisability of making a survey to establish the line dividing the two counties. Randaburg is close to the line and a new survey may make important changes.

Randsburg Mine: At the Trilby mine twenty-two men furnish 130 tons of ore daily to the Yellow Aster mill. The Trilby and Rand tunnels, 114 feet apart, have been connected. The shaft is being sunk to the level of the Hercules tunnel.—It is rumored the Little Butte Co. has a bond and lease on the Butte mine for ninety days.—Work is being pushed on the new gravel diggings and twenty tons more will be worked at the Red Dog mill in Johannesburg. The car milled last week at Barstow gave satisfactory results. A number of men are at work, but the dry washing process is held back on account of the rain and snow.—M. P. Minor made a test of nine and one-quarter tons of Golden Glame ore at the Red Dog mill, Johannesburg, which gave \$35 per ton. The ore was taken from several veins. Mica schist and decomposed granite, which showed openings were put into the test.

Los Angeles.

(Special Correspondence).—There is an extensive placer field in western and northern Los Angeles county, in the region of Soledad canyon and its tributaries, and extending to the Santa Clara river and its tributaries. The gold is found in the beds of the streams and on high bars along these streams and in the region near Newhall. On both sides of the Southern Pacific Railway gravel deposits are found where erosion has not removed them. The entire country, consisting of rolling

brush-covered hills, is covered with gravel containing gold. These gravels exhibit some curious features. The material composing them is largely foreign, consisting mostly of rhyolite pebbles and cobbles and other hard rocks not found in the vicinity. The surface of these deposits is usually richer than the underlying portions, due, probably, to the removal of a portion of the material constituting the upper portion of the stratum by winds and rain. These agencies being unable to move the gold, the deposit became enriched. Clay appears at a depth of 1 to 2 feet, solidly cementing the gravel into a species of "hardpan," and beneath this little gold is found. The origin of the gold in these deposits may possibly be traced to the large beds of conglomerate which lie along the upper Soledad canyon near Lang's station and about Ravenna. The material composing these conglomerates also forms a large portion of the gravels, and it seems quite reasonable to look to the conglomerate as a source of the gold, though originally derived from veins elsewhere. The placers in and tributary to San Francisco, Texas, and Dead Man's canyons probably derived their gold mostly from the large number of small veins in the neighboring hills.

Los Angeles, March 20th, '99.

Cont.

Orange.

E. J. Kimball and J. M. Turner are prospecting the quicksilver deposits four and one-half miles east of Santa Ana. Two shafts are being sunk, the deeper one being down 60 feet. The ore occurs on a low hill and has been known for many years. Considerable superficial development has been done in past years, but no systematic effort made to develop the deposit. On the west side of the hill a long tunnel has been run in, but did not reach the ore zone. Specimens of the ore are high grade. It is chiefly meta-cumbarite. There are copper prospects in the Trabucco canyon, several miles back of Santa Ana, some of which have superficial development.

San Bernardino.

Fifty men are employed in the Rose sixty miles east of Victor. The mine is at an altitude of 7200 feet, in the Bernardino mountains, and has recent equipment with a new plant. The vein is limestone and mica schist following its dike. The ore is calcareous and contains considerable hematite, usually disseminated but sometimes massive segregations. High grade copper ore occurs, rich in gold. Early history the ores of this mine gave considerable trouble in their treatment. Late a high percentage is being saved. There are many other claims in this district. The Rose is the principal vein.

Rich gold and silver ores occur in the Silver Reef, forty-five miles east of near Old Woman's Springs, but thus far ore deposits have proven small and sparse.

San Diego.

T. J. Vandergrift of Pittsburg, with several other Eastern capitalists, has a bond on the Bay Horse mine, near El San Diego Co., is considering a proposed pipe water from the Colorado river, 100 miles, and will do so if the investigation is now making prove its advisability. The mine is near the old Paymaster which water was pumped a distance of sixteen miles from the river.

Moreland Camp is six miles north of Glamis station on the S. P. Railroad. It has always been a favorite resort for diamond miners. The ledges were covered by decomposed rock that capped the region. L. C. Moreland has sunk a shaft 100 feet and uncovered gold-bearing ledges.

In the early days of California many thousands of dollars in nuggets were picked up on the surface at a place called Pimpden, eastern base of the Cargo Muechel mountains, but no ledges of consequence have been found as yet.

Inyo.

There is a wide field for the prospector in this county. The mines include gold, copper, silver and lead. In early days, when conditions were more unfavorable than now, mines were successfully worked here. Considerable prospecting is now going on near Darwin and in other localities with encouraging results.

Orange.

There are coal indications at numerous places in the canyons back of Santa Ana, and coal has been mined in several veins, but nowhere on a large scale. The coal is lignite of rather inferior quality. It occurs at about the same geological horizon as the large deposits at the Chaney mine, near Elsinore, in Riverside county.

Kern.

J. H. Underhill of the Butte mine at Randsburg has sold his interest in the property to W. H. McEwen of Los Angeles. The mine is credited with a production of \$130,000.

Veins containing gold, silver and copper have been located near Red Rock.

Randsburg Miner: The Little Butte mine is taking out some rich ore and the outlook for that company is better than for some time past. They have paying ore in nearly all their levels.—The Yellow Aster Co. is putting up a large oil tank made from 1/2-inch iron at the end of the track in Johannesburg. It is to be 12 feet high by 21 feet in diameter and will hold over 35,000 gallons. The oil will be pumped from the tank to the tank at the mill.

Los Angeles Times: In Fidler's Gulch, at Randsburg, is a 15-foot ledge of ore, all of which prospects.—Out toward the Black Hawk, M. P. Minor is getting ore from the Golden Glimp mine, and there are three or four additional properties that prospect well.

Atkinson, on the Sunshine, recently milled five tons which went \$200 per ton.—The saw mill at the Black Hawk is ready to run. Their pipe line is in and the water connection made. This mill was formerly at Cuddaback lake.—In the Slate Range there is activity among miners and a number of prospects are being developed. Pridham & Quinn of the Eureka mill have associated E. M. Dineen with them and have removed their cyanide plant to Montgomery's, in Pleasant canyon, about four miles above Ballerat, in the Panamint country. There is a pile of tailings estimated to contain \$20,000, after working which there are several other piles in that neighborhood to work. Their stamp mill will remain in Randsburg, to which place their cyanide plant will be returned after the work is finished at Panamint.—There are a number of good houses going up at Randsburg. Among them the Miners' Union is building a hall, 30x70 feet.

Los Angeles.

Four miles up the valley from Acton station is a quartz vein nearly 100 feet wide on which only superficial work has been done. The rock is gold-bearing.

The occurrence of an ^{alluvial} gravel deposit, said to be a river channel, containing coarse more than 8000 feet, furnishes a subject for geological investigation. The placers have been worked each spring for many years with good results.

The New York mine, near Acton, which was steadily worked for years, it is reported, will be reopened.

A recent run at the Red Rover mill yielded \$1300 from 115 tons of quartz. The quartz in these mines—the Red Rover, New York and Old Topoka—is white fine granular and contains a low percentage of auriferous iron sulphide. Gold is rarely seen in the rock. The values run quite evenly from \$10 to \$15 per ton.

The discovery of a 5-foot vein of quartz which assays \$6 per ton is reported from Calhenga pass, north west of Los Angeles.

Riverside.

Old river channels are found in the hills southwest of the town of South Riverside, several hundred feet above the valley. Whether the gravels are gold-bearing or not has never been determined.

A nugget was discovered by some Mexicans who are working the placers on the desert near Virginia Dale. It was purchased by the San Bernardino Bank for \$174. The district where the nugget was found should be a profitable field for the dry washer, for the hills are ribbed with gold-bearing veins.

San Bernardino.

(Special Correspondence).—The Gold Chief mine, six miles west of Manvel, and owned by R. Young and others, is reported bonded. The property has considerable superficial development, and is an interesting one, geologically, being a large bed of quartzite, conglomeratic in part, and is gold-bearing. In many respects it resembles the Mountain Gold mines, sixty miles east of Victor in this county, on which at one time E. J. Baldwin of San Francisco built a 40-stamp mill.

Manvel, March 27th, '99.

C. A. Stilson and J. M. Hale are working the Gold Bronze mine at Vanderbilt, shipping their ore.

has a smelter in successful operation, producing 14,000 pounds of copper daily.

There are large bodies of low-grade copper ore in Mescal district, west of Ivanpah, and a few miles west of Vanderbilt copper ores are found in veins in granite.

Randsburg Miner: At Tecopah, near Reeling Springs, Los Angeles parties are preparing to remodel and start the old smelter. This is a lead-silver camp. There are two ledges with several claims on each.—Quinn & Dineen have their cyanide plant in operation in Pleasant canyon.

San Diego.

The Gold King mill, at the foot of Banner grade, is crushing ore from the Elevado mine a mile southeast of Banner.

Years ago a 10-stamp mill was taken in the Oro Flamme canyon, east of Stonewall and it is doubtful if it is ever removed. Some of the machinery was let down the steep hill side with ropes.

A prospector who went out into the Salt basin after a fruitless search of weeks mad what he thought was a discovery of anthracite coal, and brought in all his pack animals could carry. It was black obsidian.

Yuma Sun: L. Auberry of San Diego has commenced erecting a 50-ton cyanide plant on a dump of tailings in the Picocho district, on the river a short distance below the old pumping plant. The dump is large enough to keep the plant running steadily for at least six months. The tailings are from the old Jayne mines, which were worked years ago.

April 8, 1899 p. 379

Inyo.

A. J. McCarthy of Los Angeles, Cal., is putting a cyanide plant in at Pigeon Springs to work tailings.—E. Smith has struck water in a shaft recently sunk at Big Pine and will make a mill run.

Kern.

Randsburg Miner: The Yellow Aster Co. is building a machine shop near the mill.—The Eureka mill has been bought by Kinyon Bros. The larger proportion of the dump at the Kinyon mine will pay to mill, and when the mine cannot supply enough ore it will be kept running on the dump.

Los Angeles.

On Mount Gleason, seven miles southwest of Acton, are bodies of magnetite, on which little development has ever been done. In the vicinity are gold-bearing quartz veins, containing free gold and iron sulphurets said to be high grade in gold. These latter have considerable development, but have never paid for some reason—perhaps not altogether the fault of the mines.

Los Angeles Times: The Santa Fe Railroad Co. has commenced sinking two new oil wells near Fullerton.—The Puente field is steadily developing. A large gas engine is being put in to furnish power for pumping. Natural gas will be the fuel used.

Los Angeles Mining Review: The Red Rover Co., at Acton, will equip and develop the old Topeka mine, near the Red Rover.—The Escondido mine, seven miles from Acton, is being reopened. It was worked years ago to the water line and abandoned. The rock was worked in arrastras.—There is activity all over this much-neglected district, but a great deal of the work is of superficial character.

Riverside.

Johnson & George, lessees of the Good Hope mine, four miles southwest of Perris, are working some of the most valuable ore that has ever been found in that mine. They have been offered a large sum for the ore taken out so far this month, but have refused it.

San Bernardino.

(Special Correspondence).—The Gold Bar mine is developing into a promising property. A. G. Campbell, who owns the Boomerang and other claims on the opposite side of the ridge from the Gold Bar, bought the latter mine some time ago and has developed it. The fissure ranges from 1 foot to 20 feet in width, with a pay streak from a few inches to 10 feet in width. The ore is partly free near the surface, but in depth is heavily charged with the sulphides of iron, copper, lead and zinc. The ore is worth \$20 to \$40 per ton. The Gold Bronze mine, operated by C. A. Stilson and others, is a continuation of the Gold Bar, though having a different strike, the vein curving between the workings of the two properties. The ore in each is similar and the vein characteristics the same in both.

Vanderbilt, March 31st, '99.

At Ivanpah, the Ivanpah Copper M. Co. is reported to be daily smelting about six tons of copper, 95% fine.

San Diego.

The Ruby 5-stamp mill at Banner is being removed to the Ranchita mine south of Banner.

Union: At Hedges the Golden Cross M. Co. has but fifty stamps in operation in the 100-stamp mill, and a spirit of economy pervades the camp. There are 200 men on the payroll. No new discoveries have been made in that section lately. Receiver C. W. Pauly is kept busy in directing the affairs of the company.—J. K. Vanatta of Colorado Springs, Colo., one of the new owners of the Elevada mine at Banner, who with others purchased the mine several months ago, has organized the Smoky City M. Co., with a capital of \$250,000. The mine had been partially developed and men were put to work cutting the tunnel already started 379 feet below the main shaft and is now in 200 feet. Mr. Vanatta stated that the ore averages about \$20 a ton. It is probable that an electric dynamo and hoist will be put in.

Inyo.

Walker Lake Bulletin: H. Cook and partners of Salt Lake, Utah, who for years have been driving a tunnel in Mazourka canyon, are in 1400 feet and have a vein of rich quartz.

Los Angeles.

Los Angeles Mining Review: The 8-stamp mill on the Los Angeles G. M. & M. Co.'s mine at the head of Sepulveda canyon, near Hollywood, is in operation, the ore milling \$20 per ton in gold. Over 200 tons have already been taken out.

May 13, 1899 p. 573

Inyo.

The P. D. Q. Cyanide Co. expect to get through at Montgomery's in ten days. They will move to the Reward mine and locate about ten miles east of Independence, where they have 10,000 tons of tailings and will put up a 50-ton plant. They have also 2000 tons in the Beverage district, sixteen miles from the Reward, which they have bought and which are good but difficult to work. There is no wagon road to this place and everything must be packed in on animals.

Kern.

The Kinyon mine has recently cleaned up \$5000 from low-grade ore.

Randsburg Miner: Collins of the Black Hawk has cleaned up \$800 from a run of thirty-two tons of ore, and from another run of forty-seven tons \$930 was cleaned up.

Riverside.

At the O. K. mine, Virginia Dale district, a 50-foot drift has been run at the 200 level, and a 4-foot vein opened, assays running \$15 per ton. The mine is owned by C. F. McNutt, E. K. Alpaugh of Los Angeles, J. Ingersoll of San Bernardino, and others.

It is reported that a gold-bearing vein has been discovered near the city of Riverside. The formation is granite similar to that at Gavilan and near the Good Hope and Santa Rosa mines.

San Bernardino.

(Special Correspondence).—Marcus Pluth, formerly mining boss at the Odessa and Occidental mines near Calico, with D. D. Connell has leased the Waterloo mine, two miles west of Calico, and also the 15-stamp Oriental mill near Daggett. The ore is shipped six miles by narrow gauge road from mine to mill. The Waterloo is one of the largest silver mines in California, and in its earlier history was worked extensively. The ore is a rhyolite breccia, in which the silver occurs as chloride. There is in the mine also a band of gray jasper that in some parts is rich in silver. The mine was closed several years ago on the fall in the price of silver.

Calico, May 1st, '99.

A company has been organized at San Bernardino to work the placer deposits of Lytle creek, several miles northwest of that city. A large amount of work has been done in this canyon in past years and considerable gold produced. There are numerous quartz veins in the district.

Kern.

The Red Dog mill at Johannesburg is running steadily. A 30-ton cyanide plant is operated in connection with this mill.

The Kramer rich find reported several weeks ago is now reported to be an ordinary prospect. A single shaft 40 feet deep has cut several small veins of gold rock. Some of the rock is said to be rich. ← Kramer

Bakersfield Echo: At the Comet mine on Greenhorn mountain pay shoots have been struck in two shafts and a tunnel, and the rock is paying \$35 a ton. Arrangements have been made to put in a Cornish pumping plant and a 2-stamp mill. This mine is a mile and a half from the Waugaman mine.

Riverside.

New Era: From Jan. 1st, '90, to April 29th, three months and twenty-two days, Hook Bros. have shipped to Los Angeles gold bricks valued at \$12,900, extracted from the tailings from the Good Hope and Santa Rosa mines, which at one time were considered of no value. They are now put through the cyanide process. At each of the above mines there are thousands of tons of tailings, and it is estimated that the yield will reach \$100,000.

San Bernardino.

(Special Correspondence). — The Imperial lode is a silver bearing vein in the Lava Beds district, thirty-six miles east of Daggett. It is 4 to 60 feet wide and outcrops along the surface for 3000 feet, standing above the softer country rocks 20 to 80 feet in height like a wall. It ends abruptly at its western end. A large amount of work has been done on the vein, and some rich ore found. There are several shoots of low-grade rock of considerable extent. There are numerous branching veins, which sometimes carry gold. When silver was worth \$1.20 per ounce silver ore was shipped from this lode at a profit. It has been idle for a long time.

Daggett, May 2nd, '99.

It is reported that A. G. Campbell, owner of the Gold Bar, Saint George and Boomerang group of mines at Vanderbilt, has refused an offer of \$300,000 for the property.

There are large deposits of low-grade copper ore in several of the mining districts in the eastern part of this county.

San Diego.

In the Cargo Muchacho mountains, four miles east from Hedges and four miles from Ogilby, are situated the group of mines owned by the American Girl G. M. Co., of which H. H. Markham, ex-Governor of California, is at the head. The ore is worked by roller crushers and the cyanide process. The rollers are equal to about a 25-stamp mill. There are three kinds of ore—talc, quartz and clay. There is about 10 feet of clay that follows the ledge of quartz. For a long time it was overlooked and considered worthless, but a chance assay showed it to be the richest of all. This cyanide plant has been working the clay by a process which overcomes the difficulty in percolation, under the direction of T. B. Bassett, who is superintending the process.

Colorado men have been inspecting the Owens mine at Julian with a view to purchase.

Ramona Sentinel: D. W. Godfrey is hauling rock from the Hidden Treasure mine to the Ready Relief mill to be crushed for Luther & Bailey.

San Bernardino Sun: The Southern Pacific Railway Co. has a surveying party running a line from Bagdad on the Atlantic and Pacific to either Whitewater or Palm Springs and are now near Dale City. The line will go close to Dale City, and touch at Surprise springs, Twenty-nine Palms, Warren's ranch, through Little Morongo pass to the Southern Pacific road.—Three mines are in operation at Vanderbilt.—Drennan & Jennings, who own a mine in the Black Metal district, forty miles below Needles, are negotiating for the sale of their claims.

The Kramer Stampede.

The Kramer bubble has bursted. The rich strike of a month ago has dwindled to the insignificant proportions of an ordinary prospect. From a great zone of gold ore rivaling the famous stories of Buffalo Hump in Idaho, it has come down to a few inches of ore of good grade, but nothing fabulous. The trouble with this last stampede is that it was located too near the railroad and too easy of access. To make the best of a "strike" of this kind and to secure a genuine rush, the new discovery must be many miles from a railroad and difficult of access. Telegraph and telephone communication must not exist within 100 miles, for these are means which will be promptly used to check the army of prospectors and adventurers which would otherwise be sure to join the stampede. There are prospects in the region of Kramer and also not far from Hinkley, a little farther east on the same line of railroad, and again near Barstow, but up to this time nothing has been discovered there which would justify a stampede of the smallest proportions. When news of these rich strikes is first received, the first impulse of those who are restless and anxious to go some place or to do something is to rush to the new field, in the hope of making a fortune suddenly either by finding a rich mine or by taking advantage of the existing excitement to turn an honest dollar otherwise; but the percentage of rich strikes that prove worth stampeding for is small indeed.

Many rich strikes are made which are good enough in themselves, but often it proves to be confined to a single mine, or perhaps two may result. Those at a distance usually have a poor chance to get a claim, unless the district proves to be a large one; as was the case at Cripple Creek and Leadville and in numerous other camps; but these are the chances a prospector must take, and he usually takes them.

Kern.

Randsburg Miner: The Kinyon mine has cleaned up a run of thirty to forty tons of low-grade ore, which went \$10 per ton. This was screenings from the dump. They are now running rich ore from the mine.—A large flow of water was struck a few days ago in the drift from the shaft at the Yellow Aster water wells. The increase for the first twenty-four hours after was noticeable, and 30,000 gallons more water were sent to the mill than ever before in one day.

San Bernardino.

Yuma Sun: J. E. Doan of Los Angeles is making arrangements for opening a copper mine near the Colorado river, twenty-five miles above Parker. The group of mines consists of fifty-six claims, on which several hundred feet of development work has been done.

—C. H. Gray, L. Gray and B. Gray are about to build a mill on the Arica mines, in the eastern part of this county opposite Ehrenburg, Arizona. There is a quantity of ore on the dump.

Riverside

Mining and Scientific Press
May 27, 1899 p. 565

San Diego.

L. E. Aubury is at Picacho, where he is putting in a cyanide plant, which will be ready for operation in about two weeks.

San Diego Union: The seventeenth report of Receiver C. W. Pauley of the Golden Cross mines has been filed in the Superior Court. The report covers the operations for the month of March and states that the cleanup on March 31 from the 100-stamp mill amounted to \$18,817.07, the expenditures to \$30,656.27, which included a payment of \$11,500 to J. Spiers in accordance with a stipulation filed in court. The payroll for the month amounted to \$6000. After making all payments the balance on hand amounted to \$22,078.78.

June 3, 1899 p. 591

Inyo.

(Special Correspondence).—The Harrison & Godsmark Co. now have their 16-stamp mill running, the only drawback being the tram, which up to date has not been able to keep the mill supplied with ore; but they expect to make improvements in the trolley wheels that will insure better work. They have from 12 to 18 feet of ore which is milling \$10 to \$12 per ton in free gold, while the tailings show assay values of \$12 to \$14. The ore chimney has been developed to a depth of 250 feet, and drifts have been extended over 200 feet, with no indication of giving out. The company owns 6000 feet on this ledge, which shows several other chimneys of ore beside the one now being worked. It is a large lead and gives indication of becoming a large gold producer.

The P. D. Q. Cyanide Co. have finished the tailings at Montgomery's mill in Pleasant canyon, from which they succeeded in extracting \$8 per ton. This lot of tailings is the product of the World Beater and other mines of the Montgomery Bros., situated near the head of Pleasant canyon, and near the Harrison & Godsmark mine.

The Cyanide Co. will begin on the tailings at Anthony's mill with a ten-ton equipment, and will send a like plant to the Howard mill to handle tailings there. They have also ordered a small plant in sections, to be packed into Beveridge district.

Grading has been finished and preparations made for moving the Bryan mill, formerly at the mouth of Pleasant canyon, to the World Beater mine; when this is done another bullion producer will be added to the county.

Charles Anthony has 50 tons of ore at the mill ready for crushing.

Weaver and Porter Bros. are running their mill at Ballarat on custom ore.

Last week, at Stone Corral, one man pounded out \$80 and another \$130, in a hand mortar, in a few hours.

Ballarat has an air of permanence, as evinced by the number of women and children now seen there. A good lodging-house is the latest addition to the town.

The shipment of 16 tons of ore recently made by Barnes & Anderson, from their mine east of Independence, worked over \$100 per ton. This ore was taken out of a hole 10 feet deep, by two men, in a few weeks. The mine was discovered two months since, and promises to be another Keynot in the production of high-grade gold ore.

Independence, May 24th, '99.

Kern.

Randsburg Miner: C. Koehn is having 100 tons of the pump at the Winnie mine milled at Barstow.—Preparations are being made to sink 1500 feet in the main shaft of the Tribby. An engine has been ordered from the Union Gas Engine Co. of San Francisco of 130 H. P., with auxiliary engine of 15 H. P. to be placed at the top of the double-compartment shaft. This engine will have power to raise 6000 pounds 300 feet per minute. The dividend declared for the month of April was \$75,000.

June 3, 1899

SAN BERNARDINO.

The Gold Chief mine, six miles west of Manvel, owned by R. Young, has recently been investigated by Los Angeles people, and it is reported that they will undertake active development of the mine. It is a large, low-dipping ledge of gold-bearing quartzite.

It is reported that the Resting Springs lead-silver mines, which thirty years ago were operated under the direction of J. B. Osborne, are to be reopened. A smelter built at that time is said to be in good condition. There are some good gold prospects in the Resting Springs camp.

Stilson & Hall, at Vanderbilt, are working the Gold Bronze mine at the lower end of the village, shipping high-grade ore to Kingman.

Yuma Sentinel: Placers along the Colorado river are attracting attention and gold-bearing gravel beds have recently been located for 200 miles above Needles. Several companies have been organized and are preparing to operate. A large number of individual enterprises are taking out gold in paying quantities.

June 10, 1899 p. 617

Inyo.

Inyo Independent: Supt. Hoskins of the Howard states that his company expects to resume operations soon and will give employment to a large force.

Kern.

Randsburg Miner: A. T. Stewart of Los Angeles will do some development work on the War Eagle lying west of the Yellow Aster mines.—Twenty tons of ore from the Continental Chief was recently crushed at the Red Dog mill.—L. Faval, from the State Range, brought in five tons of ore which went \$175 per ton at the Red Dog mill.—The Wedge mine had thirty tons of ore crushed at the Red Dog mill which returned \$2500. They are getting out more of the same kind of rock.

Los Angeles.

(Special Correspondence).—It is reported that the old King of the West mine near Acton is to be reopened. The shaft is down 150 feet and is very wet. The vein on which the shaft is sunk is 4 feet wide, but is ill defined. It carries carbonate of copper and copper glance, with iron oxide. The ore contains gold also. The high hill near the Southern Pacific Railway, between Acton and Ravenna station, has had many shafts and tunnels driven on copper prospects and some rich ore found, but nothing was ever followed to a conclusion. Under the impetus of a high price for copper and a successful method for recovering the gold, something may be found of more value than heretofore.

Acton, Cal., June 4th, '99.

A test run has been made on ore from the Escondido-Grande mine, seven miles north of Acton, in the Red Rover mill, which demonstrated that but a small part of the values can be saved by battery amalgamation.

On Mount Gleason the Padre mine is being put in order for operations.

San Diego.

(Special Correspondence).—It is publicly stated that the mines at Hedges, owned by the Golden Cross M. Co., and comprising a number of claims, two stamp mills and water pumping plant, pipe line, etc., are to be sold to Col. Isaac Trumbo, who has organized a company for the purpose of purchasing and operating the mines. The price is stated to be \$1,000,000. Ever since the appointment of C. W. Pauley as receiver by the courts, the mines have been managed on business principles and have paid largely. The principal mines of the group are the Golden Cross, Golden Queen and Golden Crown. The camp is situated four miles from the railroad in a direct line and is in a sort of cul de sac in the rugged hills. The water is pumped through a double pipe line twelve miles from the Colorado river.

Yuma, June 2nd, '99.

Mining and Scientific Press

June 10, 1899 p. 617

San Bernardino.

It is reported that J. R. DeLamar has bought the Gold Mountain mines, owned by E. J. Baldwin of San Francisco. These mines are on the summit of the Black Hawk range of mountains, forty-five miles east of Victor, and overlook the Mojave desert. The gold-bearing shoot occurs in a deposit of quartzite 40 feet or more in thickness and extending over several square miles of the country. The gold is found in those portions of the rock which are greatly crushed by the movements to which the rock mass has been subjected. The quartzite is stained yellow, red and brown by oxidation of iron sulphide, which is disseminated throughout the mass in small crystals. Several attempts have been made in the past to operate these mines, but without success. At one time Mr. Baldwin built a 40-stamp mill at the foot of the hill upon which the mines are located, but as the ores are only in part adapted to amalgamation, the process failed. Some of the quartz shows free gold, but usually the gold is too fine to be seen even in panning. It is said Mr. DeLamar will build a cyanide plant of large capacity as an auxiliary to the stamp mill. Should this prove a profitable operation, there is a large amount of material to be operated upon within a mile of the original Gold Mountain mine. This deposit is similar to the Gold Chief mine, at the southern end of New York mountain, six miles west of Manvel, in this county.

June 17, 1899 p. 643

Kern.

Six mills are in operation in the Randsburg district.

A run of ninety-five tons of ore from the Winnie mine, Randsburg, made at the Barstow mill, yielded \$387, being the second run from that mine milled at Barstow. The first, of forty tons, made two weeks ago, gave \$588.

The owners of the asbestos mine near Bakersfield are reported to have an offer from New York for the entire output.

The Wedge mine, Randsburg, has had a run of thirty tons of ore at the Red Dog mill which yielded \$2500, averaging \$80 per ton.

Riverside.

In the Virginia Dale district a scarcity of water has obliged several of the mills to suspend operations. The water supply is derived from wells sunk in a dry lake basin north of the mines. The O. K. and Arbois are operated steadily, but several mines are shut down.

Los Angeles Herald: It is reported from San Diego that an effort will be made to work the lepidolite mines near Pala. An agreement has been filed in the recorder's office at San Diego whereby N. G. Douglas and other owners of the mines agreed to supply W. J. Schleiffin, a New York druggist, with as much lepidolite as he might want, up to 1200 tons a year, at \$40 a ton. The agreement stipulates that none of the mineral shall be sold to anyone else for five years. This mineral is a lithia mica and contains handsome crystals of pink tourmaline (rubellite) in radiated groups.

San Bernardino.

Yuma Sun: G. Livingston and H. Randolph have gone to gold mines twenty miles from the river above Ehrenburg in California on which they will do development work. They have a ledge of free gold.

The Rose mine on the San Bernardino range, fifty-five miles easterly from Victor, is running, but there is a scarcity of water.

June 17, 1899 p. 643

San Diego.

Lepidolite, with tourmaline, occurs near Mesa Grande in large granitic veins, not far from the Indian rancheria.

It is reported that a discovery of gold-bearing quartz has been made on the Warner ranch northwest of Julian.

Yuma Sun: There are eighteen men using dry washers and rockers in the Potholes district, twelve miles above Yuma, with good result. W. Boyle and partner, Mr. Riley, exhibited \$22.10 in coarse gold which they took out of seven yards of dirt. The richest gravel is on the banks of the river under 2 feet of dirt which they strip, as it does not carry enough value to pay working in a rocker. It is impossible to reach bedrock, owing to the volume of water. This district has been producing gold for thirty years, but has never been systematically operated, the rocker and dry washer being the only methods used.

June 24, 1899 p. 671

Inyo.

The cyanide process is to be tried on the tailings at the Weaver mill.

The P. D. Q. Cyanide Co. extracted \$3 per ton from tailings at the Montgomery mill in Pleasant canyon.

A rotary mill is to be built at the World Heater mine, near the head of Pleasant canyon.

Kern.

A strike of 8 feet of free milling ore is reported in the Stringer district, near Randsburg. The ore will be crushed at the Red Dog mill.

The Garfield mine is working, the ore going to the Black Hawk mill.

Bakersfield Californian: C. Koehn has begun milling 350 tons of ore from the Winnie dump at Randsburg and what he takes out of the mine at the Black Hawk mill.—D. A. Clements of Colorado Springs, Colo., is at Randsburg. He has made two trips to the Rademacher district.

Randsburg Miner: The Annex mine is showing up well. It is owned by Montgomery & Maginnis. A milling made recently at the Red Dog mill turned out well. The shaft is down 130 feet.

Riverside.

(Special Correspondence).—The Gavilan mines are on the San Jacinto Estate, seven miles west of Perris. The veins were worked years ago by Mexicans, who hauled the quartz to numerous arrastras in the neighboring gulches. The property was re-opened in 1892 by Riverside people but again closed down. More recently a second and more successful attempt has been made under the direction of H. B. Varcoe. The main shaft is down 250 feet and rich ore is being taken out. A 10-stamp mill is being run on the ore. The formation is granite cut by numerous veins of pegmatite. In this district some of the quartz containing black tourmaline carries gold. The veins dip to the westward, usually about 30°. Perris, June 18th, '99.

In the Eagle Mountain district, thirty miles northeast of Water Station on the Southern Pacific railroad, Adams & Pickering are running a 2-stamp mill on the Kern Springs mine. At the Iron Chief a new vein has been discovered.

At the Gold Canyon mine, north of Salton, which was formerly owned by Mr. Fish of Banning, five stamps are running.

Mining and Scientific Press
July 8, 1899 p. 41

Kern.

It is reported that the Yellow Aster Co. at Randsburg contemplates increasing the capacity of their mill, having developed sufficient water to supply more than is needed by the 80-stamp mill.

Bakersfield Californian: The Golden mine is eight miles from Callente and owned by J. B. Ferris. It was located in 1896 and for two years no development work further than that exacted by the law was done. Lately it was decided to develop it. The ledge is 65 feet in width, low grade free-milling rock, in the center of which is a 2-foot streak that carries gold in quantities and from which specimens have been taken.

Riverside.

(Special Correspondence).—The mines in Virginia Dale district are not working full force, owing to the great heat of midsummer, when the thermometer daily goes to about 120°. The O. K. mine is opened to a depth of 230 feet, with levels at 50, 100, 150 and 200 feet. On the 50-foot level and above the vein has an average width of 19 inches; between 50 and 150 feet it averages 30 inches, and between 150 and 200 feet it is 35 inches. There are two shafts connected by the several levels, and the circulation of air is good throughout. The formation is light gray diorite, cut by black or dark green, fine-grained dykes. Large dykes of felsite also occur in the district. Some of the veins are found wholly within the diorite dykes, others at the contact of the coarser light-colored diorite and the later dykes. Still others are found independent of dyke rocks. The veins of the district range from a small seam to over 6 feet in width. The smaller veins are usually richer. The average values are \$15 to \$20 for the larger veins and \$35 to \$100 for the smaller veins. A scarcity of water is the only drawback to the development of this region. Gasoline engines have proven efficient in running hoists and mills.

San Bernardino, July 1st, '99.

San Bernardino.

Pleuth & Connell, who are working the Waterloo mine near Calico on lease, are reported doing well. There are still good streaks in the Waterloo and large quantities of low-grade ore.

W. E. Robinson, a director of the Ivanpah Smelting Co. of San Bernardino, brought suit in the Superior Court to have a receiver appointed for the company, of which J. D. Hanbury is president. The mine is in the eastern end of the county, near Ivanpah.

July 22, 1899 p. 86

The legal division of profits and property as the result of litigation has received fresh illustration in the case of the Golden Cross mine, San Diego county, Cal. Originally attached by men to whom was due money for supplies, machinery, etc., the case dragged on for years, with the customary outcome. Fifteen Los Angeles, Cal., attorneys get \$188,000 in fees; nine San Francisco attorneys get \$150,000; San Diego, Cal., law firm gets \$66,000. There are other Los Angeles lawyer and two other San Francisco lawyers get securities said to be worth \$400,000 more.

July 22, 1899 p. 96

Inyo.

Los Angeles Times: Specimens of copper ore have been brought in from the Copper Bell mine, in the South Slate range of mountains, by W. C. Ross, who, with W. E. Patterson of Los Angeles, owns the property. Assays of the ore showed 16% copper, \$5 gold and seven ounces silver.

Kern.

Randsburg Miner: The G. B. mine at Randsburg has changed hands. Powers, McCombs & McCormack having sold it on a working bond to S. Johnson of Cripple Creek, Colo. D. A. Clements is in charge of the property for Mr. Johnson and has put a number of men to work.—Work has been re-

July 29, 1899 p. 123

Kern.

Randsburg Miner: Big Butte has struck a good lead. It is reported to be 4 feet wide, 60 feet on the level, and runs \$50 per ton.—The Dyke G. M. & M. Co. has been incorporated to work the Dyke mine, one and one-half miles southwest of Randsburg. The directors are J. C. Brown, M. P. Minor, W. C. Brown, C. F. Roberts and C. H. Belcher.

Inyo.

O. O. Howard Jr., Pres. Mt. Shasta Gold Mines, Ltd. has returned from the East where he organized and incorporated under the laws of Michigan, the Ratcliff Con. Gold Mines, Ltd. The home office of the company is at Battle Creek, Michigan, and general offices for the transaction of all business in the Mills Building, San Francisco, Cal. The company have a group of twelve mines in Pleasant canyon, Panamint mountains, in the South Park mining district, six miles from Ballarat. On the property is a 10-stamp mill and a 50-ton cyanide plant, with a tramway 4000 feet long from the mine to the mill. The mines are reported producing several thousand per month and employ twenty-five men. It is the purpose of the new owners to double the capacity of the plant, and to prosecute the development of the mines, which now show an ore body in places 80 feet in width, with no hanging wall exposed, and milling well in gold.

The Ratcliff Con. Gold Mines, Ltd., is a close corporation, the shares held by seven shareholders. The board of managers are O. O. Howard Jr., chairman, H. A. Ladd, Sect'y, both of San Francisco, Cal., and W. W. Durand of Battle Creek, Michigan, Treas. R. F. Harrison, one of the shareholders, has been appointed Supt. and is now in charge of the company's property.

Los Angeles.

E. Brough is developing his mine, the west extension of the Red Rover, five miles west of Acton. The Red Rover is being worked steadily.

Several prospectors are looking for the vein from which fragments of a dark colored, granulated copper ore came, found near Acton. It is rich in gold, but thus far no trace of the vein has been discovered.

Mining and Scientific Press

July 29, 1899 p. 123

Riverside.

The Leon mine, fourteen miles southeast of Perris, is extensively developed and has exposed in the workings some fine ore, in which gold can be seen. The workings have exposed two ore shoots; and further development is being planned. There are two shafts on the property and levels are run, but the shafts have not been connected. They are 500 feet apart. The vein is unlike others in that region, being at the contact of mica schist and a porphyry dike. The vein varies in size greatly. No crosscutting has been done, but when work is recommenced a system of crosscuts will be run.

Notwithstanding the heat of mid-summer on the desert there are a large number of men working and prospecting in that region this year and some of them are meeting with success.

The Reily & Sherman mill has been bought by Ellerman & St. Germain and moved to their Ivanhoe mine near Virginia Dale.

San Diego.

The Ranchita mine, near Banner, which was purchased last year by G. Borden of New York, has been shut down, the miners have been paid off, and two men have been employed to guard the property, it is reported, with instructions to allow no one to enter the mine. There were eighteen miners employed in the mine when the shut down took place. A 5-stamp mill had been added to the five already in place and all was in readiness to begin work with the new mill. A test was ordered and the machinery was started. Soon thereafter orders were issued to close the mill, shut down the mine and pay off the men. The owner gave no reason for shutting down. The miners were offered work in mines at Randsburg owned by Mr. Borden, and all took advantage of the offer and have gone to that camp.

Aug. 5, 1899 p. 151

Los Angeles.

The Butte Lode M. Co. has been organized; directors—A. Jacoby, C. B. Dickson, C. W. Howland, H. R. Smith, A. H. Thomas, J. V. Underhill, E. T. Pettigrew, Los Angeles; capital, \$300,000.

The Brea Canyon Oil Co. of Los Angeles has been organized with a capital of \$200,000; directors, W. G. Nevin, C. N. Sterry, E. L. Doehny, A. P. Maginnis, D. Murphy.

SAN DIEGO

(Special Correspondence).—The Grapevine district is about 8 miles north of Banner. The Rice district is about 6 miles northwest of Grapevine. The Dewey mine in Grapevine, over which the excitement is created, is reported to be a large ledge or deposit, from 10 to 100 feet wide, with an extensive outcrop. They have bonded it to Colorado parties, who have put down a prospect shaft 100 feet on the ledge, and it is said to look well. The ore is base, very little free gold on surface and none below 20 feet. Its assays average, so an assayer tells me, about \$17 a ton. If the parties who have the bond take it, it may make a good camp. Most of the country around Grapevine is located. In Banner things are progressing. L. N. Bailey is driving a crosscut tunnel from the base of the hill through the Kentucky S. ground, using power drills, and is now in 700 feet, with 250 feet to go before the first ledge is cut. The other mines on the slate belt, between Julian and Banner, are waiting to see how the Kentucky S. comes out. If successful they will all be actively worked next winter. The Elovada mine, formerly Holland's, is being worked by Colorado people, who are driving a crosscut tunnel 600 feet to cut the vein under the Holland shaft. They are more than half way. The

Ranchita mine was sold by C. J. Coutts to Gail Borden, who worked it for a few months, put in five more stamps and made other improvements, then suspended work, only keeping the water out. The Ready Relief continues work as usual. At Julian the High Peak mine is being worked, using a 12-H. P. gasoline hoist. The Owens mine is being pumped out by Riverside parties with a view of buying. The Helvetia has been idle all summer, but report says it will start up again soon. In both Julian and Banner there is considerable work going on by single individuals and some very good ore is milled.

Banner, Cal., July 28, '99.

Negotiations that have been pending since the conclusion of the lawsuits that engulfed the Golden Cross mines were concluded last Monday at a conference between J. Chandler, I. Trumbo, J. Waller and G. J. Trumbo. The company has decided to add a cyanide plant of 1000 tons daily capacity to treat the tailings that have accumulated. The 140 stamps will be concentrated under one roof and space provided to add 60 or 100 stamps as soon as known ore bodies are opened.

Kern.

(Special Correspondence).—Messrs. Hunt, Rayder & Pollard, recently from the Argus range country, report their camp in a flourishing condition. Assays made on their average ore goes \$40 per ton, and is practically free-milling. Their best ore, which is a 9-inch streak, shows a value considerably more. The property is in Spring canyon, forty-five miles from Randsburg; plenty water and a good wagon road to the mines.

Kernville, Aug. 1st, '99.

The Bakersfield Fuel & Oil Co. of Selma has been organized to mine for, buy and sell oil. Directors—A. L. McPherson, Oakland; G. A. Damron, W. H. Shafer, Wm. Spencer; W. J. Berry, F. L. Keller, Selma; C. Lee, Bakersfield. Capital, \$16,000.

Bakersfield Californian: The El Dorado Oil

Co. has leased lands to two different operators, each of whom agrees to bore 36,000 feet the first year. At the end of that time the operators are at liberty to quit or do as much during each of the following two years.

Los Angeles Times: The Big Butte had a milling of forty tons of ore recently, which netted \$2380. Another body of ore, 4 feet wide, has been found.—At the O.K. mine, one of the Black Hawk group, the shaft is down 157 feet. At a depth of 65 feet a drift was run 96 feet east, tapping a vein of milling ore 2 feet in width.—At the Black Hawk they are down 111 feet. A report from that mine states that from the bottom of the shaft is a drift to the west 135 feet, in which, at 100 feet, is a crosscut 50 feet each way.

Riverside.

Los Angeles Herald: A San Jacinto prospector claims to have discovered a mica mine in the vicinity of that town. A Los Angeles expert has visited the find and pronounced it one of value. Many claims have been staked out.

Written for the MINING AND SCIENTIFIC PRESS.

A remarkable ore is found in a vein known as the Kelsey mine in the San Gabriel canyon in Los Angeles Co., Cal. The mine is eight miles above the village of Azusa. The ore is rich in silver and contains considerable of the native metal.

The country is almost wholly made up of metamorphic rocks, having a schistose, gneissoid, or massive structure. Both hornblende and mica occur in these rocks, the former being found frequently altered to chlorite and the latter by further alteration has in part passed into epidote.

Dykes of porphyritic rock have been intruded into the crystalline schists. In the immediate vicinity of the Kelsey vein are found intrusions of a dark green, much decomposed and shattered rock, which is probably diorite. Faults both great and small are numerous throughout the region. Within a few hundred feet of the mine is a great fault which can be readily seen. The displacement reaches several hundred feet and has resulted in bringing in contact in a horizontal plane on the opposite sides of the fault, rocks of entirely dissimilar character. On the south side of the fault the rocks consist of a series of regularly bedded micaceous sandstones, more or less schistose and having a light gray color, or where oxidized the small amount of iron present has given them a buff color. These rocks dip east at an angle of 20° to 30°. On the north side of the fault the rocks are harder, of dark gray color and contain hornblende in place of mica. They are more gneissoid or massive than schistose. The dip is less regular than the sandstones on the opposite side of the fault. In this formation are numerous large, lenticular masses of quartzose and feldspathic rock, which may possibly represent local segregation of the contained minerals. There is much more evidence of disturbance on the north than the south side of the fault. It is in the disturbed area that the Kelsey vein is found. The vein is a fissure and occupies the line of a fault plane which at first was perhaps a crack, but which has become enlarged by the movement of the rock masses upon themselves, resulting in the crushing and grinding of the rocks and the formation of a convenient channel for the passage of mineral waters and excellent conditions for the deposition of minerals from the mineral waters, and this is what has evidently occurred.

The vein consists chiefly of heavy spar (baryta), with carbonate of lime (calcite) and some quartz. The associated minerals are cobalt bloom (erythrite), a hydrous cobalt arsenate; nickel arsenate (annabergite); carbonate of copper (malachite); silicate of copper (chrysocolla); iron oxide and black oxide of manganese. The silver occurs native and as glance (argentite) and possibly to a limited extent as chloride, and in various combinations with sulphur, cobalt and arsenic. Galena occurs sparingly in small, disseminated crystals.

A clay selvage usually separates the vein from the walls, this feature being particularly noticeable on the footwall side. In places a soft, clayey gouge constitutes the entire vein filling. In width the crevice varies from a small seam to more than 4 feet.

The rocks enclosing the vein differ in various parts of the mine; a much decomposed rock containing iron in the form of carbonate occurs frequently. The dyke of dark, basic rock resembling diorite, previously referred to, is exposed at numerous places throughout the workings, often in contact with the vein or close to it. A more or less schistose to massive chloritic rock is also found, which may represent a phase of the dyke rock.

Since its formation the vein has been subjected to torsion and displacement. A nearly vertical fissure crossing the strike of the vein at right angles has displaced the rocks on the south side of the fault and resulted in giving the vein a curving strike.

Most of the ore extracted from the workings has been of high grade, usually running over \$200 per ton and small lots sometimes running into thousands. At one time the late Dr. Endlich made some very interesting experiments with the rich cobalt and nickel ores. The ore taken for these experiments contained 7% to 15% cobalt, 2% to 3% nickel and from 1000 to 1400 ounces silver per ton. The ore was crushed through a 20-mesh sieve, mixed with sufficient litharge to produce an 8% charge, and enough borax added to take up the gangue (heavy spar, quartz, calcite, magnesia and iron). Carbonate of soda and flour were added to the charge. When the percentage of arsenic in the ore was sufficiently high to form speiss none was added, otherwise metallic arsenic was mixed in some sulphides in the ore, and reduced sulphur from the heavy spar was utilized to produce mattes. The mixture was melted in large black lead crucibles, the slag poured off and the metallic product allowed to cool. The bars obtained were composed of lead, silver, cobalt, nickel, arsenic and sulphur, principally, the lead being in the form of sulphide, the cobalt and nickel in the form of arsenides. The bars contained from 4500 to 7000 ounces silver per ton. The slag contained a trace of silver and averaged about 0.75% cobalt which, when desired, could be reworked by arsenizing and the cobalt obtained in the resulting speiss. S.

Aug. 12, 1899 p-177
Kern.

Dennis Searles recently went to the Searles Borax Works to make a shipment of fifty tons. De Reimer Bros. recently took to Los Angeles a \$500 bar from the Merced mine, near Randsburg.

Randsburg Miner: The Annex mine is owned by Montgomery & Maginnes. At 130 feet a large body of good ore was struck some time ago. They have 100 tons on the dump which they will send to the mill. The vein is 3 to 5 feet wide.—In the Yellow Aster a new vein has been struck in the Hercules level, 900 feet below the point where the ledge reaches the surface. It is 60 feet in width, the same as in the Rand level. A small vein on one side is rich, showing coarse gold. The whole ledge is milled without sorting and yields \$12 to \$20 per ton. Two-thirds of the men employed in the mine are doing development work. Work was begun Tuesday on the foundation of the new hoisting plant. This will consist of a gasoline engine of 130 H. P., made by the Union Gas Engine Co. of San Francisco, and an auxiliary engine of 15 H. P. The new hoist is expected to be in place in a short time. The high price of fuel is one of the largest items of expense in working the Yellow Aster mines. Notwithstanding this the cost of mining and milling has been reduced to \$3.12 per ton.

Mining and Scientific Press

Aug. 12, 1899 p. 177

Los Angeles.

A gold-bearing gravel channel occurs on Mount San Antonio in Los Angeles county at an altitude of more than 8000 feet. The gulches tributary to the channel have been worked each summer, it is said, successfully for years.

Orange.

Santa Ana Standard: The reports of the discovery of rich gold-bearing deposits in Lucas canyon, thirty-five miles southeast of Santa Ana, are said to be greatly overdrawn. Parties who have inspected the claims located there say that gold may be found in the canyon, but, owing to a scarcity of water, the work of development has been slow and results have been somewhat discouraging.

Riverside.

It is reported that the Santa Rosa rancho, on the mesa back of Temecula, has been sold to an English capitalist for \$225,000. There are known to be mineral deposits and veins in that section but no mining is in progress.

Dry placer miners are working in the Virginia Dale country, using machines. The gulches on the south side of the range should contain placer gold. Several years ago, coarse gold to the amount of \$1200 was taken from a claim called the Schillerman, from shallow surface workings. This gulch has never been

worked for placer. Other gulches near the old Rene camp on the south side should also be gold bearing, as the veins there are gold-bearing.

San Diego.

Los Angeles Times: The lepidolite deposits owned by N. G. Douglas are near Pala. A New York firm took a bond on the mines one year ago for \$100,000, paying \$10,000 down. This bond expires August 5th, and it is not known whether the bond will be taken up. The New York firm has done a good deal of work on the mines. One tunnel shows the ledge 40 feet wide at a depth of 50 feet. The cost of mining it is low. Several shipments have been made to New York. The cost of hauling it from the mine to the railroad at Temecula, Riverside county, is \$4 a ton, at which place Mr. Douglas was paid \$40 a ton for it, the New York parties paying freight on it from that point to New York. An analysis of some of the lepidolite from the Pala deposits showed that it contained 10% of lithia and 60% to 70% potash, the lithia being worth \$700 per ton. Twenty-five men are employed.

Aug. 19, 1899 p. 205

Inyo.

Bishop Register: G. L. Albright has built a 5-stamp mill for working Polata ore, two miles north of east of Bishop station at the foot of Silver canyon. Two thousand feet of flume, giving 125 feet fall, will be completed before the mill can start.

Kern.

Coal is reported fifteen miles west of Randsburg. It is lignite and is said to burn freely, with a good heat.

Los Angeles Times: A. W. Collins, president of the Eureka G. M. & M. Co. of Randsburg, which owns the Black Hawk mines in Rand district, reports that the cyanide plant at Cuddyback lake will be moved to the Black Hawk group, where there are 1000 tons of tailings.—It is reported at Randsburg that a new vein of ore has been struck in the Hercules level of the Yellow Aster mines, 60 feet wide, which mills \$12 to \$20 per ton.

San Diego.

For years dry washers have taken gold from the gravels of Picacho basin. The gold district covers an area of twenty-five square miles. All of this is not gold bearing but the beds of the gulches within this area and the gravel of the plateaus all contain fine gold. The workmen are mostly Mexicans who are satisfied with small returns. In the southern half of this area and extending from the banks of the Colorado river back for two miles or more to the lava beds are found numerous veins and large zones or lodges which are auriferous. Some of these are over 100 feet in width and can be seen outcropping for several thousand feet. In a portion of these the gold is alloyed with silver to such an extent that the bullion is worth only \$10 to \$12 per ounce. This portion of the district is known as the White Gold basin. The northern half is somewhat like that described but the ore deposits are smaller and less prominent. In this section there are numerous white quartz veins running irregularly through the country but these have not been found to contain gold. The ore deposits occur as assured zones in which the country rock has been altered to ore. Silica in these deposits is not abundant and the values are chiefly in gold.

The American Grit M. Co. has incorporated with H. H. Markham as Pres.; T. Johnson, Vice-Pres.; G. H. Coffin, Sec.; F. S. Daggett, Treas. The company owns a group of claims in the central portion of the Cargo Muchacho range, five miles from Ogilby station. These mines resemble those at Hedges, four miles farther north. The principal claim is the American Grit.

Yuma Sentinel: T. W. Brooks has been to the Potholes district, above Yuma on the Colorado river. He is president of the Colorado River Gold Dredging Co., which proposes to operate in that vicinity.—At the Colorado mine, owned by A. Modesti and F. Avila, twenty-five men are at work and \$6000 worth of ore will be shipped this month.

Aug. 26, 1899 p. 233

Riverside.

Several veins of white foliated talc have been discovered and opened to a limited extent three miles southwest of Winchester.

Miller, Norton, Case & Frey will develop the mines owned by them twenty-eight miles southeast of Winchester. The ore assays well. There is a large body of it, mainly free-milling. Wood is growing on the section of land owned by the company and a good stream of water runs down the canyon close to the mines.

San Bernardino Sun: In the Virginia Dale district the Ferguson brothers have been crushing White Star rock in their 5-stamp mill. The ores of this district are quartz and in normal condition contain sulphides of iron, lead, zinc and copper. The surface ores are oxidized, consisting of quartz with considerable limonite and occasionally copper carbonate. The ores usually amalgamate when carefully handled to about 60% of their assay value, the remainder being obtained by treatment by the cyanide process. There are also some rich chloride silver ores in the district.

San Bernardino.

The Providence mountains, north of Fenner Station, were at one time the scene of active mining operations when the Bonanza King was the leading producer of the district, being a silver mine. In more recent years, however, a number of small but very rich gold veins have been discovered at various points in the range and near it, and this fact leads to the belief that more thorough research may result in the discovery of valuable gold mines. The rocks of the range include limestone, quartzite and schistose rocks (metamorphic) and numerous eruptive dykes.

Mining and Scientific Press

Aug. 26, 1899 p. 233

Kern.

J. G. Stahl of Ross Station has contracted with F. M. Smith of Oakland to haul 250 tons of borax from near Frazier mountain in this county to Lancaster, on the Southern Pacific. The borax deposit is said to be extensive. The exact location is southwest of Frazier mountain. It lies in dry lakes and ledges.

In the Randsburg district much of the richest ore in other camps would be considered valueless, judging from its physical appearance. The ore is the result of alteration of the original country rock along the plane of a fissure or zone of fissure planes. The rock has been crushed and altered, but in many instances still retains the original crystalline structure of the rock from which it is altered, although containing much silica. The ore is a light gray tinged with yellow. Some of the best ore from such mines as the Butte and Wedge shows no gold, but, upon being pulverized and washed, shows a quantity of coarse gold.

Randsburg Miner: The Yellow Aster Co. have put men to work at the wells to develop more water. The water supply is plentiful for present needs; but if a sufficient quantity can be developed, more stamps will be added to the mill. The machinery is on the ground for the machine shops. H. J. Woolcott, Treas. Butte Lode M. Co.; A. Jacoby, Vice-Pres.; C. F. Howland, Sec'y; Dr. C. B. Dickson, director, all of Los Angeles, have been visiting the mine. A cleanup of thirty tons of ore from the Butte mine at the Red Dog mill returned \$1000. They will add hoisting machinery and erect a mill at the mine as soon as development justifies it.

Bakersfield Echo: At the Warrington mine, near Havilah, a strike is reported and the vein is proving rich. The mine is employing twenty men and will add fifteen. The company's mill is soon to be increased to fifteen stamps. They have 30,000 tons of low-grade ore on the dumps that will run \$4.50 to \$7 a ton. They also have a cyanide plant. Other mines around Havilah are looking well. The Warrington is being operated by an Eastern company.

Los Angeles.

There are veins of lead-silver ore and of dry silicious silver ore on Santa Catalina Island, off the coast of California. The lead-silver veins were worked in a small way years ago by a man named Gardener. It is said some of the ore shipped from the veins at the isthmus on the island assayed \$100 per ton. There is also steatite of commercial value on the island.

San Diego.

The salary of the receiver of the Golden Cross mine has been cut from \$1000 to \$250 per month.

The lithia mine, near Pala, is the subject of present litigation.

The Gold King mill and millsite, Julian, has been sold by F. Ganahl to N. D. Jones, for \$5000.

There are in this county some remnants of ancient gravel channels which are gold-bearing, that near Ballena postoffice being a noted instance. The "wash" of this channel system has attracted the attention of several geologists, as it is composed largely of material entirely foreign to the neighborhood, consisting of fragments of quartz porphyry, rhyolite and other acid eruptives. There are no such rocks anywhere known between the Cuyamaca range and the Pacific, and the reasonable conclusion is that they were derived from some locality beyond the mountains in the Colorado desert. Some of the gulches which head into the gravel deposits have been worked by Mexicans for the gold contained, but, so far as known, never yielded more than a nominal sum.

San Diego Union: G. S. Andrews has taken a three years' lease on a large tract of land along the coast at Del Mar and will commence boring for oil.

D. Clark, who has had a bond on the Dewey mine, in Grapevine district, near the Warner ranch, has given up his option and discontinued work. The price named was \$200,000, which Clark considers too high. Since he took the bond two months ago, Mr. Clark has expended \$4000 in development, sinking the shaft from 60 to 100 feet and crosscutting the pay shoot at the bottom, besides drifting a long distance.

Sept. 2, 1899 p. 261

Kern.

At the Little Butte mine, Randsburg, it is reported, all work has been suspended; the improvements are mortgaged for \$2000.

At the Wedge claim some good ore has been taken out recently.

L. Bethune and C. Sears of Santa Barbara will work the claims of the Little Dick M. Co. at Randsburg. The shaft will be sunk to 100 feet and 100-foot drifts will be run and cross-cuts driven.

The Kern & Trinity Mines Co. has been organized in San Francisco; capital stock, \$200,000; C. L. Blair, E. C. Ward, W. H. Daveport, H. C. Cantelow, W. H. Waterhouse.

San Bernardino.

San Bernardino Sun: The Tecopa M. & S. Co. has taken an abandoned mining property on the Nevada border and is preparing to begin work at the mine. The Tecopa mine was worked years ago and is ninety miles north of Vanderbilt, on the line between this county and Nevada. The Tecopa M. & S. Co. have headquarters in Los Angeles, with D. W. Shanks as president. The new company will equip the mine with machinery. It is stated that eight ore wagons will be in use hauling rock to the smelter.

San Diego.

A corporation known as the Great California M. Co. It is reported will take an option on the Dewey claim in Grapevine district, near Warner's ranch, if D. Clark does not take up his option.

L. N. Bailey has resumed work on the Kentucky S. crosscut tunnel near Banner. It is being driven through hard silicious mica schist to develop several gold-bearing veins which were rich near the surface. There is a three-compartment shaft on the property, 100 feet deep. The new tunnel will cut under it about 400 feet.

In the early history of the Cargo Muchacho district, a few miles south of Hedges, the most important mine and the largest producer was El Padre y Madre, located in a basin-like depression surrounded by the rugged, barren hills of the desert, at the western edge of the range. The formation is chloritic schist, traversed by numerous quartz veins, some of which were rich and the ore free milling for the most part. These veins were worked Mexican fashion by a series of pits and shallow shafts, the deepest 165 feet, yet the mine is credited with the production of a large amount of gold. The ore was crushed in the Cargo Muchacho mill, two miles distant, to which it was hauled and packed. Since it was shut down years ago nothing has ever been done with the property, though it is doubtful that it is exhausted.

Yuma Sentinel: The Colorado mine, owned by A. Modesti and F. Avila, employs twenty-five men. Six thousand dollars worth of ore was shipped during August.

Mining and Scientific Press

Sept. 2, 1899 p. 261

Riverside.

There is an area of broken hills fifteen to twenty miles south of Perris that have been but little prospected, though in a gold-bearing region.

There is an ancient river channel containing gold four to six miles southwest of Perris. It can be seen near the Good Hope mine and at several points between there and the San Jacinto river. It has been tilted with the uplift of the rocks of that section.

There are numerous small veins, rich in gold, west of Perris, some of which have been worked extensively, the quartz being hauled to arrastras in the neighborhood. In one locality are the basins of more than 100 arrastras, formerly used by Mexicans.

Los Angeles Times: Work has been resumed on the Leon mine, fourteen miles southeast of Perris.—The mica ledges recently discovered near San Jacinto are reported to be of commercial value.

Los Angeles Herald: The prospectors have found a mica ledge near San Jacinto, and parties are out in the mountains near and in other parts of the county looking for other deposits of mica. Two brothers named Trujillo and a man named Dunn in Chihuahua district, near Oak Grove, have found a ledge in which are sheets several inches square. The ledge is 8 feet thick.

Sept. 9, 1899 p. 289

Los Angeles.

In the Sierra Nevada mountains, near the canyon of the Tejuca, are large veins of magnetic iron ore. Similar ores occur on the summit of Mount Gleason, near gold-bearing veins, and in the Soledad canyon. The latter deposits are near the railroad, but none of them are developed.

Riverside.

F. Bates has taken the Santa Rosa mine, west of Perris, and will resume work. The main shaft is down 500 feet. The mine has a 20-stamp mill and cyanide plant. It was worked in early years by Mexicans to the water line for a distance of 1000 feet. More recently the mine was reopened and equipped but closed down after running about a year.

Thirty-five men are employed at the Gavlán mine on the San Jacinto Estate. A 10-stamp mill has been running steadily for a year.

Riverside Press: The Iron Chief mine, owned by Stevens Bros. of San Bernardino, has shipped bullion regularly for the past three years. It is near Eagle mountain on Colorado desert. The ledge varies from 7 to 14 feet, and is opened by a 150-foot shaft and levels. A new shaft is being sunk on the upper end of the property to connect with the old shaft by underground tunnel. They have a mill and cyanide plant and a 25-mile pipe line from Cottonwood springs to furnish the water supply. The mine is forty miles from Walters station on the Southern Pacific.—The Gold Canyon mill has been running on the ore from the mine, but owing to much scour gold a cyanide plant will be put in. The mine is eight miles from the mill, and water will be piped from the springs at Dos Palmas. The ore body is 4 to 6 feet wide, and has an average value of \$17 per ton. The owners are W. A. Doran of San Diego, E. G. and G. B. Fish of San Bernardino, E. B. Stanton, E. B. Chappeller and C. C. Doran of Riverside.—About three miles east of Winchester are deposits of asbestos, magnesite and talc. This property has been developed to some extent. The asbestos is easily accessible. The magnesite deposits have been little developed.—

In Menifee valley a paying industry has developed in the shipment of white quartz to Los Angeles, where it is ground and used in the manufacture of fire brick.—Mrs. Alice Crau has an antimony claim south of Winchester.

Kern.

Work on the Butte mine, under the new management, is being pushed vigorously. They have struck rich ore, running as high as \$3000 per ton. This ore is sacked in the mine. A few tons have been milled at the Red Dog mill in Johannesburg.

The Randsburg railroad is hauling a great deal of machinery and mining supplies, nearly all going into the Panamint country, the Slate range and the Argus country. A number of new mills are going up in these sections, and desert mining never was more prosperous than now. The men who own the mines are putting their own money into their development. One old mill building now standing in old Panamint represents, including machinery, an outlay of \$100,000.

Randsburg Miner: The Yellow Aster mill at Randsburg is crushing 150 tons daily. The capacity has been increased lately, though no addition has been made to the number of stamps.—The Wedge mine from a clean-up of 47 tons, got \$3300 a few days ago at the Red Dog mill. The ore is coming from the 200, 350 and 450-foot levels. The main shaft is down 500 feet.—There is more real dry washing being done than ever before and with good results.—It is reported that the Joyful mine will begin operations September 1st. This is one of the properties under the management of Mr. Stebbins of Ballarat.—The main shaft in the Standford group is down 400 feet and they are sinking a winze from that level. The ore in the last milling averaged \$30 per ton.

San Bernardino.

In Silver Mountain district, near Oro Grande station; at West Camp, ten miles from Oro Grande; near Fish ponds, four miles from Daggett; in Panamint range, and near Resting springs are silver-lead ores. Some of these prospects are of promise, but have little development. The most extensive development is in the Resting springs district.

The Tecopa M. & S. Co., a Los Angeles corporation, proposes to resume work on the Tecopa mine, ninety miles from Vanderbilt.

San Diego.

At the Stonewall mine, Julian district, eighteen men are working over the tailings.

The kaolin deposit in El Cajon mountain, twenty miles east of San Diego, has been bonded by G. Holcomb for \$100,000. A 95-foot shaft is locally reported to pass through 85 feet of a kaolin deposit. Kaolin is worth \$19 per ton in eastern markets.

Sept. 16, 1899 p. 310

ANOTHER attempt is to be made to work placer mines in Arizona adjacent to the Colorado river by pumping water from the river. It is expected that the engineering features will be handled with more effectiveness than that which characterized a similar installation at Picacho a few years ago.

PROSPECTORS are about to make another effort to discover the "Pegleg" Smith mine, supposed to be somewhere in San Diego Co., Cal. Several men have already lost their lives in the fruitless search for this ignis fatuus, and now others no less foolhardy are about to attempt it. The "Pegleg" story has been printed and told for years, and there is little doubt that it originated in a newspaper off and has no foundation in fact.

Mining and Scientific Press

Sept. 16, 1899 p. 319

Inyo.

It is reported that a Vermont marble company is negotiating for the Lindsey marble quarries east of Antelope.

The Anthony group of mines in the Panamint range is reported sold for \$45,000.

Kern.

Three shifts are rushing development work at the Butte mine at Randsburg.

Bullion returns on 1800 tons of ore crushed at the Red Dog mill near Randsburg amounted to \$41,367.

Randsburg Miner: From a run of thirty-seven tons of ore the Kinyon mine owners received \$11,000, and from twenty tons of second class ore milled they received \$1000. One hundred and forty tons of ore taken from the dump averaged \$8 a ton.—The Yellow Aster Co. has eleven men working at the wells drifting. They have encountered another good flow of water. At the mine 152 men are employed—137 in the mine and twenty at the mill. The payroll runs over \$13,000 per month.

San Diego.

Miners are investigating the gold-bearing veins near Campo, in Laguna mountains.

Ex-Receiver O. W. Pauly of San Diego has petitioned the court for privilege to work the tailings of the Golden Cross mill at Hedges. There is a large amount of this material accumulated and it all contains value in gold.

Sept. 23, 1899 p. 399

MOLYBDENITE has been found in the following localities: Cosumnes copper mine with El Dorado Co.; Speckerman's mine, Fresno Flat; Beveridge mine, near Independence, Inyo Co.; mine, Nevada Co.; near Campo, San Diego Co.; Kings river, forty-five miles northeast of Inyo Co.

Sept. 23, 1899 p. 345

Inyo.

The final payment of \$50,000 on the purchase price of the Ratcliff mines was made to H. C. Ratcliff, former owner of the property, by O. O. Howard Jr., president of the Ratcliff Consolidated Gold Mines, Limited, on the 12th inst. at Los Angeles. The company have recently completed a survey of all their claims and underground workings. The 10-stamp mill is being enlarged to twenty, and the 50-ton cyanide mill increased to 100 tons' daily capacity. The company is running five tunnels, the lower one of which is 300 feet (on the dip of the vein) below the upper, and is developing a large and promising ore body, the last sampling from which showed an average value of \$11.50 on a width of 25 feet. The stopes above tunnel No. 1 were last week showing a breast of ore 40 feet in width which assays nearly \$30 per ton. The nearest developed mine is at Randsburg, seventy-five miles distant, and there are no precedents to go by as to what the ore bodies will do in depth.

Kern.

Randsburg Miner: The Red Dog mill has been crushing ore from the Wedge and Reedy mines the past week. The Reedy ledge averages 3 feet in width and carries good value.—Goler is once more looking up, nearly one-quarter million dollars having been taken from its placer claims. When the Rand was discovered all the residents of that camp went there, and few returned to their former ground. Now there are fifteen men making

wages at dry washing in lower Goler. A few days ago Mr. Baker picked up a nugget weighing \$41.86. Rich quartz has been found in many places at upper Goler. A. Castro recently found quartz that will mill \$80 to the ton. Goler gold is worth \$17.60 an ounce.

A new 130 H. P. gasoline hoist has been placed at the new shaft of the Yellow Aster mine.

The Yellow Aster mine, at Randsburg, employs 168 men; wages are from \$2.50 to \$3.50 per day.

Bakersfield Californian: It is reported that C. Whitaker has struck oil on his claim on Cottonwood creek at a depth of 100 feet.

Los Angeles.

On the north ridge of the San Gabriel mountains, ten miles from Acton Station, are a number of gold mines, some of which have development. The veins carry free gold and auriferous iron sulphide. Though so situated that their operation should be successful, little is done with them, for the reason that the owners do not know how to treat the ores, which are not particularly refractory.

San Diego.

The Pasadena mine is one mile north of the Cargo Muchacho mine and six miles east of Ogilby. The mine has been developed through tunnels and considerable rich ore extracted but little profit realized owing to the expensive manner of handling the material, which was shipped by wagon to the railroad, loose in wagons and thence to the old mill at El Rio, on the Colorado river. Had the ore been worked at the mine it should have paid a good profit. The property is not worked out, however, and under the improved conditions now obtaining in that district a much lower grade of ore will pay.

Sept. 30, 1899 p. 382

San Bernardino.

Mrs. Clara Foltz of San Francisco is reported to have taken up 640 acres in Holcomb valley, and proposes to prospect it for gold. The placer mines of both lower and upper Holcomb valley have been worked by various parties, the largest operations being conducted by the Holcomb Valley Co., Ltd., of London, under the direction of J. R. Thame. A steam shovel was employed in this work and a large amount of ground sluiced. A shortage of water and lack of grade limited the operations to the conditions found, and although gold was found the mines did not pay.

A large force is to be put on the Gold Mountain mines, four miles east of Holcomb Valley. The property has recently been bought by J. R. De Lamar from E. J. Baldwin of San Francisco. The ore (quartzite) all contains gold, but little of it is free. Tests have shown that the cyanide process will successfully treat it. It is a blanket vein which was worked years ago by Mr. Baldwin, by the open cut system. A 40-stamp mill was constructed at the foot of the hill, near the mines, but proved a failure as the ore did not contain sufficient gold that would amalgamate, to make it pay. The little village near the mill was known as Blairstown. The mill was burned several years ago, since which time nothing has been done with the Gold Mountain mine, though Hayward & Lane of the Utica mine at Angels, Cal., did some prospecting on other locations in the neighborhood in 1896, put in a test mill and abandoned the enterprise, presumably for the same reason that Baldwin abandoned it.

San Diego.

The first discovery of gold in the Julian district was made on Coleman creek by a woman in 1869, in the bed of the creek.

There are gold prospects southeast of Dulzura, near the Sheckler ranch, that have never been developed, though promising.

Mining and Scientific Press

Sept. 30, 1899 p. 382

Kern.

Randsburg Miner: This week J. A. Gowan of Long Beach paid Hanson & O'Leary \$10,000 for their two-thirds interest in the Defender, Single Standard and Little Bonanza claims, 10% down. A shaft will be sunk to 500 feet.

Oct. 7, 1899 p. 403

THE tin oxide found in the mines of the San Jacinto Estate, near Corona, Riverside Co., Cal., occurs in a black, heavy rock, composed almost wholly of fine needle-like fibers of tourmaline, some of it being massive. The cassiterite is scattered about this rock and occasionally is found in bunches forming very rich ore. The tourmaline veins are large in places but the best tin ore is found where the vein is small.

Oct. 14, 1899 p. 438

Kern.

A discovery of petroleum is reported north of Garlock and west of Searles marsh.

Randsburg Miner: The Kinyon mine shipped 216 ounces of bullion, about \$3600, from a run of nine and a half tons of ore from the Good Hope, milled at the Kinyon mill in Randsburg. This averages nearly \$380 per ton.

San Diego.

White and Hill, ranchers, recently found a vein of ore near Valley Center and have opened an ore deposit 12 feet wide between walls of granite and mica schist. The ore is galena, carrying gold and silver. A large number of claims have been located in the neighborhood. The ore would have to be crushed and concentrated, as the lead sulphide is disseminated through the gangue.

The deposits of kaolin discovered a few months ago by C. E. Stream are said to be as valuable as any other kaolin beds in the United States. Stream sold the deposits a few days ago to Earle & Morgan and Fuller &

Riall of San Diego and Holcomb & McCarroll of Yuma, Ariz. The kaolin owned by these parties is embraced in sixteen claims, and other claims are owned by individuals in the immediate vicinity. Some months ago Mr. Morgan took samples of the kaolin to Japan, where pottery manufacturers made a test, and he was asked to quote prices on 1000 tons a month delivered in Japan. Large quantities have been given a fire test, after pulverization, and the clay has come out as white as snow and with all the valuable qualities desired. The owners are stripping 100 feet square and will build a chute down the north side of El Cajon mountain, a distance of 1000 feet, and from the chute it is four and a half miles to the railroad at Lakeside.

The Golden Cross mines, twenty miles northwest of Yuma, Ariz., are the largest producers of gold bullion in southern California. There are thirty claims in the group, which is owned by the Free Gold M. Co., a Nevada corporation, which succeeded the Golden Cross M. & M. Co. The mines were sold to the former company for something near \$1,300,000, and there is yet due on the mines about \$1,050,000. The stock of the Golden Cross M. & M. Co. is owned by G. G. Mullins, Pres., and T. S. Fuller, Sec. and Gen. Mgr., of Los Angeles, and W. V. and C. L. Hedges of Omaha. The Free Gold M. Co. is owned by Isaac Trumbo, formerly of Salt Lake, Utah, but now a resident of San Francisco. The property is now in the possession of Mr. Trumbo, as receiver, and the representative of a board of control, consisting of D. M. Delmas, J. Chandler, Isaac Trumbo, T. S. Fuller and D. T. Hedges, which board represents the owners, and which will control the operation of the property. There is a mill

of 100 stamps that has been running ever three years. There is also a 40-stamp mill on the property that is run part of the time. Water for the mines is pumped from the Colorado river, twelve miles away. The pumping plant cost \$70,000. The mines are paying about \$150,000 a year. A cyanide plant is to be put in to treat the tailings, of which there is a large amount. There are three mines now being operated, development work having reached a depth of 700 feet. At one place the ore is quarried from the side of the mountain. About 150 men are employed by the company, the payroll being \$10,000 a month.

San Diego Union: The Dulzura mining district is thirty-two miles southeast of San Diego and twenty-two miles west of Canyon and has some promising prospects. Tin ore is found in felsite, the dyke being from 25 to 300 feet wide on the surface. The deepest work is down 160 feet, on the Golden Cross mine, owned by the Donahoe Bros. The yield shoot averages \$6 to \$9 to the ton. The mine has been bonded.

Oct. 21, 1899 p. 465

Orange.

It is reported that placer gold has been found in the Santa Ana mountains about twelve miles from Capistrano, and numerous prospectors are in that section locating and developing prospects. J. Yaeger, who for years has been prospecting in these mountains, has numerous claims. There are large masses of intrusive rocks among the metamorphic formations and prospecting heretofore in this region has discovered ores of silver and gold with the sulphides of iron, zinc, copper and galena. As far as developed zinc predominates, it is a good field for the prospector however, though the ores are base and will require concentration.

San Bernardino.

The hills comprising the Calico range consist of rhyolite, breccia and tufa, intersected by large dykes of hornblende, andesite and liporite. In the breccias chiefly the silver-bearing veins and great silver ore deposits of the district occur. These rocks lie upon an upturned older crystalline formation, gneissoid in character, with small granite veins traversing it. In this older formation are veins of quartz, rich in gold but as yet undeveloped. Gold prospects also are found near Paradise Springs, fifteen miles north of Calico, and northeast of the old silver camp sixteen miles is a group of claims on which a large amount of work has been done. They are known as the Alvord mines. An interesting feature is that the gold occurs in crystallized lime rock and in limonite ore. The wall

rocks of the gold-bearing zone are much altered, but presumed to be a type of diorite.

San Diego.

Los Angeles Times: The treatment of tailings from the Cedros Island ore at National City by the Stephens process is by means of a solution which consists of chloride of lime, nitric and muriatic acid, bromide of potash, salt and water. From tailings containing \$3.23 per ton it is claimed 97% is recovered at a cost of 24 cents per ton, and out of 7000 tons of tailings on the dump 2000 tons will go \$10. The Cedros Island ores are unlike most California ores and contain, besides silica, pyrite, chalcocopyrite, malachite, iron oxides, arsenic, free sulphur, gold, silver, lead and other minerals. The ores are base and complex.

Kern.

C. R. Merriam has in San Emedio canyon two veins of iron ore, one 55 feet, the other 75 feet, wide, separated by a 30-foot vein of marble.

Oct. 28, 1899 p. 487

At the Black Hawk mines in San Bernardino Co., Cal., large masses of stratified limestones are found crushed into millions of fragments, the most of them being less than 3 inches in diameter, and in certain zones the rock has been granulated by compression and movement. These zones are gold-bearing, the gold occurring with a finely disseminated dust-like hematite iron. In some of the claims the iron is found concentrated into bunches and veins and is rich in gold. The entire region has been subjected to an extensive system of faulting, which has had a marked effect on the topography of the country. Lying out on the desert plain four miles from the Black Hawk mines is a nearly flat limestone

formation, in which the rock is crushed in the same manner as that at Black Hawk. In the latter case the limestone contains chloride and bromide of silver with some lead. Some of these ores contain several hundred ounces per ton, but no large body of ore has been found at one place.

Oct. 28, 1899 p. 495

Kern.

Randsburg Miner: The Butte mine is down 35 feet in a new shaft 400 feet from west end of the claim, in good ore. They are also drawing all stopes at the extreme east end.

Riverside.

The Indian Queen mine, three miles west of Perris, at the head of the Spring canyon, has been bonded by Mr. Andrews.

A large ledge has been opened on the Jumbo, on the summit of the hill east of the Santa Rosa. A 5-stamp mill will be built.

San Bernardino.

The copper mines four miles east of Oro Grande station are being developed. The ore occurs scattered along on or near the contact of diorite and limestone, and is mostly chrysocolla and malachite at the surface, turning to chalcopryite with some borite in depth. Large masses of iron sulphide containing a small percentage of copper sulphide have been exposed in the workings. The mines have only superficial development, but are well situated, and the extent of the surface showing of ore justifies exploration.

It is reported that J. K. De Lamar has bought a 40-stamp mill for the Gold Mountain mines near Holcomb Valley. There is a large amount of ore in sight in the open cuts of the property, which may be mined and sent by tram or chute directly to a mill at the foot of the hill.

San Bernardino Sun: The Turquoise mines, sixty miles northwest of Vanderbilt, have been sold to J. B. Wood of New York.

Nov. 4, 1899 p. 521

San Bernardino.

J. Dederichs has designed the stamp mill for De Lamar's Gold Mountain mines at Blairstown, near Holcomb valley. The mill is to have forty stamps, with space for sixty.

Los Angeles.

The King of the West mine, at the side of the S. P. Railroad, half a mile west of Acton station, has shipped a carload of ore to Selby's works at Port Costa. The ore contains copper, gold and silver.

Nov. 11, 1899 p. 551

Riverside.

The new mining camp called San Vicente is in the southwestern corner of Riverside, near the junction of the Orange, San Diego and Riverside county lines. It is here that, it is claimed, tin bearing veins have been discovered. Placer nuggets are being shown from Lucas canyon in this vicinity. A large number of claims have been located.

San Bernardino.

Needles Eye: L. Gray, owner of the Lum Grey properties, sixty miles southeast of Danby and twenty-three miles west of the Colorado river, has built a large barge, loaded it with a cargo of supplies and has gone down the river to the nearest point to his mines, from where they will be taken overland by wagon. He has placed in position a 3-stamp mill, which has given good returns so far. The mill was taken overland sixty miles from Danby by wagon, across the desert.

Los Angeles.

The Los Angeles county courts have enjoined placer miners operating in the San Gabriel canyon, in that county. The mines in this canyon have been worked for many years and the water used for mining without complaint or hindrance, as the water after use flows back into the main channel and is used in the San Gabriel valley for irrigation. The party contesting the miners is the Electric Power Co.

Orange.

After a trial of several months the quick-silver deposits near Santa Ana have been abandoned. A little very good ore, mostly metaclnabarite, was found, but the value was too much scattered to make mining profitable.

Nov. 18, 1899 p. 579

The Vanderbilt Mining District, San Bernardino County, Cal.

Written for the MINING AND SCIENTIFIC PRESS.

In the extreme eastern portion of San Bernardino county, Cal., about seven miles from the Nevada State line, is the Vanderbilt mining district, which at one time attracted widespread attention, but from which comparatively little is heard lately. Still, there are valuable mines in Vanderbilt, and they are being worked, but in a quiet way, and, consequently, are little heard of.

The district is in the low hills which lie at the northeastern end of the New York mountains, the latter being properly a continuation of the Providence range. These hills are rounded by erosion, with here and there a rugged outcrop of a ledge of some harder rock formation. Surrounding the low hills on the east, southeast and south are high abrupt bluffs of volcanic rock—the remnant of a great flow which at one time must have covered hundreds of square miles of this region. These rocks consist of rhyolite tuff, rhyolite and andesite, lying in thick layers, apparently conformable, and forming a series of terraces 1000 feet in height. Thus far no mineral deposits have been found in these rocks, though identical with the rhyolites, liparites and tuffas at Calico, 150 miles to the westward.

Cont...

Mining and Scientific Press

Nov, 18, 1899 p. 579-580

Underlying these volcanic rocks is a crystalline formation, the geological age of which is not known, but which probably belongs to the Palæozoic. The geological structure is simple, consisting of an alternating series of gneissoid and schistose, granitic and hornblende rocks, intruded by large, irregular masses of coarsely crystalline rock (pegmatite), containing an abundance of rose-colored orthoclase and little mica. The absence of mica in all of these rocks is a noteworthy circumstance.

Intrusive dykes of a variety of rocks occur in the district, all of granitic type, ranging from felsite to aplite (a crystalline, granular admixture of quartz and feldspar). These dykes are not abundant, but are found accompanying all of the principal mineral veins, though also occurring where no veins are found.

The strike of the rocks over twenty square miles of this region is uniformly north and south, the dip being variable though usually nearly vertical. The eastern portion of the area is more gneissoid and massive, and is more largely made up of hornblende rocks than the section in which the veins occur, and to the westward are found heavy beds of limestone conforming to the strike and dip of the schists. Beyond them is found a broad area of syenitic granite. In these western granites are large dykes of rhyolite and vitrophyre, though, as far as observed, none of them have any connection with mineral veins. Ferruginous quartz veins are found in the granites.

which contain some gold, but they are uniformly low grade. Still farther to the westward, very large quartz veins are found which are stained with copper carbonate. In the New York mountains, southwest of this district, copper and silver ores are found at and near the contact of limestone and granite, and considerable development has been done on them, but they are now idle. In the limestone near Manvel, three miles from Vanderbilt, is found a quantity of crysocolia in irregular bunches.

In this interesting district is a peculiar vein system, which to the casual observer is complex and puzzling; but, upon platting the several veins, their relations become apparent. There are two main systems, which are 1000 feet apart and nearly parallel. The direction of strike is about N. 55° to 60° W., though this varies somewhat. On the west is the Boomerang system, which comprises one main fissure several thousand feet in length, and striking in the direction indicated, with branches forking out from the main crevice at a low angle on either side of it. In each case these spurs or branches

strike out to the southeastward, there being no branches diverging to the northward. They all contain high-grade ore.

The eastern system is in some respects like the Boomerang system, but with important differences. The main fissure in the latter system is that of the Gold Bronze-Gold Bar vein. The St. George, or Gold Bar, fissure is found on a low ridge near its northern end, and from that point strikes south 63° E. for a distance of 1200 feet, where it sends out a diverging branch, which, sweeping around in a curve, forms the Gold Bronze fissure, the main portion of which strikes nearly east and west. The Gold Bar fissure continues southerly from this point of divergence, but assumes a curving strike and sends out a second and then a third branch, each of which

together with the main or foot wall fissure, has a corresponding curved strike, including between the several veins segments of country rock, having the form of concavo-convex lenses. To the southward of these curving veins is another vein, having no apparent direct connection with the main fissures, but conforming to it in the curving strike, and it may properly be included in the same system. Each of these fissures are also ore-bearing.

Nearly opposite the southeastern end of these two systems of veins, a third system is found, striking nearly at right angles to those described, and forming a connecting link, as it were, between them. This vein has a strike approximately northeast and southwest, and, like those previously described, is the principal vein of a system of fissures, which, also like the others, branch out from the principal vein. These several veins diverge from a point near the southeasterly end of the Boomerang vein.

The whole vein system of the district forms a most interesting study of the dynamic forces which result in the fracturing of rock masses and the formation of mineral veins in which are concentrated large quantities of the sulphides of the base metals, together with gold and silver.

The compressive stress which resulted in a disruption of these rocks has created planes of weakness, into which have been intruded eruptive magmas in the form of dykes. These do not occur in all of the fissures, or, if so, all do not appear at the surface, though possibly they may be found in depth. The principal and most valuable veins, however accompanied by dykes of ashy gray colored rock, too much decayed to make its normal condition easily determinable, but which is probably felsite. The character of the mineral veins indicates that the fissures have been the planes of extensive movement, resulting in a crushing of the dyke rocks and the original schists, which they intersect as well. Subsequently the deposition of ore has taken place, though the movement of the rock masses has continued long after the formation of the veins had been completed, as evidenced by the striated surfaces on the walls, the formation of heavy gouge seams and the fracturing of the solid vein materials.

The Gold Bar crevice is well defined and continues for a long distance. It has heavy gouges and clay masses within the limits of the fissured zone, which in places is more than 20 feet wide. The dyke rock is much decomposed and the entire zone shows evidence of extensive movement and crushing force. The ore shoots are lenticular in shape, usually thickest in the center of the mass, thinning toward the outer edges. These shoots have a peculiarity noticed in many veins elsewhere—that of "splicing" or overlapping at the ends. This condition is observable both longitudinally and in depth.

Where these splices occur the walls are usually decomposed, softened and reduced to the condition of a tough clay, which parts from the hanging wall in great slabs, forming dangerous ground to mine, if not properly supported. At these places the clay is often found to contain imbedded angular fragments of quartz and small bunches of sulphide ore. The ore shoots are of good size—12 inches to several feet in width. The minerals are sulphide of iron, lead, zinc and copper. Gold and silver form the principal values, the gold largely predominating. The gangue is quartz.

Cont...

Mining and Scientific Press

Nov. 18, 1899 p. 580

In a general way this description of the Gold Bar vein will also apply to the Gold Bronze vein and to most of the others in the district which are accompanied by dyke rocks, with the exception of the main fissure of the Boomerang mine. In the Gold Bar and Gold Bronze system the ore shoots form for the most part at the contact of the dyke rock with the schists, but in the Boomerang the ore occurs in a series of lenticular bodies within a dyke of light gray rock. The dyke has a width of 1 to 15 feet, which is fractured by a system of nearly parallel fissures, between which the dyke material has been shattered and pulverized, and in these shattered portions of the dyke the ore shoots have formed, the sulphide minerals and quartz filling interstitial spaces and to some extent also replacing the pulverized dyke material. Ore deposition appears to have resulted in direct proportion to the fissuring and pulverizing of the dyke rock prior to the infiltration of the mineral solutions.

With the narrowing and final discontinuance of the dyke going southeastward, the strength and value of the ore shoot diminish, until at the farthest extent of development nothing remains

but a small vein lying at the side of the dyke, where it is but a foot in width. A short distance farther southeast the dyke appears to have disappeared entirely, and in its place is found a vein of barren white quartz, which continues hundreds of feet in the same general direction.

In all of the veins mentioned a good grade of ore has been found, some of it running several hundred dollars per ton. In a number of the smaller veins which are offshoots from the main fissures high grade shipping ores have been mined, and these were extensively worked in the early days of the camp, from 1892 to 1894. The principal mines have passed into the hands of A. G. Campbell of Salt Lake, who has worked first the Boomerang and more recently the Gold Bar-Gold Bronze veins extensively and profitably.

W. H. S.

Nov. 25, 1899 p. 611

San Bernardino.

Plans for the 40-stamp mill at Gold mountain, east of Holcomb valley, have been approved by the management for the De Lamar properties.

San Diego.

The Roberts mine, near Esccondido, has been sold to J. Reid for \$9000. A new shaft is being sunk.

The new Grapevine district, near Warner's ranch, on the confines of the Colorado desert, is said to be developing several promising prospects.

A 300-ton cyanide plant will be built at Hedges at a cost of \$20,000 to treat the large pile of tailings from the several mines of the Golden Cross group.

The Free Gold M. Co. is now the owner of the mines at Hedges, subject to the indebtedness due the Golden Cross M. Co., and the amount due Jas. Spiers and those who assigned their claims to him. The aggregate of the claims is about \$1,000,000. The lawyers have a claim for \$275,000 in the U. S. court at Los Angeles.

Kern.

The Shamrock oil well at McKittrick is producing fifty barrels daily.

By the decision of the Supreme Court the litigation involving the Rand group of mines at Randsburg has been settled, and the title rests in John Singleton and associates. They were sued by O. B. Stanton to compel them to sell the group to him, he having a contract signed by a part of the owners. The court holds that such a contract can not be enforced.

Dec. 2, 1899 p. 638

Inyo.

The discovery of a rich copper vein is reported near Death valley. The vein is 8 feet wide and is traceable over 10,000 feet.

Kern.

The Pioneer mine, near Johannesburg, has been sold by J. J. Miller to R. F. Harrison and others of Ballarat. A 10-stamp mill at Garlock has also been bought and will be moved to the mine.

San Diego.

The Ranchita mine at Banner was recently sold at public auction by the Sheriff. The mine, with a lot of other property owned by Cave Courts, had been ordered sold by the court to satisfy a judgment for \$3,300 obtained by C. A. Schrader against Mr. Courts.

The tunnel at the Kentuck S. mine at Banner has opened up rich ore, some of it running \$200 a ton. The mine is owned by L. N. Bailey. The tunnel was run in from the foot of the mountain to the vein, over 300 feet.

The Encinitas Copper Mining & Smelting Co., recently incorporated, contemplate building a smelting plant on the line of the railroad, near Oceanside. The mine is four and a half miles from San Marcos.

The Alabada, near Banner, is working two eight-hour shifts.

It is reported that the Helvetia mine, near Julian, has been stocked and will be reopened.

Dec. 23, 1899 p. 723

Kern.

Since its incorporation, Dec. 1, 1897, the Yellow Aster Mining Co. at Randsburg has paid \$280,000 in dividends, having previously paid \$33,789. It has also built a 30-stamp mill, equipped the mine with hoisting machinery, and made many other costly improvements. The point of discovery, an outcropping ledge of pay rock, has not been disturbed and may be seen by the passer by. The first dividend paid was \$100, which was divided equally among the three partners. Two hundred men are now employed, the payroll reaching \$15,000 monthly. An addition to the mill is in contemplation. The capacity of the mill is 140 tons daily, which requires 140,000 gallons of water, pumped from the wells six miles distant. It is stated that the ore amalgamates so freely that tailings are worth less than \$2 per ton, and that concentration does not pay on oxidized ores.

Randsburg Miner: The Buckboard mine is milling 300 tons at Barstow. The ore runs \$20 per ton.

The California Borax Co. has bought the Gordon brothers' mine and mill in the Sisto range for \$15,000. They will add eight stamps, making it a 10-stamp mill.

The Spangler brothers have struck a 3-foot vein of ore in a tunnel in one of their mines, seven miles from Garden station, 9 inches of this going \$100 per ton, the balance \$50. It is not all free milling, but the concentrates can be shipped. They are operating an arrastra successfully at their mine, hauling the water from Garden Station.

The Pimmore will be worked through a shaft when the mill starts, instead of through the tunnel, as formerly. Part of the mill is on the ground, and the work of erecting it is in progress.

Mining and Scientific Press

Dec. 23, 1899 p. 723

San Bernardino.

A smelter at the Needles is being talked of again. A few years ago a milling plant was built near Needles, but the "process" was not adapted to the ore of that region, nor to that of any other, and soon failed.

J. B. Anderson is about to resume work on his claims near Kleinfelder, half way between Needles and Blake stations.

There is a group of claims containing gold and copper in the Exchequer district, north of Homer station, on which considerable development has been done, but little of late. The ores are of good grade, but the faults and dykes which have dislocated the veins have proven a serious drawback to miners of limited capital. There is also a scarcity of water, which further embarrasses the advancement of an otherwise promising district.

The Peacock Copper M. Co. are shipping high-grade copper-silver ore from their mine in the Lava Beds district. This ore—bornite and chalcopyrite—runs from 20% to 30% copper and fifteen ounces silver per ton. The ore occurs in quartz porphyry. There is scarcely a sign of copper on the surface. A hundred yards from the main outcrop is seen the films of malachite incrusting the seams in the rocks, but constituting a small fraction of 1% in copper. The mine was originally opened on the outcrop of silicious silver ore, honeycombed and mineral stained from weathering. The first copper ore was discovered by accident in a crosscut tunnel run to develop the shoot of silver ore.

Los Angeles.

The Anker Metallurgical & Furnace Co. has its new smelter at Los Angeles ready to handle ore. The company is incorporated for \$500,000. A smelter was projected here some years since by the late Dr. Endlich, but never materialized. Several years ago a small smelter was built and run for a time at Oro Grande, in San Bernardino county, which was destroyed by fire, and thirty years ago a smelter was run at the Resting Springs mines for a time. These three smelters are the only ones ever built in southern California.

San Diego.

Thos. Johnson of the American Girl mine, four miles south of Hedges, says the camp is flourishing and a large crew is working on ore running from \$15 to \$20 to the ton. The American Girl property is in many respects similar to the Golden Cross mines at Hedges, though said to carry a higher grade of ore.

Jan. 13, 1900 p. 43-44
KERN COUNTY.

At a depth of 220 feet the Buckboard, near Randsburg, is working a 12-foot vein and shipping ore to Barstow.

Miner: The Slate Range Milling Co. are putting up a rotary mill near the new borax works at Borax lake, with a capacity of twenty-five tons a day. The mill is almost completed.

Land values are appreciating near Bakersfield because of oil strikes. It is only four months since the first standard rig was placed in operation in the field and now there are 100 at work day and night. The oil is found in a fine sand, through which it percolates and with which it has become so thoroughly mixed that the mixture will flow slowly. This sand is from 200 to 600 feet deep. The S. P. has surveyed a route for a branch line to run into Discovery to haul the products of this section. Some of the oil will go to lubricating, but its principal value is for fuel purposes, and its development means the partial solution of the fuel problem on this coast.

INYO COUNTY.

At Saline valley this week the Western Borax Co. is pushing work on its large new steam plant.

SAN BERNARDINO COUNTY.

A 40-stamp mill is to be built at the group of gold mining claims at Gold Hill, recently bought by J. De Lamar.

SAN DIEGO COUNTY.

Mica has been discovered by W. E. Cook and W. Brenneck near Mountain spring, five miles east of Jacumba, near the Colorado desert. Four claims have been staked. The ledge is about 30 feet wide.

Jan. 20, 1900 p. 71

INYO COUNTY.

(Special Correspondence.)—At the Ratcliff mines the new compressor, built by the Compressed Air Machinery Co. of San Francisco, Cal., has been installed, and the first round of holes were put in on the 15th inst. The new 20-stamp mill is completed, and the tramway will be in operation by the 25th of this month. Development work is being actively prosecuted, and the ore bodies opened up have increased in size and are an exceedingly good grade of ore. In excavating for the ore bins at the upper terminal of the tramway, 148 feet vertically below tunnel No. 5, nearly 40 feet of ore was uncovered, assaying nearly \$20 per ton. A tunnel has been started on this ore body, from which the cars will dump immediately into the tramway ore bins. Forty-five men are now employed at the mine.

Ballarot, Jan. 17.

SAN BERNARDINO COUNTY.

The copper mines at Copper City Camp, Morrow mining district, formerly belonging to the United Yucca and the Pacific mining companies, 38 claims, are bought by the Union Development Co. of Boston for \$5,000,000; J. B. Neely of Boston president. J. I. Crowell has sunk a shaft 212 feet. He has also put down eight wells. From one of them, at a depth of 32 feet, there are daily pumped 3,000 gallons of water.

SAN DIEGO COUNTY.

Receiver Isaac Trumbo of the Golden Cross mines makes his third report, covering the month of November. The value of the clean-up for the month was \$22,959.25; receipts from other sources, \$863.30. The payroll for the month amounted to \$7200; fuel bill, \$700. The litigation involving the mines on the desert will be carried to the Supreme Court again.

The sale of the Cincinnati Belle and Gold King mines, in the Banner district, to D. C. Collier, Jr., is reported, at \$10,000.

KERN

Work is to be resumed on the Little Butte mine at Randsburg.

LOS ANGELES COUNTY.

Mooney & Dunham will put a smelting plant on their copper mine, two miles below Acton.

SAN BERNARDINO COUNTY.

Silver Reef, Black Hawk mining district, geologically has but few counterparts, being a bed of calcareous and silicious material, a deposit from hot springs. The formation is about 100 feet in thickness, and has been developed to nearly this depth by shafts. The ore occurs in zones or bands of mineralized calcspar, and is chiefly chloride and chloro-bromide of silver.

SAN DIEGO COUNTY.

Win. Brand is experimenting with tailings from the National City Reduction Works.

KERN COUNTY.

Randsburg Miner: The Wedge has milled thirty-seven tons at the Red Dog. Result—two bricks, \$1800.—The new mill on the Pinmore is nearly ready.

Yuma County

The Sentinel learns that the Colorado River Gold Dredging Co. has closed a deal with a Colorado dredging corporation whereby a \$80,000 dredger will be placed on the placer grounds at the Potholes, to have a capacity of 2500 cubic yards of dirt per day of twenty-four hours. Prospects on the ground are said to have shown the material to assay from the surface to bed-rock at an average of 35 cents per yard, and it is claimed that the dirt can be worked for 5 cents per yard.

Feb. 10, 1900 p. 154

SAN BERNARDINO COUNTY.

The Rose G. M. Co., Victor, gives the cost of mining, milling and cyaniding there: Thirty-three tons of ore per shift of eleven hours are treated with one engineer, one crusher feeder, one laborer in the vat and one solution man operating the plant. The cost of treating one ton of ore, including cost of oil, fuel (wood), cyanide of potassium, lime and zinc, is \$1.09; 10 cents per ton more is chargeable for discharging the vat; total cost, \$1.19; average cost of mining, \$1.25 per ton; total cost per ton for mining, milling and cyaniding, \$2.24. Ore carrying only \$5 per ton can thus be worked at a profit.

The old Waterloo mine, at Daggett, is now being worked by leasers. Forty tons of ore are daily milled, giving twelve ozs. in silver per ton.

San Bernardino Iron Mines.

Written for the MINING AND SCIENTIFIC PRESS by C. H. HUBBS.

The property consists of twelve claims, or locations, 600x1500 feet each, duly acquired under United States mining laws, of proper record and perfect title. The total area is about 250 acres. The property is divided into three groups, consisting of two, three and seven claims, respectively.

Group A of seven claims is situated upon Sections 27 and 28, Township 6 North of Range 4 East, San Bernardino meridian, and lies sixteen miles, nearly south, from a point on the Santa Fe Pacific Railway, about midway between Newberry and Hazlett stations—273 miles by rail from San Diego and 180 from Los Angeles. Group B of three claims lies about two and three-fourths miles east-southeasterly from Group A. Group C consists of two claims, which lie about one-half mile east of Group B. Each group, in every desirable part, is accessible by rail connection, over a uniform grade of about 1%, the maximum possibly reaching 3% (down-loaded) from the main line of the Santa Fe. No cuts, nor fills, and practically no bridging would be required.

Whenever a justifiable quantity of ore is mined for shipment, tracks and rolling stock will be provided to move it. The freight costs to tide water would not exceed \$2 per ton. The cost to mine the ore and load it upon cars would not exceed 50 cents per ton. The mines are situated in a timberless belt. Fuel, in the form of coal, oil or wood, would require to be shipped in by rail. Timber for building or mining purposes would be obtained in like manner, and at comparatively low cost. There is no surface water at the mines, and no steps have been taken to develop any. The chief chemist of the United States Geological Survey, after an examination of this ore, pronounced it "a very high-grade magnetic ore, with but a trace of titanium."

Pierre de P. Ricketts, ex-chief School of Mines and Metallurgy of Columbia College, New York, gave the following results from a determination made for the following elements only, viz.: Metallic iron, 68.84%; manganese, 0.038%; sulphur, 0.076%; titanium, 0.020%; phosphorus, trace.

Prof. Woulfe, chemist Union Iron Works, San Francisco, gave the following results from a carload each of magnetic and hematite ores sent to those works, viz.:

	Magnetic, %	Hematite, %
Sesquioxide of iron.....	66.80	81.94
Protoxide of iron.....	28.80	8.25
Alumina.....	2.843	3.24
Manganese oxide.....	0.52	0.43
Lime.....	0.72	0.82
Magnesia.....	3.83	3.18
Phosphorus anhydride.....	0.013	0.006
Sulphur.....	0.030	0.117
Silica.....	0.846	0.81

The Colorado Iron & Steel Co. gave the following analysis from samples aggregating fifty pounds, selected by the writer with great care from all the claims:

	Per cent.
Iron.....	66.25
Silica.....	1.68
Lime.....	1.38
Magnesia.....	3.32
Sulphur.....	0.031
Phosphoric acid.....	0.054
Alumina.....	0.84
Manganese.....	0.25
Iron peroxide.....	72.21
Iron protoxide.....	20.18

Mining and Scientific Press
Feb. 17, 1900 p. 178 (Cont.)

Manganese oxide.....	0.39
Phosphorus.....	0.024
Titanic acid.....	Nil

Best English or British Columbia coke can be laid down at San Diego by cargo at a cost of \$7 to \$7.50 per ton of 2240 pounds, and for a less sum at San Francisco. Tonquin, China, anthracite, almost equal to Pennsylvania hard coal, can be delivered at Pacific coast ports at \$6 per ton by cargo.

The entire Pacific coast territory from Alaska to Cape Horn, the Hawaiian Islands, Japan and China would gladly draw their supplies of pig and manufactured iron and steel from California, were such commodities here produced. A 200-ton blast furnace would hardly be able to keep up with the demand. During the past two years tons of thousands of tons of iron have gone from Eastern and Southern States to the Orient via San Francisco, Tacoma or Vancouver, after adding the heavy charges for transcontinental shipment, and by direct water shipment by Suez canal or around the Horn steamers from California ports to Yokohama and Hongkong. To California—the nearest source of possible supply—belongs by right the greater portion of this export trade produced at home from abundant high-grade raw material with which this State has been so favored. Even so far back as 1896 there were imported into the port of San Francisco by rail more than 55,000 tons of manufactured iron and steel, exclusive of railroad material and pig iron. The magnitude of this business showing would be largely increased were it to include the large imports by water. During the same year the exports of machinery by sea to foreign countries from the same port amounted to over \$627,000.

Pig iron at Pacific coast points of consumption commands at this time from \$26 to \$30 per ton, with an upward tendency, in sympathy with Eastern advances.

While it costs more to produce a ton of pig metal on the Pacific coast than in the East, the fact must not be overlooked that "cost to produce" is not the only element entering into the question of profit or successful production, or that a commercial value of \$10 per ton is added to the iron on the west coast owing to transcontinental freight charges. The San Bernardino mines afford a much higher grade ore than the average reduced in the East or South. Our climatic conditions are far superior to those of either locality named, thus making possible less labor expense. The cost to produce pig iron at favored California points is, perhaps, \$5 per ton greater on the whole than in the east of the Rocky mountains, but the metal is worth \$10 per ton more here. Probably nowhere else in the world is so inviting, and at the same time so neglected, a field for profitable production. The approximate cost to produce a ton of pig iron at California tidewater from San Bernardino ores, using coke, as stated, for reduction would be as follows:

Mining 1½ tons ore.....	\$ 0 80
Freight on 3584 lbs. ore.....	3 58
Lime.....	50
1800 lbs. coke at \$7.50 per ton...	6 02
Working charges.....	2 00
Incidentals.....	50

Total cost for 2240 lbs. pig ..\$13 40

Or if Tonquin anthracite were used in place of coke the cost per ton would be reduced to \$12.20, or to \$12.80 by consuming equal mixture of English coke and Tonquin anthracite.

Within the past few years coke has depreciated at California centers of trade several dollars per ton, and it is not believed the limit of reduction has yet been reached. With a blast furnace plant established on this coast, consuming a fairly large amount of ore, fuel, etc., no doubt the transportation charges could be materially reduced. It will, therefore, be observed that the selling price of pig iron may be materially reduced, thus tending to a largely augmented consumption, and still leave a wide margin between cost and sale for profit.

To the conservative man whose vision is not confined within the narrow limits of the present, clouded by the adverse conditions of the past, or intoxicated by the bewildering possibilities opening to his vision as he glances over the waters of the Pacific to the new civilization rapidly rising in the Orient, in Asia and the islands of the Pacific, with their hundreds of millions of people emerging from semi-barbarism to the uses and demands of modern tools and machinery, who command the world's great lever—capital—the field is open in so wide a form that he must be bold of mind and well informed to grasp the magnitude of the opening offered to the iron industry. The field for expansion and profit is almost beyond power of human comprehension. The time is at hand, and the conditions at their maturity, when a man or a combination of men uniting the qualities mentioned, becoming impressed with the world's new center of commerce, will grasp and utilize this prize, and through it will command and control this industry upon America's west coast.

Feb. 17, 1900 p. 182

INYO COUNTY.

Register: The Bradford rotary mill is in full operation at Borin, in the Slate range.

KERN COUNTY.

Reporter: J. B. Treadwell will build a 4-inch pipe line four miles long, to conduct water to the river oil district and connect with distributing tanks.

SAN DIEGO COUNTY.

The annual stockholders' meeting of the American Girl M. Co. at Yuma elected H. H. Markham president and F. S. Daggett treasurer.

The discovery of mica near Tacumba, on the edge of the Colorado desert, is reported. The ledge is said to be 30 feet wide.

Mining and Scientific Press

March 3, 1900 p. 237

INYO COUNTY.

The P. D. Q. Cyanide Co. have sold their 50-ton cyanide plant to R. C. Steele, Supt. Roward Milling Co.

KERN COUNTY.

In the Butte Lode M. Co. J. H. Underhill has sold the greater part of his interest and resigned the presidency. C. F. Howland is Pres. and Thomas Miner Supt. The Randsburg Miner hears that at the Benson well at Golor a water yield of 72,000 gallons per day is assured.

A Pittsburg company will bore a 1000-foot hole on the same belt where the well finished lately by the Sunset Co. is situated.

The Kern River Pipe Line & Storage Co., operating the 4-inch pipe line between the wells of the Kern River Oil Co. and McKittrick, three miles in length, contemplates its extension to Sunset, thirty miles. The three-mile line, including storage tanks, cost \$20,000. A 6-inch line from McKittrick to Summit would cost \$150,000.

Seventy-two sacks of gold ore have been received at Bakersfield for shipment for reduction. The ore was mined at Greenhorn Mountain and is said by the owner, M. W. Solomon of Bakersfield, to run \$100 to the ton.

RIVERSIDE COUNTY.

The Press reports striking \$300 ore in the West Riverside mine, four miles west of Riverside.

March 17, 1900 p. 293

KERN COUNTY.

(Special Correspondence).—The Warrington M. Co., at Havilah, has been attached by U. T. Smith. The Warrington Co.'s officials and owners of stock are in St. Paul and Minneapolis and the work has been carried on by R. C. Shaw. Mr. Shaw resigned and G. Thede has charge of the property. The mine had been worked to a depth of 400 feet, and prospects were so favorable that machinery and material were placed on the mine while work of construction, etc., was in progress. The mine, being unpatented, became jumpable, and P. O'Brien jumped it, stood a large number of men off with a Winchester, being stationed in a tunnel, and the company lost the property. Later, W. H. Blaisdel of Yuma bonded the mine and spent \$30,000. The property fell into the hands of D. S. Lightner and he sold it to Los Angeles parties and they to the present company. The mine is considered to be rich, and poor management has kept it from being on a paying basis. It is the intention of the present company to push down a deeper shaft. They now have equipped a 10-stamp mill and complete cyanide works.

Caliente, March 10.

Randsburg reports scarcity of water; the Yellow Aster mill has shut down half its stamps. Capt. Collins, who purchased the Black Hawk mine, has developed water between Randsburg and Garlock, and proposes to lay pipes eight miles. He is locally credited with intent to add thirty more to the thirty stamps in that mill and build a 30-stamp mill at his mine three miles from Cuddeback lake.

SAN DIEGO COUNTY.

The Golden Cross is again in court. J. D. Hanbury sues to recover \$5000 expenses and \$295,000 commission. He claims that the company contracted with him in January, 1896, to find a purchaser for the property at \$3,500,000. Any valuable mining property is liable to be similarly attacked.

March 24, 1900 p. 322

SAN BERNARDINO COUNTY.

At Gold Mountain Capt. DeLamar will build next month a 40-stamp mill.

Part of the machinery for Col. Ewing's 20-stamp mill has been brought up the Colorado river opposite Cottonwood Island by the steamer from Needles. Searchlight ores will be hauled twelve miles thereto.

SAN DIEGO COUNTY.

Mgr. A. J. Smith of the Gold Crown M. & M. Co., at Picacho, near Yuma, will build a mill.

March 31, 1900 p. 349

INYO COUNTY.

J. Danielson has sold his interest in the Bunker Hill lead mine, Lead canyon, to R. J. Laws for \$4000.

The Kearsarge mines, seven miles from Independence, are to be opened by San Francisco men. A 1500-foot tunnel will be run and a mill and cyanide plant erected. J. S. Johnson is Supt.

SAN BERNARDINO COUNTY.

At Havilah the Warrington mine has paid off all the indebtedness and work will be resumed.

SAN DIEGO COUNTY.

The new cyanide plant at the Golden Cross mine at Hodges started on the 24th. It has a daily capacity of 333 tons of tailings. By June it is expected the capacity will be increased to 1000 tons. It is contemplated to enlarge the present mill to 200 stamps. Water is pumped from the Colorado river, twelve miles.

Apr. 7, 1900 p. 378

SAN BERNARDINO COUNTY.

J. B. Lane is now Supt. of the Barstow mill, which is running on ore from Randsburg. H. Meade is superintending the cyanide plant at Barstow.

SAN DIEGO COUNTY.

Dr. Stanley has bought the tailings at the Shenandoah mine at Mesa Grande, and will move his cyanide plant there from Banner.

Mining and Scientific Press
April 14, 1900 p. 405

SAN BERNARDINO COUNTY.

Seventy miles south of Needles, C. H. Gray is developing the Arica, a free-gold proposition. The mine is in a ledge with a 2-foot pay streak of \$100 rock. Three stamps pound out enough gold to maintain a developing force of twenty men.

KERN COUNTY.

At Randsburg the pumping plant and pipe line from the wells at Goler to the Yellow Aster mill cost \$55,000. A contract for doubling the capacity of the mill, making it sixty stamps, is expected. The new reservoir at the mill is 100 feet long, 20 feet wide, built of solid masonry and will hold 100,000 gallons.

April 28, 1900 p. 465

INYO COUNTY.

At Darwin the Lane mine is working twelve men. The Defiance mine has resumed.

At Ballarat the World Beater has put up a mill.

Searle's Borax Works are producing 100 tons per month.

KERN COUNTY.

The Big Blue gold mine, near Kernville, is sold to Senator J. P. Jones, for \$75,000.

May 5, 1900 p. 491

KERN COUNTY.

At Randsburg the Red Dog mill is working on 300 tons of West Shore ore.

RIVERSIDE COUNTY.

The Lost Horse mine, Pinon mining district, has been bonded to U. S. G. Todd of Los Angeles for \$200,000, says the Express. The owners of the mine, Ryan & Kelsey, have agreed to accept \$100,000 April 25, 1901, \$50,000 October 25, 1901, the remaining \$50,000 April 25, 1902. Mr. Todd expects to secure water supply from springs that he owns six miles from the mine. A company is to be organized to operate the property.

SAN BERNARDINO COUNTY.

Ore from the Old Shoes mine at Manvel assays \$32 in gold, silver, copper and lead. G. O. Pearso says he has sold the Old Shoes and other claims for \$20,000 to T. A. Garey of Los Angeles.

At Gold Mountain sixty men are preparing for the 40-stamp mill. It is locally asserted that, if the mine proves what it promises, the 40 stamps will be followed by 100 more. The supplies are taken in by way of Victor. The batteries and some parts of the old Baldwin mill are being utilized in the construction of the new mill.

SAN DIEGO COUNTY.

(Special Correspondence).—Julian district, which has had its ups and downs for thirty years, is fairly active. The slate formation of this district is noticeable. There is a peculiar vein structure as noted in the Ready Relief mine, where the ore is a silicification of mica slates crumpled into complex folds. A photo is sent of the Helvetia hoist and mill (see page 493). At the mouth of this mine thin-bedded argillaceous slates strike north 75° west magnetic, and dip 70° northeast. These slates are hard and tough. In the tunnel the slates are soft and can be worked with the pick alone. The mine has had varying fortunes, being owned by local people, then a Los Angeles company, then the Pacific Bank of San Francisco, later by local people again. It has yielded about \$500,000, and with proper tunnel development could probably be made a producer again. It is to be actively worked this season.

Dr. Stanley has moved his cyanide plant from Banner to Mesa Grande.

In the Banner district D. C. Collier Jr. has bought for \$10,000 the Cincinnati Belle and Gold King. The latter is of some note, having yielded quartz ore going \$100 a ton. With this is a photo of the Gold King mill (see page 493), which is 11 miles from Banner, which has crushed for the Cincinnati Belle and Gold Queen, an adjoining mine. The Gold King mine is 4 miles southwest of Banner. Like nearly all the other mining properties in this section it has changed hands quite frequently, and like the others, needs only capital and intelligent development to be made a good paying property.

At Julian the Owens is yielding well. The Kentuck S. tunnel at Banner is in every way favorable.

Julian, April 5.

At Hodges at the Golden Cross M. Co.'s property last week a blast of 115 kegs of powder was set off and shattered several tons, to be gathered up for the mill.

May 12, 1900 p. 525

SAN BERNARDINO COUNTY.

(Special Correspondence).—A group of gold quartz veins is being developed 7 miles south of Ludlow, a station on the A. & P.—the Bagdad—owned by Woodard, Suter & Co. Porphyry constitutes the country rock; the pay ore is 12 feet wide. W. R. Woodard of Randsburg is Mgr. and Cyrus Grant resident Supt.

One-half mile from the Bagdad, J. R. Gentry made a location last fall which has since produced considerable amounts. Five sacks of the ore shipped is reported to have netted \$1300.

Green & Co. have bought several claims near the Gentry, employing a number of men opening the property.

San Bernardino, May 8.

Needles Eye: The mill being erected by T. Ewing, about 42 miles up the river, will be completed soon. It has a 20-stamp mill, and, with the one of like proportions a few miles farther up on the other side of the stream, will handle all the ore in that district.

Mining and Scientific Press
May 19, 1900 p. 553

KERN COUNTY.

The Californian reports a find of gold 15 miles east of Randsburg, a dry placer proposition.

RIVERSIDE COUNTY.

(Special Correspondence).—The Granite mine is owned by the Riverside M. & M. Co., 40 miles north of here, and has just put in a Mystic mill and a 20-ton cyanide plant.

Salton, May 13.

SAN DIEGO COUNTY.

Some stir is reported around Fallbrook, where several claims have been located and considerable development work begun by A. Campbell and F. W. Chapin.

May 26, 1900 p. 583

KERN COUNTY.

The Kinyon mine at Randsburg has leased an 8-stamp mill at Garlock, to which they will haul ore.

June 2, 1900 p. 613

SAN BERNARDINO COUNTY.

The new diggings are north of Barstow. Some of the ground is rich. Bedrock is close to the surface. There are 200 men there now and more going. The nearest water is 8 miles away at Lane's wells. The camp is 15 miles north of Barstow and 45 miles southeast of Randsburg. Dry washers are in demand.

June 16, 1900 p. 674

SAN BERNARDINO COUNTY.

(Special Correspondence).—The Bagdad mine, 7 miles south of here, is preparing for development. Buildings are being constructed and a 25 H. P. gasoline engine is in place. The assay value of the pay ore body in shaft and levels is said to be considerable. Porphyry constitutes the country rock in the vicinity. C. Grant is resident superintendent.

Ludlow, June 12.

SAN DIEGO COUNTY.

The reduction works at National City were burned last Sunday evening. Recently S. H. Lucas established a cyanide plant at the works and operated it with power from the engine room. With this exception, the plant had been idle for several years.

D. C. Collier Jr., at Julian, is trying to effect a consolidation of the Kentuck S. and Cincinnati Belle mines. They are adjoining properties; a tunnel driven into the Kentuck S. unwatered both mines and it would be economical to work the two together. The tunnel is 938 feet long. The Kentuck S. shaft will have to be sunk 190 feet to meet the tunnel, and the Belle shaft 225 feet.

June 23, 1900 p. 709

KERN COUNTY.

Randsburg Miner: At the Searles Borax Works, D. Searles was given the option of running the works on his own hook, with the combine against him, or take a salary of \$500 per month and stop; he chose the latter.

RIVERSIDE COUNTY.

D. T. Ulmer reports having found and filed twenty-two claims, each 600x1500 feet, 60 miles northeast of Salton.

June 30, 1900 p. 737

KERN COUNTY.

The Randsburg Exploration Co. has bought one-half the Clifton mine from Martin & Hill, of Garlock.

July 7, 1900 p. 10-11

INYO COUNTY.

At Darwin the Defiance mine suspended operations for the present, Supt. McDonald being unable to get miners enough to work the mine with a full crew.

A payment of \$10,000 has been made on the recent purchases in Inyo county by the California & Inyo M. Co. of Salt Lake City, Utah. F. Mathews, the manager, has gone to the property with H. E. Simmons. The vein is reported to be 5 feet in width and assays 30% lead and 40 ounces silver per ton.

YUMA COUNTY.

F. M. Barnes of Poncho Springs, Colo., and F. B. Cassiter, at Needles, have acquired 4240 acres of dredge and hydraulic placer ground above The Needles.

SAN BERNARDINO COUNTY.

The new mill on Capt. DeLamar's gold mine at Gold Mountain will start up August 1st.

The Alameda Borax Works are closed because of a raise in freight charges on the crude borax from Death valley to the works, the Southern Pacific Co. raising the rate from \$6.50 to \$29 a ton. The refining will be done in New York, \$5. rate from the mines to that point being cheaper than it is to San Francisco. The borax works have been receiving about 800 tons

of crude borax from Death valley each month. A raise of \$22.50 a ton in freight from one California point to another is prohibitive.

SAN DIEGO COUNTY.

I. Trumbo's report as receiver of the Golden Cross mines at Hodges shows that a total of \$18,888.02 has been received from the mines since March 31, and \$21,443.43 expended.

Mining and Scientific Press

July 21, 1900 p. 69

SAN BERNARDINO COUNTY.

H. M. Crowther tells the Tribune that on Gold mountain, purchased last season of E. J. Baldwin by J. R. De Lamar, is ore showing free gold, and great volumes in which to the eye there is no sign of gold. A \$3 amalgamable ore will afford profit. The mines are 37 miles from the Southern California Railway. Labor is \$3 a day throughout the region. In a few days the mill will start.

C. S. Corning expects to have his smelting plant at the Needles finished next September.

INYO COUNTY.

Mining Review: The Ratcliffe Co. at Ballarat have closed down their mine, the main reason given being that their ore could not be handled by amalgamating and cyaniding processes, and that it will be necessary to put in a smelter.

July 28, 1900 p. 97

SAN BERNARDINO COUNTY.

Mining Review: Work of every kind at the Copper World mines, the property of the Ivanpah Smelting Co. near Manvel, has been stopped and the men paid

and discharged. J. D. Hanbury, the president of the company, tells the Review that the stoppage is but temporary.

At a recent meeting of the Southwestern Miners' Association in Los Angeles the necessity for the placing of signboards on the roads on the desert, so that the miner, prospector and traveler can tell when he is on the right road, caused a decision to take steps to provide a system of signboards at road crossings, road forks and other points, giving brief directions as to both roads and water.

SAN DIEGO COUNTY.

At a depth of 600 feet the Monarch Oil Co. has found drops of oil on the water brought to the surface with the sand bucket. The drill is still working in a blue shale.

The Owens mine, Julian district, is reported shut down and owners to settle their differences by going to law.

Aug. 4, 1900 p. 126

INYO COUNTY.

The Ballarat G. M. Co. has incorporated in Salt Lake City, Utah, \$500,000 capital stock; C. M. Freed president, C. W. Freed vice-president, L. D. Freed treasurer, G. H. Lowenstein secretary. Work on the property will soon begin. It was sold for \$50,000 to the company by P. J. Ginsler, the locator. A mill run gave \$280 from ten tons. The company projects building a 20-stamp mill.

F. Mathews reports that to avoid delay 250 pounds of powder was taken by his party into camp, but the entire lot exploded, leaving them without any combustibles to work with.

Inyo Independent: Last week Cooper's little 4-stamp mill in Pleasant canyon, near Ballarat, yielded a cleanup of 3½ pounds gold bullion from the owner's mine. The fineness of the bar is remarkable, being worth \$18.50 per ounce, but the shipment before assayed at the rate of \$19 per ounce.

Aug. 11, 1900 p. 159

INYO COUNTY.

W. W. Bowsell is Supt. Lane mine at Darwin.

Work on the antimony mines bought by Montgomery & Dineen will begin September 1st.

The Tribune says Salt Lake men are sampling the group of mines at Darwin belonging to the estate of the late P. Reddy, with a view to purchase.

SAN BERNARDINO

At Gold mountain water is developed through an artesian bore at Bear lake, 2 miles from the mine. A flow of 14 inches is considered enough for forty stamps. The well was put down 150 feet in the bed of the ancient lake and at that point the water gushed. The mill will be started up next week.

RIVERSIDE COUNTY.

At the Gold King mine Supt. Johnson is running a crosscut tunnel to tap the main lead at a depth of 200 feet. The ledge is 4 feet wide between granite walls, with a streak of porphyry on the hanging side. The vein matter is talc, in which are bunches of hematite iron, and in this iron is found the gold.

Aug. 18, 1900

KERN

In the case of Kern county vs. Record, C. A. Lee the Supreme Court of California has rendered a decision sustaining the finding of the Superior Court, in favor of the county and against the recorder. This is to recover money retained by Lee as fees for recording mining location notices. The recorder claimed that under the law and the Supreme Court's decisions he was not compelled to record such notices, and that therefore the fees belonged to him and not to the county. The Supreme Court rules that, while its decisions were in accordance with the law at the time they were given, the statutes have since been changed and the decisions are not applicable. Accordingly the recorder must pay such fees over as county money.

Mining Review: At the Red Dog mill, Johannesburg, a run on thirty-five tons of ore from the Santa Ana mine, in the Stringer district, netted the leasers something like \$1300—the result of a month's work by two men.

SAN BERNARDINO COUNTY.

Mining Review: The recently located placers between Barstow and Copper City report considerable gold being taken out by the dry washers. Hundreds of claims have been staked out. Water at a depth of 70 feet is selling at 75 cents a barrel.

INYO COUNTY.

At Castle Peak mine Supt. Kermeen has the assay office finished; the damage to the cyanide works by the fire has been repaired; about fifty men are employed.

The Independent states that the Brown Monster mine, southeast of Independence, has been bonded to Eastern men.

INYO COUNTY.

At the Ballarat M. Co.'s property the superintendent says that in the main ore chute he has ore that shows \$146 gold, forty-four ounces silver and 8% copper, and a new shaft on the group has exposed 16 inches of ore which shows \$313.75 gold per ton.

KERN COUNTY.

Last week was reported a decision of the Supreme Court ordering the county recorder to pay over to the county fees received for recording mining claims. An application is to be made for rehearing in bank in the case. Recorder Lee says if he were inclined to accept the late decision as final, he could not in fairness to those associated with him give up the contest until all legal resources had been exhausted. The recorders of all counties classed as mining counties are interested with him, and have been assisting him in carrying on the litigation. The question is as wide as the State. The amount of fees paid in and retained by Recorder Lee is at the present time \$4893.

A. E. Walsh says that in the Garlock district there is base ore, but no smelter to treat it nor a railway within 20 miles of it—too far to haul and ship at a profit. Wood and water are abundant.

Goldsmith & Robb had thirty tons of

SAN BERNARDINO COUNTY.

Virginia Dale district reports the sale of the Ivanhoe mine to Los Angeles men for \$20,000. Four shafts have been sunk—one 200 feet in depth and the others about 135 feet.

The Needles Smelting Co. has incorporated at San Bernardino. The five directors are R. Charlton of Needles, C. H. Granger, K. S. and C. S. Corning of Pasadena, W. Rodman of Los Angeles; capital stock, \$50,000; subscribed by C. S. Corning, \$49,600.

SAN DIEGO COUNTY.

The cyanide plant at Julian is engaged on the tailings of the Stonewall mine.

J. M. Rishor has bonded the properties of the Owens Con. M. Co. The price mentioned in the bond is \$30,000, which D. Clark has assumed.

VENTURA COUNTY.

The deal whereby the oil lands of Senator Bard in Ventura county pass into the hands of Los Angeles men is \$350,000. Development of the property will be on a scale proportionate to the magnitude of the enterprise.

The Frazier Borate M. Co. is developing a borax deposit near Giffin. Locations cover 2400 acres. All the local stockholders except Gail Borden have sold out to the Stauffer Chemical Co. of San Francisco and Thomas Thorkoldson & Co. of Chicago. Christian De Guinge of San Francisco is president of the company and Gail Borden secretary. The veins vary in thickness, being in some places 12 feet wide. The mining is done by hand. The ore hauled 60 miles to the railroad is shipped to San Francisco and Chicago. The Frazier Company is shipping 150 tons a month. A railroad from Bakersfield will reduce the wagon haul to 30 miles, and then the Frazier Company will put in a traction road.

A find of boracic ore is reported from Seymour canyon, 6 miles from Lockwood valley, from which about fifty tons of ore a month can be hauled. The new mine is named the Nighthawk. The average borate of lime ores, such as colemanite and pandermite, do not yield more than from 40% to 50% for best and from 25% to 36% of anhydrous boracic acid for average ore. The gross value of ore running 40% would be about \$88 per ton; from this would have to be deducted loss in reduction, charges for mining, hauling, freight, and cost of reduction. The quotation of 44% ore is about \$35 per ton in San Francisco.

Sept. 1, 1900 p. 255

YUMA COUNTY.

The Boston company which has for eighteen months been developing a copper property at Empire Flats, or Copper Basin, 45 miles below Needles, on the Arizona side, 3 miles from the river, reports satisfactory progress.

Manager T. M. Drennan of the Parker M. Co. is developing a gold property 30 miles down the Colorado from Needles, on the Arizona side, 9 miles above Copper basin, where the new smelter is going in. The ore is honeycombed quartz, carrying oxidized iron and gold.

INYO COUNTY.

The manager of the Tuba mines, near Ballarat, tells the Register that work on them is down 200 feet, with 12,000 tons ore blocked out.

KERN COUNTY.

The Blue Chief M. Co. has incorporated at Bakersfield; W. James, T. G. Munzer, H. I. Tupman, F. A. Brown, R. A. Edmons: capital stock, \$100,000; subscribed, \$50.

The Oldest Gold Mining Camp.

Written for the MINING AND SCIENTIFIC PRESS by
THEO. VAN WAGENEN.

Americans are accustomed to date the history of mining in the western United States from the days of '49; but, nearly half a century before that time, copper mining at Santa Rita, New Mexico, was a flourishing business, while thirty years back of that date (about 1770) there was a producing gold mining camp on the California banks of the Colorado river about 100 miles above its mouth—that is, productive from a Mexican point of view. The region is now known—after the rude manner of the American prospector—as the Pot Holes, but in the olden times it was first included in the settlement called San Dyonisius, and later was a part of the Mission of the Concepcion. It is no easy matter to disentangle from what remains of the ancient Spanish records the true sequence of events as they occurred in this part of the world since the white men first entered it. Perhaps one should begin with that old explorer Coronado, half priest and half soldier, who as early as 1539-40 traversed the country from the head of the Vermillion sea (Gulf of California) to Santa Fe, making good Indians out of the aborigines wherever he met them, either through baptism or the sword, as they preferred. In this trip the dry placer districts of northern Sonora were discovered, and also the mysterious ruins in the Gila valley known as the Casa Grande, but it does not appear that Coronado's trip was followed by any attempts to colonize those parts of Arizona explored, from which it may be safely concluded that no other deposits of precious metals were found on the route. So, for considerably more than 100 years following



Prospecting on the Desert.

there was peace in the desert, as far as recorded history goes.

Towards the end of the seventeenth century, however, a most indefatigable and zealous Jesuit named Father Kino appeared on the scene. His normal field of labor seems to have been the county now known as Sonora and Chihuahua; but apparently it was not large enough for his ambition, for in 1692 he crossed over into Arizona—which was then called Pimeria Alta—and established a Mission in the vicinity of the now flourishing city of Tucson, which he called San Xavier del Bac. Two years later, using this post as a base, he journeyed northward to the Gila river, rediscovering on the way the Casa Grande ruins, and celebrating the incident by holding a service of the mass there. In 1697, accompanied by twenty soldiers, thirty friendly Indians and ten retainers of his own, and starting from a point in the San Pedro valley not far from the present site of Tombstone, he made a second trip to the Gila and explored its valley between Solomonville and Tempe. Again, in 1699, he crossed Pimeria from Sonoita, via Quijotoa to Gila Bend, and then working around the north ends of the Big Horn, Eagle Tail and Castle Dome ranges, struck the Colorado river about 20 miles above Yuma. In the following year he returned by a slightly different route and established on the Colorado, above the mouth of the Gila, the San Dyonisius station. In 1701 he revisited the spot, and after working among the Yuma Indians of the vicinity took boat and followed down the stream to the sea. His journal states that these Yumas had an abundance of ornaments and charms of gold which they obtained from washing the dirt of the hillside on the California side, just across from his newly established post.

In 1711 the good father died without meantime having returned to Arizona, and for a score or more of years the field seems to have remained untilled by his successor. In 1736, however, there was a renewal of efforts at San Xavier, which was followed in 1736-41 by a great silver mining excitement close to the Arizona line and probably not far from the existing camp of Oro Blanco. Here the white metal was found in planchas or "chunks" weighing up to thirty and forty pounds. In 1750 Father Sedelmair revisited the old outpost on the Colorado, planted by Kino in 1700. He found little left, but again his records indicate the existence of a primitive gold producing industry in the vicinity. In 1771 Father Garces came up from the south, and meeting with an encouraging reception from the natives (Yumas and Cocopalís) he sent Father Anza to them in 1774, who, at the upper end of the rich alluvial plain enclosed by the great bend of the Colorado above Yuma on the California side, established the Mission of the Concepcion. One



Looking Down the Colorado River From the S. P. Bridge,
Yuma, Arizona.

may still trace the outline of its adobe walls. It seems to have been located for the especial benefit of the miners, for the region now called the Pot Holes begins within a half mile of the ruins. What are left of the records of the Mission indicate that its establishment was followed by an immigration of Mexican miners from Sonora, who for many years worked peacefully and in a small way alongside the Indians on the hills. Previous to 1860 the gold won probably went south to Altar in Sonora; but when the United States Government established a military post on the river and made a stage route across the desert a possibility, American miners came in and the gold obtained went to Los Angeles or San Francisco. But there was never enough wealth in the vicinity to maintain an active Anglo-Saxon population. Gradually the Pot Holes retrograded into the condition of a neglected and nearly deserted camp and has remained so ever since, though each year there is always a production of nuggets and dust amounting to a few thousand dollars in value.

Just above the Pot Holes the Colorado cuts its way through a chain of mountains which are known on the Arizona side as the Chocolate hills and on the California side as the Picacho range. Both are simply continuations of the San Bernardino range of southern California. On the Arizona side this divide extends northeastwardly to the Bradshaws, between Phoenix and Prescott, then bends northwesterly around the headwaters of the Bill Williams fork, then again northeasterly around the head of the Verde, until it culminates in the San Francisco mountains north of Flagstaff. On the California side the San Bernardino bears off northwesterly, separating the Mojave from the Colorado desert, and finally unites with the Coast range east of Santa Barbara.

Before the Colorado cut its channel to its present depth through the low point in this long divide, the region now known as the Mojave desert, together



At the Mouth of Fiege Gulch, on the Colorado River.

with a considerable area in Arizona, was a great fresh water lake whose shore line can be easily traced at many points, and the Colorado desert below was a part of the Gulf of California. Only the low Chocolate and Picacho ranges separated the two, and in several of the saddles in its crest can be found small gravel deposits richly spotted with gold, as if at some time part or all of the outlet had passed through them. One of these is now occupied by the wagon road leading from the Pot Holes to the Duncan Flats, and from it several dry ravines fall away to the east and southeast. The Pot Holes is the name given to the region of these ravines, the principal one of which is perhaps $1\frac{1}{2}$ miles long and is called Fiege gulch. All of them fall into the Colorado. The prevailing rock of the locality is a dark

blue and very hard granite, intersected with several dykes of basalt having a northeast and southwest course, and also with numerous small veins of white quartz, many of which are mere threads. The hill slopes (as might be expected) are steep and very rugged, very barren, and with but a slight cover of soil. But on both sides of the saddle, and in it, and wherever on the slopes bordering the ravines that fall away from it the rugged bedrock is level enough to hold soil, there gold can be found in pockets and streaks and strata. Some spots have yielded hundreds of dollars for a few hours' work; others have produced 50 cents to \$1.25 per day for years. Every winter the locality is visited by a few days of torrential rain. After these are over, most of the spots already previously worked may be attacked again with favorable results. And so it has gone on from decade to decade.

The mouth of each ravine has been filled up by successive overflows of the river to flat, triangular parks. At the upper ends of these, close to the rocky hill slopes, very many prospecting holes have been dug from time to time in the expectation of finding rich pockets of gravel on the bedrock. Some of these have been profitable and others have not. In most cases, the water seeping in from the river has stopped work.

Between June 15th and September 1st the hillsides and ravines are deserted, for human beings could not work in the fierce heat of that season; but during the balance of the year there are always a few score of men at work. As no water is to be had, a form of dry washer has been evolved in which the material is screened and shaken and fanned until the yellow grains are freed from the soil. The gold thus gathered is coarse and angular; probably most of the fine dust is lost in the tailings. What is saved has all the appearance of material that has traveled but a short distance, if at all. Perhaps as much as \$10,000 a year comes from the district. This is not great, but as the industry has been alive there for 100 years certainly and perhaps much longer, the Pot Holes have claims for consideration. It is by no means clear whence is the source of the gold. Nuggets worth \$10 to \$20 are not uncommon; a few are found each year. But the bulk of the output is in grains, many of which under microscopical examination prove to be parts of crystals. The metal brings \$18.25 to \$18.60 per ounce at the mint. A dredger is now being built at Yuma which will explore the mouths of the Pot Hole ravines.

Mining and Scientific Press

Sept. 8, 1900 p. 287

SAN DIEGO COUNTY.

The usual result of careless use of an iron bar in tamping is reported from the Queen mine at Hedges, by which D. Bean and W. Ames lost their lives. The men were on the morning shift and were tamping the powder preparatory to their first blast. In tamping they used an iron bar and the powder was ignited. The bodies of the men were badly mangled.

INYO COUNTY.

Albright & Skelton are developing a mine 5 miles southeast of Pine City, near Mammoth.

The Ballarat Co. has let two contracts for work in the mine. F. H. Verencamp is Supt.

R. F. Harrison, who bonded the Ratcliffe mine, will put on more men. A new engine and new air compressor will be put in place.

The Ballarat temperature has recently ranged from 115° to 127° daily.

Antimony ore from Wild Rose canyon is being shipped to New York.

Near Ballarat the Mineral Hill mill is closed down on account of insufficient water. Ten men are working in the mine. D. H. Chaplin is resident manager. The Mineral Hill and Ballarat companies are investigating Panamint canyon water supply, with intention to put in an electric power plant.

KERN COUNTY.

At Bakersfield the Standard Oil Co. is credited with intention to erect tanks and control the oil output of the Kern river oil district.

Near Kramer, V. O. Lyon, in six weeks' trip with a dry washer, saved \$900 in coarse gold.

The pumping plant of the Yellow Aster Co. at Goler is completed. The system cost \$50,000. In August 3894 tons of ore were mined and milled; average number of men, 62; average, 4½ tons to the stamp; cost of mining and milling, \$2.36 per ton.

J. E. Miller of Amalie district has a mine 3 miles west of the Amalie, which assays 2094 ounces of silver to the ton, gold 117 ounces.

The Greenback Copper Co. has incorporated at Bakersfield; capital stock \$5,000,000. J. Werlinger, \$2,500,000; J. M. Keith, \$1,249,000; J. J. Mack, \$1,249,000; R. S. Elwood, \$1000; S. L. Mack, \$1000.

YUMA COUNTY.

The Crosby-Ehrich syndicate of Colorado Springs, which recently purchased 2000 acres, is building a dredger, with a capacity of 4000 yards per day, that will cost \$50,000, to be towed to Pot Holes. The company is also prospecting its ground with a drilling machine.

The Colorado River G. D. Co. is making an examination of 10,000 acres at the junction of Yuma Wash and the Colorado river.

Arkansas men have a bond on 500 acres of dredgable placer land in the Laguna district, owned by the Y. C. R. G. D. Co.

The prospective purchasers have thirty days to examine and prospect the ground; the bond calls for the payment of \$20,000 in various installments. Prospecting has begun.

F. M. Barnes of Poncha Springs and other Colorado men are examining a tract of 40,000 acres above The Needles.

The Advance Gold Co. has launched its barge at Yuma and is putting in machinery. It will be completed in October and will cost \$40,000.

The Cuchan G. M., M. & D. Co. is prospecting with steam power drills 640 acres of placer ground, to determine the character of machinery necessary to work the property.

Sept. 15, 1900 p. 317

SAN BERNARDINO COUNTY.

At the placer mines near Barstow several strikes have been made. The Yucca, Long Range and Duncano mines have been turning out rich dust and the force of employes nearly doubled. E. Corner took eighteen ounces, valued at \$330, out of the Yucca mine. D. Smith of Pasadena brought a sack of dust worth \$900 into Barstow, which he said he and two other miners had panned out in three weeks. At the Long Range mine, which is 9 miles east of Yucca, Clark, Campbell & Sterons are making from \$4 to \$10 a day each.

INYO COUNTY.

A tract of 16,000 acres of land, in which has been found alumina, has been located on the shores of Owens lake as placer ground.

The Owens Lake B. M. & M. Co. is incorporated. A. Baker, W. R. Smith, W. S. Bell, G. W. Brown and C. E. Hockett subscribed.

One hundred and seventy-one sacks of ore shipped from the Bunker Hill mine netted \$604.

Independent: The Tuba mill is running day and night.—The Ratcliff Con. Co. are working on the Harrison lease. lease.—The first carload of antimony from the Wild Rose will be shipped from Johannesburg on the 20th inst.—The Ratcliffe mine sent down to Ballarat for five men and could get but two, there being no miners in the country.—The Randsburg R. R. Co. are surveying between Johannesburg and Ballarat.—The new placer diggings at Stone Corral are attracting attention. Miners are going in from the Goler and Rademaker districts.

KERN

County Recorder Lee has turned into the county treasury \$5368.27, the amount involved in the recent litigation concerning fees for recording mining claims; the Supreme Court recently decided the case adversely to Mr. Lee.

Mining and Scientific Press
Sept. 22, 1900 p. 347

KERN COUNTY.

The Mammoth mine of Kernville, owned by Mr. Russell of Los Angeles, who has a 10-stamp mill, is to have an increase to forty and a tramway, the machinery to be run by electric power.

Randsburg Miner: The Buckboard mine has had sixty tons of ore crushed at the Red Dog mill, which produced a gold brick worth \$1000.—The California Borax Works will resume.

SAN BERNARDINO COUNTY.

(Special Correspondence).—The Bagdad mine, 7 miles south of Ludlow, has a high grade and apparently extensive ore body in the 200-foot level, which is being explored; C. Grant is Supt. Ludlow, Sept. 18.

Sept. 29, 1900 p. 377

YUMA COUNTY.

C. S. McIntire will superintend the new mill to be erected by T. M. Drennan 50 miles below the Needles. The machinery is at Mellen.

RIVERSIDE COUNTY.

A new industry in Perris is shipping earth to the cement works at Colton. There is a bed of adobe near Perris especially adapted to the cement which the Colton company is manufacturing; twelve carloads a day are sent to the factory.

SAN BERNARDINO COUNTY.

H. A. Cohen is at Capt. De Lamar's Gold Mountain group, where forty stamps are dropping on ore, with the first regular clean-up to take place during his presence in California.

The Orange Blossom group, in Hykorum district, near Bengal, will be worked this season by the Desert P., E. & D. Co. of Needles; L. V. Root Sec'y, W. B. Coombs Supt.

Oct. 6, 1900 p. 406

INYO COUNTY.

Independent: The Ballarat M. Co. will build a 10-stamp mill at their mine, 4 miles south of Ballarat.—Supt. Harrison of the Ratcliffe Con. is looking for miners and needs about fifteen more men.—The miners working at the Cooper mine, at Stone corral, are getting \$4 per day.—The Tuber Canyon Co. will take out their roller mill, replacing it with a new 10-stamp mill.—Supt. Stobbins of the World Beater mine has interested Los Angeles men in the mine and is running a tunnel from the mill level to tap the ore body 300 feet lower than the present workings.—Supt. Pickett of the Cole & Garcia mine will develop the property with twenty men.

KERN COUNTY.

The Yellow Astor M. Co. is locally credited with intention to build a 100-stamp mill in addition to its present 30-stamp mill.

LOS ANGELES COUNTY.

The Desert M. Co. has incorporated in Los Angeles; A. C. Harper, A. Solano, R. H. Smith, M. Allen, R. N. Walton; capital stock, \$250,000; subscribed, \$500.

Oct. 13, 1900 p. 439

RIVERSIDE COUNTY.

Studenraugh & Barta, 12 miles northeast of Capistrano, have spent the summer running a tunnel 65 feet with a 7-foot dike of what they think is tin ore in the face. The local paper says assays indicate that this ore runs from 3% to 6% tin. It carries iron and traces of silver. This property is about 20 miles from the Temescal mine.

Oct. 20, 1900 p. 469

SAN BERNARDINO COUNTY.

The Copper Peak group of mines lies east of the Ord mountains; the shipping point is Victor. The ore is red and black oxide, sulphide and carbonate. The deepest shaft is 6x4, 30 feet, in carbonate which yields 18% copper.

Oct. 27, 1900 p. 498

INYO COUNTY.

Smith & Bell, of San Francisco, will build a boracic acid plant on west side of Owens lake.

Barnes & Anderson will build a 5-stamp mill at Willow Spring, near Citrus.

YUMA COUNTY.

The Advance Gold Dredging Co., Yuma, will start dredging at the Potholes when river permits.

Mining & Scientific Press
Oct. 27, 1900 p. 498

SAN BERNARDINO COUNTY.

Black Nugget mines, 20 miles north from Daggett, continue to produce gold in paying quantities. Latest report says three men took out ninety-one ounces in three weeks with a dry washer. This is ten ounces, or about \$175 per week, to the man.

The Helene Copper Co. is incorporated in Arizona, to work copper properties in Camp Vera, 18 miles north of Barstow.

Sixty stamps will be added to the forty now in operation in the Gold Mountain mill, making a total of 100.

Nov. 3, 1900 p. 510

SAN BERNARDINO COUNTY.

The Edna mine, southeast of Randsburg, is sold by H. T. Duff to the Edna M. & M. Co., for \$36,000.

Work at the Gold Mountain, near Bear Valley Lake, is being pushed.

At Gold Mountain there are seventy-five men employed in the mine and mill; the latter is in continuous operation. The mine is worked by one shift; all the ore is taken out that can be handled by the mill. J. D. Spargo is Supt. The forty stamps have a capacity of three and one-half tons each—a total of 140 tons—running \$5 a ton. It is expected that the mill will be increased to 100 stamps. There are 189 people in the camp.

SAN DIEGO COUNTY.

The stamp mill at the Escondido mines is running day and night.

Nov. 10, 1900 p. 523

SAN BERNARDINO COUNTY.

Copper ore has been discovered at the Copper World mines, Valley Wells. Supt. Ritchie says he will give employment to fifty men.

SAN DIEGO COUNTY.

Julian reports the finding of the original ledge of the Stonewall mine at Cuyamaca by Jones, Stambak, Crano & Mueller.

RIVERSIDE COUNTY.

It is expected that Manager Segapno of Perris, who was given a decision in the Good Hope mining suit, will begin development work soon.

The Indian Queen, M. J. Andrews manager, is pushing work. A stamp mill, boiler, hoist and engine are in place, ready to run.

The Perris, owned by W. F. Bray, is reported bonded to Los Angeles men, who intend to begin operations soon.

Ore from the Washington, F. Bates manager, is said to mill better than \$60 to the ton.

Nov. 17, 1900 p. 534

SAN BERNARDINO COUNTY.

The mill of the Parker Milling Co., 65 miles from The Needles, is progressing; men are working in the mine, 4 miles from the mill, getting out ore.

The owners of the Leuti, near Dale, will put in a cyanide plant.

Kern County

The Yellow Aster M. Co. is getting foundations, etc., ready for the placing of the new 100-stamp mill. The contract for the latter was awarded the Union Iron Works of San Francisco on the 10th inst. The stamps are to be 850 pounds each.

Nov. 24, 1900 p. 549

Kern County

The Dean, in the Slate range, has a 20-stamp mill running. The cyanide plant comprises one 260-ton tank and four 150-ton tanks. It is estimated that there are \$60,000 worth of tailings on hand.

A good strike was recently made at the Kinyon, Randsburg. The ore is said to mill \$200 to the ton. They have a stamp mill and a cyanide plant.

RIVERSIDE COUNTY.

M. J. Andrews, Supt. Indian Queen, Pinacate district, is placing new machinery at the mine preparatory to starting work. A 10-inch vein is opened up.

The Rincon Crude Oil Co., Riverside-Fullerton district, will begin drilling near the Montezuma property.

SAN BERNARDINO COUNTY.

At Gold Mountain, Supt. Spargo is quoted for the statement that sixty extra stamps are to be put in. A 4-inch pipeline, by which water is forced to the camp, comes from the highest artesian well in the State.

INYO COUNTY.

G. L. Albright of Bishop is putting in machinery in the new mill at Rhode's Marsh.

The Ratcliff, Ballarat, recently closed down owing to scarcity of water, will resume, and twenty stamps will be dropping shortly.

The Mineral Hill M. Co. has twenty men employed. They have a 6-stamp mill.

Mr. Stebbins is putting in a 6-stamp mill near Ballarat.

Salt Lake men are working fifteen men on property adjoining the Mineral Hill.

A German company is working the old silver tailings in old Panamint, with such good results that they will erect a smelter. They have let a contract for 500 tons of charcoal.

The Reward, Ballarat, is down 825 feet in ore. The 10-stamp mill is running. Ten more stamps will be put in.

After lying idle for years the old Montezuma has been sold to Chicago men for \$15,000. This mine carries gold, silver and lead.

Mining & Scientific Press
Dec. 1, 1900 p. 562

YUMA COUNTY.

F. Guerra has twelve men working on a group of claims in Picacho district. It is locally reported that Senator Jones of Nevada and S. Jones and H. T. Graham of New York are interested in the group, and that they will put in a 100-stamp mill. A strike is reported in the King of Arizona district.

The Empire Copper Co., operating in Empire Flat district, project the erection of a smelter.

INYO COUNTY.

Ashford & Inman have bonded the Emily Enid and Bonanza Jim mines, near Bishop.

Dec. 15, 1900 p. 586

SAN DIEGO COUNTY.

The Mars, Venus, San George and Goshen mines, near Picacho, are reported sold to Senator Jones of Nevada and others for \$100,000. A 1000-ton cyanide plant will be put up.

INYO COUNTY.

Wells, Fargo & Co. has sued the Ratcliff Consolidated Gold Mines for foreclosure of a mortgage on the mines, mill sites and water rights of the company. A balance of \$16,982.50 is alleged to be due. M. Sheridan is appointed receiver.

Work on the Montezuma, near Big Pine, will be pushed; a rock crusher, roller mill and five concentrators will be put in near the dump; power will be furnished by a 40 H. P. engine; a 110-foot tunnel is run, tapping ledge 80 feet below the surface.—Mandeville, Fuller & Malone are pushing work on their nickel property near Black Rock.

SAN BERNARDINO COUNTY.

The smelter of the Needles Smelting Co., at Needles, was started up on the 2nd inst.

The Nevada Con. M. & R. Co. is incorporated at San Bernardino; directors, R. F. Harrison, Los Angeles; S. T. Godbe, Salt Lake; F. Hison, A. H. Ham, J. L. Campbell, F. W. Gregg, San Bernardino; G. E. Otis, Redlands; capital stock \$200,000, subscribed \$4010.

RIVERSIDE COUNTY.

A. D. Hall, Supt. Riverside M. Co. which is operating mines 40 miles north of Salton, says that the company has a 125-foot ledge; it is the intention to put on double shifts of men.

Dec. 22, 1900 p. 598

INYO COUNTY.

The 6-stamp mill of the Mineral Hill M. & M. Co., at Ballarat, is running.—The King Con. M. Co. will probably put in a mill.—The Ratcliffe is closed down; it may be sold soon.—Ore from the Tubor is reported to run \$25 to the ton.

The Inyo G. & C. M. Co., at Inyo, is shipping ore.

Kern County

C. L. Buckingham of Denver, Colo., has prepared plans for a 50-ton mill for the Exposed Treasuro G. M. Co., at Mohave, which will be provided with stamps, amalgamating plates, cyanide equipment and concentrating tables, the power to be supplied by gasoline engines. Mr. Buckingham will supervise the construction.

The Lida, in Rosamond district, near Mojave, is reported sold to Los Angeles men for \$100,000.

Dec. 29, 1900 p. 611

SAN BERNARDINO COUNTY.

The Colton Cement Works have closed, with little prospect of reopening. The works have changed hands and management several times within a few years.

SAN DIEGO COUNTY.

The Free Gold M. Co. has its 100-stamp mill and cyanide plant at Hedges running steadily.—The new stamp mill going in on the American Girl group is nearing completion.—The New York Oil Co. will drill for oil on the beach near Ocean-side.—The Monarch well is down 1000

Kern County

The Butte Lode M. Co., operating the Butte, at Randsburg, last week shipped to Los Angeles two gold bars worth \$4200; result of a mill run of seventy-two tons of ore; twenty men are employed.

—A new 26 H.P. engine is in at the Buckeye, near Randsburg.

INYO COUNTY.

The King Con. M. Co. projects a mill on its property near the Redlands mill, at Ballarat.

Mining & Scientific Press

Jan. 5, 1901 p. 8?

INYO COUNTY.

Work is in progress on the Emily Enot, near Bishop.—The Menlo & Belmont group, consisting of seven claims, and the Imperial & Royal and the Empire group of ten claims, in Argus district, are sold to C. A. Burcham for \$25,000.

RIVERSIDE COUNTY.

The Crystal Spring M. & M. Co., capital

\$1,000,000, is organized to work what formerly known as the Midnight Or Kenworthy; J. L. Harman, of San Diego, Supt.; an 800-foot crosscut will be run to strike the ledge; \$50,000 raised for development purposes.

Kern

The Blue mine at Kernville, lately sold, will be reopened, after lying idle for seventeen years. Electricity will be used for light and power.

Jan. 12, 1901 p. 41

KERN COUNTY.

The Exploration Co. has leased the Garlock mill, Randsburg, and is running it on ore from its mine. Twelve men are employed, eight in the mine and four in the mill; Supt. W. Wilkerson. The tunnel is in 525 feet. Hauling of ore from the mine to the mill, a distance of 1 mile, costs 50 per ton.—The last clean-up of the Butte mine at the Red Dog mill, Randsburg, made Jan. 1st, yielded \$4454 from fifty-nine tons, or over \$75 to the ton.

Over 1500 mineral locations and proofs of labor have been filed in the county recorder's office this month. The county recorder collected as fees in one day \$1500 for filing new petroleum locations.

LOS ANGELES COUNTY.

The Panamint M. Co., capital \$200,000, is incorporated at Los Angeles.—The Organita M. Co., capital \$100,000, is incorporated at same place.

Jan. 19, 1901 p. 53

INYO COUNTY.

The mineral products of the county are gold, silver, lead, copper, soda, borax and marble. The total value of the mineral products of Inyo county for the three years ending December, 1899, was \$1,247,696. Of this amount the value of the output of gold was \$411,134, and of the output of soda \$514,000. In July, 1900, there were thirty-two gold and silver mines and one borax, one salt and one soda works in operation.

RIVERSIDE COUNTY.

It is said that an Eastern company stands ready to take over the iron mines in Eagle Mountain district when litigation between Cook and partners and Garrett and partners is settled; there are twenty-six claims located in the district, aggregating 538 acres.

Jan. 26, 1901 p. 64

SAN BERNARDINO COUNTY.

The mineral products of the county are gold and silver, copper, borax, cement, lime, brick, granite, stone, paving blocks and marble. The value of the total product of those minerals for the three years ending December, 1899, was \$4,816,283. Of this amount the value of the output of borax was \$3,306,000 and of the output of gold \$526,484. In April, 1900, there were thirty-seven quartz, five copper and five borax mines in operation.

At Copper Camp, 18 miles from Manvel, J. M. Kennedy is opening up properties for Salt Lake, Utah, parties.—The Kemple & Thomas mines, near Sandy, are shipping silver and lead ore.—A tunnel is being run on the Tam O'Shanter (silver-lead).—On the Green Mountain group (copper and silver-lead), belonging to the Hearst Estate, a depth of 200 feet is attained. Drifts show copper ore bodies; Supt., F. O. Wilkinson.—The Potosi mines (silver-lead), recently incorporated at Los Angeles, are about 60 miles from Manvel.—J. B. Osborn, operating the Gun Sight, is shipping ore regularly. The ore is said to run 30% lead and from 30 to 50 ounces silver to the ton, it being hauled 100 miles.

SAN DIEGO COUNTY.

The mineral products of the county are gold and silver, lead, copper, salt, lithia, mica, granite, rubble rock and mineral water. The total value of these products for the three years ending December, 1899, was \$1,702,201. Of this amount the value of the output of gold was \$1,599,174. In the spring of 1900 there were twenty-two quartz mines, at which work was more or less actively prosecuted, and one copper mine had been opened.

I. Trumbo reports 140 stamps dropping at the Gold Crown, at Hedgos; 300 tons of tailings daily are being treated by the cyanide plant; preparations are being made for the use of oil as fuel at the mine; prospecting for the copper-bearing zone is in progress and the latter is expected to be reached at a depth of about 1500 feet.

RIVERSIDE COUNTY.

The mineral products of the county are gold and silver, mineral paint, asbestos, quartz sand, coal, salt, pottery, brick, granite and lime. The total value of those products during the three years ending December, 1899, was \$707,892. Of this sum the value of the gold output was \$499,425. In the spring of 1900 there were nineteen mines on which more or less work was being done, several of which were in active and continuous operation.

Jan. 26, 1901 p. 64

KERN COUNTY.

The mineral products of the county are gold and silver, borax, antimony, Fuller's earth, asphaltum, petroleum, coal, lime and brick. The total value of the mineral products of the county for the three years ending December, 1899, was \$3,088,543, and of this amount the value of the gold product was \$2,635,657. The mineral deposits of the county are distributed not only throughout the crystalline rocks of the higher mountains, but also through the sedimentary formations which form the foothills bordering the valley lands. The mineral deposits of the crystalline rocks are represented by the gold mines of the Kern river basin and of the Caliente district in that portion of the Sierra Nevada mountains which lies to the north of Tehachapi, and by the mines of Randsburg district, which lies to the south of that range. Some good prospects have also been discovered near Rosamond, a short distance from the southern boundary line of the county. There are also deposits of antimony and copper. The mineral deposits of the sedimentary rocks are those of petroleum which have been discovered in the Tertiary rocks forming the foothills on both sides of the San Joaquin valley. Indeed, these discoveries may be said to be the most important events in the mining history of California for the years 1899-1900. During the past five years the most important feature in gold mining in the county has been the growth and development of the Randsburg district, although there has of late been an increased activity among the mines of older districts which had previously been idle for many years. The deposits of petroleum before referred to are those of the Kern river district, on the eastern side, and of the McKittrick and Sunset districts on the western side of the San Joaquin valley.

A 10-stamp mill may be put in on the Jennie B. in the Slate range, near Randsburg; Stanley & Hushfeld, owners.

Feb. 2, 1901 p. 75

INYO COUNTY.

The Dehance mine at Darwin, owned by the Pat Ruddy estate, has been bonded to S. B. Milner and C. D. Hooklidge of Salt Lake City for \$100,000.

Kern

Operations are resumed on the Little Butte at Randsburg.

The Jenny Lind and Philadelphia quartz mines, at Randsburg, are leased to E. Ferris.

At the Exposed Treasure, near Mojave, the new plant, capacity fifty tons per day, is nearly completed. The shaft is down 460 feet. The ore runs \$67 to the ton.—On the Karma the shaft is down 280 feet. Four hundred feet of drifting is completed.—Work is in progress on the Mojave group, adjoining the Karma.—Ore running \$180 per ton is opened on the Little Johnnie, an extension of the Mojave group.—It is estimated that the output of the Mojave mines from March 1, 1901, to March 1, 1902, will be more than \$300,000.

Feb. 9, 1901 p. 86

Kern

The new 100-stamp mill going in on the Yellow Aster, at Randsburg, is expected to be crushing ore by the middle of March; it is estimated they will require only 1500 gallons of water daily, against 9000 gallons now used.

Feb. 16, 1901 p. 97

INYO COUNTY.

More men are being put on at the Dehance, at Darwin.—Ore assaying \$100 to the ton is reported in a 2-foot ledge in Yuba canyon, near Independence.

J. King, owning and operating the Bronco mine at Ballarat, will put in a mill in October.—A ledge of \$35 ore is reported in the O Be Joyful, in Tuba canyon, near Ballarat. A one-third interest in the group is reported sold to W. S. James of Los Angeles for \$16,000—\$8000 cash and the balance in ninety days.

SAN BERNARDINO COUNTY.

At Gold Mountain the 40-stamp mill, owned by J. R. DeLamar, is running steadily; sixty additional stamps will probably be added this year; seventy-five men are employed.

D. E. Hayes of San Francisco will buy 380 acres of mineral land north of Ontario for \$50,000. The contract calls for the expenditure of \$2000 during the first three months and of \$5000 for each of the three remaining quarters of the year.

SAN DIEGO COUNTY.

Ore from the Iron Mountain, near Warner's Springs, recently crushed at the Ruddy Relief mill at Banner, ran \$10 to the ton.

The Golden Cross, near Ogilby, owned by the Froo G. M. & M. Co., comprises thirty-two acres; surface shafts are down from 700 to 1000 feet; two mills on the property have a total of 140 stamps; the 300-ton cyanide plant is said to treat tailings at a cost of 70 cents per ton; ore runs from \$4 to \$10 per ton. The shaft on the American Girl, near the Golden Cross, is down 460 feet; ore runs about \$12.50 to the ton; crushers are going in;

latter will treat ores from the American Girl and from the American Boy, 2400 ft.; ore from latter mine runs about \$12.50 to the ton; American Boy shaft is down 350 feet.

Mining and Scientific Press

Feb. 23, 1901 p. 107

RIVERSIDE COUNTY.

Good reports come from the Red Cloud, 30 miles from Salton; fifty men are employed; the 100-ton smelter and the two 10-stamp mills are completed and will start up shortly; mills will handle 300 tons of ore per day at an estimated cost of 65 cents per ton.

SAN DIEGO COUNTY.

Operations at the Monarch and Victory oil wells, near San Diego, are suspended temporarily.—Ore running 25% copper is reported opened up on property 25 miles from De Luz.

Suit is begun in the Superior Court of the county to recover one-half interest in the Litzolite, near Pala, containing extensive bodies of lithia-bearing rock; J. Stewart, plaintiff; N. C. Douglas, defendant.

INYO COUNTY.

Owing to heavy snow, mining operations near Darwin are temporarily suspended.

The 20-stamp mill at Castle Peak will start up this spring.—Mining operations near Lundy are under way, and it is expected that the 20-stamp mill near there will start up soon.—Wood is selling at from \$11 to \$14 per cord.

Mar. 2, 1901 p. 117

INYO COUNTY.

A recent cleanup of Barnes & Anderson, operating east of Independence, returned \$2300.

KERN COUNTY.

The Kingston mill, at Randsburg, is running on ore from the Little Butte, near there, operated by Hammell, Graham & Lamb.—The Jennie B. group, near Slate Range, will be incorporated and developed on an extensive scale.—The Prosperity Oil Co., capital \$1,000,000, and the Morning Star Oil Co., capital \$100,000, are incorporated at Bakersfield.—Good progress is being made on the new mill at Randsburg.—The Yellow Aster mill, Randsburg, closed down for a few days last week, owing to a lack of fuel.—

SAN BERNARDINO COUNTY.

A strike of gold and copper ore, running from 16% to 26% copper and from \$10 to \$60 per ton, is reported made on the Boner properties, 60 miles south of Needles.—A three-fourths interest in 380 acres of mineral land near Ontario is reported sold to D. E. Hayes of San Francisco for \$50,000.

Mar. 9, 1901 p. 127

INYO COUNTY.

A 100-ton concentrating plant will go in at the Roddy mines, near Darwin, this spring; C. D. Rooklidge, manager.

KERN COUNTY.

At Ludlow the Barstow mill is now running.—The Red Dog mill is running on ore from Mojave. A recent run of the mill on 50½ tons of ore from the Butte, near Randsburg, Supt. McMahon, returned two bars of bullion, aggregating \$4525.—

SAN BERNARDINO COUNTY.

The Quartette M. Co., operating north of Blake, on the Colorado river, has its 20-stamp mill running steadily. A narrow gauge railroad is to be built from the mines to the mill; manager, B. Macready.—Operations at the Searchlight, same district, are being pushed by Manager G. M. Rose.—The Keystone, Arctic New Era, Mondanun and Annette mines are shipping ore.—T. C. Fern, operating in same district, will put in new machinery this spring.—The turquoise mine, north of Blake, is being developed.

SAN DIEGO COUNTY.

The well of the Monarch Oil Co., near San Diego, is down 900 feet; it will be drilled to a depth of 1500 feet.—The tunnel now being driven to convey water from Santa Ysabel creek to the placers in Hatfield canyon, near Ramona, now in 1300 feet, will be run an additional 300 feet.

March 16, 1901 p. 137

KERN COUNTY.

The Randsburg Ore Sampling & Buying Co., General Manager Stagg, will put up sampling works at Johannesburg.—The work of rebuilding the new reservoir of the Yellow Aster Co. at Randsburg is completed.—

March 23, 1901 p. 151

KERN COUNTY.

The Union Trust Co. of New York has filed a \$25,000 foreclosure suit against the Randsburg - Santa Fe Reduction Works, at Barstow. The plant has been idle for some time. It is locally believed that should the plant be sold at public auction the owners of the Yellow Aster mine at Randsburg will bid it in and have it removed there.

Miner and Scientific Press

March 30, 1901 p. 160

RIVERSIDE COUNTY.

Ferris reports that the Santa Rosa gold mine has been sold to Denver and Los Angeles men, who will unwater the property.

At the Red Cloud mine, 30 miles from Salton, fifty men are employed; a 100-ton smelter has been erected. In the same district two 10-stamp mills have been completed.

Kern

The Yellow Aster at Randsburg will be sunk to the 1200-foot level.

April 6, 1901 p. 171

Kern

The last cleanup of the Yellow Aster at Randsburg was the best for months. A pipe line is being surveyed to run the tailings from the 20-stamp mill to a tailing pond. Fifty stamps of new mill will be ready to start next week.

Long distance telephone connection has been made with Randsburg, Garlock and Johannesburg.

SAN DIEGO COUNTY.

The boundaries of the new Colorado desert mining district were fixed last week at a miners' meeting at Carriso creek station; L. A. Wright president, H. E. Mills secretary.

April 13, 1901 p. 182

INYO COUNTY.

Discoveries of nitrate beds are reported from Death valley equal in quality to the Peruvian deposits. Three claims are reported to have been sold recently.

KERN COUNTY.

The Ceresus Co. expect to put in immediately a 40-ton cyanide plant on the Pinmon mine, Randsburg. They estimate 8000 tons of tailings on their dump already.

The Butte mill run of 75½ tons yielded \$10,300 in gold.

W. Inman has struck a ledge of \$30 rock in the Kinyon, Randsburg.

SAN BERNARDINO COUNTY.

A strike is reported in the Ovid district, near Victor, a ledge 8 feet wide opened by a 60-foot shaft and crosscut. The find is iron oxide carrying wire gold and native silver.

SAN DIEGO COUNTY.

The Golden Cross at Hodges is still in litigation. The Free Gold M. Co. is suing J. Spiers and others for the possession of the mine, \$50,000 rents and \$200,000 damages.

April 20, 1901 p. 193

KERN COUNTY.

New concentrators are to be added to the Garlock mill.

Sampling works at Randsburg are now completed.

The Santa Fe Reduction Co., at Ludlow, will move twenty stamps from the Barstow mill to that place, if prospecting develops water to run them.

Goldsmith & Kobb are operating the Winnie mine. They intend sinking from 170-foot level to 300-foot level. A crushing of eight tons returned \$40 per ton.

April 27, 1901 p. 204

KERN COUNTY.

The 100-stamp mill of the Yellow Aster M. Co. has been started. The mill crushes 450 tons daily.

May 18, 1901 p. 234

KERN COUNTY.

J. G. Larrick has bonded a three-fourth interest in the Hard Cash mine, near Randsburg, to B. McAnear and others for \$1500. It is low grade and can be made pay by hauling and crushing at custom mills, but they are experimenting with the ore on the ground by cyaniding after being put through coarse crushing.

The Butte Lode M. Co. has been joined by C. E. Ferris and wife, who own the Philadelphia claim, adjoining. They claim that the Butte people since July 1, 1900, have removed ore valued at \$10,000 from the Philadelphia.

June 1, 1901 p. 254?

INYO COUNTY.

The Burns & Anderson mine at Independence has been bought by H. C. Steele for about \$10,000. Development work is now being done and mill is to be started soon.

SAN DIEGO COUNTY.

A company is said to be preparing to work on the Gold Crown group of claims at Picacho, owned by Capt. I. Polhamus of Yuma, J. Mendibles of Picacho and a number of Los Angeles parties. A \$60,000 smelter is contemplated.

June 8, 1901 p. 264

KERN COUNTY.

The Yellow Aster Co. of Randsburg has re-elected J. Singleton president and R. L. Burcham secretary.

The King Solomon group, near Randsburg, owned by the Ashford M. Co., has been bonded to L. R. Garrett of Los Angeles for one year. Work is to be continuous; \$1000 is to be paid in four months and \$12,000 more in one year; P. McMahon is Supt.

Vol. 83
July 18, 1901 p. 18

Vol. 83
Mining and Scientific Press

June 15, 1901 p. 275

KERN COUNTY.

J. Smith is finishing operations on the tailings of the Little Butte mine, there being only 100 tons more to treat. The last clean-up was \$160. The slimes are now being treated with the usual difficulty in making the percolation. He has installed a compressor and is pumping air through the mass. This has the mechanical effect of separating the particles so that the cyanide can do its work, and also furnishes oxygen.

June 29, 1901 p. 298

SAN DIEGO COUNTY.

It is reported that the Golden Cross mines at Hedges, near Yuma, have been sold to New York parties for \$2,000,000.

Sept 21, 1901 ?? p. 123

INYO COUNTY.

G. F. Willis and J. C. Roepor have leased the old Green Monster mine, near Independence Station, for two years. The mine has been idle for many years. Should working tests prove satisfactory, the lessees expect to be able to ship a carload of ore daily.

J. C. McMillan has shipped a 60-ton lot of ore from the Eva Bello mine, near Piate Station, averaging probably \$50 a ton. The work done on it is through a 130-foot tunnel, at the end of which drifts have been run along a 5-foot ledge of ore averaging about \$20 per ton value. It carries

a small percentage of copper, and gold and silver in about equal values.

KERN COUNTY.

The Gold Coin and Stanford mines at Randsburg are milling ore at the Red Dog mill, which is expected to average \$50 per ton, or better. These mines are owned by Nixon, Kuffel and Mann of Randsburg, and up to the present they have hoisted with a whim, but increasing depth has made a change necessary and a gasoline hoist is under consideration.

May 11, 1901 ?? p. 224

INYO COUNTY.

Work is to be resumed in the Polata mine, Independence, N. Harrison, on manager. G. Cowser has contracted to sink 100 feet and two shifts will be put on.

KERN COUNTY.

The Butte Lode Co., at Randsburg, has milled thirty-four tons at the Red Dog mill, obtaining \$3950, an average of \$116 per ton. A new gasoline hoist has been installed and a new ore bin and track built.

Work is to be resumed on the Argus Butte mine, near Randsburg, owned by John Rosenfelt Sons, of San Francisco, G. Lewis, superintendent. There is a mill on the mine, but the ore is refractory and has been sent to a smelter, but the cost of transportation is heavy.

SAN BERNARDINO COUNTY.

From the Buckeye, at Ludlow, ore is being shipped to the Barstow reduction works. On the west end several open cuts show a body of ore fully 40 feet across. Contracts have been let for the development of water, which if successfully developed thirty stamps of the mill will be removed from Barstow to the mine.

Four men are doing development work on the Roosevelt claims adjoining the Buckeye on the same ledge.

It is reported that the Rose gold mine, 55 miles east of Victor, has been bonded to H. B. Starbird, who has started work. The dump of tailings will be cyanided.

The 40-stamp mill of the Gold Mountain M. Co. is making regular bullion shipments.

W. L. Malone, president of the Bullion G. M. & M. Co. at Ontario, says a good streak of pay ore had been struck in the company's Mother Lode mine out on the desert, at a depth of 125 feet.

The pipe line put in by the Brooklyn M. Co. at Dale is said to be a success, and sufficient water is delivered to keep the O. K. and Brooklyn mills running continuously.

July 20, 1901 p. 28

INYO COUNTY.

The Reward G. M. Co. at Independence are investigating the mountain streams to find a water supply and site for an electric power plant.

KERN COUNTY.

Rich ore has been struck in the Trilby mine, Yellow Aster group, at a depth of 1120 feet.

The 30-stamp mill of the Yellow Aster Co., which has been shut down for repairs, has been started up again. The condition of the mine and the facilities for getting ore to the mills is considered such that 500 tons of ore daily can be supplied to the two mills.

Aug. 3, 1901 p. 48

SAN DIEGO COUNTY.

A Los Angeles company, headed by E. L. Baker, has bonded the Hodges mine on the Colorado river, opposite Cibola, Ariz., and are opening up large bodies of high-grade gold ore. The purchase price is said to be \$75,000, to be paid in installments as the mine is developed.

KERN COUNTY.

The Good Hope-Kinyon mine, at Randsburg, has been bought by people represented by W. J. Trask for, it is understood, about \$10,000. The 2-stamp mill, three dwelling houses at the mine and other property go with the mine.

Mining and Scientific Press

Aug. 10, 1901 p. 58

SAN DIEGO COUNTY.

At the California Gold King mine, near Yuma, the owners are preparing to spend a large sum in improvements, says S. W. Dorsey. All the material for a 1000-ton cyanide plant and for 5 miles of railroad is on hand. The company owns twenty-four claims, a free milling proposition. The ore assays \$3 to the ton.

Receiver C. W. Pauly of the Golden Cross mines in his June report shows receipts \$28,196.73 and expenditures \$20,074.22. The value of the bullion produced by the stamp mill during the run from May 6 to June 7 was \$15,042.34, the returns from the cyanide plant \$11,992.09, and from other sources \$1162.10. The expenditures included, among other items: For labor, \$7398.49; freight, \$1229.05; fuel, \$663.15; merchandise and supplies, \$9596.12. The report also includes a statement of the development work, showing that 345 feet of drift and winze had been made during the month. The estimated cost of sinking the shaft in the Cross mine and the winze in the Crown was about \$5 per foot, and the drifting in the Cross and the Queen about \$1 per foot.

Aug. 31, 1901 p. 91

SAN DIEGO COUNTY.

The Hodges Bros. of Yuma, Arizona, and Hedges have bonded a group of eight claims at Hedges to G. H. Barker of Pasadena, Los Angeles county, Cal., for \$75,000, and another group of six claims for \$6000. Development work is being done under charge of G. A. Trumbou and W. B. Hodges. Four shafts are down over 100 feet each, with the ore body improving with depth. In tunnelling on the property it is claimed a rich ledge was found.

Sept. 7, 1901 p. 102

RIVERSIDE COUNTY.

R. P. H. Laney of Picacho and Ehrenburg is interested in a new gold and copper find opposite Ehrenburg and about 27 miles west of the Colorado river. The ore is rich in gold and copper. The outcropping covers thirteen claims. Laney and his associates, F. Guorra, J. P. Carl, J. S. White and S. Temple are making arrangements to do development work.

Sept. 14, 1901 p. 112

INYO COUNTY.

The old Panamint mine, that has been closed down for twenty-five years is to be reopened. It is located at an altitude of 10,000 feet on Telescope Peak, over the range from Death valley. The equipment of the mine consists of a smelter, a 200 H. P. engine, two 200 H. P. boilers, an assay plant, several discarded 10-stamp batteries, one good one. The property was bought at Sheriff's sale to satisfy an indebtedness for delinquent taxes of \$5000 or \$6000 by a Mr. Pedley. The latter has appointed Mr. Stobbins of Ballarat as manager. Concentrators have been put in and the concentrates will be treated on the ground; a crusher is also being installed. The roads leading to the mine have been repaired.

SAN BERNARDINO COUNTY.

A rich strike is reported made in the mine of the Ludlow M. Co., Buckeye district, San Bernardino. In the last 8 feet of the tunnel a large ledge of pay ore has been struck. E. H. Stagg of Randsburg is one of the owners.

Sept. 28, 1901 p. 135

SAN BERNARDINO COUNTY.

The Leland and Mitchell group of mines, near Needles, owned by J. H. West and S. A. Bedell, have been sold to T. Ewing for it is reported \$50,000, a portion of the amount being paid down. S. A. Bedell has been appointed Supt. and will start the mines up at once.

Oct. 12, 1901 p. 156

SAN DIEGO COUNTY.

London people have bonded the American Girl mine, 6 miles from Ogilby. It consists of six claims on well-defined veins of gold-bearing, free-milling ore, of which an enormous quantity is claimed already blocked out. The mine is owned by H. H. Markham, G. C. Coffin and F. S. Daggott of Pasadena and D. W. Field and T. Johnson of Los Angeles. The price in the bond is said to be \$2,000,000.

Nov. 2, 1901 p. 180

KECK COUNTY.

Supt. McMahon states that the Butte mine at Randsburg at its last milling of eighty-seven tons cleaned up \$5244, the average being about \$60 per ton. This ore came from the 375-foot level. The total production since June 1, 1900, has been \$73,500, average value per ton \$79.10. The Yellow Aster Co. at Randsburg have ordered a new boiler at the Goler wells. Both mills are now running and are crushing 450 tons of ore daily. The total cost of the new 100-stamp mill, complete, is stated to have been about \$105,000.

Nov. 2, 1901 p. 186

SAN DIEGO COUNTY.

It is reported that the California King G. M. Co. has commenced actual construction on its projected plant at Picacho, near the Colorado river. The plant will have a capacity of 1000 tons of ore a day and will be largely automatic in detail. The plant includes a 5-mile railway from the mines to the mill. The mine will be provided with steam shovels, capacity one ton, and the cost of loading, it is anticipated, will not exceed 2 cents a ton after the ore has been broken down at an estimated cost of not more than 6 cents a ton, including blasting. The company, it is said, expects to mine and mill the ore at a cost not to exceed 75 cents a ton.

Nov. 9, 1901 p. 196

KERN COUNTY.

The Santa Paula M. & Red. Co., near Randsburg, J. Starr, Supt., has started up its stamp mill.

SAN DIEGO COUNTY.

(Special Correspondence).—A reduction plant of 1000 tons capacity will be put in at the California King Mines Co., on the Colorado river, at Picacho, 20 miles north of Yuma, Ariz. The directors of this company include Senator J. P. Jones of Nevada, ex-Gov. J. B. Grant of Colorado, ex-Senator Pettigrow of South Dakota and ex-Senator S. W. Dorsey. The mine is 4½ miles from the river and is developed by open cuts and quarry work. A railroad, 36-inch gauge, is being built from the mine to the mill. The ore is to be

Nov. 16, 1901 p. 207

INYO COUNTY.

Wills & Rooper have shipped twenty-three tons of ore from the Green Monster mine, near Independence. A large body of shipping ore has been struck in the main tunnel.

KERN COUNTY.

(Special Correspondence).—The Democrat mining district, formed over twenty odd years ago, gives promise of a revival of life. Considerable development work has been done in the district in the past two years. The Mineral Spring mine, owned by O. W. Moyers, has had a new steam power arrastra put up on it, but has been found unsatisfactory and is now shut down for remodeling, so as to use a cyanide solution while the crushing is being done.

Development work is being done at the Gem mine; the 2-stamp mill at the upper tunnel is running continuously. The tunnel is in about 700 feet on the ledge; it was started to drain the old shaft 350 feet in from the mouth, but a blind shoot of ore 45 feet long, averaging 2 feet wide, was struck before reaching the old shaft. At the foot of the shaft the first worked shoot, about 40 feet long at the surface, extended out to 95 feet at the tunnel level, running from 20 inches to 7 feet in width. The lower level has been run to tap the lead 350 feet below the upper level. It will require about 600 feet of a crosscut, of which 290 feet is built. The rock is a blue granite, and drilling by hand is necessarily slow. The ore thus far milled has paid from \$12 to \$70 per ton free milling, and about 400 tons of tailings which they are saving assay from \$7 to \$42 per ton, some of the ore being very base. The owners propose to cyanide the tailings in the future.

Kern, Nov. 6.

The Mammoth Coal Co. of Randsburg has contracted to have a 3000 H. P. electric plant installed at the Mammoth coal mines, near Randsburg, to furnish power for the mills and light for Randsburg, Mojave and Barstow.

Dec. 7, 1901 p. 249

INYO COUNTY.

G. McConnell, J. J. Gunn, W. T. Grant and A. F. Mairs have bonded their group of mining claims, situated in the Ubehebe district, to W. O. Crosby of Boston, Mass., for \$125,000. Ten per cent is to be paid on or before Dec. 31st, balance to be paid on or before twelve months.

W. Moore has bonded a claim at Darwin for \$3500—\$500 cash down.

N. Breedin of Bakersfield has a bond on a claim near Tibbitts, belonging to G. D. Calvert, C. Walter and D. P. Hargis, at \$15,000.

The bond of W. T. Stevenson on the Flagstaff mine, at Swansou, owned by F. Meysan, has been assigned to J. E. Lutz of Oakland.

Mining & Scientific Press

Dec. 21, 1901 p 276

RIVERSIDE COUNTY.

The Tresposes M. Co. has been incorporated at Riverside, with capital \$100,000, by T. Doak, G. N. Reynolds, G. Bratt, T. C. Doak and J. M. Drake, who are the directors.

SAN BERNARDINO COUNTY.

The Bagdad M. & M. Co., operating a Bagdad, of which E. H. Stagg is manager has had milled 1000 tons of ore at the Barstow mill, which it is claimed yielded \$17,000. The 50-stamp mill at Barstow and the cyaniding plant will now be removed to the mines 8 miles south of Ludlow. The company's head office is located at Rochester, N. Y.

INYO COUNTY.

Ledy Bros. are working on the No Sabo mine, near Independence, owned by them and A. Vanfleet, and have a 20 to 24-inch ledge which samples an average of \$20 gold, with silver and lead in addition.

Dec. 28, 1901 p-289

KERN COUNTY.

The Butte Lode Co., at Randsburg, has cleaned up about \$5500 from a crushing of sixty-nine tons of ore. Supt. McMahon says he is working from two shafts, about 800 feet apart, at about 150 feet depth.

G. W. Lloyd is building a new stamp mill on the Phoenix mine, at Johannesburg.

The Yellow Aster Co., at Randsburg, is running its mills to full capacity, stopping only half a day monthly. About 450 tons of ore are crushed daily and it is expected to increase the amount to 500 tons. The ore for the most part comes from the "Glory hole," a shaft on the side of Rand mountain, connecting below with the track level. All around this shaft ore is broken out and run down the shaft to the track level, thence to the mills on the tramway. The "Glory hole" is about 100 feet in diameter at the top—not all ore, but sufficiently so to make it cheaper to put it through the mill than to first sort it, throwing out the waste. During November Mr. Burcham, acting Supt., cut the Rand vein 300 feet below the surface, where it averages 6 feet wide of rich ore.

Mining and Scientific Press

Jan. 3, 1903 p. 11

RIVERSIDE COUNTY.

The Chicago Co. that bought the O. K. mine near Dale on the Colorado desert will, it is reported, put in a dry crushing cyanide mill. The O. K. mine is over 300 feet deep. J. Sigafus is manager.

SAN BERNARDINO COUNTY.

The Columbia group of mines, 30 miles west of Manvel, are reported attached for \$3700.

Jan. 17, 1903 p. 43

INYO COUNTY.

The Ledy M. Co. mill, near Bishop, is in operation.

The Cecil R. M. Co. has installed a second battery of five stamps on its property at Ballarat. They propose to put up a cyanide plant.

SAN BERNARDINO COUNTY.

The Great Western Oil Co. has filed notices of location covering 16,000 acres near Victor, on the desert north of San Bernardino.

G. H. Hamstadt is working five men on claims near the Copper World.

A body of opal-bearing rock is reported found in the mountains 40 miles north of Barstow.

SAN DIEGO COUNTY.

In a tunnel being run on the Berdugo claim, near Banner, it is reported rich ore has been found.

S. H. Lucas, of Los Angeles, reports that a Boston company has bought the Stonewall gold mine on the Cuyamaca grant, for \$200,000. The mine, which has

Jan. 24, 1903 p. 59

INYO COUNTY.

(Special Correspondence).—The Ar-rondo G. M. Co. of Los Angeles have a 100-ton plant in operation in the Argus mountains. A tramway will be built. A large vein is reported. It is expected that the cost for chemicals and treatment of the ore after crushing will be very low. They expect to mine and mill the ore for \$1 per ton. The ore averages \$4.60 per ton.

The Cecil R. G. M. & M. Co., owning mines in South Park district near Ballarat, are installing a 10-stamp mill and cyanide plant, to be in operation by the 15th of February. Development work is pushed with twenty men. An addition to the mill is anticipated. There is 600 feet of development work done.

Ballarat, January 19.

The Roosevelt Oil Co., operating near Hawaii, has 13,000 feet of lumber at Keeler to be used in building eleven oil derricks. The well is down 1100 feet.

SAN BERNARDINO COUNTY.

(Special Correspondence).—The Giant Ledge G. & C. Co. are working on the north end of their mine near Manvel in the New York mountains. The Hard Cash is the principal one. The vein is 50 feet wide.

R. Young has a body of ore 6 miles west of Manvel. A crosscut in 70 feet has not found the wall.

The New York mines, known as the Alpha group, has 3000 feet of development which is being cleared out by Doak & Co., and a concentrating plant will be put in.

Thompson, Wheeler & Co. have bought the Boomerang mine and other property owned by the Campbell estate at Vanderbilt, and have begun operations.

The Oro Rico Mining Syndicate is working in the south end of Providence mountains. A body of ore has been cut in the Confidence mine, which assays \$100 per ton. A mill and concentrator is to be put in. There are thirty mines in the three groups owned by this company. The Oro Rico Syndicate was formerly the Providence Gold Syndicate.

Manvel, January 20.

(Special Correspondence).—The Dean & Jones M. Co., Slate Range, are working sixteen men on development and cyaniding tailings, which have encroached upon the mill.

Randsburg, January 20.

Drillers working for the Riverside Water Co., a mile west of San Bernardino, struck a flow of boiling hot water at a depth of 350 feet. The water is heavily charged with sulphur.

A. P. Thompson & C. Colton at the Hunter-Paymaster mines on Old Woman's mountain, near Danby, have a tunnel in 380 feet and a shaft down 80 feet and a main tunnel on which they are working in 280 feet. This tunnel has another 100 feet to run to tap the ledge at a depth of 500 feet. In the Paymaster they have a tunnel in 50 feet and will run 50 more.

The Silver Wave mine of the Danby M. & M. Co. on Old Woman's mountain has shut down temporarily and its 10-stamp mill at Danby is idle. S. & W. Heath have six men doing development work on the Manoa.

SAN DIEGO COUNTY.

(Special Correspondence).—Banner is to have a smelter. Lumber and fuel are now being hauled to the site.

Banner, Jan. 19.

ORANGE COUNTY.

(Special Correspondence).—The Santa Ana Tin M. Co. is working ten men in Trabuco canyon on development; power drills are to be put in. The company own 7000 acres. Gold ore discovered will average \$5. Gall Borden of Alhambra is president.

Jan. 31, 1908 p. 75

KERN COUNTY.

(Special Correspondence).—The Breadwinner G. M. Co., recently organized in Los Angeles, Cal., has secured the Old Cowboy mine, near Caliente, Amalle district. A mill will be built of forty tons capacity which will later be increased to 100 tons. It will be an electro-chemical process, which is said to work these ores economically. It is reported that 30,000 tons of pay ore is in sight.

The Gold Peak M. Co. at Amalle have several properties upon which work has been started. C. D. Porter of San Francisco, Cal., is in charge. The principal

p. 76

SAN BERNARDINO COUNTY.

(Special Correspondence).—The Federal G. M. Co., organized by C. H. Thompson, L. C. Gilliam and others, have secured the A. G. Campbell properties at Vanderbilt, in the eastern part of this county, consisting of seventeen claims, fifteen of which are patented. Twenty-five men are employed on development. Three hoists have been repaired, the 10-stamp mill being in good condition. The ore shoot on the 200-foot level shows a length of 205 feet, averaging 7 feet 8 inches in width, and 11 feet at its widest part, the ore assaying an average of \$12 per ton gold.

The Gold Bronze mine, owned by J. M. Hall and others, adjoining the Gold Bar mine of the Federal G. M. Co. at Vanderbilt, was working forty men, but a strike is on. Before the troubles regular shipments of bullion were made. It is reported that an ore shoot 4 feet wide was found in new workings.

Manvel, Jan. 26.

LOS ANGELES COUNTY.

(Special Correspondence).—The After Gold M. Co. are doing development work on their mines in the San Gabriel canyon, above Azusa. Thirteen placer claims and twenty-three lode claims have been consolidated. The Lillian claim has a ledge 60 feet in width, free milling.

G. M. Cummings reports locating a placer claim in the upper San Gabriel canyon, yielding 16 cents to the pan. Los Angeles, Jan. 26.

Feb. 7, 1903 p. 91

KERN COUNTY.

(Special Correspondence).—The Standard D. M. & M. Co. of Los Angeles has completed the assessment work on their property near Randsburg. Five claims are included in the group. Randsburg, Feb. 1.

The San Diego and Rustler claims, near Randsburg, are reported sold to A. C. Burcham of Los Angeles for \$60,000. These claims adjoin the Yellow Aster mines on the west.

The Keno and Faro mines, near Randsburg, have been sold to A. L. Morris of Los Angeles for \$8,000. There is a shaft on one of them 120 feet deep.

LOS ANGELES COUNTY.

(Special Correspondence).—San Gabriel canyon mines are being operated by a number of companies. One of the latest to secure holdings in that vicinity is the Standard D. M. & M. Co. of Los Angeles. Work has been done in developing the property. Azusa, Feb. 1.

SAN BERNARDINO COUNTY.

(Special Correspondence).—The Providence Mountain M. Co. of Los Angeles, owning property in the Providence mountains, report the Iron mine turning out well, the shaft being down 112 feet. The ore body, which was 8 feet wide on top, has swelled and the shaft at the bottom is all in ore of a better grade, being hematite, containing 60% iron, little sulphur and only a trace of phosphorus. No titanite acid has been found. There are twelve claims in the group. The company owns other groups in this vicinity, among them the Fair and Square gold and silver mines, which are being developed. The shaft is down 75 feet in 6 feet of ore which assays from \$9 to \$168 gold and silver. The country rock is porphyry and decomposed granite.

At the Golden Zone group the main ledge is 16 feet wide, giving returns of \$6 40 to \$11 per ton. Two hundred and seventy feet of work has been done on two of the claims.

The Wolframite group of three claims is also being worked. Wolframite was discovered at the surface, while at 50 feet in depth a 5-foot ledge of gold, silver and copper ore is found, the wolframite gradually going out of the vein.

The Desert country generally is looking *wear and many low-grade properties*

are being developed. The Ludlow mines, owned by Eastern people, known as the Bagdad M. Co. are being developed. These mines are 8 miles south of Ludlow, a station on the Santa Fe Railroad, and a branch line is being built to the property which is nearly completed. E. H. Stagg is manager and L. E. Porter superintendent. The 50 stamp mill erected for custom ores at Barstow is owned by this company and is run twelve hours per day on the best ores from these and other mines owned by the company. The J. R. Gentry group, near Ludlow, has been bought by the same syndicate and are giving employment to a number of men. This company, while being the same people, is called the Benj. E. Chase G. M. Co. They have a large body of low-grade ore and have eight claims in the group.

G. B. Mier and associates, who own the Lava Bed group of mines south of Lavic, in the Lava Beds district, are putting up a mill. Over 1200 feet of development has been done on a ledge 20 to 30 feet in width carrying some lead, and will concentrate. A small vein of ore has been located that assays from \$25 to \$35 gold per ton.

J. B. Osborne is working seven men on the Osborne group, in Ord district, 14 miles south of Daggett. There are twenty-three claims, eight of them patented.

The Malachite C.-G. Co. of Los Angeles is developing property adjoining the Brilliant mine of the Osborne group, in Ord district. Men are developing the property.

Mining and Scientific Press
Feb. 7, 1903 p. 91 (cont).

A 10-foot ledge was recently struck by W. Bailey, 4 miles west of Ord mountain, showing free gold.

C. A. Burcham of Los Angeles is developing a large low-grade prospect adjoining the Waterloo mines in west Calico. Over 600 feet of tunneling has been done and streaks of high-grade ore found, the mineralized formation being 400 feet wide.

The St. Elmo mine, near Johannesburg, has been bonded by S. W. Dorsey of Los Angeles and Eastern associates. Work of clearing out the mine and opening up new ore bodies has commenced.

Gold Mountain mines, owned by J. R. DeLamar, have shut down for the winter. Forty men were employed under the management of Superintendent Doble.

The Black Hawk mines, 50 miles east of Victor, in the Black Hawk mining district, are reported sold and work about to commence.

Barstow, Feb. 2.

L. M. Gregory of Los Angeles, president of the Giant Ledge G. & C. Co., owning a group of nineteen claims on New York mountain, near Manvel, says they have a ledge 50 feet wide, carrying values in gold and copper. The ore is a concentrating and smelting proposition, and a plant will be installed to handle it.

J. Johnson is developing a gold and copper mine at Dale and reports four companies operating in the camp, 50 miles northeast of Walters station.

In the Gypsy mine of the Gordon group, near Death valley, last week G. Harvey, H. Phillips and G. Thomas, while re-timbering the shaft, were buried by a cave-in and killed. The shaft timbers had been weakened by an explosion and were unable to withstand the strain when the wall began to sink.

SAN DIEGO COUNTY.

Superintendent Wauchope of the Noble mines, near Pine Valley, says he has twenty-five men at work, but will increase the number. These mines are southeast from Stonewall.

Feb. 14, 1903 p. 107

INYO COUNTY.

The Ratcliff mines at Ballarat, a group of twelve claims in Pleasant canyon, Panamint mountains, are reported sold for \$250,000 to Eastern men. One vein, 60 feet wide, is of milling ore. M. Garbut of Los Angeles is manager.

ORANGE COUNTY.

It is locally reported that a smelter is to be built at Newport, 8 miles south of Santa Ana, on the coast, with the intention of establishing a market for custom ores.

RIVERSIDE COUNTY.

W. Haerle, Jr., president and manager of the La Crescenta M. Co., below Needles, on the Colorado river at Riverside mountain, says the company will put up a smelter at their mines.

Feb. 21, 1903 p. 123

KERN COUNTY

The Exposed Treasure M. Co., near Mojave, P. Humbert Jr. manager, is operating a 20-stamp mill. Water is supplied through a 15-mile pipe line.

ORANGE COUNTY.

The Fullerton Tribune says thirty-four new wells are being drilled in the Fullerton field and three rigs are in course of construction.

W. B. McPherson, superintendent the Santa Ana tin mines, in Trabuco canyon, 30 miles southeast of Santa Ana and 15 east of El Toro, on the Santa Fe railroad, says the mill will be increased to fifty stamps and other machinery installed. J. A. Comer of Los Angeles is manager.

Feb. 28, 1903 p. 139

INYO COUNTY.

The Western Borax Co., W. H. Rees, superintendent, is increasing its working capacity in Saline valley, putting in additional tanks, etc. Two more teams have been put on the road, transporting borax to the railroad at Alvord. They are shipping a carload a week.

KERN COUNTY

At Randsburg the Butte hill is still attracting attention, \$100 ore being mined in the Butte property, and a new strike of good ore is reported in the Wedge fraction, adjoining it.

LOS ANGELES COUNTY.

A strike of ore is reported in the New York mine, 2 miles from Acton. The ore from this mine and others in the vicinity is a fine grained sugar quartz with finely disseminated sulphurets. The average of ore crushed at the New York, Red Rover and Topeka mines is reported to have been \$12 per ton in gold.

Unusual activity
tivity is noticeable in the vicinity of Oro Grande. In this district are gold, silver, copper and zinc prospects and mines. The carbonate mine is the most extensively developed property in the district. It produces lead-silver ore, associated with limonite and manganese. A shoot of rich gold rock was discovered in the mine some years ago and subsequently lost. This shoot was from an inch or two to nearly a foot in thickness and consisted almost wholly of calcite, with occasional stains of iron and manganese, with a little quartz. Gold could be seen in the greater part of it.

A mile and a half east of Oro Grande are several copper prospects on which considerable development has been done in a superficial way. Half a mile to the northward from the copper mines, lead and zinc ores with silver are found. Nearer Oro Grande station is a large deposit of ferruginous quartzite, which may contain gold, but which has never been prospected. Geologically, this quartzite is identical with that at Gold Mountain, 40 miles east of this place. The latter is known to be gold-bearing and is owned and operated by J. R. DeLamar.

Oro Grande, Feb. 23.

The Copper Chief mine, 8 miles from Victor, is having machinery installed by the new owners.

SAN DIEGO COUNTY.

At the Picacho mines, owned by the California King G. M. Co. of Picacho, 30 miles north of Yuma, 300 tons of ore are being handled daily, but this spring their milling capacity will be doubled. An open cut, 53 feet deep, across a ledge is the present ore supply. The ledge is 160 feet wide, all of which is sent to the mill. Its assays average \$1 in gold, and the ore can be quarried for 10 cents per ton, says Superintendent E. Gee. It can be taken out, crushed and leached for less than \$1 per ton. It is crushed to twenty mesh and cyanided, by which 90% of the values are saved. In addition to the vein now being cut through, two others are being exploited, one of average value of \$5 per ton, the other 20 feet wide and \$6 per ton. On this latter vein a shaft is down 200 feet. They have 120 men at work.

The High Peak and Washington mines, near Julian, have a few miners at work on free milling ore. Some rich ore was recently taken from the Washington mine, twenty ounces of which gave \$3 60.

O. Welburn, who has a bond on the Ranchita mine, near Banner, is clearing out the shaft and levels to make an examination. This mine has produced some rich ore, but has not been worked steadily for several years.

It is reported that the Free Coinage group of mines, near the Noble property at Pine Valley, have been bought by Marr & Middagh of Colorado Springs, Colo. The veins in this district are usually small, but carry high values. They are fissure veins and lens-like sheets in mica schist.

March 7, 1903 p. 155

SAN BERNARDINO COUNTY.

The American Niter Co. G. E. Bailey, consulting engineer, and E. P. Ripley, part owner, controlling niter deposits near Daggett, will install this spring an experimental plant for developing their holdings in Death Valley. They have recently had surveying parties out, and it is said the company will soon have 300 men at work. There are other minerals found near the niter beds—borax, bicarbonate of soda and gypsum.

KERN COUNTY.

The 10-stamp mill building at the Echo mine, 5 miles from Mojave, will be completed by March 10. Development of the mine is in progress.

March 14, 1903 p. 171

INYO COUNTY.

A. A. Casler has bought the Gold Bug, Golden Reef, Hardscrabble, Indian Queen, Eclipse, Ophir and Rustler claims at Fish Springs.

The International Equipment Co. of Los Angeles have bought the Ratcliffe mine, near Ballarat, and will equip it with new machinery.

KERN COUNTY.

The Breadwinner M. Co. of Los Angeles, owning the Cowboy mine near Caliente, are arranging for a 40-stamp mill.

The Big Blue M. Co. at Havilah have found steam more expensive than their water power, and are going to re-establish their water power plant, says the Randsburg Miner.

LOS ANGELES COUNTY.

The 2-stamp mill of the Mesquite Ore and Reduction Works, Mission road, East Los Angeles, began operations last week. It has a capacity of 8 tons daily. The Mesquite Co.'s claims are in San Diego county. The capacity of the plant will be increased as soon as the development work opens up more ore.

March 21, 1903 p. 187

KERN COUNTY.

At the Buckboard mine, near Randsburg, C. Adams, superintendent, says he has men at work drifting on the 150 and 200-foot levels.

Spangler Bros. are hauling ore to the Phoenix mill from their mine near Garden Station.

The Baltic 10-stamp mill in the Stringer district, near Randsburg, has been running continuously since it was installed in November, 1902, excepting for the monthly cleanup periods, says Superintendent W. H. Wynn. The main shaft is down 225 feet, with a 50-foot ledge. Three levels are being worked and twelve men are employed—single shift.

Mining and Scientific Press

March 21, 1903. p. 187

INYO COUNTY.

(Special Correspondence).—The Troeger Bros. have six men at work on the Morning Star (Dunphy mine). A gasoline hoist was placed at the end of a 400-foot cross-cut tunnel, 250 feet below the surface, and the winze deepened from 100 to 225 feet, the depth of the proposed lower crosscut tunnel which will be driven 700 feet to connect, and will cut the entire Cerro Gordo mineral zone. In sinking, a blind shale contact and an 8-foot vein carrying values in gold and silver were encountered. Double shifts are drifting at bottom to reach the high-grade ore extend-

ing down from upper workings. No ore is being stoped or shipped, it being the intention of the owners to develop the property before building a reduction plant.

T. C. Boland has a 10-horse team hauling lumber and machinery from Keeler to Cerro Gordo for a concentrating plant to work the slag and mine dumps of the old Union property, and is also putting the pumping plant and pipe line which supplies water to Cerro Gordo in repair.

P. Clinton has two carloads of good-grade ore sacked and will ship soon.

There is still considerable snow in Cerro Gordo.

E. R. Hamilton is driving his crosscut tunnel to tap a large ledge, 350 feet deep, from which shipments of high-grade ore were made in the early days.

Cerro Gordo, March 13.

The 8-stamp mill of the Cecil R. M. Co., near Ballarat, is in operation and crushing ore from the Santa Rosa mine.

March 28, 1903 p. 203

SAN BERNARDINO COUNTY.

The Gold Peak M. Co. is installing a 5-stamp mill and cyanide plant on the Johnson mine at Victor.

ORANGE COUNTY.

(Special Correspondence).—The Santa Ana Tin M. Co. of Los Angeles, with mines in Trabuco canyon, recently installed a set of Leyner machine drills, a Leyner air compressor and gas engine. A new hoist, recently purchased from Thomson & Boyle of Los Angeles, has been sent to the mines, where it will be installed.

April 4, 1903 p. 213

The Ratcliff Mine.

In the issue of July 12, 1902, of the MINING AND SCIENTIFIC PRESS the editor took occasion to remark: "Mining is to-day the most profitable of all indus-

tries, and this commercial fact is attracting capital and enlisting the attention of the brightest minds more and more every year." That assertion is being constantly exemplified. One of the latest enlistments of capital and knowledge is the acquiring of the Ratcliff mine, in Inyo Co., Cal., by the International Equipment Co., with offices in Los Angeles, Cal.

Originally located by Mr. Ratcliff, this property was purchased a few months ago from J. T. Nichols of Detroit, Mich., W. W. Godsmark of Los Angeles, Cal., and others. It is on the southerly side of Pleasant canyon, on the western slope of the Panamint mountains, 6 miles from Ballarat, 72 miles northeast-

erly from Johannesburg, at an altitude of 6600 feet. There are four full and six fractional mining claims—eight of which are patented—one millsite, and two developed water plant claims, a total of about 150 acres. The mine is on a mineralized zone having a thickness of 150 feet, granitoid strata as a base and quartzite for a capping. The company's claims

cover about 4500 linear feet of this zone. The workable ore bodies, an oxidized portion of the vein, now developed show a varying thickness of from 5 to 40 feet, near the foot wall. A conservative estimate of the average value of this ore body is placed at \$10 per ton.

It is the intention of the company to install labor-saving devices to increase the output and lessen the cost of production.

The men who examined the property for the company estimated that with improved machinery the mine can be worked and the ore milled at a cost of \$3 per ton. These ore bodies consist principally of original strata, impregnated with siliceous iron sulphides and gold, while intercalated with them are high-grade ore bodies or veins consisting of secondary quartz and sulphides. One hundred feet of the mineralized zone intervening between the hanging wall and foot wall ore bodies ranges in value up to \$10 in gold, with an average of about \$4. It is expected that much of this ore can be worked at a reasonable profit when a plant of proper character and sufficient capacity has been installed.

The oxidized portion of the ore bodies, as stated before, is free milling and cyanides up to about 85%. The mine is situated at a vertical elevation of about $\frac{1}{2}$ mile above the mill and all ores are conducted from the mine to the mill by gravity tramways (illustrated in Fig. 1), which are nearly 4000 feet long. The water for the mill is developed by a long tunnel driven in the side of the hill, and is conducted under 1400 feet pressure for a distance of 11,300 feet through a 4-inch pipe line.

The reduction plant consists of a 20-stamp mill and a 50-ton cyanide plant. The capacity of the cyanide plant is to be increased to 100 tons per day. The managers are making a general overhauling of the plant, repairing the old and installing new and improved machinery. The Llewellyn Iron Works of Los Angeles, Cal., is supplying them with a new set of mortars, which will increase the amount of ore possible to put through the mill. Fig. 2 gives a general view of the mill and camp.

Developments in the property consist of five adit levels, with two winzes, between levels Nos. 1 and 2 and 2 and 3, numerous small exploration upraises, winzes, lateral and intermediate drifts and chambers, an open cut 140 feet in length, 50 feet in breadth and 60 feet in height, from which considerable gold has been extracted. Its inner wall, at the mouth of the upper or adit level No. 1, is in pay ore. The aggregate of development work is about 2400 linear feet. C. E. Mort is superintendent in charge of the property. An expenditure of from \$15,000 to \$20,000 is proposed.

O. S. BREESE.

Los Angeles, Cal., March 25.

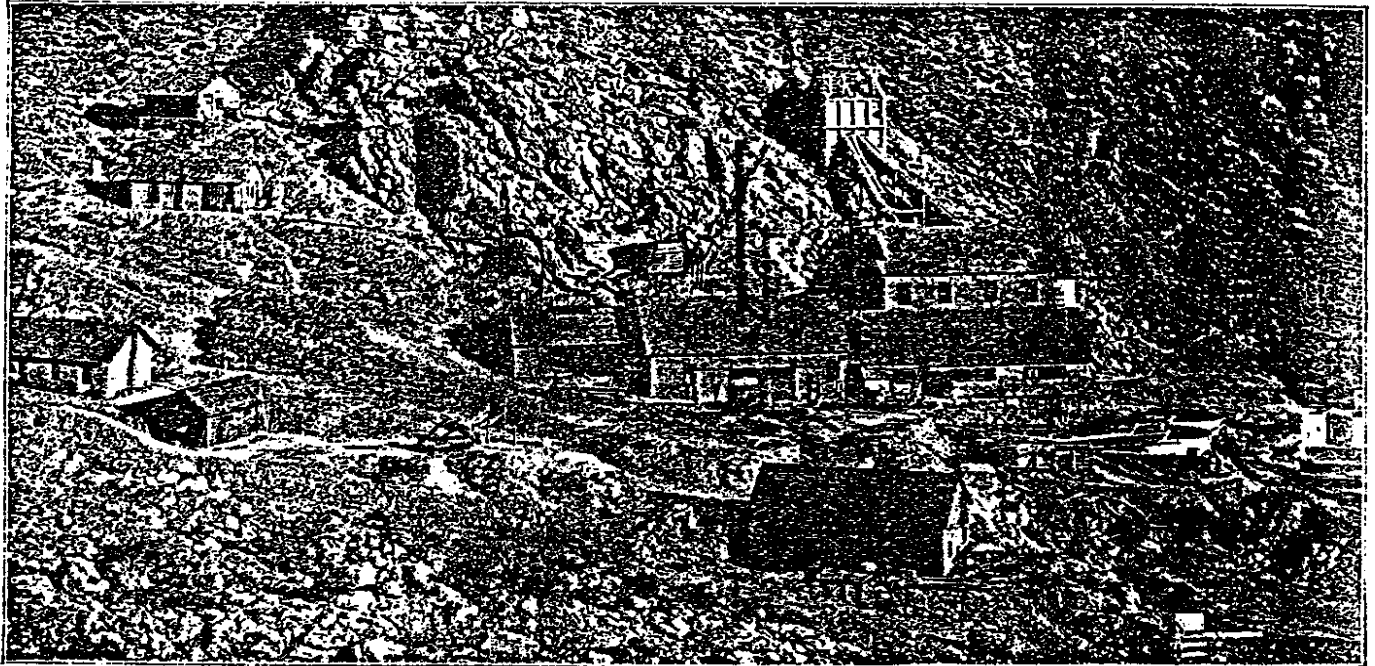


Fig. 2 — Mill and Camp, Ratcliff Mine, Cal.

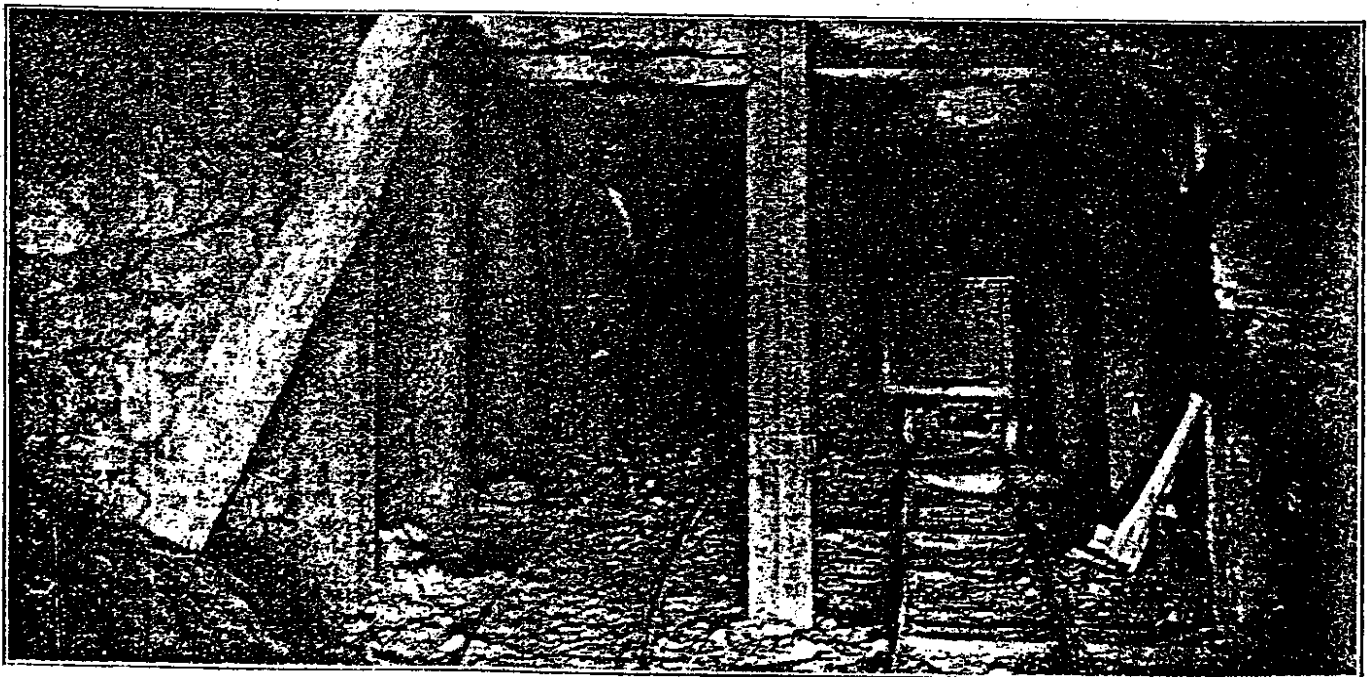


Fig. 3 — Adit Tunnel, Ratcliff Mine, Cal.

April 11, 1903 p. 226

Mining and Scientific Press
April 4, 1903 p. 213

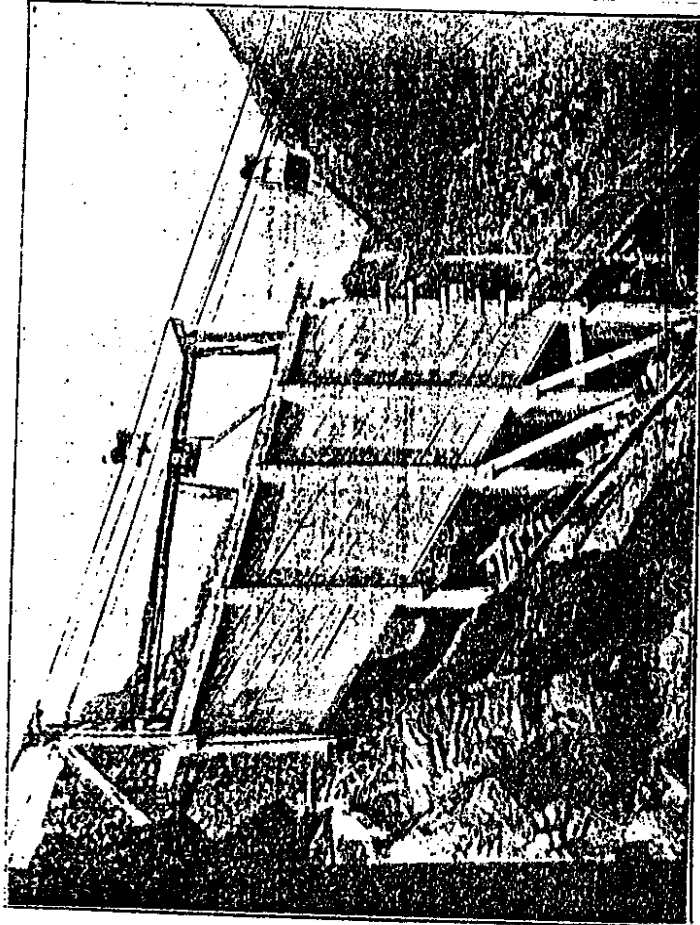


Fig. 1—Gravity Aerial Tramway, Ratcliff Mine, Cal.

A Desert Rush.

Old mining districts often develop surprises in the way of new discoveries. The latest in this direction is the discovery of placer gold in the broad drainage running southeasterly from the New York mountains to the Colorado river, in eastern San Bernardino county, California, known as the Sacramento wash. The wash is dry, excepting in time of heavy rains, which are infrequent. It drains an area of several hundred square miles, in a gold region, and the announcement that dry placers have been found is not surprising. The gold veins of the Exchequer district, north of Homer station, those at and near Ibox and numerous other districts in which it has been known for years that gold veins occur are tributary to this drainage, and as some very rich gold quartz has been found in these districts at various times, coarse gold may occur in certain localities. Whatever may be the value of the newly reported discoveries, the claims are likely, as a whole, to be disappointing, though, as usual, a few may do well. The region is typically desert—coarse sand, with scattering cobbles, and an occasional boulder, sparsely scattered sage brush and Spanish bayonet, with here and there a tuft of gamma grass. Water is scarce and only obtainable by sinking wells in favorable spots, as springs are few. In summer the heat is intense. In fact, it is not a country to invite residence, and nothing but a "gold rush" would induce men and women to tempt fate in going to such a place. Dry placers in the desert region are much the same everywhere.

The gold freed from its matrix in the vein by disintegration is moved downward on the slope of the hill together with the crumbling rocks. Heavy rains carry the detritus to the valley, leaving the rocks bare, an easy prey to further disintegration from extremes of heat and cold, tempestuous winds and torrents of rain. All of the drainage channels of the region are torrential and the large amount of water quickly collects during one of the downpours characteristic of the desert, and moves great volumes of the accumulated debris onward to a lower level. These streams subside almost as quickly as they form, and in an hour or two the fierce heat of the sun has evaporated every drop of surface moisture. To these extremes are due the arid appearance of the valleys, and the sharp, rugged outline of the hills. In some instances where the gold-bearing veins occur in low ridges, which barely project above the desert level, if the quartz be rich in gold, a good dry placer is likely to result in the immediate vicinity where the wash covers the rocks and extending out beneath the surface. In numerous desert districts large amounts of gold have been found under similar conditions, as in the Cargo Muchacho mountains, San Diego county, Cal., at Red Rock and Goler, Kern county, Cal., and in Western Australia, where conditions identical with those described occur. These dry placers not only occur in the valleys, but in the mountain slopes

April 4, 1903 p. 219

INYO COUNTY.

The Reward mill, near Bishop, began work with ten stamps this week, and the other ten will be dropped next week. It is run by electricity, generated by the company's dynamos, says the Inyo Register.

KERN COUNTY.

The Yellow Aster M. Co., near Randsburg, has both its mills running steadily. A timber-framing machine will be added to the carpenter shop.

SAN BERNARDINO COUNTY.

The Times-Index reports W. Slocum of Monrovia is preparing to erect a 5-stamp mill on his mines near Barstow.

SAN DIEGO COUNTY.

A strike of rich ore is reported in the Washington mine, near Julian. Ore is being taken out of the ledge of the Oroflamme mine at Banner.

Mining and Scientific Press
April 11, 1903 p. 235

KERN COUNTY.

(Special Correspondence). — The 10-stamp mill of the Echo M. Co. of Los Angeles, Cal., 5 miles west of the village of Mojave, is running steadily on good ore. A cyanide plant is being built to work the tailings direct, there being no intermediate concentration, all the ore being oxidized. At the Queen Esther mine, near the Echo, a 100-ton roller mill is being put in.

Mojave, April 7.

Manager J. R. Johnson is reopening the St. Elmo group of mines, 5 miles from Randsburg. A gasoline engine has been put in and a cyanide plant proposed

mine and mill, near Randsburg, has men at work.

The War Eagle M. Co. has opened up a large body of low-grade ore in the bottom of the shaft, the ledge dipping nearly vertical, says Superintendent Castro. The War Eagle adjoins the Yellow Aster, near Randsburg.

LOS ANGELES COUNTY.

The California D. & E. Co. has incorporated at Los Angeles, A. E. Clark, G. O. Pearce, E. D. Bryant, J. Binney, L. Stair, H. H. Sheffield, W. J. Bryant, J. M. Brown and J. M. Cummings, to build and operate at tide water near San Pedro a smelter with daily capacity of reducing 1000 tons of ore.

SAN DIEGO COUNTY.

The Picacho mine, near Yuma, made its first shipment of gold bullion last week, being two bars worth \$10,000, says the Citizen.

April 18, 1903 p. 251

INYO COUNTY.

The Roosevelt Oil Co. are drilling 9 miles south of Owens Lake, near Olancho, and are down 1000 feet with oil indications showing.

KERN COUNTY.

The Capital Oil Co. will resume drilling on its ground in Kern River field, near Bakersfield. They are putting up a hydraulic rig, capacity 2000 feet.

The Pinmore mine and mill, near Johannesburg, has been leased to F. Ernst of Johannesburg.

The Good Enough Oil Co., composed of Bakersfield men, will operate in the Cuyama district west of Sunset.

Superintendent W. A. Bouchard has completed retimbering the Sunshine shaft, near Randsburg, which was wrecked by the explosion. Bentley & Bull made their first shipment of bullion from the Hard Cash mine last week. They are working the ore with a dry concentrator.

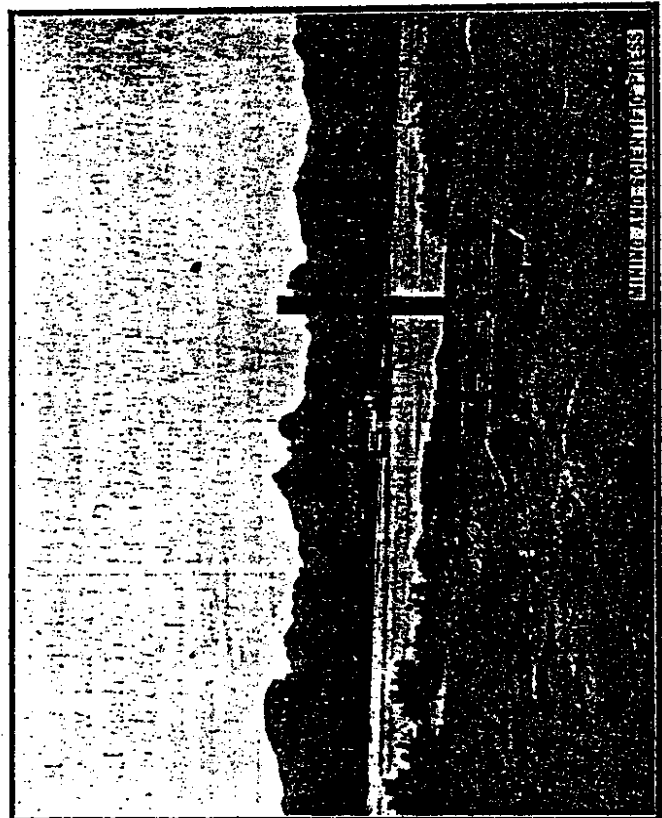
SAN DIEGO COUNTY.

The March cleanup of the California King G. M. Co.'s mill at Picacho showed a yield of \$21,441 in bullion and \$2225 in slimes, produced from 7033 tons of ore, showing an average value of \$3 70 a ton, says C. H. Fay of New York, secretary. It is proposed to increase the capacity to 450 tons a day this spring. C. K. Humphrey is superintendent.

F. D. Jones, superintendent of the Smoky City M. Co., has resumed developments in the Elevado mine at Banner.

The Julian Miner says the Glades M. Co., operating the Spring and Oxide mines in Pine valley, near Julian, have opened a 14 foot ledge in the Oxide with a 6-inch pay shoot assaying \$125. The ore is part free-milling, the concentrates assaying \$400. Some of the ore will be cyanided. The company has thirty men at work in the mines and mill. An electric plant has been put in.

April 25, 1903 p. 257



MINING AND SCIENTIFIC PRESS

Dismantled Pumping Works, Picacho, Cal. (See Page 26)

Mining and Scientific Press
April 25, 1903 p. 250

The Picacho Basin Mines.

About 25 miles north of the town of Yuma in San Diego county, Cal., is a high tower-like eminence called Picacho, or peak. It rises 1500 feet above the Colorado river and is the most prominent landmark in that region of fantastically sculptured hills. The Picacho is made up of a series of rhyolite and andesitic rocks, representing a long period of volcanic eruption. There are rhyolites and light hornblende and augite andesites, tuffs and basalts, and more recently basalts, in the region, which excepting down in the valley bordering the Colorado river, is a typical desert, where rain seldom falls, where the range of temperature is wide, that of summer being particularly high.

Out of the vast field of volcanic rocks eroded and carved the rugged hills, with their sharp, clean outlines, removing most of the volcanic rocks, exposing the underlying older crystalline rocks. The Picacho is but a remnant of the lava deposits which must have at one time had a thickness approximating 2000 feet. The peak has suggested the name of the mining district, which covers 40 square miles of the adjacent territory. The older rocks, exposed in the low, rolling hills in the Picacho basin, extend several miles along and back from the Colorado river, are micaceous and hornblende schists, with intrusive dikes, mostly diorite and granite (granite). Over a large part of the region adjacent to the Picacho there is a deposit of auriferous sand. To the eastward the rocks have a greater thickness and are intruded by many dikes, large and small. This section is known as the White Gold basin, from the fact that the gold occurring in the veins is alloyed with silver to such an extent as to give the metal a light color. The rocks here are micaceous hornblende schist, diorite, granulite, cherts, and andesitic eruptives. There has been much metamorphism and there are gold-bearing veins or zones of various size coursing in nearly parallel directions. There are five in number and are from 20 feet to over 100 feet in width. The rocks are greatly fractured and crushed, and have been extensively mineralized by the infiltration of silica and iron sulphide, which oxidation has left a porous siliceous mass, colored red, yellow or brown by iron oxides. This ore contains gold and silver and is the source of the dry placers that for years have been worked by Mexicans and Indians in a primitive way—by tossing; panning, when there was rain water available, and more recently by dry-washing machines. Some prospecting has been done on these large deposits of low-grade ore, but no systematic development has been undertaken.

In the region adjacent to the Picacho, however, the California King G. M. Co. have carried on extensive development in zones of gold-bearing rocks. It appears to be the result of mineralization of the masses of the country rock, into which silica and iron have been infiltrated and deposited. Here, however, the gold is high grade and the silver is present in a relatively small quantity. There are numerous quartz veins traversing the rocks of this portion of the district, but for the most part these are non-bearing, or only slightly so. The principal development is about 4½ miles back from the Colorado

The accompanying engraving illustrates the appearance of this desert basin with the topography of the surrounding hills, which are of volcanic origin. The ore is mined by open-pit method and sent by railroad to the company located on the Colorado river.

The gold-bearing gravel of this basin has been worked in a primitive way by Mexicans, in the manner as that to the eastward, but about 20 years ago a company was organized to operate the dry placers by hydraulic method, pumping them from the river. A large pumping plant was installed and a pipe line 5 miles in length laid to the gravel beds, situated near the present site of the company's mines. This plant cost nearly \$500,000. The engraving illustrates the site of the pumping plant, which was dismantled. At the head of the pipe line was constructed a circular stove tank, built upon a foundation similar to railroad water tanks, and having a capacity of perhaps 3000 gallons. When all was in readiness and the pumps were started it was found they did not possess sufficient capacity nor power to lift the water to the tank, to say nothing of hydraulicicking under pressure. It was one of the most absurd engineering feats ever undertaken in the West, not but that hydraulicicking may successfully be accomplished in the manner indicated, but under existing conditions a very large factor for loss of head had to be reckoned with and met. The friction in a 12-inch pipe line 5 miles in length would require a great loss of head and consequently of power, as the water had to be lifted a vertical height of 100 feet, it can be seen that to deliver 750 cubic feet of water per minute, or 500 miner's inches, which amount would be necessary to make operation a success mechanically—these conditions would require a very large plant.

* See illustrations on front page.

P-257



Mining and Scientific Press

Mining and Scientific Press
April 25, 1903 p. 268

KERN COUNTY

The Kramer Con. Oil Co. has resumed at Hiawatha, near Randsburg, and expect to deepen 1000-foot hole to 1500 feet.

SAN BERNARDINO COUNTY.

The St. George group of mines is expected to begin operations next week. This property is under bond to C. H. Thompson et al. It is in Vanderbilt, 4 miles from Manvel.

May 2, 1903 p. 287

SAN DIEGO COUNTY.

The articles of incorporation of transfer of the holdings of the Free Gold M. Co. to the Gold Fields of California, Ltd., an English corporation, were filed last week. The property consists of thirty mines and claims (the Golden Cross group), together with a 40-stamp and a 100-stamp mill, near Hedges. The price was \$2,400,000. The company propose within six months to increase the capacity of the cyanide plant from 300 tons per day to 1000 tons.

W. W. Boswell, superintendent of the Julian Con. M. Co., near Julian, says work has resumed in the Helvetia and High Peak mines.

H. E. W. Wilson, of Los Angeles, and J. Collins, of Banner, report finding oil on one of the seven claims which they located at Fig Tree, 4 miles from Fish Springs and 18 miles southeast of Salton, Riverside county.

KERN COUNTY.

The San Bernardino D. Co. are preparing to bore for oil, 8 miles from Hinckley, near Randsburg.

May 9, 1903 p. 306

INYO COUNTY.

(Special Correspondence). — The 20-stamp mill at the Reward mine started up on the 1st inst. for its trial run. — The low-grade gold mines in the Alabama hills, near Lone Pine, are being reopened, with a number of miners on development work. — The Roosevelt Oil Co., operating near Haiwah Meadows, have a hole down 1000 feet, with favorable indications. — At Cerro Gordo T. Boland has eight men at work and is running his jig and concentrating plant, and a team makes daily trips to Keeler loaded with concentrates. — On the Morning Star mine development work continues, drifts being extended on the 350-foot and 450-foot levels, and the vein is being crosscut.

Cerro Gordo, May 4.

May 16, 1903 p. 321

KERN COUNTY

The Pearl Wedge, near Randsburg, had a milling at the Atkinson mill last week—nine and one-half tons netting \$90 per ton, says the Randsburg Miner. — E. Harris has taken a contract for a 150-foot tunnel on the May Queen at \$5 a foot. This mine adjoins the Minnehaha. — E. Hammond and S. Oakley have begun operations on the Orphan Girl.

G. A. Phillips and J. A. McDonald are leasing on the La Crosse mine in Stringer district, near Randsburg, and have struck ore. They expect to have a milling next week. — The Johannesburg G. M. Co. report a strike of high-grade ore on the St. Elmo group, near Johannesburg, and a 10-stamp mill will be built by July 1.

May 30, 1903 p. 354

INYO COUNTY.

A power transmission plant is being put up near Reward, from which power will be transmitted electrically 2 miles to the mill of the Reward G. M. Co., where induction motors will be used to drive a 20-stamp mill, air compressor and rock breaker.

KERN COUNTY.

At the coal mine near Garlock they have a 4-foot body of coal, says Superintendent B. E. Logan. They have put in a gasoline engine and blower.

A. Grant and I. N. Inskoop of Los Angeles have bought the Hard Cash mine, near Randsburg, and G. J. Bentley, former owner, is superintendent.

SAN BERNARDINO COUNTY.

The Bagdad Development Co. has been organized by C. K. McCornick of Salt Lake City, Utah, O. P. Posey and W. Bayly of Los Angeles, to work two groups of copper and gold claims at Bagdad. The company will prospect its territory with diamond drill.

A strike has been made 8 miles south of Amboy station by M. Plueff of Daggett, P. King and S. Alf of Ludlow. They have located eight claims. The ore body is exposed by three cross canyons; it is free-milling, averaging \$10 per ton.

June 6, 1903 p. 371

KERN County

J. Hansen reports operations begun at the cyanide plant of the Stanford M. & R. Co.

SAN BERNARDINO COUNTY.

W. Smith, I. Reynolds and S. Alf report finding gold ore a few miles north of Bagdad last week and located thirty claims. Negotiations are reported underway with the owners of the Bagdad group for a bond on the group.

Manager E. H. Stagg reports having men at work putting up the mill and cyanide plant at Barstow to handle the ore from the Bagdad mines.

SAN DIEGO COUNTY.

Oil is reported struck last week in the Yuha well, on the desert side of the Cuyamaca range, east of San Diego. Superintendent Swallow says it is making six barrels a day, but they will go deeper.

June 13, 1903 p. 386

INYO COUNTY.

Near Coso Hot Springs, south of Darwin, a find of a ledge of gold-bearing quartz is reported, which is said to run \$25 per ton. It is stated that water must be pumped from Little Lake, 12 miles distant, in order to work the claim.

KERN COUNTY.

The Monarch Oil Co. is building a 75,000-barrel reservoir in Sunset, which it is proposed to cover.—Last week well No. 4 of the Revenue Oil Co., near Bakersfield, which has been pumped for three years, began flowing at rate of 500 barrels a day and is continuing it.

The business portion of the mining town of Randsburg was destroyed by fire on the 6th inst.

SAN DIEGO COUNTY.

Superintendent R. K. Humphrey of the California Gold King mines at Picocho says 250 men are on the payroll of the company and fifty additional miners will be put to work this month. About half these men are on development work pro-

June 20, 1903 p. 400

KERN COUNTY.

(Special Correspondence).—The Merle B. M. Co., owning a group of three mines in the Sierra Nevada, report development work progressing. The ore runs \$44 per ton. A shaft is being sunk and two tunnels driven. W. T. Smith of South Pasadena is president.

Havilah, June 16.

SAN BERNARDINO COUNTY.

Work on the Higgins group on Newberry mountain, near Newberry, is reported progressing. At the end of the 150-foot tunnel drifting is being done on the ledge, the drift being in 50 feet, showing 5 feet of ore averaging \$10 per ton.

SAN DIEGO COUNTY.

W. R. Farnsworth reports finding molybdenite in his Dewey mine at Grapevine, near Warners Hot Springs. Some of this ore assayed 5% in molybdenum and \$12 in gold from the 60-foot level. The mine is developed to depth of 100 feet. There are 200 feet of crosscuts.

F. Salmons, of Pala, a director of the Lithia Chemical Co., which is operating a group of twelve lepidolite claims at Pala, says a reduction plant to handle the mineral will be built either at San Diego or at San Bernardino. Heretofore the ore in bulk, as taken from the mine, has been shipped direct to New York at a cost of \$450 per car, and \$25 per ton was still being made on the ore at the mine, says the San Diego Union.

Manager Phillips of the Douglas-Lacey Co. of New York has men at work unwatering the Owens group and cleaning out the drifts in the Washington mine near Julian.

June 27, 1903 p. 415

KERN COUNTY.

All the employes of the Yellow Aster M. & M. Co., near Randsburg, numbering over 200, are out on a strike because of a demand by the union for a 60 cents a day increase in wages. The mills have been cleaned up and the mules sent to pasture. The St. Elmo group of the Johannesburg G. M. Co. has shut down and Manager Ericson has gone to New York. The Butte Con. M. Co. men are out, as also those on the Baltic mine. The Santa Ana mine is paying the 50 cents increase asked. O. A. Burcham, part owner of the Yellow Aster mine, says the company will not give in to the demands of the men for higher wages, and that the statement that the Yellow Aster property was or is for sale is in error. The merchants of Randsburg are hesitating before rebuilding the property destroyed by fire.

July 11, 1903 p. 27

INYO COUNTY.

Superintendent Flint of the Tuber Canyon group, near Ballarat, reports the stamp mill and cyanide plant running steadily.—The Creed Co. will put in a mill.

KERN COUNTY.

Work will be resumed on the War Eagle mine, near Randsburg. A double-compartment shaft will be sunk, and as soon as sufficient ore is in sight to warrant it a 5-stamp mill and cyanide plant will be built.

Jensen & Hoffman are working on the LaCrosse claim, adjoining the Sunshine mine, near Randsburg, says the Miner. They have sunk a shaft 136 feet and are crosscutting.

L. D. Davos and J. J. Nossor have a lease on the Mabel S. mine, near Randsburg. They have a 14-inch ledge which assays \$30. They are sinking on the ledge. The claim adjoins the Yellow Aster on the west.

July 25, 1903 p. 56

INYO COUNTY.

The Anabara Co. at Ballarat started their 10-stamp mill last week.—The Radcliff mine continues working twenty men. They are running one shift in the mill.—The Cecil R. Co. have replaced their steam power with gasoline and are putting in a 30 H. P. gasoline engine for their mill.—Flint Bros., owners of the Tuba Canyon mine, are cyaniding. They expect to start up their mill September 1 with increased capacity, says the Randsburg Miner.—The Golden Argus Co., of Snow's canyon, have let a contract on their tunnel and expect to start up their mill by September 1st.—J. C. Cress is putting in a gasoline engine at his mill near Ballarat and expects to start up next week.

KERN COUNTY.

G. Sanderson has a lease on the La Grange claim, in Stringer district, near Randsburg.—C. Taylor, S. Tyler and F. Rose have a lease on the Mattie mine and are stopping on the 165-foot level and running a drift on the 120-foot level.

Randsburg

From an Occasional Correspondent.

When the present labor troubles in Randsburg, Ariz., are settled the camp will enter upon a new period of prosperity. Many independent mine operators are at work. Several of these are men who were on strike; and the properties on which they are at work are showing up so well that some of the operators may not return to their former work.

Ten miles north of Randsburg, in the Goler mountains, H. J. Short has a low-grade smelting ore property. Still farther to the north and east are several low-grade properties which could be handled with profit were there a cheaper method of shipment.

In the canyons at Goler gold is being extracted from the washes by the aid of the dry washer. This is not a satisfactory method in this section, as much cemented gravel is found. Several are working on a machine to disintegrate this hard mass of sand by the aid of water.

The Yellow Aster showed up better and better the deeper the shafts and winzes were sunk. The latest ledge struck, at a depth of 1260 feet, is the richest ever found in this camp. Unfortunately this and several of the other properties here are now tied up by a strike.

The Butte Lode, which controls the Butte and Canyon-Wedge mines, at the time of the strike was making out better ore than had been struck for years. When the strike was declared this company

was preparing to do extensive development work, to sink to greater depth than at present. This work will be pushed when things start up again.

I note in several mining journals that the Johannesburg Gold Mines Co. expect to declare a dividend in October, and stock is offered for sale. As far as can be learned the output of bullion from this property did not pay expenses, and as it has been tied up

by the strike for over two months it would seem that the only way the directors can declare a dividend would be from the money received from the sale of stock.

The War Eagle Co. announced some months ago that it was going to sink a double-compartment shaft to a depth of 600 feet. Although this property

adjoins the Yellow Aster, and claims that several of the latter company's ledges run through their property, very little work has been done.

Several men are now working the placer deposits in Red Rock canyon and making good money.

The stamp mill in Mesquite canyon is still idle. It is called "The Monument to Folly." The company first built the mill and then went prospecting for ore. They met with the usual fate.

The Pearl Wedge, owned by Balschweid & Pierce, although not very large is quite rich. Ore taken from it runs \$100 to the ton. There are a number of men now at work on it.

The Santa Ana, owned partly by the owners of the Red Dog mill and partly by Superintendent Layton, is also a rich proposition, averaging \$100 per ton.

Johnson & Jensen are placer mining in the Stringer district, 2 miles from Randsburg. They struck bed-rock at 40 feet.

The Baltic mine, in Stringer, is developing into one of the good properties of the camp. At the time of the strike twelve men were employed in the mine and mill (ten stamps). Some good ore was being taken out. C. H. Wynn was superintendent.

An attempt will be made to work the tailings of the Garlock mill. A plant is being installed for that purpose.

A. Castro et Cie are placering in Iron gulch. They sank one shaft 110 feet in an endeavor to strike bed-rock. They then moved up farther in the channel and are down about 60 feet.

Wiggins & Short are taking \$90 ore out of the La Crosse claim.

White's Camp is flourishing under the superintendence of Superintendent Bouchard. Much development work is being done.

The Sunshine mine was first located in 1896, but nothing was done in the way of development work for eighteen months. The mine is owned by T. W. & B. M. Atkinson, who are pushing operations. The vein varies from 2 inches to over 2 feet thick and the ore is rich. The Atkinson Bros. also own the Hatcher

and Bully Boy claims, on which they have given a number of leases.

A rich stringer has been struck in the Welis-Fargo, situated southeast of town. W. Logan is working it for the owner, Mr. Warner.

White's Camp, or more properly the Sydney group, is active. The main shaft is down 100 feet; two drifts are being run from the lowest level. Another shaft is being sunk 175 feet from the main shaft to connect with the stope on the 70-foot level to get a good supply of air.

L. & G. Kane have invented a new placering machine. Water is to be used in it to disintegrate the cemented gravel, and unlike the other one mentioned in this correspondence a plate is used.

It is a pity that more active development work cannot be done in Colorado canyon, northwest of Randsburg. There is a large vein of good coal there.

E. Hammond and S. Oakley are down 140 feet on the Orphan Girl and are now drifting on the 130-foot level.

G. A. Fudickar, of the Mattie mine, has suspended operations until cool weather.

(More recent reports from Randsburg are to the effect that the negotiations for the settlement of the miners' strike have not resulted satisfactorily. The Desert Mine Owners' Association, in conference with the Miners' Union, refused to pay more than the old scale, \$3.50 for sinking shafts, and \$3 for stopping and drifting; the union insists upon a straight \$3.50 a day for all miners, regardless of the class of work, and \$3 for shovelers. It is stated that 200 non-union men are to be sent to the Yellow Aster.)

Mining and Scientific Press
August 8, 1903 p. 88

SAN BERNARDINO COUNTY.

J. Goldsmith, manager of the Tennenbaum turquoise mines, near Manvel, says he has resumed operations on their group.

Aug. 15, 1903

INYO COUNTY.

At Millspaugh, at the head of Shepherd's canyon in the Argus Range, half way between Ballarat and Darwin, the Millspaugh M. & M. Co. is arranging to rebuild its mill and also to put up a cyanide plant.—Doningue, Etcharren and J. Carricart, who own the Red Star and Bryan mines near Millspaugh, report taking out free gold ore.—Tin ores are reported in certain ores of the camp.

KERN COUNTY.

Wickard & Saunders are leasing on the Baltic mine, near Randsburg, and have bonded an adjoining claim for \$2500.

Development work is reported progressing at the coal mine near Garlock.

Superintendent Bouchard at White's Camp, near Randsburg, says the main shaft is down 100 feet and two drifts are being run on the 100-foot level. They are drifting on good ore. At 175 feet from the main shaft a shaft is being sunk to connect with the stope on the 70-foot level, which will give circulation of air.

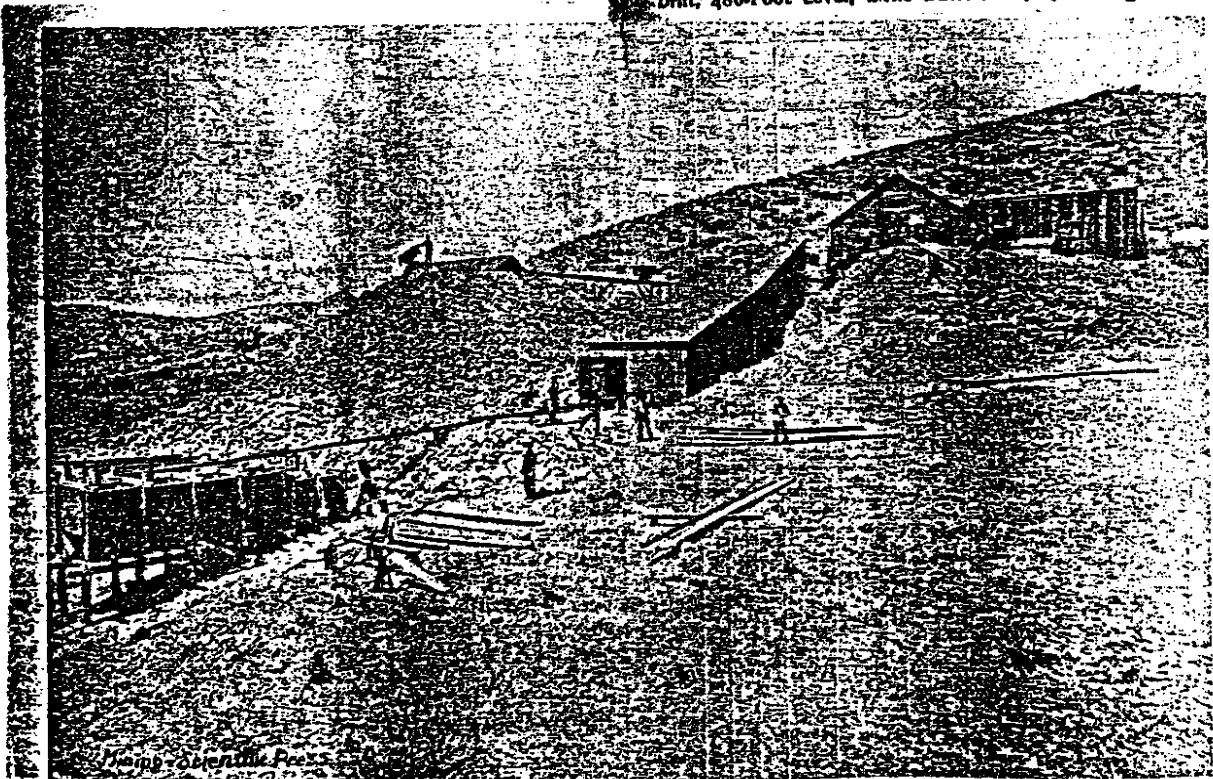
Aug. 29, 1903 p. 32



Drift and Stope, 321-Foot Level, Little Butte Mine, Randsburg, Cal.



Drift, 480-Foot Level, Little Butte Mine, Randsburg, Cal.



Little Butte Mine, Randsburg, Cal.

Gold Mines of San Diego County, Cal.*

Any one who has not traversed the west half of America finds it difficult to form a just idea of its vastness of extent and variety of mineral wealth. Any one of the mining States of the American Union, of the Provinces of British America, or of the States of the Mexican Republic, has tremendous area of mineral ground that justifies most extended notice. Nearly every part of this great region has received illustrated notice herein through the 43 years of this journal's existence, but necessarily in a desultory way. Last week's issue contained notices of some "Southern California" mines, viz., on the desert, in Kern county. On the front page of this issue appear some illustrations of typical gold mines still farther south, yet in California; for, like several of its sister States, California is a commonwealth of enormous extent. For instance, the California gold mines illustrated in this week's issue are in one county—San Diego—(there are 57 counties in California) and, though in the same county, these mines are some of them nearly 200 miles apart.

To Mr. R. S. Baverstock of Los Angeles, Cal., we are indebted for the photos and notes concerning the mines in the extreme eastern part of San Diego county, and close to the Colorado river. Figs. 1, 2 and 3 represent these mines. Fig. 1 shows what comprised till recently the largest number of stamps under one roof in California, it being a view of the 100-stamp mill looking north, with the hoist and track on the left of the Queen mine. Just back of the writer is the famous "Glory Hole," from which hundreds of thousands of tons of low-grade ore have been milled.

Fig. 2 represents a view looking south, and showing in the distance the 100-stamp mill of the Golden Cross, and on the left of it the big mass of tailings which are being worked by cyanide. This bank fills up a valley about half a mile in width, and in many places 30 to 40 feet deep. On the right of the picture is the precipitation plant, and in the foreground are seen the cars filled with tailings, waiting to be hauled up the incline and discharged into the 500-ton vats, of which there are five. The old 40-stamp mill does not show in the picture, but is just on the left of it. The cyanide plant is being successfully operated by Manager Barker, who is making sufficient profit out of \$1 tailings to put the property in good shape, and this with water pumped 14 miles. No effort is being made at present to operate the stamp mill.

Fig. 3 represents the American Girl mine looking west, showing the mill, cyanide plant and hoist, and, beyond, the shaft house of the Randolph mine. This plant is not at present being operated. The mine is developed to a depth of about 700 feet on the incline, and large bodies of ore have been blocked out; but, owing to change of character, the owners are considering the equipment of a plant suited to the ore and installing a water supply sufficient for handling 250 tons daily. There are up to date over 2 miles of underground workings in the mine, and, beside this property, another one on the same ledge east has a large amount of ore blocked.

Fig. 4 shows the old Stonewall mine, on the Cuyamaca grant, east of the city of San Diego about 60 miles. This mine was famous under the administration of Governor Waterman of California. The shaft is about 600 feet deep. The mine has a 20-stamp mill and is being reopened by S. W. Lucas and Boston men, who have not only acquired the mine, but the grant, which is one of the finest cattle ranges in southern California. It consists of about 20,000 acres and embraces Cuyamaca Peak, the highest point in that section, and thousands of acres of pine, cedar, oak and other timber. The mill is being started up on the old dump, which consists of thousands of tons of low-grade ore, which with modern milling methods will show a profit. In the meantime the work of unwatering the deep shaft has begun.

There is much activity in the Julian mines; nearly all the old properties are being reopened and put in good working order. Julian and Banner are the oldest gold camps in southern California, mines there having been in constant operation almost 35 years.

Fig. 5 shows the hoist and mill of the Helvetia mine, near Julian, which is in active operation, and now producing ore that is reported to carry high values in telluride. Fig. 6 represents the old Golden King mine and mill at Banner, where it, the Golden Chariot and others have shared the fluctuating fortunes characteristic of so many California camps.

Sept. 19, 1903 p. 170

KERN COUNTY.

The Johannesburg Gold Mines Co. state: "Had it not been for the unforeseen interruption to our business, doubtless the energetic work we planned would have resulted in getting the property on a dividend basis this fall. The installation of our mill and our entire investment is at a standstill solely on account of existing labor troubles. We are surprised at any suggestion of dividends by this company from stock sales. Our business has not been conducted in a manner to warrant any such insinuation."

The Pyramid mine is being developed by the Verification & Development Co., 4 miles south of Randsburg.

The strike situation at Randsburg remains quiet, and Superintendent Barton of the Yellow Aster M. Co. says he has seventy men at work.

SAN BERNARDINO COUNTY.

Manager Belcher, at Empire Flats, near Needles, says he has started work on his Bolivia mine, adjoining the Empire group, reports the Needles Eye.

The Providence Gold Syndicate, under Superintendent Northup, started dropping the stamps in their mill last week.

SAN DIEGO COUNTY.

The Cleveland and Pittsburg mines, near Escondido and half a mile from the Oro Fino mine, are being developed by an Eastern company, and work has been started to sink a shaft on the Cleveland to depth of 500 feet.

Work is reported progressing in the copper mine, near Olivenhain, and it is the intention of the company to build a

Mineral and Scientific Press

Sept. 26, 1903 p. 207

SAN BERNARDINO COUNTY.

(Special Correspondence).—The Chase G. M. Co., operating at Stagg, is preparing to put in a 10-stamp mill and cyanide plant. E. H. Stagg, of Johannesburg, Kern county, is manager.
Stagg, Sept. 22.

Oct. 3, 1903 p. 223

INYO COUNTY.

G. Vornberg of Mt. Spring canyon, near Independence, has his 3-stamp mill, triple discharge, completed and began dropping the stamps this week. The mill is expected to handle eighteen tons per day.

KERN COUNTY.

(Special Correspondence).—The last carload of thirty-two men for the Yellow Aster arrived at Randsburg to-day. They now have about 200 men and have had the 100-stamp mill running since the 23d.

week. They will make their second shipment of bullion October 2d. There has been no violence and no damage done to the property.

Randsburg, Sept. 29.

The Gold Coin mine near Randsburg is in operation.—N. Johnson and P. Jensen have a lease on the Minnehaha mine and have begun work.

The Merced mine, near Randsburg, has been incorporated, and R. L. Owens of Saticoy, Ventura county, is president. The company will sink a shaft to open the Santa Ana lead.

The Baltic mine in Stringer district, near Randsburg, has started work.

The Exposed Treasure M. Co. at Mojave is enlarging its milling plant by putting in ten more stamps.

Oct. 17, 1903 p. 258

Inyo County.

The Gold Crown M. Co., operating near Ballarat, is preparing to put up a quartz mill.

Kern County.

(Special Correspondence).—Saturday, the 10th inst., was the first pay day of the Yellow Aster M. Co. at Randsburg since the strike. There are but few of the former employes and strikers left in town. Superintendent Barton has 130 stamps dropping in their two mills, crushing 500 tons of ore per day. There are 200 men on the payroll, and more are being added. Atkinson Bros. have their 3-stamp mill in steady operation.

The Pinmore mine and mill at Johannesburg are in operation, under lease to W. F. Ernst & Nelson, on a royalty basis.

Randsburg, October 14.

(Special Correspondence).—At the Exposed Treasure mine, 5 miles southeast of Mojave, Manager G. de Kalb says they propose to add thirty stamps to their 20-stamp mill.—The Karma M. Co. at Mojave has bought a second-hand 10-stamp mill and will add to it ten stamps more. J. R. Gerner is president and superintendent.

The Echo M. Co. at Mojave propose to add a centrifugal or a rotary mill to its 10-stamp mill. Superintendent J. Keith reports opening a rich shoot in the mine carrying horn silver and black sulphide of silver. G. H. Hooper is president and manager.

Mojave, October 12.

Dividend No. 51 (\$10,000) of the Yellow Aster M. & M. Co., Randsburg, makes a total to date of \$343,789.

The Rayo M. Co., operating in Pioneer district, near Randsburg, is putting up a hoisting plant, stamp mill and concentrator at its White Star mine. Superintendent J. H. Parker expects to have the stamps dropping by December 1st.

The oil well which is being drilled near Hiawatha is down 1280 feet. Gas is reported coming from the well and there is oil showing on the water.

The coal company at Garlock is preparing to prospect its ground with diamond drills.

San Bernardino County.

(Special Correspondence).—The Roosevelt M. & M. Co. at Camp Rochester is

preparing to put in a 10-stamp mill, which is expected to be in operation by December 1st. C. R. Emery is superintendent.

—The B. E. Chase G. M. Co., E. H. Stagg, manager, intends to build a 10-stamp mill and a cyanide plant at its mines at Camp Rochester.

Camp Rochester, October 13.

Ventura County.

(Special Correspondence).—The Columbus Borax Co. of Chicago, Ill., operating at Griffin, has struck a high-grade body of mineral, and is preparing to make regular shipments as soon as teams enough are obtained. C. Schliesmayer of Neenach, Cal., is superintendent. Carpenters are at work putting up buildings.

Griffin, October 14.

Oct. 24, 1903 p. 275

Kern County

B. Ostick has purchased the Porter one-third interest in the Rainbow and Tipton claims, near Randsburg, giving him a two-thirds interest in the group.

San Diego County.

Superintendent R. K. Humphrey of the California King G. M. Co., at Picacho, reports the mines and plants in steady operation. A double drum gasoline hoist is being put up on the Apache claim, 1000 feet from the old mine. A double compartment shaft has been sunk on it. Aside from the ore body opened up in the Apache, ore has been blocked out in the Dulcinea. Diamond drills, run by gasoline, are exploiting the body lower down. Machinery for the Encinitas C. Co. concentrating plant at Encinitas is on the ground and being set up. The crusher will handle seventy-five tons of ore per day.

Mining and Scientific Press
Oct. 31, 1903 p. 292

Inyo County.

(Special Correspondence).—At Camp Lyon, near Ballarat, the Golden Argus M. & M. Co. are increasing work on the crosscut to tap main ledge. S. R. Phail is taking out ore on his Red Rock mine. At Millsbaugh development work is progressing and next month they will have their mill rebuilt. In the Panamint range work is going ahead. At Tuba canyon J. P. Flint has men at work and expects to have his 12-stamp mill dropping next week. At Jail canyon it is reported C. C. Calkins has bought the property there and will begin development work. At the Ratcliffe mine a few men are at work and the mill is kept running. The Cecil R. M. Co. has twenty men on the payroll. At the property formerly owned by the Ballarat M. Co. a mill is going up under Superintendent Vahrenkamp. At the Mineral Hill mine the crosscut will be completed next month, and they will be able to get the ore to the tramway on an economical basis.

Camp Lyon, October 27.

Riverside County.

W. H. Trenchard, manager of the San Diego Gem Co., owning the Cahulla tourmaline mines near Cahulla, says development work has been started. The company has a lapidary shop at San Diego.

San Diego County.

The Oro Blanco M. Co. of Banner will drive their main tunnel 400 feet to the Bell mine.

At Mesa Grande, the Himalaya M. Co. has twelve men at work at its mines and tourmalines are being sent to New York to be cut. The San Diego Tourmaline M. Co. has mines at the same place and a lapidary establishment in San Diego.

The San Diego Gem Co. has been incorporated by J. J. Hetzel, D. Wilson, C. O. Johnson, E. W. Peterson and W. H. Trenchard of San Diego, the last named being manager. The company owns five gem mines in San Diego county, also others in Arizona and Lower California, the product of which will be cut and polished at their lapidary establishment in San Diego.

The Fano gem mines, bought by E. A. Fano (known as the Fano Kunzite & Tourmaline mines), 15 miles northeast of Oak Grove, are being opened up. The ledge has been prospected for 600 feet, and is being developed by cuts in several places.

Nov. 7, 1903 p. 308
KERN

The Pinmore 5-stamp mill at Johannesburg was destroyed by fire on the 31st ult. The fire is thought to have been of incendiary origin. The property was owned by the Croesus M. Co., and was leased to W. F. Earnst and A. C. Nelson, who were operating it.

San Diego County.

In the Superior Court on the 2nd inst., R. O. Butterfield began action against the American Lithia and Chemical Co., of New York, et al. for annulment of certain deeds and transfers to the lepidolite and amblygonite mines at Pala. It is claimed by Butterfield that W. H. Crane has received transfer for property, has formed the corporation and has deeded the property to the corporation without doing any of the other things promised and without making returns to the original owners.

The mill at Cuyamaca on the Stonewall mine has been started up after several years of idleness. The mine is opened to a depth of 600 feet, though it has been flooded for ten years. It is intended to unwater the mine and prospect it to greater depth. The quartz occurs as lenses in schist. H. S. Lucas is manager. The mine was a large producer in the past.

The gold mines near Banner are being developed.—The main shaft of the Ranchita mine, near Banner, is being retimbered.—The Helvetia mine, near Julian, is sinking a new shaft—now down 165 feet.

—It is reported that lithia mica (lapidolite) has been discovered near the San Felipe on the border of the Colorado desert, about 10 miles from Banner.

Nov. 4, 1903 p. 325

Kern County.

The Butte mine, near Randsburg, is in operation with non-union men, says Superintendent McMahon.

B. Ostick has bought the remaining one-third interest of J. G. Porter in the Rainbow and Tipton claims near Randsburg.

The Queen Esther mill at Mojave is shut down on account of the breaking of some of the machinery.—J. Gerner, superintendent of the Karma M. Co., says the mill will be in operation this month.

San Bernardino County.

The Giant Ledge G. & C. Co., whose properties are in the New York mountains near Manvel, is having a route surveyed for an aerial tramway from its mines to the railway at a point 29 miles from Blake.

Nov. 21, 1903 p. 342

Inyo County.

There are twenty men on the payroll of the Cecil R. M. Co., near Ballarat.—At the Ratcliffe mine, in Panamint section, men are at work and the mill is kept running, says the Randsburg Miner.

Superintendent Vahrenkamp is building a mill on the property formerly owned by the Ballarat M. Co., near Ballarat.

At Camp Lyon, near Ballarat, the Golden Argus M. & M. Co. is increasing work on the crosscut to tap the main ledge.—At Tuba canyon, in Panamint mountains, J. P. Flint has men at work, and put his 12-stamp mill in operation this week.

Mining and Scientific Press

Nov. 21, 1903 p. 342

San Diego County.

M. Jacques and F. S. Newcomb, operating a group of claims at Banner, including the Eureka, Florence, Lone Jack and Gold Standard, are building a reservoir for water to run a mill. The Gold Standard is an extension of the Golden Chariot and a crosscut tunnel has been driven 360 feet to strike the Golden Chariot contact, says the Julian Miner. There is a spring on the Florence, where the reservoir is being built, which will afford water to run a 20-stamp mill, the fall being 60 feet.

Nov. 28, 1903 p. 350

Kern Co.

The Friday Gulch G. M. Co. will begin operation of the company's mine at Havilah this week. Machinery is on the ground, says H. L. Meacham, superintendent.

W. F. Ernst and S. A. Nelson continue developments on the Pinmore mine at Johannesburg. The blacksmith shop, which was burned with the mill, has been replaced, and the mill will be rebuilt.

At the Old St. John mine at Sageland at the foot of Piute mountain, near Randsburg, they are building a cyanide plant, says the Randsburg Miner.

San Bernardino County.

The Coliseum mines, Nos. 1 and 2, in Clark mining district, 28 miles from Manvel, have been sold to F. Langford for \$24,000. He has put men at work developing the property.

It is said the Bullion mine, near Copper Camp, 20 miles northwest of Manvel, will be reopened.

The Bagdad M. & M. Co. and the Chase G. M. Co. are reported to have consolidated. The properties are adjoining and 8 miles south of Ludlow. The ore from the mines is shipped to Barstow, where it is treated in the company's stamp mill.

Dec. 5, 1903 p. 375-376

Inyo County.

Work is reported progressing on the mill and cyanide plant of the Millspaugh M. & M. Co. at Millspaugh.

Kern County.

(Special Correspondence).—The Hamilton mine, 8 miles from Rosamond, is down to the 300-foot level, with free milling ore averaging \$5.28 per ton. Manager Staverken will build a 100-ton plant. The ore will be cyanided.

Rosamond, Dec. 1.

F. H. Heald of Los Angeles, part owner of the coal mines near Garlock, says a diamond drill will be used to thoroughly test the mine.

The Karma M. Co., near Mojave, has its 20-stamp mill building up and is putting in the machinery and stamps. Equipment for cyaniding is also being installed.

The hoist at the Sunshine mine, near Randsburg, has been set up and is now in operation.—Superintendent Morrison of the St. Elmo mine reports he has resumed operations with one shift at work.

San Bernardino County.

The consolidation of the Bagdad and Chase mines, near Ludlow, has been completed by incorporation of the Bagdad-Chase G. M. Co. in New York, with C. Depew of New York City, J. N. Beckley, B. E. Chase and J. H. Stedman of Rochester, N. Y., and E. Van Etten of Boston, Mass., as directors.

San Diego County.

The Elevada mine at Banner was closed down last week, and Superintendent F. D. Jones says operations will resume Jan. 1st, when further development will be done.

Dec. 12, 1905 p. 394

San Diego County.

The Golden Cross mines at Hedges, which have been in the hands of a receiver for several years, will revert to the owners this month. For several months no mining has been done, the work consisting of operation of a cyanide plant on ore already mined. The product of the mines for the past year is reported to have been \$150,000. It is expected mining operations will be resumed in January.

Dec. 19, 1903 p. 408

Inyo County.

The Buckeye M. & S. Co. of Mansfield, O., operating mines in the Fish Springs hills, near Bishop, reports work progressing, opening up the ore bodies. A. A. Casler is superintendent.

Kern County.

Development work is progressing on the Queen Esther mine at Mojave and in addition to other improvements there is a cyanide plant on the ground, with a capacity for handling 100 tons of ore a day. There are 2000 feet of underground works. The ore body averages 10 feet in width, with values said to be \$6 a ton in gold and silver.

Riverside County.

Preparations are said to be under way for the reopening of the tin mines (formerly called the Temescal mines) on the San Jacinto estate, 7 miles southeast of Corona. In 1891, considerable money was expended in putting up buildings, metallurgical works and other surface improvements, but comparatively little development work done underground. The American Tin M. Co. are operators.

San Bernardino County.

The Giant Ledge M. Co. is working sixteen men on its group of mines in New York mountain, near Manvel.—The Old Bullion mine in Copper Camp, near Needles, has men at work under P. Monaghan of Oro Grande. The mine was a former silver producer.

Mining and Milling in Mojave Desert,
 California.

TO THE EDITOR:--The desert region, from an economic standpoint in regard to mining, has a number of disadvantages that militate against the profitable extraction and reduction of low grade ore, as compared with more favored localities. The scarcity of water, fuel and timber, and in some cases an entire absence of same, increases the cost of mining and reduction to such an extent as to render the mining and reduction of low grade ores unremunerative. The last named conditions obtain at Randsburg, Kern county, Cal. In the following extract from the monthly report of the Yellow Aster M. & M. Co. it will be seen that low grade ore—from \$3.50 up—can be made to yield a good profit under proper conditions. The above-mentioned mine is equipped with two mills—one of 100 and the other of 30 stamps—reducing on an average 500 tons of ore per day. Although within a distance of 2 miles of the terminus of the railway, freights are high, as will be seen from the prices of supplies, a few of the important ones being: Fuel oil, 4½ cents per gallon; lumber, \$32.50 per M.; other supplies in proportion. Water is obtained from two wells, sunk to depths of 450 and 300

feet, respectively, at a mean distance of 6 miles from mine and mill, at an elevation of 1500 feet below point of delivery. On account of the strike declared against the company June 10, 1903, the mine remained closed until September 1st following. Since that date the mine has been in operation steadily to its full capacity with non-union employes. The following is the scale of wages:

Miners, 9 hours.....	\$3 00
Muckers, 9 hours.....	2 50
Car men, 9 hours.....	3 00
Timber men, 9 hours.....	3 50
Amalgamators, 12 hours.....	4 00
Stationary engineers, 12 hours.....	4 00
Holting engineers, 8 hours.....	3 50
Pump men, 12 hours.....	3 50

EUGENE H. BARTON,
 Supt. Yellow Aster M. & M. Co.

YELLOW ASTER MINE.		14,601 TONS TREATED.		From Nov. 1 to Dec. 1, 1903.	
Total expenditure.		Per ton.		REMARKS.	
\$17,656 40	\$17,656 40	\$1 2072		Total disbursements, \$30,183.96.	
	\$3,961 69			Total cost per ton, \$2.007.	
ONE EXTRACTION.....				Miners, muckers, car men, ship bosses, etc.	
Labor.....	\$10,695 69	\$0 7306		Timber men, framers and assistants.	
Timbering.....	833 45	0570		8-3, 6-3, 3-12, Oregon pine.	
Timber.....	2,561 47	1753			
Powder.....	539 58	3697			
Fuse.....	59 90	0041			
Caps.....	4 87	0033			
Lights.....	304 64	2086			
Blacksmithing.....	438 32	2998			
Development.....	635 72	4354			
Haulage.....	642 50	4410			
Holting.....	697 92	4750			
Totals.....	\$17,656 40	\$1 2072			
MILLING.....					
Power.....	3,940 70	2690		Attendance, fuel, maintenance, etc.	
Labor.....	1,123 40	7684		Amalgamators, foreman, etc.	
Rock-breakers.....	674 67	4620		Attendance and repairs.	
Shoes and discs.....	536 79	3669			
Repairs.....	256 53	1757		General repairs.	
Mercury.....	47 60	0032		Total cost, exclusive of water, \$0.4067 per ton; 3615 ounce loss per ton.	
Totals.....	\$5,961 69	\$0 4067		Total cost, including water, \$0.6302 per ton.	
WATER.....	\$3,230 09	\$2208		Pumped 6½ miles against 700 pounds pressure at a cost of 19 cents per 1000 gallons.	
Totals.....	\$3,230 09	\$0 2208		Including taxes, insurance, interest, express, etc.	
GENERAL EXPENSES.....	\$3,325 88	10000		Assay, fire, fuel, etc.	
Miscellaneous.....	1,460 10	01000		Superintendence, engineering, etc.	
Assaying.....	160 61	00507		Reframing tailings and water.	
Salaries.....	950 87	02148		Office expenses, legal telegraphing, livery, etc.	
Tailings.....	318 88	00930			
Incidentals.....	440 97				
Totals.....	\$3,325 88	\$0 2373			
	\$30,183 96				

Mining and Scientific Press

Jan. 2, 1904 p. 12

San Diego County.

The suit of F. F. Wright et al. against Taunnenbaum & Co. of New York and the Himalaya M. Co., owners of the tourmaline deposits in the Mesa Grande country, has been settled. F. F. Wright et al. were owners of the Sancho Pancho and other mines, and claimed that the Taunnenbaum claims overlapped theirs and were being worked to their detriment. They brought suit to enjoin further trespass, and also for damages. Papers filed this week indicate that a settlement has been brought about by the Himalaya M. Co. buying the claims of the plaintiff outright for \$6000.

Inyo County.

J. A. Wauchope, manager of the Nobles mines and the Encinitas copper mines, at Encinitas, San Diego county, reports having bought twenty gold claims, 85 miles from Daggett and near Death Valley.

Jan. 9, 1904 p. 29

Kern County.

Telluride ores are reported found in the La Crosse mine, near Randsburg.—C. H. Snow has put in a gasoline engine in the Kinyon mill.

San Bernardino County.

The Pacific Borax Works at Borate have seventy-eight men at work and \$2.25 a day and board is said to be the scale paid.—The Bartlett Borax Works at Borate expects to start up this month.

Feb. 6, 1904 p. 101

San Bernardino County.

The Trio M. Co., near Mantel, has opened into a body of ore carrying native copper. This mine has 300 feet of tunneling and 100 feet of shaft.

Kern County.

The Uncle Sam M. Co. is developing the Hard Cash mine, near Randsburg.

Feb. 13, 1904 p. 118

Inyo County.

Development of the Sacramento mine, near Bishop, is under way, J. W. & C. Brown, I. E. Dewitt and T. W. Key working it under lease. They have a 3-foot face of ore. J. W. Brown proposes to work the ore in his mill.

Kern County.

(Special Correspondence).—Conditions at Randsburg are improving and the camp is recovering from the fire and the strike of June last. For several months the mills were closed. The town has been largely rebuilt.

The Yellow Aster M. Co. is taking out more ore than ever before and its two mills of 100 and 30 stamps, respectively, are crushing 500 tons of ore daily. There is a total of 15 miles of underground workings in the mine and quarries show on the surface of the mountain up to its summit. The company recently acquired property on their western extension for \$80,000.

There are other mills in the district, a 2-stamp custom mill operated by C. H. Snow; a 10-stamp mill owned by the Butte Co., of which P. H. McMahon is superintendent. Neither of these is operating at present, nor is the Black Hawk, a 10-stamp mill, owned by T. W. Atkinson, who owns the Sunshine mine, a producer of Stringer district.

At Johannesburg there are three 10-stamp mills—the Red Dog, owned by the Stanford M. & R. Works, with F. A. Mann in charge; the Phoenix, with E. Hammond in charge, and the Plimora.

In the Stringer district, 2 miles south of and paralleling the Randsburg district proper, is the Baltic Co.'s mill, operated by C. H. Wynn, manager and part owner. This district has been and still is a good producer at shallow depths. This section has always paid its way, unassisted by outside capital, and there has been as yet no deep development. Even the Yellow Aster, which has operated on a high hill, has not really attained depth. The development of the Randsburg district is as yet in its incipency, and it offers opportunities for capital to show that there are deep mines to be made here.

Randsburg, Feb. 9.

L. D. Daves and J. Peterson have leased the Red Dirt mine, near Randsburg, and have begun work.—Nebeker & Buck are leasing on the Bully Boy claim, east of the G. B. and adjoining the Sisters claim.—Bouchard & Thompson have a lease on the Banner.

The Standard Oil Co. pipe line from Kern river to Point Richmond is again pumping oil from the Kern River field.

Feb. 20, 1904 p. 136

Kern

The Flamitohume M. Co., which has been operating at Jawbone canyon, near Randsburg, has closed down.—The New Century group of claims, near White's Camp, has been located by T. McCarthy and C. Taylor, and development work is being done.

San Bernardino County.

(Special Correspondence).—Manvel is the center of a district which seems just awakening to its possibilities. The Santa Fe from Goffs has a branch line to Ivanpah. Barnwell (Manvel postoffice), the principal station, is 30 miles from Goffs and 15 miles from the Ivanpah terminus. From Manvel stages connect for Searchlight, Nev., 25 miles easterly, and Sandy, 60 miles northeast. The Clark road crosses this branch line 8 miles above Manvel and passes within 10 miles of Searchlight. Construction work is under way and the promise of the early completion of this line is stimulating prospecting and the mining business generally.

Four miles north of Manvel is Vanderbilt camp, where the Gold Bronze M. Co. has a 10-stamp mill and a mine in which considerable work has been done down to the fourth level. The property is now tied up by litigation. It is owned by J. M. Hale of Los Angeles.—The Campbell group is also at Vanderbilt. Its principal workings are on the St. George and the Boomerang. On the latter is a 10-stamp mill, but is at present idle, pending negotiations for a sale, which are said to be under way.—Near Vanderbilt a location has been made by W. Osborn for O'Neara & Lynch of Tonopah, Nev., which is being developed.

Mining and Scientific Press

Feb. 20, 1904 p. 137

a two-compartment shaft and the outlook is favorable.

Manvel lies near the foot of the New York mountains, a group rising out of an elevated mesa, attaining an elevation of about 7000 feet. In area they are 5 by 9 miles. On the eastern slope is the Alpha group of claims, owned by the New York Co., of which H. Schrader and T. A. Johnson of Los Angeles are principal owners. On these about 3000 feet of work has been done, though temporarily idle. They propose building a smelter. In this canyon are other prospects, as yet only partially developed.

Over the range, to the south, is the property of the Giant Ledge Co., L. M. Gregory of Los Angeles president. The property comprises 800 acres of ground and includes a valley running down to the level of the plain, which will afford a spur from the Santa Fe branch easy access to the proposed mill, which can be reached by aerial tramways from the mines. The Giant ledge in places crops out 60 feet in width. Wherever opened up it has disclosed bodies of ore carrying copper, gold and zinc. It has been undergoing development the past two years in conformity to a systematic plan. In one place the ledge crops 70 feet above the surface. From the canyon intersecting tunnels have been run. Across the valley, below the millsite, runs a dike which brings the underground flow of water to the surface and provides natural advantages for treating the ores. A test shipment of zinc ore is being made.

Between Manvel and the New York mountains the Trio M. Co. is opening up a ledge of copper carbonate that at a depth of 100 feet has been crosscut for 14 feet without reaching the wall.

The Keystone mine, near Sandy, belongs to the same New York company as the one above mentioned. At present it is not working to its capacity. It also has a 10-stamp mill.

Manvel, Feb. 15.

Feb. 27, 1904 p. 152

San Diego County.

Mining operations at the High Peak mine, near Julian, have been resumed under A. B. Hall, manager of the Julian Con. M. Co. The steam hoisting works at the new shaft of the Helvetia have been moved to the 165-foot shaft at the end of the 425-foot tunnel in the High Peak, to replace the gasoline plant damaged by fire. The management will put in heavier steam hoisting machinery.

W. Z. McDonald, of the Cleveland-Pittsburg mines, near Escondido, says he is preparing to put in heavier hoisting machinery and improved methods of handling the ore. Work will be resumed on the vertical shaft, which it is proposed to sink to depth of 500 feet.

Inyo County.

G. Montgomery et al. have started operations on the World Beater group of mines at Ballarat and will put in development and milling machinery.

March 5, 1904 p. 169

Kern County.

The Karma M. Co. mill at Mojave is in operation.—The Queen Esther mine and mill are in full operation.

S. J. Montgomery and D. J. McCormick have located the Ophir tunnel site near El Paso, 8 miles northeast of Randsburg. They expect to run a 200-foot tunnel. A 6-foot ledge has been uncovered which is said to assay 32 ounces silver and 30% lead.

Riverside County.

F. James, T. H. Whitaker et al. of Los Angeles have organized the Pinon Con. M. Co. to develop a group in Pinon mining district, 15 miles north of Indio. Development machinery and a mill and cyanide plant will be put in.

March 19, 1904 p. 197

A New Town on the Mojave Desert.

A large portion of the southern portion of California—that portion south of the Tehachapi mountains—is desert—a vast arid territory covering thousands of square miles, and extending eastward into Nevada and Arizona, in which the annual rainfall is a minimum, and where the range of temperature is represented by 140°, while the mean temperature is far above the average of the rest of the Pacific coast. The range of temperature within twenty-four hours is sometimes nearly 100°. The effect of such unusual climatic conditions is to produce a desert—rugged serrated mountains separated by broad, flat valleys with no sign of verdure other than sparsely scattered sagebrush and greasewood. An occasional clump of mesquite is the only really beautiful thing to be seen in desert valleys. Often the central portion of a valley is flat as a floor, and is composed of a broad expanse of fine silt or clay as hard as pavement and glaring white in the fierce sunlight—the bed of a dry lake.

The vision may clearly distinguish mountains 150 miles distant through the clear, dry atmosphere. The distant mountains seem near, and those near at hand are startling in their barren ruggedness. Out of this land of silence and death rise scores of such ranges, isolated buttes, and rounded hills, and few of them there are which do not contain mineral veins or deposits of value. Among these the names of many have already become familiar to the miner and prospector—the gold mines of Randsburg, and those of the Panamint section, of Slate range and of Death valley; the silver veins and borax deposits of Calico, the gold, silver and copper of Providence mountains, and the gold of the Cargo Muchacho range; the silver and copper of Lava Beds district, and the gold of Pinon mountains. These are only a few of those already noted in the Mojave and Colorado desert region. And now a new camp has sprung up in a new district, that of Rochester, in San Bernardino county, about 40 miles east of Daggett, and 8 miles southwest of Ludlow station on the Santa Fe railroad. The accompanying engraving presents a characteristic picture of desert mountain and long, low valley slopes, with the scanty sagebrush with intervening patches of barren sand. At the lower end of the village on the left are the Bagdad mines, owned by the Bagdad-Chase Mining Co. of New York, E. H. Stagg, manager. Immediately behind the observer and half a mile distant are the mines comprising the Chase group, owned by this company. To the right of the Bagdad group in the middle background of the picture are the mines of the Roosevelt group, a separate property owned by the Roosevelt Mining & Milling Co. The Bagdad

Mining and Scientific Press

March 19, 1904 p. 197

mines produce ores containing gold and copper. The company owns a 50-stamp mill at Barstow, 60 miles westerly from the mines on the Santa Fe, and near the Mojave river. A new 10-stamp mill and cyanide plant is being built at the mines. The Roosevelt Co. are also building a 10-stamp mill. The water for these mills is to be pumped from wells sunk in a dry lake some distance from the mill sites. Within a radius of 10 miles of this camp are several extinct cinder cones of typical form, marking the site of as many volcanic vents, which are the seats of the dying volcanic activity which has in the past been such a prominent characteristic of this portion of the desert. The oldest rocks of the region are intrusive—diorites and quartz porphyries, and later, often overlying these, are rhyolites, rhyolite tuff and breccia, andesites, etc., and still later the black olivine basalts, which coming up through the volcanic vents, spread over many square miles of the country. The indications are that the most recent eruptions were of a quiet kind, in which the lava rose in the craters and overflowed, the molten rock extending in some instances 10 or 12 miles from the craters. Later the cinder cones were built up about the vents and the internal fires slumbered. How long these volcanoes have been silent no one knows, but the lava looks startlingly fresh to one who walks over its rough, twisted and gnarled surface. The large amount of ashes and tuff forming hills in the region south of Lavic, a station west of Ludlow, indicates that prior to the basalt flow the volcanic activity of the region was of a violent type, in which vast amounts of material were ejected.

None of these signs of former disturbance have deterred the owners of these mines from expending a large amount of money in their development. Among other improvements is a standard gauge railroad 8 miles in length, connecting the mines with the station on the Santa Fe railroad at Ludlow. The establishment of this camp will doubtless do much toward stimulating prospecting and mine development in the mountains of the vicinity, in some of which there are mineral deposits of proven value, notably in the Lava Beds hills, a few miles west of Rochester, where are veins of gold, silver and copper ores, and farther westward large deposits of iron ore—hematite and magnetite of good quality.

March 19, 1904 p. 201

Inyo County.

H. J. Lent and O. H. Hill are opening up a deposit of merchantable slate in the foothills 3 miles from Laws, says the Bishop Register. The deposit covers full area of the mining claim, 600 by 1500 feet. It is accessible by wagon road, which will assist shipping. The owners will sink a shaft 50 feet to get below the weathered surface material.

San Bernardino County.

W. Osborn, manager of the Ariz mines, at Vanderbilt, has started development of the Irish-American group of mines south of Java, west of Needles, of which he has a bond.

San Diego County.

The Ranchita mill, near Banner, started crushing ore from the mine last week. C. J. Coutts is owner. A 24-foot paystreak has been opened, averaging \$50 per ton.

At Escondido the Cleveland-Pittsburg M. Co. has bought eleven acres adjoining the mine on the south. The stamp mill of the company started up again last week. Three hundred tons of ore are on the dump.

The lithia mines at Pala will resume operations of mining and resume shipments to the East.

March 26, 1904 p. 217

Kern

At Amalie the Gold Peak M. Co. continues shipping ore. Manager Laynge says he has bought the Pearl and Emmet mines, giving the company a continuous lead of 12,000 feet on the Zada vein, all of which carries values. The Zada mill, under Manager Cummings, started last week. The company has also put up wire-rope aerial tramways, which are giving satisfaction. The new camp at Sand canyon is being developed.

San Bernardino County.

It is expected the stamp mills at the Ludlow mines at Rochester will be in operation next month. The Chase group will have a stamp mill independent of the other mines, and another mill is being installed for the Roosevelt mine. There are ninety men at work at the Bagdad group, twenty-five at the Chase mine and forty at the Roosevelt. They have been blocking out the ore, running tunnels, timbering shafts. A pipe line is also being laid by the company to convey water to the mines.

April 2, 1904 p. 233

Inyo County.

J. Coulter, of Randsburg, has bought the 2-stamp mill at Teagle's and will move it to his mine at South Park, in the Panamint Range, near Ballarat.

The 10-stamp mill of the Millspaugh M. & M. Co., at Millspaugh, was started last week.

Kern County.

W. H. Nelson and G. Philips have leased the Maggle mine, near Randsburg, and have begun work.—It is reported the Suspension Ridge M. Co., operating in the Argus Range, has started work on its group.—Shipsey & Montgomery have a lease on the Hector claim of the Ashford M. Co.

San Diego County.

The stamp mill of the Cleveland-Pittsburg M. Co. is in operation again with 200 tons of gold-bearing ore on the dump.

Mining and Scientific Press
April 9, 1904 p. 249-250

San Bernardino County.

(Special Correspondence).—The Copper World, the Vulcan and the Excelsior mines have been bonded to San Francisco men. These properties are near the line of the Salt Lake R. R., and about 35 miles northwest from Manvel.

The Trio C. Co. is operating mines in the New York mining district, 1 mile west of Manvel. It is owned by Pasadena men. The workings consist of a shaft 165 feet in depth on the ledge, showing copper ore. It is a contact vein, between lime and porphyry. The ledge is 15 feet in width, carrying values of 10% copper. Some specimens of native copper have been taken out. A drift has been run at the 150-foot level which cuts a shoot of ore 35 feet to the west. This shoot also shows in a shaft near surface 100 feet from present workings. A plant to reduce the ore on the ground is proposed. The mine is 1 mile from the Santa Fe R. R. and 3 miles from the Salt Lake R. R.

The Giant Ledge Co. shipped a carload of ore last week to Canon City, Colo. This mine is 9 miles from Manvel and is expected to be put on the producing list this summer.

Manvel, April 5.

San Diego County.

O. H. and J. H. Schumacher and F. Kuhn of Fullerton have a bond on the Alamitos mine, in mouth of the Oroflamme canyon, near Julian, and will start development.

J. W. Wiley and M. S. Darling, operating at Palo Verde, are developing gold prospects consisting of a group of five claims. In sinking a 100-foot shaft they struck several pockets in free gold. The group is within 5 miles of the river valley, with plenty of wood and water available.

April 16, 1904 p. 272

Riverside County.
The Oro Copia M. & M. Co. are sinking a well near Dos Palmos station in the San Jacinto basin, to supply water to their mine, 10 miles to the northward, in Quartz Peak canyon. A mill has been built near the mine.

April 23, 1904 p. 278

The One Mine Camp.

For some reason there is found among many miners a prejudice against a "one-mine camp." The camp where there is but one mine is looked upon by some men with suspicion, and to be avoided, oftentimes by men who should have better and broader ideas. It should be remembered that, in all probability, if it were not for that one mine there would be no camp there at all. The arguments against the one-mine camp are: The miners are compelled to board at the company's boarding house and to patronize the company's store. They must buy all they require—clothing, boots, shoes, tobacco, etc., at this one store. In some instances it is claimed the men innocently patronize the company's store and at the end of the month find they have nothing coming, or worse still are in debt to the company. This does seem to be unfair and unnecessary, but does analysis

of the situation show this to be a fact? In the first place, mining companies as a rule are not organized and run for the purpose of building up a village or town about the works. The primary object of the company is to make money upon the capital invested, and this the greater number strive to do legitimately. When an isolated mine is opened and worked a new village springs up about it, and there be but one company operating there the management must do something to accommodate the miners. At no mine are the men all single or all married. They who are single must have a place to sleep, and as the greater number prefer boarding to "batching," necessarily the company must supply these wants. This means the investment of several thousand dollars more in bunk houses, and boarding house and their equipment. It is only just that the boarding house should not be run at a loss, consequently the management must make a rule that all employes shall patronize the boarding house. Often exception is made in the case of married men, with whom the matter is optional. Where the proposition is left to the miners, the boarding house becomes a "nightmare" to the manager. One week there will be more than can be accommodated, the next there will be less than half the former number, and the arrangement cannot always be regulated to meet the requirements of the miners. Of necessity the company insists on the men making use of the accommodations afforded, as this is a portion of the organization, though only an incidental part. As to the company store, of which there is so much said in its disparagement, that too is usually a necessity when the mine is remote from the nearest town, and hundreds of men will candidly admit that the store is often a great convenience. Prices are usually higher than in towns more easy of access, but it should be remembered that there are additional freight charges. Mines are not philanthropic institutions conducted for the benefit of a community which may spring up about it, but are operated for the purpose of making money, the same as any other industrial enterprise.

The miner who at the end of the month finds himself in debt to the company would in many cases find himself broke at the end of each month in cities like Cripple Creek, Leadville, or Butte.

There are places where the company boarding house and the company store are "made to pay," and the men do not receive the treatment or fair play they deserve, but good workmen will not usually remain in such a camp longer than necessary to get away. The company which treats its men with the greatest fairness, pays the going wages, supplies

against inferior workmen. It pays the company to give men fair treatment and to supply them with good accommodations, for the men in return are both able and willing to respond with more and better work. It pays to treat men well, even at a one-mine camp.

Cyanide Poisoning.

The use of cyanide of potassium in the treatment of gold and silver ores has spread throughout the world within the past twelve years. Twenty years ago the cyanide process was commercially unknown in the treatment of ores. Its first large application to the extraction of gold from its ores was made in New Zealand in 1888. Its possibilities were at once realized, and other cyanide plants were built. Gradually they extended and increased in number—slowly at first—until the chemistry of the process was better understood, and later the construction of cyanide plants became as common as the building of stamp mills or smelters. There are hundreds of plants treating from less than 5 tons daily to those which handle upwards of 2000 tons in twenty-four hours. Tons of cyanide of potassium are consumed in this branch of metallurgy annually, and notwithstanding the fact that cyanide is one of the most deadly chemicals known to science, and so prompt in its effects that medical aid is almost always futile, yet there have been very few cases of cyanide poisoning of men working in these plants reported, and until within the past few days no cases have been noted, or, at least, become generally known, wherein animals and fowls have died from drinking the waters of streams to which the discharge of cyanide works is tributary. The single exception is that of the Exposed Treasure cyanide mill in Kern county, California, where, a few miles from the village of Mojave, the mill of the Exposed Treasure Mining Co. is located in a canyon which is dry except when heavy rains fall. The water for the mill is pumped to it and the wash water, containing a very low percentage of cyanide of potassium, is allowed to run to waste down the desert canyon to the sand flats in the valley beyond, where it soon sinks from sight. A State deputy game warden was informed that all the game in that part of the county was being killed from drinking the deadly waters coming from the Exposed Treasure mill. The investigation is said to have shown that numerous doves were found lying along the banks or near the stream. At a distance of 3 miles from the mill it is said the sand in the tailings has settled and the water has become comparatively clear, and from that point onward until the water is absorbed by the desert sand the stream is lined with the bodies of dead birds, rabbits, and even cattle which have drunk of the waters.

As previously stated, this is the first instance of importance of the kind ever reported, and the reason may probably be found in the fact that the canyon in which the Exposed Treasure mill is located does not contain a living stream, and the water discharged from the mill is dangerous and even deadly, though containing a minimum of cyanide of potassium—for managers of cyanide mills do not permit strong solu-

tions—0.25%—to escape if it can be helped, solutions of that strength being pumped back for reuse, but the water employed in washing out the pulp from the treatment vats must flow away, and if impounded it would be useless unless it be discharged into a reservoir of so large a superficial area that the evaporation would equal the amount of water running from the mill into the basin. It would seem, however, that possibly the amount of water flowing down the canyon might be lessened by pumping it back from a settling reservoir, thus reducing the quantity of water required from the original source, if this has not already been done. If, as in most other places the canyon contained a living stream, the deadly solution would probably become sufficiently reduced in strength to be innocuous, but as nature has not generally provided living streams in the desert mountains it remains for the company to render the situation as harmless as possible, by one of the methods suggested or by fencing the stream along that portion known to be dangerous.

San Diego County.

(Special Correspondence). — C. W. Pauly has been allowed \$500 per month as receiver of the Free Gold M. Co., S. M. Shortridge of San Francisco has been allowed \$14,500 for legal services by Judge Torrance of San Diego, and J. Chandler was also allowed \$15,000 for similar services. Some of the stockholders object and will petition the State Supreme Court for stay of proceedings. Picacho, April 16.

The Encinitas copper mine, 18 miles north of San Diego, which is being developed, demonstrates the existence of good copper ore in large quantities in this section. Superintendent H. MacKinnon says: There is one 400-foot shaft, another 225 feet, and a third 180 feet; with three 100-foot drifts and two 50-foot drifts. The work of sinking, drifting and stopping is going on. The mine is equipped with ore crusher, 6-foot mill and two concentrators. The power is supplied by three large gasoline engines. Two hundred and fifty tons of ore have been milled. The water pumped from the mine is used for milling purposes.

Kern County.

The Minnehaha has had ore treated at Snow's mill.—Jones & Sumers, leasing on the King Solomon, have had a crushing.—The Red Dog mill is milling ore from White's camp.—The Red Rock G. M. Co. have a well driller on their property in Red Rock canyon, says the Randsburg Miner, and will prospect the ground under the direction of J. A. Atkins.

Atkinson Bros., operating the Sunshine mine, near Randsburg, have commenced milling. Development work in this mine has opened it up to such an extent that the operators are contemplating installing compressed air drills and a steam hoist.

Mining and Scientific Press

April 23, 1904 p. 287

Inyo County.

S. R. Phail of Snow's canyon says that the Golden Argus mine, near Ballarat, will start up soon. J. C. Cross has out a large amount of high-grade ore and is running his mill. J. C. Cross is also running on ore from his mine. Mr. Phail has had four runs of ore in the Golden Argus mill from his mines.

April 30, 1904 p. 303

San Bernardino County.

(Special Correspondence).—A gold lode has been discovered in this vicinity by C. F. Blackburn, 15 miles northeast of Victorville, in a ridge of metamorphic-crystalline rocks intruded by eruptive dikes. The ridge rises 800 feet above the valley and dry lake bed. The gold lode is 100 feet wide. The character of the ore is siliceous, but contains some iron, and is a fine-grained, live-looking white, gray, yellow and brown colored quartz, showing flour gold by pan test. One sample assayed \$7.85 per ton gold. Victorville, April 27.

May 7, 1904 p. 319

Kern County.

H. H. Blodd, at Amalie, operating the Zada mining property, says he is preparing to increase development work. It is intended to run a tunnel to cut the ore body at 1000 feet. The tunnel is in 475 feet. The Gold Peak M. Co., which owns the Zada mine, intends to put up a 20-stamp mill. R. Lang is superintendent.

May 14, 1904 p. 335

Inyo County.

Olancha reports say a new district is being opened up at Cactus Flat, 15 miles southeast of Olancha. On the Boland and Lockett prospect the shaft is down 60 feet. At this point the ledge is 4 feet wide, and assays show gold values. The ore is being sacked for shipment as it is taken from the shaft. On the mine owned by E. Walker et al. a shaft has been sunk 30 feet on the vein. They have an 18-inch

face of the tunnel it is expected to find a large vein, which on the surface shows iron capping. This vein carries copper, gold and silver values. The plant is equipped with a compressor, and machinery is worked in the tunnel. Basler of Lowrey is superintendent. Lowrey, May 12.

May 21, 1904 p. 351-352

Inyo County.

The work on the traction road being built by the Pacific Coast Borax Co. between Ivanpah and its borax mines in Death valley has been completed. The engines and wagons are expected to arrive this week.

San Bernardino County.

The Fletcher M. M. & S. Co. of Los Angeles has bought the Needles smelter at Needles and will put in two new stacks, one for copper and one for lead, says the Needles Eye.

Kern County.

The S. K. M. Co. has been organized in Los Angeles and will begin active operations on its ground, 2 miles from the Angelus group, near Randsburg. — The Angelus placer claims at Fremont's Peak, 18 miles southeast of Randsburg, have been sold to C. A. Giffen, chief owner in the Midnight Sun M. Co. of Alaska, and G. M. Giffen of Los Angeles. Water has been developed and the new owners will put in a 200-ton cyanide plant. M. Wilson, former owner, is manager for the company.

May 28, 1904 p. 368

Inyo County.

A new mining camp is being opened up at Cactus Flat, east of Haiwai. The Ella B., under bond to D. McLeod, measures 4 feet between walls, and is said to carry an average assay value of \$14 in gold. The Forgot is an extension of the Ella B., and is owned by F. Elder, E. Walker and P. Giraud. The ledge shows from 1 foot to 4 feet in width, carrying \$24 value. The principal interests in camp are owned by T. Boland, F. Elder and R. Lockett. This comprises nine claims and four mill sites. This group is bonded to D. McLeod. Work is being done on the White Star. There are forty claims owned by different persons. The facilities, with the exception of water, are reported good. Wood is plentiful and the ground easy to work. Water costs \$1.50 a barrel, delivered at the mines from Haiwai Meadows. The main formations are granite and schist. The ledges run parallel, and nearly all pitch south at an angle of about 45°. The walls are sharply defined, and the ore free milling. The distance is 8 miles from Haiwai, to which point a natural roadway exists. From the camp to Olancha is 15 miles.

May 28, 1904 p. 369

San Bernardino County.

E. J. Delano of Los Angeles has a bond on the Bidwell group at Gold mountain in the Clark range, 25 miles north of Manvel. The property consists of the Coliseum No. 1 and 2. It is a low-grade proposition, said to average \$4 per ton.

June 4, 1904 p. 384

Kern County.

The Amity M. & M. Co. expects to begin operations in the Slate range, north-east of Randsburg, next month. It has bought twenty claims from J. B. and A. Earley.

San Bernardino County.

At the Fletcher camp, west of Needles, the development work is said to be showing bodies of payable copper ore. It is expected the smelter will be completed by August 1. Fletcher has lead mines in Mohave county, Ariz., the ore of which he will ship to Needles for reduction.

Mining and Scientific Press

June 11, 1904 p. 400

Kern County.

W. F. Brizius and H. Hatch have bought the Star mine in the Democrat mining district, near Bakersfield, for \$3000. A roller mill and concentrator are

in place and development work will start this week. Additional machinery will be put in.

June 18, 1904 p. 416

Inyo County.

Improvements have been made in the buildings at Poleta mine at Poleta. Superintendent Macgregor has put in a steam hoist, air compressor, engine and other equipment.

June 25, 1904 p. 433

Kern County.

Development work is being done on the Rustler mine, near Randsburg, with J. O'Leary in charge.

The Yellow Aster mills at Randsburg are reported crushing an average of 520 tons of ore per day. There is no scarcity of water, but in view of the probable increase in milling capacity they are developing more water.

San Bernardino County.

Drilling the oil wells at Kramer and north of Hinkley is reported progressing. The Hiawatha Co. has struck oil at 1410 feet, but by reason of insufficiency of present machinery, a new rig will be set up before greater depth can be reached. North of Hinkley, near Black's ranch, a well is into shale for 50 feet.

July 9, 1904 p. 28

Kern

The line has been completed by the Kern River Light & Power Co., H. E. Huntington manager, from the power station at Borel, on the Kern river, where the current is generated by means of turbines under pressure of water taken from the river 12 miles farther up stream. The wires are hung on the poles by 24,000 insulators, which weigh fourteen pounds each. These insulators are made of porcelain in four pieces. The power will be used by the electric railway systems in Los Angeles, Pasadena, Pomona, Riverside, San Bernardino and other places, and a number of manufacturing plants will also be supplied.

Near Randsburg a well-defined ledge is reported being developed in the Belmont and 1900 claims.—Development work on the Wells Fargo claim shows a 1-foot ledge of \$10 ore.—Development work continues on the Excelsior mine, owned by Fifield, Barton & Tomson.—The Merced M. Co., operating in the Stringer district, have let a contract to sink an additional 80 feet in the main shaft, it being down 150 feet.

At the Butte Lode mine, near Randsburg, work is reported progressing. Returns from the June milling show from ninety tons of ore a total of \$6900 was extracted, says Superintendent McMahon.

July 9, 1904 p. 29

San Bernardino County.

W. Osborne, who has been developing the Irish-American copper properties west of Needles, has closed camp temporarily. He will open camp again in the fall and continue development work.

July 16, 1904 p. 44

Inyo County.

E. McGrath of Reno, Nev., is building a concentrating plant at Keeler to work 5000 tons of slag (the "Swauca" slag pile), the average assay of which is said to be \$25 per ton and the concentrates average \$120 per ton.

Kern County.

The 130 stamps of the Yellow Aster mine at Randsburg continue in steady operation.

Havilah reports to the Californian say the owners of the King Solomon mine at Havilah have struck a 2-foot ledge carrying high-grade values.—The Big Four is still working with encouraging prospects.—The Kern River M., Dev. Co. has tunneled 250 feet and will go 200 feet more to tap the ledge. It is waiting for machinery.—Latham's Extension, on the east side of the road to Kernville, shows copper values; the walls on the west side are granite with serpentine on the east.

San Bernardino County.

(Special Correspondence).—At Daggett and Borate mining operations are practically suspended for the hot season. About twenty-five men remain at the Pacific Coast Borax Co.'s mine at Borate, but the reduction works at Marion are closed. The Clark road, which strikes across the desert from Daggett, is practically completed, 80 miles to Ivanpah, where it crosses the Barnwell branch of the Santa Fe running north from Goffs. The line is expected to do much for Death Valley and the mining interests of the desert generally.

Daggett, July 10.

(Special Correspondence).—The producing companies at Camp Rochester, in Bagdad district, are the Bagdad-Chase G. M. Co. and the Roosevelt M. & M. Co. The former has been operating three years and has two miles of workings. It is producing 200 tons of ore per day. The low-grade is worked by a 10-stamp mill at the mine and the high-grade is taken to the 50-stamp mill at Barstow and treated by amalgamation and cyanide. At the mine ten gasoline engines, ranging from 5 H. P. to 12 H. P., supply the power, and the 10-stamp mill is operated by a 40 H. P. engine.

The Roosevelt has been developing the past two years. The company is putting up a 10-stamp mill, with arrangement for twenty additional stamps when required. The process contemplates saving of copper values in the ore. Leaving the stamps the pulp will pass to sizers and the slimes separated, after which the copper will be leached by a 5% solution of sulphuric acid and the residue cyanided. The copper will be precipitated on scrap iron. An 81 H. P. gasoline engine will operate the mill, and one of 14 H. P. runs the hoist. The shaft is an incline following the vein, 450 feet deep, with a vertical depth of 304 feet below the collar of the shaft. The ore body is developed with

Cont

Mining and Scientific Press
July 16, 1904 p. 44-45

1531 feet of workings, vein running from 12 feet to 45 feet in width. The vein matter is porphyritic. Average values throughout the mine run \$10 to \$12 gold, with some silver and copper. On the 400-foot level a heavy lead of red and black oxide of copper has been struck, through

which is copper glance. This occurs in the vein, but does not carry much gold values. The vein dips west at an angle of 45° and the copper lead pitches at an angle of 24° to the northwest in the vein. It varies from 2 to 8 feet wide. As yet it has not been developed enough to determine its significance. The company ships to the smelters. Hitherto all water used in the camp was brought from Newberry, on the Santa Fe, via Ludlow, and its scarcity hindered operations. Recently the Roosevelt Company struck water in quantity in a well and will pipe it 9 miles to the camp. It will be pumped to the summit through a 6-inch line, thence by gravity through a 4-inch and finally reduced to 2-inch to camp. The summit is 1300 feet above the well and the fall to camp will be 672 feet. About 300,000 gallons per day will be supplied at first. The Roosevelt's ore body is a contact between a porphyry footwall and a granite hanging wall. There are several other companies developing in the district, among them being the John Suter G. M. & M. Co., adjoining the Bagdad on the east; the Ludlow Belle, on the north, and a company on the western extension of the Roosevelt. This district is 8 miles from the main Santa Fe line and connected with it by the Ludlow & Southern Railroad Co. With transportation and a good water supply it will be free from the more serious hindrances to desert mining.

Camp Rochester, July 11.

San Diego County.

V. V. Angel of Mesa Grande, foreman of the Himalaya M. Co., reports the mines are working ten men and are producing gems. To the present all work has been done within 20 feet of the surface, but the company has started to drive a 200-foot tunnel to strike the ledge lower down.

July 30, 1904 p. 76

San Diego County.

The mill of the California King M. Co. at Picacho is hung up, pending repairs. Last week the governor belt broke or was thrown off, removing the check on the flywheel, which weighed twenty-one tons, and the flywheel went to pieces.

Aug 13, 1904 p. 110-111

Inyo County.

Work will begin again on the Kearsarge mine, near Independence. Negotiations have been concluded by which T. T. Murray of Detroit, Mich., gets a bond on the property for three \$10,000 payments to be made August 15th, October 15th and December 15th. The first work will be a 1200-foot tunnel to cut the ledges at right angles at least 400 feet below the deepest of the old workings. A factor in this will be the installation of an electric plant in the canyon to the eastward, for generation of power.

San Bernardino County.

(Special Correspondence).—Silver Mountain mining district, of which Victorville is the railroad center, is improving and will become a gold and copper producer, as recent discoveries of gold lodes with promising developments underground are being made. The Farnot M. Co. has reached a depth of 500 feet, showing a well defined gold-bearing lode to that depth, carrying iron-copper sulphides in white quartz having gold values of \$10 to \$20 per ton. This company owns twelve gold claims. A larger reduction plant will be put in this fall.—The Greenback gold lode, near the Farnot Co., is opened 200 feet deep with the new shaft and contains lead, copper, silver and gold values.

The Copper Mountain Co., on the east side of Silver mountain, has several hundred feet of shafts down in veins of copper ore. Several crosscuts show heavy copper veins exceeding 20 feet in width. Character of ore is chalcopyrite in gangue of magnetite, with values of 5% copper and \$7 per ton in silver and gold. A tunnel is being driven to cut the lode 400 feet deep.

The Copper Chief group, near the Siderwinder mine, has a 40-foot free-milling gold ledge with payable values and considerable tunnel work is done toward its development.

The El Dorado-Bonanza, Copper Prince and Bimetallic copper-silver veins in West camp are being sold, says Manager C. F. Blackburn. This group of copper lodes affords a promising surface showing. About 300 feet of shafts show ore with values ranging from \$7 to \$40 per ton in copper, silver and gold. These lodes show mineral croppings between mica-schist and gneiss foot wall and limestone hanging wall. A group of zinc and gold claims and the 100-foot free-milling Mammoth

siliceous gold lode, on which seven claims are held by C. F. Blackburn, will be incorporated and developed.

The variegated marble quarries near Victorville are being patented and will be extensively worked.

The Exploration & Securities Co. of Boston, Mass., W. B. Guild president, owns gold-bearing veins near Victorville. The Mojave river, flowing through the district, affords a reliable supply of snow-derived water from the north slope of the San Bernardino range.

Victorville, Aug. 9.

Aug. 20, 1904 p. 127

Riverside County.

E. A. Fano, of San Diego, part owner of the kunzite mines in the Cahulla range of mountains, northeast of Pala, says Tiffany & Co., of New York, who have contracted for the entire output, have sold several large stones for as much as \$5000 each. Fano et al. have fourteen claims, 25 miles from San Jacinto, in the Cahulla range. They are down 200 feet and have done considerable drifting on the ledge. The gems are usually found in pockets. Sometimes they are in the rock and sometimes in the coarse gravel. All of the dirt is hoisted as in ordinary mining and put through different meshed screens. It is then closely examined for the stones. In addition to the gem mines they are opening up the mineral claim, the Effie. It is near the gem mines and is a gold proposition of free milling quartz. Development work on it will be increased. The surface ore assays \$20.

Mining and Scientific Press
Aug. 20, 1904 p. 127

San Bernardino County.

(Special Correspondence).—The Triplex copper mine has resumed operation under Manager Vance of Los Angeles. The mine, which is 1 mile west of Manvel, has been idle two months.
Manvel, Aug. 15.

Aug. 27, 1904 p. 144

Riverside County.

G. I. Leonard of Corona, manager, reports that it is proposed to equip with machinery the tin mines on the San Jacinto estate, 7 miles east of Corona. The mines have not been worked since 1891.

San Bernardino County.

The Fletcher smelter at Needles is running and turning out bullion. About 1500 tons of ore were shipped from the Stockton Hill, Ariz., section and the mines are turning out 700 tons per month. During July 612 tons were shipped from Kingman, Ariz., and Berry to Needles. The company is preparing to develop the properties for increased output.

Inyo County.

M. O. Hoyt, S. A. Overholtzer, O. L. Emery et al. of Colton, San Bernardino county, have incorporated the Lone Star G. M. Co., to develop a group of claims in Death valley. It is intended to put up a 2-stamp mill and a cyanide plant.

Sept. 10, 1904 p. 174

The Desert Dry Lakes of California.

NUMBER III.

Written for the MINING AND SCIENTIFIC PRESS by
G. E. BAILEY, E. M.

DRY LAKES VALUABLE WHETHER SALINES ARE VISIBLE OR NOT.—Attention has been called to the fact that all of the dry lakes are recognized as saline by scientists; but some one may say, "I know of a dry lake that looks like a sheet of yellow clay, with nothing but a little alkali showing in patches here and there." It is admitted that at certain times some of the dry lakes may present this appearance, yet it remains a fact that all the dry lakes contain valuable salines, whether these salines are visible to the eye at all times or not. It should be remembered: First, that these lakes are the lowest depressions of ancient saline lakes of vast area; second, that these depressions have been filling gradually through long geological ages; third, that this process of filling is not yet ended, but is going on at the present day; fourth, that the appearance of these lakes depends much upon the local conditions of the atmosphere at the time they are visited. For a short time, or for a few days, after one of the rare rainstorms that occasionally visit the desert, they may be veritable lakes of water. After a cloudburst they may be covered with a heavy layer of clay and gravel. When the hot sun has dried up the shallow waters, they may be white and glistening with an efflorescence of saline crystals; but violent sandstorms a few days later

may cover them with a layer of fine sand, concealing the salines.

The effect of these sands moved by the winds of the desert is described in Bulletin No. 24, under the title of "Æolian Sands," as follows:

The traveler is apt to make his first acquaintance with these when they are in motion, filling the air with dust, sand, and gravel, which are blinding, choking and irritating beyond all description—on account of the alkaline material with which they are saturated. Sand sprouts or "sand augers," as the desert men call them, may often be seen as slender, writhing, twisting columns of sand, a mile high, that sag and sway and twist here and there with sinuous grace, only to disappear, ghost-like, as mysteriously as they appeared. When at a distance, he can admire the slender, hollow dust columns, that move to and fro like pillars of smoke, according to the caprice of Æolus. Dust storms that last three days are not uncommon, and in the distance look like clouds of smoke. The presence of sand in large quantities in the salt, soda, borax, and niter beds, is soon understood, if one studies the Æolian sands awhile. At the Searles borax lake it was found that, after a crust had been removed from one part of the marsh, it filled with water that soon deposited crystals of borax, and in six months the waters were blown so full of fine sand that the new crust contained 50% of sand. These sands account for the presence of sand in all of the playa lake deposits of the desert.

I. C. Russell says of this filling and refilling and covering over and concealing of the salines (page 64, Lake Lahontan):

In some instances easily soluble salts form a large percentage of the deposit, which then becomes a salt bed, a bed of gypsum, or is largely composed of other similar salts. At times these deposits become covered with mechanical sediments, and perhaps buried so deeply that they are not again dissolved when the basin is reoccupied by a lake. Examples of salt playas are numerous, especially in southern Nevada, where they are of economic importance, and (besides common salt) frequently contain large quantities of sodium sulphate and carbonate, borax, etc. In some instances the lower portions of earthy playas are saturated with brine, which, when raised to the surface and evaporated, is capable of supplying an almost unlimited quantity of salt.

In speaking of the geological history of Lakes Aubury and Le Conte, Bulletin No. 24 says:

At the times when the two great lakes approached complete desiccation, their pools formed independent areas or lakes, which completely evaporated. The saline matter precipitated at such times was so completely buried beneath playa deposits that when the lakes were filled with water again, during another oscillation, the salts

were not dissolved again, being protected by the clay layers and marls that absorbed the efflorescent salines when the lake was greatly concentrated by evaporation. Thus, alternating evaporation and filling have been large factors in forming the stratified layers of clays and saline matters now found in the deserts.

Naturally but few borings or shafts have been put down on these dry lakes, but the few that have been made show that the bowls of the lakes contain exactly the formations as pointed out by the scientists, and that some of these layers contain rare and valuable salines.

In the tenth annual report of the State Mineralogist of California, 1890, the following data are given of the borings made in the Searles or Borax lake, in the northern part of San Bernardino county, Cal., the borings being made in the southern, or driest, and most sandy portion of the lake:

The borings mentioned, commenced in 1887, disclosed the following underlying formations, the successive strata passed through having been observed and noted by Superintendent Searles:

Two feet of salt and thenardite.

Four feet of clay and volcanic sand, containing a few crystals and bunches of hanksite.

Eight feet of volcanic sand, and black, tenacious clay, with bunches of trona, of black shiny luster, from inclosed mud.

Eight-foot stratum, consisting of volcanic sand containing glauberite, thenardite, and a few varied hexagonal crystals of hanksite.

Mining and Scientific Press
Sept. 10, 1904 p. 174

Twenty-eight feet of trona of uniform thickness, other borings showing that this valuable mineral extends over a large area.

Twenty-foot stratum of black, slushy, soft mud, smelling strongly of hydrosulphuric acid, in which there are layers of glauberite, soda, and banksite. The water has a density of 30° B.

This dry lake then conceals beneath its surface of sand: First, 2 feet of salt, and thenardite—that is, 2 feet of common salt mixed with sulphate of soda (Glauber salts); second, 12 feet of clay and sand, containing more or less salines; third, an 8-foot laver of sand containing glauberite (sulphate of soda and lime) and thenardite (sulphate of soda)—while below this comes a remarkable stratum of 23 feet of trona, of uniform thickness, as shown by other borings. The value of this deposit will be appreciated when it is explained that the trona of the mineralogist is the sesquicarbonate of soda of the chemist, or the baking soda of our kitchens. This remarkable dry lake then contains layers of table salt, 2 feet thick, and a 28-foot layer of baking soda, besides plenty of Glauber salts that can be reached by a shaft 22 feet deep, and developed by a shaft 50 feet deep. Besides these there are 16 feet of clays and sand impregnated with sodas that would yield a soda brine if the boring were filled with water. At the borax works farther north on Searles lake, artesian waters were found that did give borax brines. The following account, showing the value of these borings, is taken from the description of Searles lake and the operations there, Bulletin No. 24:

The beds are of special interest, as the operations there in 1874 and for several years later were the training school at which many leaders in later years studied the borates. The beds were discovered Feb. 14, 1863, by Dennis Searles and E. M. Skillings, but work did not begin until 1874. The San Bernardino Borax Mining Co. was incorporated in 1878 to work these beds. The borax beds are near the center of a playa lake that is 10 miles long by 5 miles wide, situated 1700 feet above sea level. The portion productive of borax is an oblong area of about 1700 acres, slightly depressed below the general level of the playa. Water stands in this area to the depth of a foot in wet seasons. The old shore lines of this arm of Lake Aubury are distinctly to be seen on the slopes of the Slate and Argus ranges, some 600 feet above the playa lake, showing the different levels of the ancient lake. The water on the beds is of a dark-brown color of 23° density, Baume. The mud below the water was full of large crystals, occurring in nests as in Lake county, at irregular intervals to a depth of 3 or 4 feet. The natural crystals were of a green color, transparent, and often contained fluids in their large cavities. Curiously enough no ulexite or colemanite was ever found in this playa. Thirteen tons of the crude material produced one ton of borax, equal to 7.69%. The beds were not regular, but quite spotted in borax. The associated minerals were anhydrite, calcite, celestite, cerargyrite, docomenite, embolite, gay-lussite, glauberite, gold, gypsum, halite, banksite, natron, soda, niter, sulphur, then-

ardite and trona; most of these occurring, however, in small quantities only. Artesian water was obtained at a depth of 55 feet that rose 3 feet above the surface. The dry, hard playa crust, about 1 foot thick, was analyzed by C. N. Hake as follows:

	Per Cent.
Sand.....	50.0
Soda sulphate.....	16.0
Salt.....	12.0
Soda carbonate.....	10.0
Borax.....	12.0
Total.....	100.0

The method of working was simple, consisting of scraping the dust into windrows and then gathering by carts and taking it to the works 2 miles distant. It was noticed here in digging the crystals out of the mud that the crystals grew. The holes left soon filled with water containing boric acid in solution; this, coming into contact with soda, formed crystals of biborate of soda (borax), which were deposited in the mud. Large vats were dug in the mud and brush thrown in for the crystals to form on. On ground that had been worked a new crust formed also that was thick enough to move in three or four years. Such growths give the following analysis:

	Six Months.	Two Years.	Three Years.	Four Years.
Sand, per cent.....	58.0	55.4	52.4	53.3
Soda carbonate, per cent.....	5.2	5.0	8.1	8.0
Soda sulphate, per cent.....	11.7	10.7	16.6	16.0
Soda chloride, per cent.....	10.9	10.0	11.1	11.8
Borax, per cent.....	14.2	12.9	11.8	10.9

It will be noted that the borax is richest at first and that the sodas increase faster than the borax. The effect of the Eolian sands is especially noticeable. These analyses throw considerable light upon the genesis of the deposits.

At Lake Danby, in the southeastern portion of San Bernardino county, the following facts are noted in Bulletin No. 24:

The Surprise salt mines are located about 25 miles southeast of Danby, a station on the Santa Fe Railroad. They are located in the bottom of a dry valley, about 6 miles from the south end of Old Woman's mountains. The rock salt lies in two strata, each from 2 inches to 8 feet in thickness, separated from each other by a thick seam of clay and covered by a layer of sand and dust that is from a few inches to 2 feet in thickness. The salt bed has been developed over a tract of some forty acres and the claims of the locators cover over 800 acres. For some time this deposit was worked by the Crystal Salt Co., who hauled the salt to Danby in traction wagons. The larger portion of the product was sold to the silver mills for use in chloridizing. Some of this salt has been shipped to San Francisco and proved to be of superior quality. In 1882, J. B. Cook is said to have dug a shaft 35 feet in solid rock salt before water was reached. A 65-foot shaft, now caved in, is said to have shown 22 feet of solid crystal salt. An analysis of the clear rock salt gave: Sodium chloride, 98%; water, 1.3%, and trace of silica, iron, aluminum, potassium and calcium.

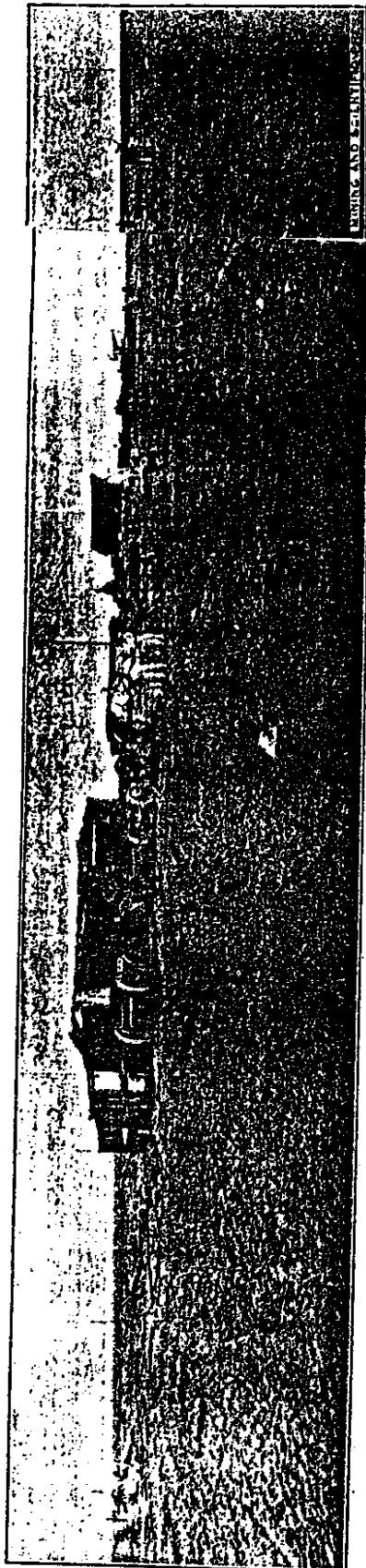
The New Liverpool Salt Co. attempted to find the bottom of the great Salton basin with the following results:

Borings made at Salton give the following strata:

- (1) Below the salt crust was 6 inches of mud resting on
- (2) 7 inches of a crust composed of chlorides of sodium and magnesium;
- (3) 22 feet of black ooze containing 50% of water and carrying both the chlorides and carbonates of sodium and magnesium.

This boring shows the existence of 22 feet of ooze saturated with a brine rich in salt, carbonate of soda and magnesia. The day will come when such brines will be used by the chemical factories. It has been the usual experience of prospectors and others that it was useless to dig down in the bed of a dry lake for water that could be used for drinking or cooking, as the usual result would be a strong brine of salt, soda or borax. The presumption is, therefore, that wherever a dry lake occurs in the great basin valuable layers of borax, sodas, niter or salt or brines saturated with these salines will be found below the surface.

(TO BE CONTINUED.)



MINING AND SCIENTIFIC PRESS

Bristol City, San Bernardino County, Cal., Situated on a Dry Lake Covering Over 200 Square Miles. In This Lake are Beds of Rock Salt, Borax and Gypsum.

Sept. 10, 1904 p. 180

Orange County.

The Santa Ana Tin Co., operating in the Santa Ana mountains, near the head of Trabuco canyon, are treating their ores by a wet process which is reported to operate satisfactorily. It is claimed these mines produce a number of rare metals, as well as tin.

Oct. 1, 1904 p. 228

San Diego County.

(Special Correspondence).—The Cuyamaca Co., S. H. Lucas superintendent, is unwatering the Stonewall mine and expects to have the workings opened by November 1st. The shaft will be sunk 400 feet more, making total depth of 1040 feet. The pumps are raising 400 gallons of water per minute, the inflow being estimated at 50 gallons per minute. Ore from the dump is being milled. Cuyamaca, Sept. 28.

Inyo County.

A. A. Hassan of New York City and J. B. Sperry have taken over the Rocky Point, Comstock and twelve other claims in Bishop Park section, 17 miles southwest of Bishop. Development work will be started and ore will be taken out for testing method of treatment.

First payment has been made on the Kearsarge mines, near Independence, sold to Murray et al of Detroit, Mich. T. Evans is manager.

Oct. 15, 1904 p. 262

San Bernardino County.

At San Bernardino, San Francisco men have incorporated the Out West M. Co., which controls mines on the desert. G. E. Bailey, A. E. Moore, W. J. Roth, G. Hubbel, W. C. Bailey, R. F. Bell and S. Dickson are incorporators. Their property shows a ledge carrying free milling ore, which also is said to carry a percentage of copper.

Mesa County.

(Special Correspondence).—In Mojave mines development is being carried on and four separate companies are working full handed. The mines are 4 miles from Mojave station, where the S. P. and Santa Fe separate after crossing Tehachapi Pass on the same tracks, the former running to Los Angeles, the latter continuing eastward—its main overland line. The four companies are the Exposed Treasure, operating on Bowers' hill; Karma M. Co., Queen Esther M. Co. and Echo M. Co., operating on Soledad mountain, from 1 to 2 miles farther west than the Exposed Treasure.

The Exposed Treasure has twenty-five stamps and amalgamates and cyanides, employing in the details some methods not in common use, the outgrowth of ideas and experiments of Manager DeKalb. He states that his ore is very different from that of his neighbors. He assigns it to a different geological age.

The Karma M. Co. employs twenty stamps and concentrates and cyanides, omitting amalgamation. The mill was started last April under superintendence of R. G. Eckis. Manager J. A. Gerner is also at the property. It consists of five claims, with a total of a mile of work.

Cont...

Mining and Scientific Press

Oct. 15, 1904 p. 262

Thirty-five men are at work and sixty tons per day are treated at a total cost, it is stated, of about \$2 per ton. The management proposes adding thirty stamps. This mine, like all in the district, is entirely a tunnel proposition and the ore silver-gold.

Adjacent to the Karma mill is the mill of the Queen Esther Co., of which S. W. Mudd is manager. The ore is treated by utilizing one Blake, one Dodge crusher and three Llewellyn rolls. About sixty men are worked and 100 tons per day are treated. The group consists of ten claims. It is a large, low-grade silver-gold proposition. About 2000 feet of work have been done.

The Echo M. Co., G. H. Hooper principal owner, consists of fifteen claims. Its 20-stamp mill treats sixty tons per day, and preparations are being made to install ten additional stamps. Also an air compressor is being put in and four machine drills will be used in the mine. There are two veins running the length of the property—the Echo, 2 to 10 feet wide, and the Starlight, 4 to 16 feet wide, parallel and trending northeast to southwest. About 3000 feet of tunnels and raises have been completed. The mill has been in operation eighteen months. The treatment is similar to that employed in the Black Hills, S. D.—the ore is crushed in a weak cyanide solution, sand and slimes separated by a screw separator; the sand is then leached and the slimes are worked in agitators in which there is upward percolation of water; the solution overflows the top and passes to settling tanks; about half of this is again returned to the crusher and the remainder passes through the zinc boxes and is again utilized to leach the slimes. A close saving of values is claimed with a minimum use of water.

The water supply of the Karma, Queen Esther and Echo comes from Cameron, 2 miles, and the Exposed Treasure from Oak creek, 16 miles. These companies are all

Outside of the four active companies there is little being done and almost no prospecting. On Bowers' hill, opposite the Exposed Treasure, is a property of nine claims, owned by Tate, Parker, Goldworthy & Ashton, with two shafts, 20 feet and 150 feet deep, respectively, and some drifting. The owners are negotiating its sale.

Mojave, Oct. 12.

Oct. 22, 1904 p. 280

Inyo County.

(Special Correspondence).—Cohen & De Lamar are developing the property bonded by them last May in the Funeral mountains, with encouraging results. This is the strike made by Kean and Etcharren on the east side of Death valley and known as Kean's Wonder. It is 80 miles northeast of Ballarat. In July another strike on an extension of the Wonder was made, and 17 miles northwest of that Harris & Cross report a strike in the Bullfrog mine.

Near the Republican mine is the Radcliffe mine. W. G. Macomber has a roaster which he is setting up on the property to work the refractory ore. There is a 20-stamp mill on the mine.

Seven miles from Ballarat in Pleasant valley the Republican M. Co., Superintendent G. E. Little, is working twenty-three men and milling fifteen tons of \$100 rock per day. The process is roller mill and plating, the tailings being held for future treatment. This is a southern California company, G. Montgomery of Whittier being the principal owner. It is intended to put in a stamp mill.

Considerable prospecting is being done in the Panamint range. It is likely to fall within the range of prospectors from the Goldfield, Nev., district. This section between the Clark road and Tonopah, Nev., and the Death Valley section is expected to receive more attention the coming season than ever before. Articles of incorporation have been filed at Independence for the extension of the railroad from Borate, now connected with Daggett, Cal., to Tonopah, Nev., by way of the Saline valley. This will go through the heart of a country hitherto almost prohibitive to the ordinary prospector, but generally conceded to be mineralized.

Darwin, 25 miles south of Keeler, is a silver camp, once operating three smelters, but deserted for several years past. There are indications that it may be reopened. The Lucky Jim mine is working a few men and the Coso mine has changed hands and will be operated again. Moss & Reck, the former owners, have been cyaniding the tailings. Other mines in the neighborhood are the Defiance, owned by the Reddy Estate; the Modoc, W. S. Gage; the Minnetta, J. J. Gunn; and the Lane mine.

F. L. Howard expects to build a stamp mill on his Star group, 20 miles south of Darwin. He has 900 feet of work done and stoping ground opened up.

Ballarat, Oct. 18.

(Special Correspondence).—The Kearsarge G. M. Co., T. F. Murray, superintendent and manager, has bought the Kearsarge mine, 12 miles west of Independence in the Sierra Nevadas. The original values were silver and changed with depth to gold. The company will run a tunnel below the old workings, giving a total depth of 1000 feet below the apex and 400 feet below the old workings. A plant will be installed for treating the ore. An electric plant and power drills will be put in.

Independence, Oct. 18.

Mining and Scientific Press
Oct. 22, 1904 p. 280

San Bernardino County.

(Special Correspondence).—The Yellow Aster M. Co. is working its 130 stamps to full capacity. The company still refuses recognition of the union and, though the latter is still strong in numbers, there is no open friction between the local union and the company.

The Adkineon Bros. have moved their 5-stamp mill from near Randsburg to their Sunshine mine, in the Stringer district, and are operating with satisfactory results.—The Baltic mill, in the Stringer district, owned and operated by Wynne Bros., is running steadily.

The Red Dog mill at Johannesburg is running.—A raise for air has been completed in the White mine and it will soon be on a producing basis.—Development work on the Wedge mine continues to progress and it will be made a heavy producer. While there is no boom, steady progress is noticeable throughout the district.

Randsburg, Oct. 19.

Oct. 29, 1904 p. 297

San Bernardino County.

(Special Correspondence).—At the Seal of Gold M. Co.'s property here the mill is built at the shaft and the ore dumped directly into the mill over a 10-foot grizzly into a 120-ton bin; from there it passes into automatic feeders, and then two 5-stamp batteries, 850-pound stamps, 105 drops per minute; from there it goes over 10-foot amalgamating plates, then into an hydraulic separator, where the slimes are separated from the coarse sands; the slimes are treated by two agitators and the results are satisfactory. The coarse sand passes to six leaching tanks of 45 tons capacity each, and is treated for five days with good results. They extract about 40% on the plates and a little over 50% in the cyanide treatment, the ore averaging \$15 per ton. The operating expenses are high on account of the long haul from the railroad and the expensive fuel (distillate). The motive power is two 35 H. P. gasoline engines, one 15 H. P.

and one 8 H. P. gasoline engine, and two 15 H. P. engines.

Dale, Oct. 25.

San Diego County.

J. A. Wauchop, manager of the Noble gold mines near Descanso, says the company has been reorganized and J. E. Thring of London, England, is principal owner. Manager Wauchop will put in a 100-ton mill at the mines and expects to have it set up by Dec. 1. Development will be increased.

Nov. 5, 1904 p. 313

Inyo County.

In the Funeral range, near Ballarat, work is progressing on the Kean Wonder mine which J. R. De Lamar has bonded for \$160,000. Superintendent C. J. Lysar says final payment will be made about January 1st. Ore that runs \$200 per ton is being taken out and there is a ledge that assays \$30. The mine is 5 miles from eastern edge of Death Valley, and there is a wagon road to within a mile of the mine, where are the assay and general offices.

Nov. 12, 1904 p. 220

San Bernardino County.

The Bagdad M. & M. Co., operating mines at Bagdad, Cal., is shipping four cars of ore daily to its 50-stamp mill at Barstow. The ore is said to net the company \$80,000 per month.

Nov. 19, 1904 p. 346

Kern County.

It is reported the old Amalie and the Barbarossa mines at Amalie have been sold to J. J. Mack et al. who will build a mill there.

The Yellow Aster G. M. Co. at Randsburg proposes improvements with additional machinery that will increase capacity of its mills. It expects to put in two rock breakers to reduce the ore to smaller size, enabling them to put more ore through the mills. The breaker at the 30-stamp mill is worn out. A larger breaker will be put in at the 100-stamp mill in addition to the one now in use. E. H. Barton is superintendent.

Los Angeles County.

(Special Correspondence).—The Lowell & California M. Co. of Los Angeles, operating mines at Shoemaker, has completed its concentrating plant and is operating ten stamps and four tables. An electric light plant has also been added. The ore is low grade and free milling. Large ore bodies have been opened up. At the present time 1000 tons per month are being treated. The company expects to add to the equipment next spring. F. C. Fenner is manager.

Shoemaker, Nov. 16.

Nov. 26, 1904 p. 353

Pumping Water for Milling on the Desert.

In the great Southwest there are many thousands of square miles of arid territory, regions where water is scarce or not obtainable at all, and still, in these deserts are vast undeveloped mineral resources, the existence of which is scarcely more than known. There are numerous places where mining districts have been established and where a greater or less success is being achieved in the operation of mines under the difficulties inherent to a desert country, and it has been shown repeatedly that water can be pumped many miles to supply the mines of the desert, at a surprisingly low cost per ton of ore treated. One of the first, if not the first pumping installation on the deserts of California was that which supplied the Paymaster mine. The pipe line was 18 miles in length, the water being pumped from the Colorado river. The next important installation was that at Carga Muchacha mine, 20 miles northwest of Fort Yuma. This line was 14 miles in length, and the cost of pumping was stated to be less than 50 cents per ton of ore treated.

Cont.

In 1893 a pipe line 12 miles in length was laid from the Colorado river to the Golden Cross mines, in the Carga Muchacha mountains. This line supplied 100,000 gallons of water daily, lifting it 500 feet at a cost of 13 cents per ton of ore crushed. Steam power was used, the fuel being wood. Elsewhere herein is described a plant supplying water to mines near Virginia Dale, in the middle of the Colorado desert, 35 miles from the railroad. The water is raised 183 feet from a well sunk in a dry lake. The pipe line is $7\frac{1}{2}$ miles long, of 2 inch and $1\frac{1}{2}$ inch pipe, and the water is lifted 1200 feet. The cost of pumping water at this plant is stated to be 25 cents per ton of ore crushed. The water is settled and reused. This is probably a fair average cost for supplying water under such conditions as usually obtain on the desert. The work is done by gasoline engines. In some cases a larger volume of water is available and the tonnage treated is large, consequently the cost should be somewhat diminished, while in other places the conditions may be more disadvantageous, with an increased cost of supplying water to the mines, but it is evident that the mines must be very badly situated indeed, if water cannot be supplied within a cost of 50 cents per ton of ore treated.

In Western Australia is the largest water pumping plant in the world, constructed for mining use only, but there it was imperative that a large supply of fresh water be made available, as all the water obtainable in the neighborhood of the mines was heavily charged with salt, and no fresh water could be had without distilling the salt water, which was very expensive. There are few mining districts which would justify the expenditure of \$15,000,000—the cost of the Australian installation—and it is doubtful if that would have been built by private enterprise, but the Government came to the rescue and built the plant, and the cost of water per ton of ore treated is greater in Western Australia than it is on the small individual plants on the deserts of the southwestern United States. These figures show approximately what the cost of water is likely to be and form an item of interest in the contemplation of equipping and operating mines in that arid region of the southwestern United States, no portion of which is probably more than 50 miles from a water supply of greater or less volume.

Operations at Dry Desert Mines.

To THE EDITOR:—It is possible that in our efforts in the Dale mining district to overcome some of the difficulties of mining and milling ore in a country where wood is scarce and water difficult to obtain, we have gained experience, both useful and entertaining, to the mining fraternity in general. Dale is in San Bernardino county, Cal., on the Mojave desert, about midway between the Santa Fe and Southern Pacific Railroads, and about 35 miles south of Amboy, on the Santa Fe.

That we have been to a degree successful is attested by the fact that in this district there are at present a well equipped, up-to-date, 10-stamp mill, with cyanide plant, in continuous operation, two other mills crushing dry with rolls for direct cyaniding—one having a 30-ton capacity and the other 60 tons—and also several smaller mills.

Water is furnished to these mills for \$2.50 per 1000 gallons. The stamp mills use the most water per ton of ore crushed. The 10-stamp mill running twenty-four hours per day, and crushing from thirty to forty tons per twenty-four hours, uses about 20,000 gallons of water per week, or to be more exact, the actual amount reported for September, 1904, was 74,060 gallons. This includes all the water used for domestic and other purposes about the mine, as well as in the mill, which was in nearly continuous operation during this month.

The cost of water at the O. K. mine operating the above mill, where the methods used are typical of the best practice in wet crushing, is after all not a large item, approximating something less than 25 cents per ton of ore crushed. This expense is nearly, or quite, counterbalanced by the advantage of dry mines, minimum use of timbers and convenience and comfort in working underground.

The pumping plant which furnishes the district with water was installed by the writer for the Brooklyn M. Co. in the spring of 1901. The water is pumped to the surface from a well 183 feet deep by an ordinary plunger pump, thence is forced by means of a $1\frac{1}{2}$ x 1-inch Dow triplex single acting pump through $7\frac{1}{2}$ miles of pipe. The pipe line consists of 2 miles of $1\frac{1}{2}$ -inch standard pipe adjacent to the pump, the remaining $5\frac{1}{2}$ miles being 1-inch pipe. For the greater part of the distance the line is laid over an extremely rough and rocky country.

cont...

The Supply mine, upon which there is nearly completed a 60-ton cyanide plant, takes its supply of water from the pipe line at a distance of 3½ miles from the pump, and at an elevation of 800 feet above it. The town of Dale is supplied 1 mile farther on at the same elevation. The O. K. mine, owned by the Seal of Gold M. Co., and the property upon which the 10-stamp mill is in operation, takes its water from the highest point on the line. The elevation here is 1200 feet above the pumping station, the distance 5½ miles. From this point the water flows by gravity 2 miles farther on to the Brooklyn and Los Angeles mines owned by the Brooklyn M. Co. The Ivanhoe M. Co. take their supply of water for their 30-ton cyanide plant at a point 5 miles from the pump, and at nearly the same elevation as that of the O. K. mine.

The pumping plant has a capacity of 7000 gallons per day. The power is furnished by a 10 H. P. Weber gasoline engine. The engine operates both the well pump and the Dow pump, and for the past six months has been in nearly constant operation night and day.

This pumping plant has made possible the development and operation of the various mines of the district on an economical basis as regards their water supply, and has shown what can be accomplished with a very moderate amount of capital in furnishing our desert mines with water.

Dale, Cal., Nov. 19.

H. H. A.

San Diego County.

(Special Correspondence).—The mining outlook in Cuyamaca district is improving. A 10-stamp mill will be installed on the High Peak mine in Julian and a double-compartment shaft sunk to cut the ledge at 500 feet (200 feet below the present workings). This mine is well developed by shafts and tunnels and high-grade milling ore is being taken out and placed on the dumps. The Helvetia, which is on the same vein to the south, has a 10-stamp mill in operation. Ore is being taken from a 5-foot ledge on the 350-foot level, and is plating \$50 per ton. Another shaft will be sunk in the spring.

The new camp of Boulder Creek, 9 miles from Julian, is opening up. Fuller & Moore are working and have a 2-foot ledge of ore which will plate \$25 per ton. The ore carries 1% of sulphurets, which assay \$300. The Nobles mine in Pine valley has changed hands and work will be resumed. Harper Bros. are developing a mine adjacent to the Cuyamaca Co.'s group. They have a ledge 12 inches wide and are putting in a 2-stamp mill to prospect their ore, which they claim will average \$20 per ton.

At the Stonewall mine, near Cuyamaca, work is progressing. The water is down to the 300-foot level and unwatering is at rate of 10 feet per twenty-four hours. There is yet about 25,000,000 gallons to be removed. The twenty stamps are dropping on ore from the waste dump and good returns are reported. Buildings are being put up. G. H. Clarke is manager.

p. 364

Kern County.

At the Yellow Aster a new cone has been installed in the rock crusher at the 100-stamp mill. Nearly all the ore now going through comes from the glory holes and is let down to the Rand level. A new crusher is soon to be installed at the 30-stamp mill. The company have decided to work the tallings pile and a 100-ton cyanide plant has been ordered and will soon be in operation. This will work about one-fifth of the daily accumulation.

San Bernardino County.

The Big Lode M. Co., 15 miles from Hesperia, J. C. Button, superintendent, is considering putting up a mill.

Riverside County.

It is reported from Corona that the U. S. Tin M. Co. will put a copper plant on its Temescal tin mine holdings.

San Bernardino County.

At Daggett the Pacific Coast Borax Co. is doubling its capacity, and will again double the capacity during 1905. F. M. Smith is riding from Daggett to the Death Valley mines, and from there to Tonopah, following the proposed Tonopah tidewater railroad, which he is to construct. Surveyors are at work establishing the route. The proposed railroad will connect with the Salt Lake at Soda Lake.

Ventura County.

The Columbia borax mine has been discovered in the Frazer mountains, 65 miles west of Lancaster. The company is planning to put a road through to Ventura. The borax is shipped from Lancaster to New Jersey, where it is refined. The ore lies in sheets between walls of clay and is shot down with giant powder and then sorted.

San Diego County.

S. L. Ward and L. E. Cooley of Imperial and W. Allen have discovered and located twenty-five claims on an onyx deposit 40 miles west of Mammoth Tank, near San Felipe creek, 15 miles southeast of Borega Springs.

Kern County.

The Corona M. Co. of Randsburg will put in new mining machinery.

San Diego County.

Many new gem discoveries were made in southern California during 1904. They included blue and white topaz, weighing more than a pound apiece, which as crystals equal those of Siberia; beryls from 3 to 6 inches long and 1 or more inches in diameter, varying in color from pale green to a deep sea green tint; crystals of rose-colored beryl (a very rare variety), found at Mesa Grande and Pala; epidote in crystals only 1 inch long, and ¼ inch in diameter, but transparent; red, green and yellow tourmalines, found in abundance at Mesa Grande and Pala.

Mining and Scientific Press
Jan. 28, 1905 p. 61

Kern County.

The electric plant of the Kern River Co. at Kernville has been completed. In anticipation of diverting the river into the power canal, Huntington and others of Los Angeles located placer claims along the river, which will now be worked. J. Wingsfield found good dirt near Isabella.

Los Angeles County.

(Special Correspondence).—The Lowell & California M. Co. are working the Big Horn mine at the headwaters of the San Gabriel river, west of Palmdale. This is a low-grade proposition with a vein 50 feet wide which the superintendent, F. C. Fenner, claims to be working for less than \$2 per ton, using a modification of the caving method in mining. The fact that the vein lies at the low angle of 23° from the horizontal renders the cheap handling of this mine unusually difficult where so little timber is employed. The vein is developed by several tunnels. The company owns 500 acres of mineral land in the group with abundance of water for milling. The mill of ten stamps is being enlarged.

Los Angeles, Jan. 21.

The Reward M. Co. of New York is putting up a 75-stamp mill on its property between Lang and Rusk, in Agua Dulce canyon, where there is a large body of conglomerate ore.—H. S. Farnsworth of Los Angeles is drilling for water near Newhall, preparatory to working his placer ground.

Feb. 4, 1905 p. 76

The Sunshine Mine
is working twenty men on its mine and mill. T. W. Atkinson is superintendent.—An electric motor will be put in to haul the ore from mine to mill at the Yellow Aster at Randsburg, replacing mules.—The Searles M. & W. Co. are working the Summit diggings, north of Johannesburg, piping water 6 miles from the El Paso hills. Gasoline engines are used for power. A. Anderson of San Francisco, the principal owner, has been visiting the mine. C. Teagle is superintendent.

Feb. 11, 1905 p. 91

Inyo County.

In the Sherwin district, 20 miles northwest of Bishop, B. E. & J. Sherwin have bonded the Casa Diablo mine to a Chicago, Ill., company, of which the treasurer is W. W. Smith, and the resident manager and superintendent is C. A. Fohrman of Chicago. A 1000-foot tunnel is being driven and arrangements are under consideration for a 30-stamp mill and cyanide plant.—A. E. Vandercook, manager of the Southern Belle M. Co. near Owensville, is adding five stamps to the mill and will put in a dynamo to furnish power for lights and for two electric hoists at inclines below the tunnel level.

Kern County.

Work has been started on the Bully Boy mine, near Randsburg, by T. W. Atkinson. There is a shaft down 98 feet. A new shaft is being sunk.

San Bernardino County.

(Special Correspondence).—A. H. Cohn, representing J. R. De Lamar, has bought the newly discovered Grapevine range, at the north end of Death valley, paying \$25,000 on a \$150,000 contract. It is stated that the vein can be traced through four locations and is 25 feet wide. Ballarat, Feb. 5.

Feb. 18, 1905 p. 108

Inyo County.

M. T. Stovall of Bishop states that work will be resumed on the Bishop Creek G. Co.'s mines as soon as the weather permits.—M. Junghandel intends to build a sampling mill near Bishop in the spring.—The Mount Whitney mines, near Lone Pine, are stated to have lately uncovered an encouraging body of rich ore. A townsite, to be called Mount Whitney, is being surveyed by the company 1½ mile northwest of Lone Pine.

San Bernardino County.

The Gold Park Consolidated Mines has been organized in Los Angeles to operate fifty-two claims in the Gold Park district of Riverside and San Bernardino counties. The company is planning to install a pumping plant on water lands recently secured and to build a pipe line 7 miles long to the mines. A mill is to be built on the ground. W. E. Winnie is president, D. D. Whitney vice-president, J. E. Schweng secretary and J. N. White superintendent.

March 4, 1905 p. 140

San Bernardino County.

It is locally reported that the smelter plant at Needles will be taken hold of by a company of experienced men.

San Diego County.

(Special Correspondence).—The lode extending from the vicinity of Julian to Banner and beyond, in the Cuyamaca range, is experiencing one of its periodical revivals. The district was discovered by M. Julian, and he, with a number of others, formed the original district. Among the noted mines of the early days in the district were the Washington, Owens and High Peak, in the vicinity of Julian; the Helvetia, Antelope, Kentuck S. and Cincinnati Belle, between Julian and Banner, the Ready Relief at Banner and the Golden Chariot, several miles from Banner. These mines, and others of the district, have been worked in a spasmodic manner, usually by men of limited means, but they have produced many thousands of dollars. The ore is above the average in grade, and the district on the whole justifies more systematic exploration than it has ever received. At present there is one of the periodical revivals in progress. The Helvetia mine, after an idleness of several years, is again active, and it is reported in bonanza. The High Peak mine, near Julian, is again being worked on a good showing made. A stamp mill, built originally the Cincinnati Belle, near Julian, has been removed to the High Peak. Other machinery has been placed on the mine recently. It is the intention of this company to sink a deep shaft and systematically prospect their ground. The principal drawback of the district is the lack of water, though sufficient for steam and small milling operations is obtainable. Another disadvantage lies in the fact that the ore occurs in mica schist in a series of lenses and the shoots do not occupy continuous fissures. Consequently, when a lens of rich ore is worked out, prospecting must be done to find another, and it has too often been the case that the prospecting has been deferred until there was no ore left in sight, when the mine would be abandoned until the next fellow with cash and courage would search for and find another

shoot. The mines, generally speaking, have too little ore to justify an independent mill. If several mines of the district would unite to build a joint company mill, the several mines might be able to keep the mill in continuous operation.

Julian, Feb. 25.

Inyo County.

(Special Correspondence).—Mines near Lone Pine are being opened by J. J. Sweeney of Colorado, who is at Lone Pine. He is the promoter of the new town of Mayette, near his property. Mount Whitney station is the nearest railroad point.

Lone Pine, Feb. 28.

Kern County.

Superintendent Galbraith of the Yellow Aster mine, near Randsburg, says he will develop the mine's water supply to increase the capacity of its mills. At present the wells of the company supply water to run 130 stamps. The present capacity is 500 tons a day. The compressed air plant runs four machine drills.

The Sunshine mine, located in 1896 by B. M. and W. Atkinson, 2 miles southwest of Randsburg, has recently developed ore assaying \$100 per ton. Since striking the deposit at a depth of 100 feet, ore has been mined in large quantities to the present depth, 275 feet, which is milling \$108 a ton.