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S. J. SMITH,
230 East Fourth Street, LOS ANGELES, CAL.
During the past week, there have arrived by two steamers from Alaska amounts of placer gold, estimated at from $500,000 to $1,000,000. The richest placer ground at Clonkyke, in Canadian North West Territory, in a new district, said to be about 15 miles long. The daily papers are filled with sensational gold counts in many instances of the new find. As a result, many people totally unsuited for such a life are going to try their luck in the new placer gold of the British polar regions. Having had the acquaintance of numerous miners, prospectors, government surveyors and geologists who have made the trip to the Yukon country more than once, we desire to warn all but the strongest miner or prospector, who is used to a cold climate, to remain in the United States, as the hardships of the journey and life in that polar region has been the death of many strong men who went there to prospect, but did not strike it rich. The same energy and work that it takes to go there and become a two years in business, and suffering from intense cold in Alaska, if expended in the intelligent search for gold in California or in the south west, would give better returns than will be gained by the latter method by those who go to Alaska. Recent advice states that the best section in Clonkyke is all located, so that the remaining country is no better than can be found in a section with the dancers of the trip and the discomfort of an Arctic winter left out.

One of the most complete works ever produced, relative to the California Mining Laws, has just been compiled by Frederic Hall, author of Hall's Mexican Law, including the Attorney General's opinion on the new Location Law, also the opinion by F. J. Cowdrey on the same, with United States and California Court decisions on important points in the mining law. The book contains the statistics of the mineral production of California for 1856, condensed from Bulletin No. 12, of the California State Mining Bureau, compiled by Chas. G. Vale, the statistician.

This book is published by J. Bell, and is the first edition. Mr. Bell in his preface says: "This work is published to meet a want on the part of the mining public by the publisher, who will be pleased to receive any suggestion or criticism in regard to the same." From our careful perusal we do not consider it necessary to make any suggestions or criticisms.

STATE FAIR AT SACRAMENTO.

The annual State Fair will be held from the sixth to the eighteenth of September next at the state capitol. Many fair advertising parties are reminded of the event. The fair furnishes one of the best opportunities of the year for manufacturers of mining machinery, tools and supplies to become acquainted with visitors from the mining belt of the state. Those manufacturers who possess the most prosperous industry at present, the mine owners can afford to visit the Fair, and consequently see the machinery exhibited, and, what is better, have the money to pay for it.

The machinery shipped July 4th to the Santa Gertrudes company in Pacheco was worth $300,000. The pneumatic or dry concentration of minerals is not so generally practised as wet concentration with jigs, vanners, shaker tables, huddles, etc., on account of a plentiful supply of water in most of the mining districts, and the more extensive use of advertising by manufacturers of wet process concentrating machinery. To the southwestern states however, where water is usually scarce, and other available for cooking purposes, it is a matter of high importance, and is becoming an absolute necessity, now that many of our mines have passed through the oxidized top ore, or back of the vein or mine, and have reached the zone of sulphurites, or unalerted ore. The general principle in dry concentrating machines is the use of air or an artificial blast, which is made to pulsate, or lift the ore off a screen, so as to cause a separation by gravity of the more heavy portion operating as a water, under the alternating top pressure, and reduce the ore ore through the oxidized top ore, or back of the vein or mine, and have reached the zone of sulphurites, or unalerted ore. The general principle in dry concentrating machines is the use of air or an artificial blast, which is made to pulsate, or lift the ore off a screen, so as to cause a separation by gravity of the more heavy portion operating as a water, under the alternating top pressure, and reduce the ore through the oxidized top ore, or back of the vein or mine, and have reached the zone of sulphurites, or unalerted ore. The general principle in dry concentrating machines is the use of air or an artificial blast, which is made to pulsate, or lift the ore off a screen, so as to cause a separation by gravity of the more heavy portion operating as a water, under the alternating top pressure, and reduce the ore through the oxidized top ore, or back of the vein or mine, and have reached the zone of sulphurites, or unalerted ore.
coarse and fine together, through a revolving iron or wooden log washer, (such as is used for washing phosphate ore in Florida with water), to take the maximum profit of all the gravel in the bed. The logs protruding on the inside of the log washer keep the material in motion and grind or rub off the cemented part and liberate the gold.

Close sizing or properly sifting or classifying the sand, before dry washing, ought to be done as in dressing ores by this process.

Of the several dry washing machines, there are in use all sorts, sizes and descriptions, from the Mexican's home-made machine, constructed out of old soap or biscuit boxes, with rawhide or canvas covers, to inventing prospectors' "patent gold-saving, self-acting, feeding and dumping dry washer," which it is claimed "will save without the use of a man all the value in the dirt, even to invisible flour gold, which cannot be saved by any other machine, or found by the fire assay, or by the discerning eye of the most expert assayer." An old-time description of a dry concentrator is that it can be conducted on a small scale for working a poor man's mine, or one whose means only admit of a small beginning at ore concentration.

CORRESPONDENCE

CALIFORNIA

SONORA, CAL., July 20, '97.

Messrs. Callicot and Dull, have secured control of the Golconda group of mines, and will shortly begin operations on a large scale.

The Rawhide continues to work up 100 tons of good ore from the stopes between the 10 and 8, and the main shaft is being pushed forward toward the 1200 level.

In the Consuela, the old time big producer of the east belt, that has recently been re-opened, drifting and cross cutting goes on every shift. The ledge is big and a strike of rich ore is expected.

Gus Ogden has bonded the well-known Providence mine to a rich syndicate, composed of San Francisco people, for a sum running up in the thousands. The new company proposes to operate the property on an extensive scale, and have retained Mr. Ogden as superintendent.

At the Shammut mine, near Jacksonville, the ten stamp mills recently put in operation are dropping on a high quality of pay ore. Last week the mine was lighted by electricity for the first time.

The old abandoned Green mine, in the vicinity of Confidence is being re-opened.

At the Tarantula mine the tunnel is now in 223 feet. At a depth of 150 feet cross cutting is going on. The character of the ore taken out is exceedingly encouraging.

EAST BELT

The Continental mine is located on the south fork of Stanislaus river. The owners have a 4-foot vein, shows fine gold in the rock, and an average of $6 a ton. There are three tunnels and one shaft. A 10-stamp mill is just ready to start up.

The River-side, west of the above mine, is being actively opened up. They have several long tunnels. They have a 10-stamp mill, with 100 stamps. Their vein is large, contains some high grade ore, average value $7 to $10 per ton.

The Lost Fox group of mines report their eight-foot vein in main tunnel looking fine. The rock prospect is in free gold, $10 per ton. Owners propose to work off a small stamp mill. These are the most easterly known mines in the belt. The prospects for a great paying property is assured.

The Old Barton Mine. The owners, Thomas and John, are making a rush exceedingly rich rock under the slide. The ore they have been extracting has paid all expenses of running. If the rich rock continues, dividends will be in order.

The Keta Mine report rich rock in sight. They employ a large number of miners.

The Junction Mine. This mine is situated in the Souby bend, is an extension south of the famous Black Oak. The superintendent has just encountered rich rock in their shaft. This latest find is very important, deepening the Black Oak vein continues south, and carrying as great values as found north.

The Belle View mine. The vein at the 800 shows great improvement in value. The 10-stamp mill is crushing steadily day and night with results.

The Providence Mine. This fine property is turning out some very fine rock. The developments are being actively extended everywhere. The prospects are most flattering.

The Grizzly. This mine is rapidly sinking their main shaft. When developed by levels and the ore shoots opened up, will be a very productive property—judging from the work that was formerly done on it. As rich rock in the early days was taken from the old works as could be found. The shoot was lost, owing to the want of proper mining knowledge, having been passed through in sinking their shaft. It pitched to the north away from the shaft, and was not followed as it should have been.

Limestone or Pocket Belt. A pocket of gold was found, and about $57,000 to $40,000 already extracted. Gold shows all over the vein that is left standing—depth 120 feet from surface. It is estimated from $150 per to $200 per ton will be taken out before same is exhausted. This strike was made on the old Tansey claim, on the Bonanza vein—being northeast of that celebrated mine and almost within its limits. Colby, the finder and lessee, is an old practical miner who has at different times taken fortunes on the same vein in other clinics. This find is not on the mother lode, as all the papers have quoted, such statements, being false, should be exposed.

LETCHER, FRESNO COUNTY, CALIF., July 15, '87.

EDITORIAL.—The following mining notes may be of interest to your readers:

The final payment was made on the Copper King last week, and considered a great property. During the last six months prospecting, about 2,000 tons of pay ore was extracted from this mine. There is in the bottom of the 1000 foot shaft, a good ore. The owners propose erecting a smelter upon the property in the near future. Two 25 H.P. gasoline engines will be erected upon the property, and the pump put in. A three-compartment shaft will be sunk on the dip of the lode. A new board ing house is being built and a large force of men are to be put on. There were several new claims recorded recently in this vicinity, and among the most prominent were the Grafton, Londonderry, Barclay and Prince Patrick. The owners expect to develop these claims in the near future.

This district has not been prospected very much, but there is promise of there being a great camp heretofore. I expect to send you considerable news from this camp, but at present there is nothing startling to relate.

Yours, Old Friend.

MEXICO

TOPICA, DURANGO, MEX., July 16, '97.

EDITORIAL.—The silver mines are being pushed ahead here; the value of silver is taken into very little account. The mint pay about $1.10 an ounce fine. Wages are the same, which is less than 750 in gold to miners and 500 to pones; the small increase in price of mining material is not felt.

The Gurney Mining and Milling Co. are seeking to establish the able management of their new manager, Mr. C. L. Baker, who thoroughly understands his business, besides being a first class mechanical engineer. Two 100 H. P. compressors are now in the ground for four new sets of rolls, which is supposed to do away with the present arrastas, although the latter are good smenders, averaging each one 6 to 8 tons, per month screen, in the best of repair, about $70 every three months, is the only drawback.

The Company have now stored away their stock of over 50,000 in export ore, which, from the scarcity ofackers cannot be shipped. If it be true that the Southern Pacific have bought the Culiacan R. R., and will extend it to Durango, they have no way of getting there except by passing through Topica, which will not only benefit the Gurney Mining and Milling Company, but all the numerous mines in the vicinity.

The Canta Rosas mines, which have been big producers in the past, are now closed down, $200,000 in debt, through bad management.

The new gold district of San Fernando, recently purchased by Mr. Mills for London capitalists, is rapidly improving—fabulous reports of rich discoveries being constantly talked over. After the rainy season, a two stamp mill may be up. The same Company own the San Jose de Gracia mines, producing close on $40,000 a month.

Next year, the State of Sinolao will produce more gold in one month than it did five years ago in one year.

J. M. E.

MEXICO CITY, July 16, '97.

EDITORIAL.—The San Juan Mining Company of Sulphuric, in the State of Mexico, have just blown in their 120 ton stack furnace, for the production of copper matte. This company owes 65 mining claims. The ore that is now being taken out runs 17 oz. of gold per ton, about 2 per cent copper, 200 oz. silver, and from 1 to 2 oz. gold per ton. This production is at present being sold to the Lewis Company, ore buyers, who have an agency in that camp.

The Malaca Mining and Smelting Company of the same camp, have recently changed their production from copper bars to lead matte, carrying some copper. The change has proven beneficial, and the output has increased very materially.
The Santa Gertrudis and Vera Cruz mines, of which Francis Jacob is owner, are now shipping a carload per week of desirable lead ore, running 40 per cent lead, and of an average value 35 oys silver per ton.

The Alejo mine, belonging to Francisco Rodriguez is producing about 5 tons per week of high grade ore, containing 5 ounces silver per ton. This is considered the best property in the camp of Sulopez, and, if worked to its proper capacity, would yield at least 3 tons per day of ore of high grade, and of an average value 35 oys silver per ton.

The Hacienda of the Concepcion Mining and Smelting Company has now two small German furnaces running, making pig lead, which is refined at the Hacienda. Their output is about 100 ounces silver per week.

At San Nicolas del Oro camp, in the State of Guerrero, there is considerable activity, and a great deal of American and foreign capital is interested in a number of mines, which promise to become very notable producers. The ore is a high grade oxidized gold ore, running from 3 to 12 oys per ton, with a silver value.

The present mode of treatment is by a small 5-stamp custom mill, which is insufficient for the needs of the camp, and which in the present state of the work is useless, as the ores are being gradually coming into sulphides, which require a different method of treatment.

Upon completion of the Curnavaca R. R., this camp will become a large producer, as the road will run within a few miles of it.

Mr. Gus Elsstrom, who has been running a concentrating plant at Tacso, State of Guerrero, for Noriega Bros, is at present in this city. He reports great activity in this camp, where nearly all the ores are concentrated and shipped to the smelters or sold to buying agencies on the ground. He states that the mines of Noriega Bros. have sufficient ore in sight to keep their 50-ton plant in operation for 20 years. The value of this ore actually blocked out having been recently estimated by a mining engineer to be upwards of seven million dollars.

A famous Alcaran mine of Zaciapalan continues shipping high grade ore worth $100 per ton to an American Company at Toluca. An English syndicate is considering the purchase of this property, but the contracting parties have not as yet been able to agree upon the price to be paid for the mine.

Special.

The Copper King, of Arizona, at Bisbee, shipped 60 sacks of high grade ore to the Denver smelter, July 17th.

Word is received from the Santa Maria mine, near Phoenix, that machinery is being sent there, and that the force employed will soon be increased. The work of development is awaited by the return of the manager, Mr. Clark, when it will be pushed to the utmost. It is good property in paying ore, and it will not be allowed to stand idle.

Supt. E. Randolph, Eugene S. Ives and R. J. Duncan have secured control of the King of Arizona mines, and a stock company has been organized with Mr. Randolph as president. These mines are known as the Glen- son mines, situated about fifty miles northeast of Yuma.

The Swallow Mining Company, of Castle Creek are overhauling their mill at Briggs, and will start it up on a steady run. Mr. Gray, one of the owners is personally superintending the work and states that the outlook is very gratifying.

The Sun Dance Company, while prospecting for water, near the bed of the Hassayampa river, and close to their mines, last week struck a strong flow of water, at a depth of 30 feet. It is estimated that not less than 100,000 gallons of water per day can be obtained from it, which will give ample supply to run the mill day and night, and have a surplus of thousands of gallons of water per day left.

Geo. H. Fitts returned to Tombstone, July 8th, from Pearce, where he went to look after the interests of the Gold Cliff, of which he is president. Mr. Fitts informs us that the Gold Cliff is looking better than ever, and arrangements are now being made for the regular shipment of ore from the Gold Cliff heretofore has been in the nature of a development and stripping the big ledge. Large measured blocks of low grade ore, carrying from 25 to 35 ounces, and enough granite for a moderate amount of same are in sight, which would yield handsomely if milled on the ground, and is to be kept for that purpose; but as there are also some rich streaks in the ledge, this will be taken out and shipped, and the mine placed on a paying basis. The building of a platform and necessary arrangements to facilitate the handling of the ore for shipment has been completed. The Gold Cliff is a Los Angeles corporation, and the stockholders are now in a fair way to realize their expectations.

Tombstone Prospector.

In the Dragoons, the machinery for the McCormick mines, upon which A. M. Wells and Denver associates have a bond, is now on the ground and being erected by machinists and carpenters.

Stephen Smith has bonded the Arrastra mine, in the Wallapa district, in Mohave county, and work is progressing in a very satisfactory way.

John Smithlin is steadily working his Lucky Boy mine and taking out good ore.

Miscellaneous Mining News.

ARIZONA

There is some talk of a $250,000 smelter to be erected in Phoenix, Arizona. Three companies are already in the field—one from New York, one from New Jersey and another from Colorado.

Win. Sweeney has located several large gold bearing ledges on the east side of the Wallapa peaks, in Mohave county, and will start in a few days to work them. One half ounce in gold is the lowest assay had on the ore.

The Holmes copper claims, bonded by Messrs. Clark and Hoyt, of Los Angeles, is looking well and its promoters encouraged with the results. Some good looking specimens have come from this group.

SAT. LAKE CITY, July 23, '97.

EDITORIAL JOURNAL.—A change in the manangement of the Ajax is very likely to occur within the next thirty days, one of the heavy holdings, that of Ryan and Nebecker, having just changed hands. Anticipating this prospective change, but little work is being done at the properties. Investors will probably look with more favor upon the stock should the management get into new hands, as all difference with the settlers, and a better feeling has occurred in the stock.

Anchor continues inactive. Slight increase in inquiry for Bullion-Beck, evident in antimony and at least one of the lead payments. Failing demand has caused the stock to strengthen materially. The mines are looking and doing quite well. From the president of the company it is reported that after 2000 ounces of silver in August were received, it is sometimes best to await formal action by the board. Buckeye is prosecuting development work, but the stock continues inactive and weak.
It is understood the Middle March Co., another Los Angeles corporation, contemplate erecting a smelter on their copper property in the dragoons.

The Hall-Houston mill, on the Agua Fría, has just completed a run of thirteen tons of ore in the processing of a claim in the Block Hills, near Ash Creek. The property is owned by Robert DeLange, who has a shaft down forty feet, at the bottom of which he has a ten-foot tunnel, a fine face and from which the ore used in the recent run was taken. The returns far exceeded the expectations of the owner, and work on the prospect will be continued.

The Saginaw mill is running every day, and the company is working two shifts a day on the Dakota mine. They shipped a car load of ore last week, and have about 400 sacks of shipping ore and about tons of concentrated ore, which is all ready to ship. They are building roads all around the camp and a reservoir for tailings is now in course of erection. A store has been opened and the camp is beginning to assume an air of general activity.—Citizen.

There is considerable talk over the recent sale of four promising claims in Peeples' Valley, including the property known as the St. Clair and Wolloth of Yarnell and another gentleman by the name of Paul King, and are situated near the divide between Peeples and De Vaca, not far from the once famous Model mine, from which some of the richest free milling gold quartz ever shown has been taken. The price paid for the claims is $20,000, and the purchase by an unknown to the district. Quite an amount of development work has been done, and it is believed that the new owner will spare no pains to bring these very promising claims to the fullest. He plans to place them on a paying basis. Should this occur, there are numerous others in that vicinity that will be opened up.

The Prescott Courier says: A. J. O'Connor, of the Bank of San Diego, a strong business man of San Diego, Cal., accompanied by Dr. Underwood, a few days ago inspected the Oregon copper claims and bonded them, paying $1,000 cash down. The transaction was consummated last week. The properties are located twelve miles from Yuma in Maricopa county. The group comprises seven claims. There is a solid ledge of copper ore, five feet wide, which goes 30 per cent copper. One of the claims does not belong to the group proper, but is about one mile distant, and has a large body of high grade lead ore. Running parallel with the great copper vein of the group, and within the boundaries of the claim, is a wall-like ledge of quartz that is just suitable for fluxing purposes. In the same vicinity is a immense limestone dyke, fifteen feet wide.

The McCauley mine is the property of Judge Wells of Prescott, Hugh McCurnan of San Francisco, the liquor dealer, and W. S. Parsons of Tombstone, owner of the Contention mine at that place. The property is under the supervision of John J. Coleman, and is being developed for a large mine. The ore encountered in the development work is mined. This pays for the improvement work, and shows a margin for dividends. The milling ores run from $2.50 to $3.00 per ton. The high grade ores are shipped to Pueblo.

Oxidized ores carrying free gold were found in the first 150 feet of work. At the present depth the ore is very hard, and the amalgam plates catch but a small percentage of the values in the ores. The greatest values are in the concentrates.

The shaft is now at 500 feet. There are 5000 feet of drifts, and 5,000 feet covers the extent of the work in winzes and shafts. The plan of development is carried on without regard to the ore workings found in the course of its prosecution. It will be a mine proper when the plans are completed.

There is a ten-stamp mill in operation. A new eight horse power boiler was added recently.

The shaft runs at a pitch of seventy-five degrees from horizontal, and the vein is almost vertical with substantial walls. The vein matter varies in width from two to twenty-two feet. The pay roll contains the names of nearly 100 men, including the men employed in getting out wood for timbering.—Phoenix Republican.

**CALIFORNIA.**

**AMADOR COUNTY.**

F. W. Page, Esq., general manager of the Hexter, Emerson and other mines in the northern counties, has purchased for his company the Monte Cristo Quartz mine, located about six miles northwest from Volcano in Amador county. Development work has been progressing night and day under Thos. Dillon, Supt., and results in showing a sixty foot lead of prophecy mixed with quartz stringers, the whole of which will produce from $2.50 to 3.50 per ton. On the north end of the claim a pit some 70 feet deep shows the above described material. Some 500 feet south of a shaft 50 feet deep with drift and crosscut shows 60 feet of the same, and the working tunnel 750 feet on the ledge shows from 40 to 65 feet pay ore and the tunnel now has 500 feet vertical backs, 425 feet on the right hand. An appraisal to connect with the drift at the bottom of the 90-foot shaft is now up 50 feet, all in good ore. A small 3-stamp mill has been pounding night and day for the past two years and is shown as above stated. The present company have just completed and started up a 6-stamp Huntington mill, which will work this material better than stamps owing to the soft prophecy that it carries. Sixty tons per day will be treated.

**KERN COUNTY.**

Johannesburg Jeta.

Fred Dexter has just finished a residence on the Geo. Cook mine which adjoins the town. A contract has been let and work begun to sink a shaft on the White Wings which lies next to the town on the east. G. W. Blodgett has bonded his Lucky Baldwin claim to Ermerins & Reynolds, who are now working on the same.

Capt. H. D. Colson's prospect work on the Cumbre Comstock show good results. He is now sinking two shafts in ore.

It is very satisfactory to chronicle the fact that there are no idle men in Johannesburg, about fifty men being regularly employed in the mines adjoining the town.

G. M. Rose has purchased the interest of Frank McNally in the Monte Christo and Alameda No. 2 claims the other interest being held by W. M. McVeen of the Alameda. Development work will be commenced on them immediately.

Since the installation of the new pumping plant in the Johannesburg Water company's wells there has been an abundant supply of the precious fluid on tap, which is being heavily drawn on by the miners who are supplying most of the Rand district.

H. L. Hollis, a mining engineer of Chicago, has been here for the past two weeks looking over the district for investment. He has been favorably impressed with its prospects and has, with G. H. Curtiss, taken a bond on the Gold Bar and Right Hand Bower claims, owned by Perdue and Thurston. These claims join the Alameda on the east end and have a shaft down sixty feet which shows up a large body of ore of moderate value. They now have several men at work.—Randburg Miner.

There are now about ten tons of coal on the dump of the coal mine at Garlock, the vein is growing thicker and the coal better as depth is attained.

The last fifty-six tons of ore from the Kinyon mine at Randburg milled produced $8,450.21, and the tailings, which assayed $90 per ton, were sold for $500, making a total of $9,005.21.

The Little Butte No. 1 shaft at Randburg is now down about 250 feet and the ore averages 250 feet across the ledge, at the foot of the shaft, a little more than $43 per ton.

George B. Kinyon & Sons shipped out from Randburg thirty-eight and one-half pools of gold bullion last week as a result of a recent run on ore from their mine. This makes the product of the mine $15,000 for the month of June.

$300 ore has been shipped from the Kinyon mine at Randburg.

Frank H. Heald of Garlock, Cal., has recently sold his interest in the coal mines near that place for $7,500 to eastern capitalists.

It is reliable reported that Thomas Hines, formerly of Kingman, Ariz., has struck it rich northeast of Mojave. He has struck a ledge of gold rock and it is worth millions.

**LOS ANGELES COUNTY.**

The Red River Mine.

At no time in the history of this mine has so much life been shown as at the present time. The mine is being more and more developed and lowered, the depth now being nearly 800 feet, and work on sinking down will not let up again, as the mine is getting better. The ledge more solid and more permanent as it goes down. The mill is run day and night, without stopping. The pump in Acton is running day and night, and the puff, puff goes right on, and in this connection we wish to say that the underground work is progressing so well because the foreman, Mr. Schmalz, is respected by his men, and knows his business. Mr. Gilbert the general superintendent, has more time now to look after the welfare of this valuable property over ground and he has more to look after than one man should. In general the Red River is the foremost mine of this part of the State.—Acton Reporter.
RIVERSIDE COUNTY.

Mr. Garret Bratt informs us that he received a letter from M. S. Yetter the first of the week in which he reports things progressing quite rapidly at the Golconda mines. The engine boiler has been placed in position and he says they will begin the pleasant operation of washing out gold in a few days. — Hemet News.

The coal indications become more favorable, as development progresses, on the ground between Moreno and San Jacinto, near the San Jacinto lake.

D. G. Mitchell, I. A. Witherspoon, A. B. McCormick and F. H. Gruwell sent out the necessary appliances last week to enable the pushing of work on their big mine on the desert.

Charles Briggs and L. Martin, who have been at work running a tunnel into a mountain of ore near Elsinore, have struck a rich, free-milling body of ore, and are feeling justly jubilant.

Miners from the Taquitz mining camp who have been doing some prospecting in the vicinity of Torres mountain have found some very rich float, the assay of the same running 2300 ounces in silver and sixteen ounces in gold. Diligent search is being made for the ledge.

The electric and cyanide plant is being put into position on the Kenworthy and Hansen lode in the Taquitz mining district, this county. Mr. Hansen, the superintendent, hopes to have the plant in running order by the first of August. Fifty tons of ore will be treated daily.

The Lost Horse mine in the Pinon district, this county, has been incorporated under the head of the Lost Horse Mining and Milling Company. The amount of the capital stock is $500,000 divided into 5000 shares of the par value of $100 each, and the conditions upon which it is to be paid in are as follows. The whole thereof is payable in making the plantation thereon, and the stock shall be fully paid before being issued. The directors are T. C. Ryan of Banning, Jeff Ryan and A. B. Ryan of Miles City, Mont., N. F. Ryan of Banning and M. W. Kelsey of Kansas City, Mo.—Riverside Globe.

The English company, who own the Gavilan Grant report that they have a grand mine in the Riverside valley, they are down 250 feet and have a 5-foot vein which is simply lousy. Thirty-five men are employed.

SAN DIEGO COUNTY.

Liberal offers have been made to discoverers of minerals on Tuyamaya grant near Julian in San Diego county. The Stonewall mine, formerly a large producer, and yet a rich mine, is on this grant.

Work is being pushed on several mines near Oak Grove. Chief among them is the mine of William Vaughn, who is pushing a tunnel on an eleven-foot vein of well-paying rock. The Stevens brothers also have a good mine in this vicinity.

It is reliably reported that S. W. Dorsey, will erect a high stamp mill and build a railroad to the Colorado River from his Picacho mines, now that he has succeeded in floating his property on the London market.

property, which is located five miles south of the Colorado river in the Picacho basin consists of thirty full claims about one mile long by three-quarters of a mile wide. A number of parallel ledges pass through all the claims, the veins being from 20 to 600 feet wide.

A quantity of ore was crushed at the Ella mine at Julian a few days ago that netted $47 to the ton.

Another gold mine has been discovered on a ranch near Julian the ore from which is reported to be quite rich. Jesus Olla made the find.

The Golden Cross.

The Golden Cross mines, on the Colorado Desert, in San Diego county, have been almost constantly in trouble. These mines are again in the hands of a receiver. Two years ago, owing to large liabilities, the mines were placed in the hands of W. W. Stewart as receiver. Having placed them on a good paying basis, and paid off a large part of the indebtedness, he was discharged about two months ago, and the property turned over to J. Spiers, J. Sloss and others holding a deed of trust. Recently the Golden Cross Company entered into an agreement to sell to the Free Gold Mining Company the mines for $1,500,000. This company, organized by Isaac Trumbo of San Francisco, appeared in court and asked for a temporary injunction restraining these trustees from working the property, and to quiet title. The writ of injunction was granted, and C. W. F. Lundy of San Diego was appointed receiver. The Golden Cross with his bond fixed at $25,000 and compensation at $300 a month.

COLORADO.

(Extracts from Mining Inquirer.)

Cripple Creek Notes.

The Climax No. 1, on the south slope of Squaw mountain, has come to the front with a daily of $327 in a 60-foot shaft. The Montana, a fraction north, by, has also uncovered a fine-looking vein.

The returns from Lessee Smith's shipment of work ore showed much better values than the company's shipment last month. It was divided into two lots, one of which went at the rate of $62.50 per ton and the other at $54.50 per ton. The royalty check was the heaviest the company has ever received.

Kirk & Co., in their lease on the Ajax, have opened up an immense body of ore that is steadily increasing in values. But a few days ago it assayed $11.80 per ton. Now its average is $17. New ore bins will be put up at once and a trial shipment saved.

The Theresa, located on Bull hill, has been making a number of shipments lately. One carload was shipped that is expected to run from $75 to $100 per ton. Development work is being pushed and the general outlook at the mine is very encouraging.

Jimmie Doyle is prospecting the surface of the St. Patrick, which he recently bought. A hole is being sunk on the claim about 50 feet south of the main working shaft, and at a depth of six feet a promising lead has been opened. The main shaft is not working at present.

Manager Bergeron, of the Christmas mine, has received returns from two cars of ore sent out last week. The ore ran at the rate of $4 per ton for a lot of screenings, and $18.50 per ton for a lot of low grade. Another carload shipment will be made to the Cripple Creek sampler next week.

Durango.

The blasting last week in the Irodos tunnel disclosed a new ore feature on the hanging wall which is impregnated with gold vein which has been followed is on the foot wall. It has been irregular lately, and was plunging out when the new vein came in. Only about six inches of the new feature shows. It is telluride in character and somewhat resembles the rich Durango Girl ore.

The cross-cut in this gulch for the Genoa vein is within a few feet of completion, and it is expected that ore of the same character as that in the Irodos which will be found when the vein is cut. Fred F. Shrader, the owner, went out to the Genoa to stay a few days, anticipating the completion of the cross-cut.

An important strike has just been made on the opposite side of the range in the same gulch where the Columbus was situated and just below the Columbus. A most encouraging feature is shown in a vein a few feet in the Gold Bond lode, a new location recently made by Fuqua and J. H. Flood. Some of the ore which has reached Durango recently on the Columbus ore, and free gold in tellurium is readily discerned with the naked eye. Average samples gave assay returns of from $19 to $300 gold and silver.

Dunson.

The Bostock Company, operating the Eagle, has commenced the construction of the mill race on Cripple Creek, and has placed the property under a 30-ton concentrator. This will be erected as quickly as possible, for at the mill the ore is piling up under the development work being carried on. It is estimated that several thousand tons of concentrating ore is now on the dump ready for treatment, while in the mine all of the levels are in ore, and this is being blocked out ready for stoping. The stope is large, and the average value of the low grade product is $10 per ton. There is some smelting ore, but it comes in bunches and must be cobbled.

N. A. Martin, sinking a shaft on the Pioneer lode, has opened out on a very rich streak of quartz. It is free milling, and a shipment has just been treated at the Mirox mill at Idaho Springs.

Pine Creek.

A miner from Silver Creek recently stated that a good strike had been made by Denver parties in driving a tunnel into the Silver Creek side of Michigan hill, which is good news for that portion of the district.

Shirely & Co are reported to have a good body of ore in their Independence claim in Moon gulch, at a depth of 60 feet, and some of the ore has been shipped for a trial at $10 per ton.

Manager Wheldon of the Martin tunnel reports a splendid showing in that property, and it will not be long before the Martin will become a shipper.

Dick Jenkins, who is working the Gen. Putnam claim on Colorado hill, is still taking out a splendid lot of ore, and this week received returns from a test lot sent to the State Ore Sampling Works, at Black Hawk, which showed values of $211 per ton. He is at present making a road down that side of the hill on which the mine is located, and soon shipments will be commenced.
O. T. Hazelberg, the barber, while paddling in the creek behind Apex during the past week, took out one nugget of a value of $3.65, and this has started several parties on the hunt for the shining gold.

LOWER CALIFORNIA.

The schooner, Avisa, which arrived in Escondida from Santo Domingo, last week, brought up $20,000 in gold bullion. The Ybarra Mining Company is treating the tailings at their Calmilani mines by the cyanide process of extraction, the above being the first shipment of bullion obtained by the new process. The company is actively engaged in developing the mines, sinking and drifting, through the twenty-stamp mill is not in operation.

A quantity of machinery has been taken from Tia Juana to the Juarez mining camp, to be used in developing the placer claims recently sold by McCool, Cleveland & Co. to an eastern syndicate.

At a meeting of the Club Internacional, in San Diego, Cal., Manuel Riveroll read a valuable paper on the natural resources of Lower California. We will give a short review of the area and the only towns pertaining to mines, mining and minerals.

The territory of Lower California lies between the parallels 22°33 and 32°42 north. The boundary line joins the county of San Diego, and the population is over 30,000.

To give a general idea of the wealth of the peninsula, we will start on a mental trip from Tia Juana on the boundary line, following a road that we will call the coast road as far as Cape San Lucas, and returning by the coast of the Gulf of Cortez and the mountains to Tia Juana, the starting point.

From this place towards Escondida, we cross the valleys of Tia Juana, Carrizo, Las Palmas, Vallejos, the beautiful and fertile valley of Guadalupe and San Antonito. There is not discovered between these points. Continuing, we meet with the table lands of Ensenada and San Carlos, and the Mancardo, Punta Bandas, La Grulla, Santo Tomas, San Vicente and San Antonio del Mar valleys.

Near San Vicente and upon the shores of the sea at San Ysidro, are the Tepuzteco Constands, and the dunes of salt, containing a very high grade of excellent iron. The veins are abundant, arc less than a thousand yards from the landing place. Copper mines are found also in the vicinity of San Vicente and San Ysidro.

Further on, Harry Johnson is working some gold placers at Socomo, where he has built a ditch eighteen miles long, and which promises to return him a large fortune. Then follows Conception de Cumbier, Constan, San Quintin, Santa Maria, and the gold placers of El Tule, the onyx quarries and the copper mine of San Fernando.

At San Quintin we find the salt deposits bearing the name of the place.

As we travel towards Calmilani we cross desert lands with but few waterings—making the road excessively disagreeable, but containing various kinds of minerals, marble, quartz, and other products, which in time will be worked. At Calmilani we find the mining camp of the Ybarra Gold Mining and Milling Company, where hundreds of thousands of dollars have been spent, but which have also produced large quantities of gold. Some miles from Calmilani and at the bay of San Bartolome, the Pacific coast, are the salt deposits of Ojo de Liebre, over six miles long and in width.

Beginning our return journey from San Jose del Cabo to La Paz, we find at the town of Triunfo the famous silver mining and miling camp of Los Frailes, which has been working for over twenty-five years.

Upon the Carmeno island, in the gulf, are the inexhaustible salt beds of the same name. From La Paz up to Santa Rosalia, we pass through Loreto, a very small port, but the oldest. The capital of the territory was first established there, and a few miles distant the copper mine of Suce, producing the virgin metal is found.

Upon arriving at Santa Rosalia, we find the vast copper mining and milling camp, El Roque. From La Paz up to Santa Rosalia, we pass through Loreto, a very small port, but the oldest. The capital of the territory was first established there, and a few miles distant the copper mine of Suce, producing the virgin metal is found.

Following our road towards Tia Juana, we pass through the village of San Ignacio. We travel through the missions of Santa Gertrudis, San Regis and San Borja, containing but a few people.

Near by the gulf of Cortez is the silver mining and milling camp of San Juan, which has a transmitting cable of several miles in length, and beyond it the gold mining and milling camp of San Francisco, exporting with capital from Los Angeles.

We now thread the ranges of San Pedro Martir, Santa Catarina and Laguna. Near by the Laguna are the Juarez gold placers, with large deposits of large amounts of gold.

On the Colorado river meadows are the nitrate beds and an abundance of gum copal. In the Cucapa ranges are the sulphur deposits, work upon which has just been undertaken by an American company. Alum beds exist in the same neighborhood.

Continuing our road, we arrive at the mining district of Alamo, 75 miles from Ensenada. Several mines with an abundance of ore, of different grades of lead, iron, and copper. At Jacalitos there are three reduction works maintained by a few mines with more or less ore, but of rich grade. These camps, of Alamo and Jalucitos, are near the valley of San Rafael, fertile and fruitful, with a large supply of water and not far from Real del Castillo, in the surroundings of which are many mines of gold, producing much ore, although low in value. This place is determined to have a great future when parties possessing capital, intelligence and energy shall utilize the waters of this river to generate electricity and to bring from these mines, but which cannot be done today owing to the high price of fuel.

Continuing, we see the pretty valleys of San Paustino, San Juan de Dios, El Compadre, La Hacienda, Neji, Los Junta, Tejate, San Ysidro and Rock Spring, then entering Tia Juana, our point of departure.

By the rapid review which I have just given, we see that Lower California is shown to contain: Gold, silver, copper, lead, iron, marble, onyx, salt, sulphur, alum and nitrate.

In the south are silver mines and reduction works of Triunfo, and the copper mining and reduction works of El Boleo, second to none in the world; and in the north, the Ybarra Gold Mining and Milling Company's works; and the fruitful and flourishing gold camps and milling works of San Francisco, Alamo and Jacalitos. Two very large placer mines of Socorro, Vadallides, Tule and Juarez.

Mr. F. M. Bradshaw states that work on the Aurora and Moctezuma mines in the Alamo will be prosecuted on a larger scale than heretofore and with improved facilities, as compressed air will be used in both mines, the air compressor and boiler having arrived on the steamer Pacheco, July 23. Two Rand drills have already gone out to the mines, and a new rock breaker, double cylinder hoist and boiler for the Borrasco mine are now on their way from Chicago.

The Aurora shaft is down 180 feet, and Mr. Bradshaw states that the last forty feet has been made through solid dyke, and sinking in consequence has been extremely slow and expensive. However, they are now through the dyke and in granite and there is no doubt that drifting and cross cutting will reveal the ore.

The condition in the Moctezuma mine is very much the same, the shaft having been pushed through the dyke, though in this mine they have no ore seam and it is shortly expected to open out.

The Rand drills will be the first of the kind ever used in that district, and power drills will rob these dykes of much of their terror, which has been the great cause of discouragement in mining at Alamo. The compressor and drills are expected to be in operation in about two weeks.—Ensenada Lower California.

MEXICO.

(Extracts from Mexican Traders).

Puebla.

This state, like almost every other in the Republic, is being overrun by prospectors who are searching for gold and copper properties. A very successful stroke has just been made in the western part of the state where several large veins of copper have been discovered. Some of the mines in the group were worked centuries ago by the Spanish, the remains of whose furnaces and buildings still remain, as well as traces of extensive workings in the mines themselves. The ores are red and black oxides of copper, and of course ten per cent in copper, and when smelted in small furnaces. As the mines are near the railway, with which they are connected by a good wagon road, and as a powerful waterfall is near, this strike will soon be a heavy producer.

State of Mexico.

The board of directors of the well known gold property, La Esperanza y Anexas, situated in the El Oro district, which was recently secured by C. D. Lane, of San Francisco, came to Los Angeles, Calif., were composed of Messrs. Pedro G. Mendez, Jose Luis Requena, Gerano R. Fernandez, Julian Perez Duarte, Willam Brockman and Donato de Chapeau rouge. The substitutes are Messrs. Vicente Mendez, Guillermo de Landa y Escandon, Manuel Calero y Sierra, Domingo Gomez and
August Sahlberg. It is this last named gentleman who originally located the Esperanza mine, and organized the company for its development. A development amounting to about 2 kilometers of tunnels have been driven, and nearly one thousand metres of portable tramway have been laid in the same. The metal, gold and silver, shows an average of nearly $300 a ton in value. Last July, the beneficiating plant was put in with a capacity for 700 tons.

An idea as to size and importance of the property may be gathered from the fact that there are no less than 553,750 tons of ore in sight.

There are several other big mines—notably the El Oro, yielding more than $7,000,000 in the same year, and which are beginning to attract great attention as gold producers. At the present moment some well-known experts are examining three or four fine prospects in the district with a view to purchase.

Guerrero.

In the district of Mina, at the San Felice mine, there has just been a made a wonderful strike, the first 175 tons extracted yielding 1,800 ounces of bullion, which gave at the mint 1,400 ounces of fine gold. The extraction, freight, treatment, milling, and other charges against this product did not amount to $100,000. There are about 150 tons more of the same class of ore on the dump; this will be freighted about ten miles to the mill, which has five stamps and plates. The owners are going to erect at once a large mill, using the profits to pay for same. The plant will not be complicated as the gold is perfectly free, being contained in a quartz gangue carrying the oxide of iron. This property is about 5,000 feet above the sea level, and is surrounded by extensive forests of pine and oak.

The San Luis, another fine mine located about 3 kilometers from the San Felice mine, has just been sold to Reed and Gunny. At Voloda, about 40 miles from San Nicholas, still another strike has just been made in La Americana. The ores are sulphides in a quartz gangue, in which the gold does not occur in a vein, but is amenable to treatment by the cyanide process.

Messrs. Bass, Armstrong, Shaw and others, have secured by purchase a very valuable and extensive property in Aldama district, the ores are oxides of lead and iron in which the gold is contained. This is, perhaps, one of the most extensive properties in the state. Several large copper veins have been taken up in Aldama district upon which the Mexico, Cuernavaca & Pacific Railway is to be built near them.

Sonora.

It is reported that Mr. Juan Pedraza has sold his rich El Carmen mine near Guerobabi, Sonora, for $1,000,000. He also retains a few shares of stock in the mine.

Tamaulipas.

The mines which are worked in this state are exempted from the tax of one per cent on the value of the metal which they produce. All mines, the working of which shall be commenced within a period of five years, will be entitled to the same privilege.

Andy Evans, the famous mining man of Durango, has just closed the sale of the well-known property the Avejo, concerning which so much has been said and written. He controls now almost all the best properties in the Panuco district.

A car load of hoisting machinery for Naicosari, has arrived at its destination.

Notwithstanding the low price of silver, the value of good silver properties in Mexico still goes on. The San Christobal mine, at Zacatecas has just been sold to a New York company for two hundred thousand dollars cash and the guarantee of the owner, selling three-fourths of the property at the above price and still retaining one quarter.

Clarence King, the well known expert, made the last report of the property was followed by Mr. Von Cortlandt, who also reported favorably. When Mr. Bray took charge of the property, there was but little to encourage him, but he has labored earnestly and determinedly, and, in good judgment and perseverance are now being rewarded.

The dredger of the Yaqui River Mining Co., was completed on the 15th ult., and it was expected that the work of dredging and sluicing the bed of the river for gold would begin about the 15th. The operations are at San Antonio de la Huerta, nine miles down the river from Coyopa, in the State of Sonora.

There is every prospect of a little mining boom in the Santa Rosa near Pachacua. This district was notoriously rich in Spanish days, but was little worked after their expulsion. It was remote and in good old revolutionary days quite unsafe. The famous Baron Hummert of the Austrian court, reported this part of the republic and was much impressed with its mining possibilities. The Ernestina, now looking so well, is in this district—Mexico City Telegram.

The enterprise firm of gold and silver refiners and assayers, Smith & Irving, formerly Wm. T. Smith & Company, have just compiled a pamphlet of useful information, Miners' and Prospectors' Handy Reference Book. It contains a complete copy of the new law for the location of mining claims; a warning to locators under the new law, bringing out different points that should be noticed when locating a mining claim, and a copy of the law protecting stockholders. The book also gives some interesting facts relative to the precious metals in common use, such as gold, silver, copper and lead. It also gives a synopsis of Troy weights, specific gravity, solid measure, how to clean copper plates, value of some of the precious metals, weights of ore, gold values, the hardness of minerals and the coins of the United States. The booklet contains 36 pages, and is handsomely printed on a good class of book paper. It is issued complimentary by the above firm, who are well known in this district, and of which this work can be had free upon application.

NEW MEXICO.

Red River Camp.

The Jayhawk is running three shifts of five men each at present and producing some good ore. A E. Eells has a claim up Mallett canyon that is well spoken of. He produces some very fine specimens from this week.

The Willard up Red River still attracts considerable attention. This property is one of the few free milling propositions in camp, and will be heard from later.

Some rich tellurium float has been found and it is hoped to be able to chronicle the fact soon that the vein itself has been found also.

Red River district has more real prospecting going on than for a long time. Nearly every evening as the prospectors come into town some new strike is reported.

Rev. W. Wright, of Wamego, Kansas, president of the Memphis company, arrived in camp last week, in company with George Phillips, general manager of the Red River mining and investment company which controls the Edison mine.

Mr. John Houghland, who is largely interested in the Golden Cross Mine, which is being operated by the Golden Cross Mining Company, composed of Kentucky people, and located in the Carizillo mining district, not far from Deming, and in charge of work being done, reports that early this week he discovered an old shaft, from which it is known was taken years ago ore that ran 2000 ounces in silver. Mr. Houghland has been looking for this old shaft for some time, and is at last rewarded for his labor. This shaft when found was filled with large boulders. At the top of the shaft the ground frost seemed the natural state, and having been left in that condition for several years, it was a hard matter to find it.

From present indications, this mine will prove to be one of the ore producers of the territory.

Hillboro Mines and Mills.

Output of Hillboro gold mines for the week ending Thursday, July 22d, 1897, as reported for The Advocate:

<table>
<thead>
<tr>
<th>Mine</th>
<th>Ore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wicks</td>
<td>65</td>
</tr>
<tr>
<td>Butler</td>
<td>20</td>
</tr>
<tr>
<td>Richmand</td>
<td>65</td>
</tr>
<tr>
<td>Happy Jack</td>
<td>20</td>
</tr>
<tr>
<td>Snake Group</td>
<td>65</td>
</tr>
<tr>
<td>Opportunity</td>
<td>10</td>
</tr>
<tr>
<td>Sherman</td>
<td>20</td>
</tr>
<tr>
<td>Prosper</td>
<td>10</td>
</tr>
<tr>
<td>Eighty-five</td>
<td>10</td>
</tr>
<tr>
<td>Rex (silver-lead)</td>
<td>15</td>
</tr>
</tbody>
</table>

Total: 395

Total output since Jan. 1, 1897 - 5,255.

It is reported that a good sized pay-streak of high grade ore has been recently opened up in the Independence mine, at Chloride. Ignacia Brown and J. R. Hopkins have purchased a half interest in the famous Cincinnati mine, in the Tres Hermosas mining district, and are working the same in conjunction with the other half owners.

Elizabethtown Notes

The Legal Tender Mining Company has been organized by W. A. Mason, W. P. McDonald and John W. Williams, of Elizabethtown, New Mexico; A. S. Goodwin and G. W. Goodwin, of Kansas City, Missouri; J. W. Sherlock, of Emporia, Kansas, and Flagg of Elizabethtown, New Mexico, the territorial secretary's office. The company is formed for the purpose of conducting a general mining business, with the principal place of business at Elizabethtown; capital stock, $500,000.

For some time a rumor has been afloat that a great find had been made about four miles west of town by H. H. Shannon. Owing to Mr. Shannon's well known powers of elabor-
assays from the Little Gem mine at Gold Creek, Nevada, show a value of $145 in gold to the ton from a ledge 1 foot wide. On the opposite side of the hill it is believed the extension of this ledge has been uncovered.

A new quartz belt has recently been discovered at Allum Creek, near Hawthorne, Nevada.

**Gold Creek Notes.**

The Empire Shaft was down 71 feet last week and the rock was getting harder.

The Constitution Shaft was down 26 feet the other day. Very little water was coming in.

Chas. S. Newhall and Sydney L. Smith have located the Mary B, a five foot ledge on the divide east of town.

Jim Glass is doing assessment work on the Summit, a claim near Oro Grande in which he and the Shivelys are interested.

July 20th the Diana shaft was down 36 feet. There is considerable water coming in which greatly retards sinking. The quartz in the bottom was looking all right.

L. C. Bayer discovered a ledge cropping where anything was done on the road up to the townsite. He believes that if the same ledge Miller and Reynolds have uncovered on Island mountain and he feels they have jumped his property.

F. A. Curtis, a mining man of Denver, and W. B. Duvall arrived in camp Tuesday, July 20th, from a trip to the Van Duzer placer. Mr. Duvall had with him ten nuggets that were found over there in the August-Hayward property. The least of them was worth three or four dollars and several of them had a value of about twenty dollars each. Mr. Duvall believes that Van Duzer will rival the richest digging of Colorado. He says the boys make their cleanup in a tin pan, panning out "the gold with their fingers and are taking out from ten to forty dollars a day to the man."

It was in 1895 that John L. Coots and M. J. Fitzgerald discovered a big ledge on Dun- can mountain. The surface gave a trace of gold and three ounces of silver. Returns just received from Salt Lake ore from the bottom of the 30-foot incline gave $2.40 in silver and 75 cents in gold.

Fitzgerald parted with his claim some time ago, and it is now owned by J. J. and R. J. Davis. The incline is run as a joint work on the end line between the two claims. Coots

covers the north end of the ledge with the Sioux City and the Arcade runs south. The boys expect to resume work soon.—**Gold Creek News.**

Active work is being done in Consolidated Virginia, in Nevada, and in several other mines on the Comstock. The bullion return of Chollar for May was $2,000 in gold. Coin at the Chollar over 9,000 dollars in the Brunswick lode. As a whole, the present condition of the mines is rather encouraging. A few tons of ore are being raised in Overman. In October it is said the Brunswick is to be resumed on the 1,000 foot level. In Consolidated Virginia, on the 1,550-foot level, the incline is in ore assaying from $4 to $8 per ton. The most active work, and that most closely watched is being done on the 1,650-foot level. From this there were extracted recently ninety-two tons of ore assaying by sample $55.58 per ton. In Chollar, in the Brunswick lode, the ore is pinching above the 300-foot level, and the grade is lower.

**General News.**

The Colorado Iron Works Company reports the following important shipments: To Britannia Mining Company, of Ainsworth, B. C., one set of 14 x 27 crushing rolls to British Columbia, machinery for ten-stamp mill, including vessels, crushers, etc.

**Electric Furnaces.**

Electric furnaces are now playing so important a part in scientific and industrial operations that it is useful to know something of their construction and application, which can be easily understood when furnaces have been devised—one in which the desired heat is obtained by rendering a certain part of the circuit incandescent, and the other in which the electric arc is used. It is with the latter that the most powerful results are obtained. One of the simplest that has come under our notice is that known as the Street Girard furnace. Unlike most other forms, its center of activity is not confined to any particular spot, for by the passage of the bar or article operated on, through the furnace, the heat can be made to operate over a considerable surface. The method is simply to have a hollow space formed in a block of suitable heat-resisting material. This is supported so that the carbon rod, which forms one of the electrodes, can be passed in through one side, while the other two openings, through two other sides, serve for the passage of the other electrode, which is the bar or rod of metal to be treated. The current is led to this bar by a friction contact, and the bar is fed through the furnace by a system of mechanical rollers geared to an electro motor. Any length of conducting material in the form of rods or bars can be brought in by passing them through the furnace in succession, thus greatly extending its sphere of utility. When the substance to be treated is in a pulverized condition, the metal electrode takes the form of a tube or refractor, through which the operation is conducted in a similar fashion, or it may be set in motion inside the tube itself, which in that case is a fixture, the arc being produced between carbon electrodes with the tube containing the powder between them.

The Evening Telegram, Vol. 1, No. 3, of the City of Mexico, is one of the bright, newsworthy sheets, printed in English, that has placed us on their exchange list. The Tele- gram is a new enterprise in the City of Mexico, and we wish it all the success in the world.

The copper production for 1895 reached the largest total ever reported, 467,823,935 pounds, an increase of 30,800 long tons or 212,921 metric tons. Over half of the production was sent abroad, the shipments to foreign countries amounting to no less than 123,665 long tons or 92.2 per cent of the total. It is too early to say whether it will not be for an extraordinary foreign demand the production of copper must have been very much curtailed, instead of showing as it did, an increase of 204,013 tons, or 59.6 per cent. The foreign demand also kept up the average price, which was 10.38 cents per pound for Lake copper in New York against 10.76 cents in 1894. This price is probably above half a cent above the general average for the metal, when the large sales of electrolytic and casting copper are considered.

Word comes from Spokane that the directors of the Le Roi Mining Company have let the contract for the near labor camps for the ores from the Le Roi mine at Rossland, B. C. The exact location where the plant will be erected has not been made public. The contract for the entire plant was captured by Mr. Ernest J. Corly, the general western agent of the Edward P. Ellis Company of Milwaukee.

The time for shipment allowed the contractors is 70 days from the signing of the agreement.

**Cripple Creek Output.**

The Cripple Creek district of Colorado during the first six months of the year has produced in the neighborhood of 153,000 tons of ore of all grades, which is estimated to be worth $345 per ton, which means a total gross value of $56,750,000 or a little over $1,000,000 per month. This is an increase of 25 per cent over the first half of last year, both in tonnage and value of the product. The output for April, May and June was 75,000 tons, which had 27,000,000 tons. Last month which was the banner month of the year and also in the history of the camp, the tonnage exceeded 27,000 tons and its value was estimated to be only a few thousand dollars short of $1,200,000. During by the record made in the first half of the year, Crip- ple Creek will add to the world’s supply of gold 700,000 ounces in 1897, which will have a currency value of $1,400,000. The tonnage is estimated now to exceed 300,000, which will be an increase of 50 per cent over that of 1896. The increase in value will be from 33 to 50 per cent of the value of last year’s product.

The decline in value per ton is brought about by the increase in number and capacity of the cyanide and chlorination mills, which has been a profit to the miners running at a low as $10 per ton. In June 60 per cent of the ore shipped from the camp was sent to these plants and during the last four months of the year, when the additions to the old plants and those now under construction are running, these mills will treat from 70 to 75 per cent of the tonnage. It is safe to predict that the smelters when the yearly figures are compiled will show that less than 35 per cent of the ore mined in the Cripple Creek district, was treated by fire. Its value, however, will exceed the 65 per cent from which the gold was taken by the cyanide, chlorination and amalgamation plants.—**Rocky Mountain News.**
Weber Gas and Gasoline Engine.

In our issue of April 15th, we illustrated and described a 10 H. P. geared, hoisting engine, built by the Weber Gas and Gasoline Engine Company, of 434 S. W. Boulevard, Kansas City, Mo. We illustrate and describe today one of their heavy 40 H. P. geared hoisters.

This machine weighs about 12,050 pounds. It is built very compact, and will go into a room 7x13 feet 72. These hoisters are so arranged that, by changing the ratio of the gearing and the size of the drums, the Company can give almost any lifting capacity with a corresponding foot travel—either high speed machines for light work, or slow speed machines for heavy work, as may be desired.

A large number of these machines are used for underground hoisting and pumping, thereby saving in the cost of installation and the cost of operation very largely over the expensive Compressed Air plants, now in use for this class of work.

Weber geared 40 H. P. Gasoline Hoister

All of the Weber Engines can be operated to use either gasoline, city gas, distillate or crude oil.

The Company issues a very neat catalogue, pertaining to Weber Gasoline Hoisting Engines, which will be sent to interested parties on application. This catalogue also contains a list of supplies, such as rope, water barrels, ore buckets, trolley cars, gongs, dump cars, etc., etc.

We are in receipt of a copy of the new catalogue No. 9 of the Clay ton Air Compressor Works of New York, of Air Compressors and Compressed Air appliances. It is the most complete work of the kind ever attempted. It contains, in addition to an illustrated description of the features of the Clayton type of Air Compressor, illustrations and lists of sizes of the standard patterns of Compressors, and a descriptive article upon the Widening Use of Compressed Air, showing all of the various applications of this power up to date, together with cuts and descriptions of Compressed Air Tools and Appliances. It also illustrates and explains the Clayton Air Lift Pumping System.

Among the other contents of the catalogue will be found valuable data for figuring the loss of pressure due to friction in transmitting compressed air through pipe and the capacity lost by Air Compressors in operating at various altitudes above the sea level.

Air Receivers, Vacuum Pumps, Fly Wheel Steam Pumps, Compressors for Carbonic Acid Gas, Compressors for testing under high pressure, etc., are fully described. This Catalogue is issued for gratuitous distribution and will be forwarded upon application.

The Los Angeles Times of last week had a column editorial suggesting that Los Angeles should have a smelter. It says:

"What Los Angeles particularly needs just now, in order to develop the mineral resources of the surrounding country, is a smelter. This would at once bring to the city a very large amount of money that now goes to Pueblo, Kansas City and other points, and at the same time would bring mining men here, who would spend money for machinery and supplies. The construction of a smelter in Los Angeles was commenced about five years ago, but was abandoned on account of financial difficulties. The local mining exchange, in conjunction with the various commercial bodies of Los Angeles, could engage in no more useful work than in securing the building of extensive reduction works, either in this city or at San Pedro."

A Gigantic Flume.

The Detroit Copper company had engineers make a survey to see if it was possible to flume water from the head of Eagle creek into Morenci. The engineers reported it feasible; that the flume would be fifty or sixty miles long and would cost about half a million dollars. The engineers are now at work making their final survey. This is a great deal of money to spend for water, but water has always been an expensive luxury in Arizona. The company now gets its water by pumping it from the river. This is very expensive and the water is not very good, there being considerable alkali in it. This alkali attacks the pumping machinery and the pipe line, making frequent renewals necessary. With the flume the expense of the pumping station would be done away with, the company would get better water and a larger supply, a larger power could be produced, thus saving money now spent for coal, and besides this there is an abundance of timber at the headwaters of the Eagle which could be cut and sent down the flume and thus furnish the company with the timber much cheaper than it is now supplied. The Detroit company has plenty of capital and is not afraid to spend it if it can see that it will be able to make a small saving on each pound of copper produced.

The company has enough ore in sight to keep its works running at an increased output for many years and a saving of a cent a pound on the cost of producing the copper means a great deal of money.
Van Der Nailen's School.

The following is the thirty-third annual list of graduates of mining engineers and assayers from the Van Der Nailen School of Engineering, of 933 Market Street, San Francisco, Cal.


Surveyors—H. L. Moulder, city; L. Smith, Spokane, Wash.; P. C. James, Johannesburg, South Africa; D. Smith, city; J. Gray, city; W. S. Keith, Rossland, B. C.


We are in receipt of an important work, entitled "Stamp Milling of Gold Ores," by T. A. Rickard. The author has a wide knowledge of this subject, and this notable work embodies the experience of mill men and the best examples of gold milling practice in every part of the world, and supplies valuable instruction for overcoming the obstacles ordinarily developed in the handling of gold ores. Such a treatise will prove invaluable to those engaged in the actual work of the mill, as well as to the student and the teacher. The book contains 24 chapters, written in terse, modern English, with a grateful absence of technical terms, and it commends itself to the layman as well as the mine manager, mill man and metallurgist, to whom it will be found indispensable. It is well illustrated with working drawings and details of mills, and should be in the library of all those interested in mining and milling of gold ores.

PERSONAL NEWS ITEMS

Messrs. Krupa & Creigle, well known Kansas City gentlemen, are inspecting some mines in the State Line district of Utah.

J. W. Brewster, of Kansas City, Mo., is in Utah, inspecting some mines in the State Line district.

James M. Pearson, of Acton, this county, was in Los Angeles last week on business.

Hercules Gas, Gasoline & Distillate Engines

Hoisting Engines 2 to 100 H.P. Stationery Engines 1 to 200 H.P. Marine Engines 2 to 200 H.P.

Nearly 5000 Hercules hoisting, Stationary and Marine Engines in Actual Use. High Grade.

We claim full power, automatic and positive adjustment regulating speed and consumption of fuel in proportion to work being performed. No spring electrodes or jets. All springs are double. Points of ignition, speed and amount of fuel can be changed while engine is in operation.

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Wheels, Bucket and Nuts designed to suit special requirements, when End and Conditions are Given. Theoretically as well as practically correct. Highest Efficiency Guaranteed. Contract bids for any size plant.

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It requires less power than any other machine performing the same amount of work.

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D. M. DOUB, General Agt., 137 First St., San Francisco.
Andy Evans, the Durango, Mexico, mining man, has been in the City of Mexico, and has left for St. Louis and New York on important mining business.

G. A. Fuchsdorfer, of this city, is now in Joannesburg, where he is interested in some mines.

H. E. Westover, of Gold Creek, Nevada, has gone to Salt Lake, Utah, on important mining business.

The Hon. Henry T. Gage has been up to Acton, Col., recently, looking after his mining interests and taking a rest from the busy life in this city.

J. P. Huchinson, a well known Guerreran mining man, was in the City of Mexico last week.

Mr. Manuel, who located the famous Homestake mine, at Lead City, South Dakota, is in Johannesburg, Kennewick County, Calif., last week.

F. A. Curtis, a mining man of Denver, Colo., is now in Gold Creek, Nevada.

Thomas Kent has returned to his home in Acton from Gullock, Kern county, Calif., for a few days

C. W. Smith, the well known mining man of Oaxaca, Mex., has left there for England, where his health is better, he being unable to stand the climate of Mexico.

W. A. Sims, of Randburg, Calif., has just returned from a trip to Hanford, his old home.

H. B. Verce, of Perris, Riverside county, recently went to Letcher, Kennewick county, Calif., to look after some work being done on the Copper King mine, of which he is the owner.

P. K. Hickey, of Phoenix, Ariz., intends leaving here for Alaska the latter part of July.

Mayor W. H. H. Lebourn, of Los Angeles, N. M., was one of Hillisboro's noted visitors last week.

H. L. Holllis, a mining engineer from Chicago, has been looking over some prospects at Randburg, Calif., where he intends to invest in the near future.

W. H. Banks, who represents an eastern company, has left Prescott, Ariz., for Harquahala, the latter day.

A. D. Duff, of the Mexican Sulphur Company, arrived in Rinconada Lower California, from Ventura, Calif., July 25th.

E. H. Gould, of the St. Elmo mine, near Randburg, Kern county, Calif., was a visitor in this city the other day.

Mr. Clark, general manager of the mining business of the Huron estate, was visiting Prescott, Ariz., July 18th, on his annual tour of inspection of properties owned by the above estate.

W. L. Davis, a prominent Colorado mining man, arrived in Rinconada, Lower California, July 21st.

Frank Cole, of this city, has gone to Randburg, in the interest of the Wood's Automatic Dry Concentrator Company, of which he is the representative.

Herbert Lang, the noted mining engineer of Oakland, Calif., was visiting July 17th, in Los Angeles, Calif., Mr. Lang is also a competent smelter man, having been connected with copper smelting in Montana, and the state of Sinaloa, Mexico, and other parts of the world. He has made a specialty of pyrites smelting.

Robert S. Towne, president of the Mexican Ore Company, and of the Sierra Mojada railway, arrived in the City of Mexico, July 19th, from the north.

H. Deacon, of Sutter Creek, passed through Jackson, Calif., last week, on his way to Truckee, to visit his son who has charge of a quartz mill at that place. While on this trip, Mr. Deacon will visit some of the camp of Tabitha and examine some quartz claims which belong to his son.

James Harvey, of Silver City, has just returned home from San Francisco.

Frank Wright, of Wichita, Kansas, has made Red River City, N. M., a visit. He has some mining interests at the above place.

R. J. Hill, of Kingston, N. M., contemplates a visit west in a few days.

J. J. Sheridan, of Silver City, has just returned home from San Francisco.

Sarah Ballard and Joseph Gallagher have returned to Hillisboro, N. M., from their prospecting trip in Socorro county.

Mrs. Wm. Bankson of San Francisco, is in Jackson, Amador county, Cal., looking after her interest in the Alma mine, and is a guest at the residence of Superintendent John B. Francis.

A. W. Farrington, the Tierra Blanca editor and silver miner, has made Hillisboro, N. M., a visit.

Col. John S. Crawford, of Kingston, N. M., was in San Francisco last week.

E. G. Arbuckle, the well known mining engineer, went to Red Rock, Kern county, Calif., last week, on important business.

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Manufacturers of
Steel Water Pipe, Well casing, Oil Tanks and General Sheet Iron Work.
Irrigation Supplies, Steel Water Pipe for Hydraulic Purposes

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Pumps for Mining and Water Works.
These pumps can be operated by horse power, water power, gasoline or electric motors.

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also manufacture Gyande Tanks and Centrifugal Sand Pumps for filling and discharging them.

The pumps work the ballast in perfection and are made to handle small or large quantities.

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Iron Pipe, Oil Cans, Lubrication, Making, Asbestos Covering, Steam and Water Gauges, Boiler and Pipe Fittings, Facings, Castings, Sheets, Steels, Rods and Iron Steam Fittings, etc.

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THE CHRYSOMETER.
A CHEMICAL ASSAY OUTFIT. Anyone can use it. Enough for assays with such dexteur. J. W. PETERSON, Sole Manufacturer, 9717 Harvard, Denver, Colo.

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MECHANICAL AND HYDRAULIC ENGINEERS

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F. M. Johnson & Co.
23 Stevenson Street, San Francisco, Calif.
SMITH & IRVING, FORMERLY, W. T. SMITH & CO.

Gold Refiners and Assayers.

To all inquiring parties: It has been found necessary to revise and correct the prices of our services. The present prices are the result of careful study and comparison with similar services in other parts of the country. We believe that these prices are fair and just, and that they will meet with the approval of our customers.

Our services include the following:

1. Gold Refining.
2. Silver Refining.
3. Copper Refining.
4. Lead Refining.
5. Platinum Refining.
6. Palladium Refining.
7. Platinum Refining.
8. Silver Assaying.
9. Copper Assaying.
10. Lead Assaying.
14. Copper Assaying.
15. Lead Assaying.
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94. Copper Assaying.
95. Lead Assaying.
96. Platinum Assaying.
97. Palladium Assaying.
98. Silver Assaying.
99. Copper Assaying.
100. Lead Assaying.

The above prices are subject to change without notice. We will be happy to give further information on request.

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Sept.
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## Incorporation Mines Paying Dividends

<table>
<thead>
<tr>
<th>Names of Mines</th>
<th>Location</th>
<th>No. of Shares</th>
<th>Capital Stock</th>
<th>Par Value</th>
<th>Amount of last dividend</th>
<th>Date of last dividend</th>
<th>Total amount paid in dividends</th>
<th>Kind of Mineral Produced</th>
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<tr>
<td>Oleta</td>
<td>Colorado</td>
<td>150,000</td>
<td>1,500,000</td>
<td>5</td>
<td>10</td>
<td>June 1925</td>
<td>$10,000</td>
<td>Q, S</td>
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<td>Minerva</td>
<td>Colorado</td>
<td>400,000</td>
<td>4,000,000</td>
<td>10</td>
<td>20</td>
<td>January 1927</td>
<td>$30,000</td>
<td>G, C, S</td>
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<td>St. Joseph</td>
<td>California</td>
<td>100,000</td>
<td>1,000,000</td>
<td>10</td>
<td>15</td>
<td>January 1927</td>
<td>$10,000</td>
<td>G, S</td>
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<td>Silver King</td>
<td>Utah</td>
<td>300,000</td>
<td>3,000,000</td>
<td>10</td>
<td>15</td>
<td>December 1926</td>
<td>$15,000</td>
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<td>Smuggler Union</td>
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<td>100,000</td>
<td>1,000,000</td>
<td>10</td>
<td>15</td>
<td>March 1927</td>
<td>$15,000</td>
<td>G, S</td>
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<td>T. R. S.</td>
<td>Colorado</td>
<td>500,000</td>
<td>5,000,000</td>
<td>10</td>
<td>20</td>
<td>October 1926</td>
<td>$25,000</td>
<td>G, C, S</td>
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<td>Trinity River</td>
<td>Utah</td>
<td>100,000</td>
<td>1,000,000</td>
<td>10</td>
<td>15</td>
<td>January 1927</td>
<td>$15,000</td>
<td>G, S</td>
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<td>United Verde</td>
<td>Colorado</td>
<td>100,000</td>
<td>1,000,000</td>
<td>10</td>
<td>15</td>
<td>March 1927</td>
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<td>G, C, S</td>
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<td>Utah Consolidated</td>
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<td>100,000</td>
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<td>10</td>
<td>15</td>
<td>October 1926</td>
<td>$15,000</td>
<td>G, S</td>
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<td>Victor</td>
<td>Michigan</td>
<td>100,000</td>
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<td>10</td>
<td>15</td>
<td>December 1926</td>
<td>$15,000</td>
<td>G, C, S</td>
</tr>
</tbody>
</table>

Note: S, Silver; Q, Gold; C, Copper; Q, Quicksilver; L, Lead; I, Iron; B, Bornite.
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MANUFACTURERS
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