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from that state. Sentiment among Republicans in favor of free silver coinage is extensive and strong. The only question is how many will consider this or the tariff the more important.

IT IS ASTONISHING how prevalent the idea is that some people are possessed by gold that it has a definite and unchangeable value. Nothing is more false and absurd. The commodity-value of gold does not fluctuate because at the mints in all the leading nations of Europe and in the United States 25-8 grains can be coined into one hundred cents at the will of the owner. Here this is not the case, the price of gold in the market would fluctuate like that of any other commodity. The fact that it can be changed from commodity into money at the will of the possessor, gives gold its divine character. Besides this any one can take uncoined gold to the Bank of England and get its coinage value, for a law of Great Britain compels the bank to buy it at that price. That law was enacted for two objects, one was to preserve the commodity value of the price of gold and the other to secure to Great Britain continue of the gold resources of the world.

THE CHICAGO CONVENTION.

Whatever may be thought as to the platform which that convention adopted, one thing is certain, and it is, that the great pondering element was in earnest and possessed and manifested a currency unusual to political parties and especially such as have been in existence, and have become accustomed to maneuvering to gain or retain power. All new parties are characterized by boldness.

Since the war of the rebellion, the east, and especially New York, has dominated in the Democratic party. Circumstances favored this. New York was the last to decide the late Chicago convention in force, supported almost solidly by all the states east of Ohio and north of the Potomac. The delegates from nearly all that rich and prosperous section were for the single golden standard, with a gold loan, especially when it is considered that it has been the votes of New York, New Jersey and Connecticut that have settled the election in favor of the Democrats for both terms of Mr. Cleveland. The money to defray the expenses of presidential campaigns has been supplied from the east, and by the friends of the single gold standard.

The spirit of the producing classes of the south and west had become aroused, and they resolved no longer to submit to the domination of Wall street and the gold trust.

The convention adopted the plain and simple proposition of free and unlimited coinage of silver on the old ratio of 16 to 1, or, in other words, it resolved in favor of the money of the Constitution, and of those who framed it and administered it for the first eighty years of our national existence. The truth is, both the great political parties of the country for twenty-five years have been dominated by the gold standard, and must henceforth be placed as potential as that of slavery over the action of the Democratic and Whig parties. Whatever may think touching the principles advanced from the gold standard, this age displayed will condemn the convention to every manly American heart. The old leaders that had trimmed to every breeze which blew her way are gone, and new men came to the front. It constituted a complete revolution in the party and may be the beginning of a new and better era. It must be admitted that the will of the people rather than of the bosses was respected. That convention started the rolling of the ball of monetary reform, and the great question is, will it be victorious.

Is the platform Populist? It is so charged as a matter of disrespect. Populists may have their own ideas, but that it embraces some good things, no one who is intelligent and candid has denied. As has been said, the platform pronounces for free silver coinage, the Populists believe in that, and so do a goodly number of the Republicans. It pronounces against national banks of issue, and the Populists hold the same view, and so did Thomas Jefferson, that is to say, the principles which Jefferson held on the money question are clearly hostile to our national banking system. There are a vast number of men in all parties who cannot see why a note on which Uncle Sam is principal is not as good as one which he indorses.

No doubt the Chicago convention presented a defined issue on the financial as well as on the Republican convention at St. Louis. On this question the battle will be fought out. Shall the policy be the single gold measure, or the bimetallic measure, gold and silver coined without limit, on terms of equality as fixed by law? Any man who will array himself, except as to such as may think some other issue paramount. While the convention was explicit in defining its financial policy, the nominations were consistent with that policy. Especially is this true as to Mr. Bryan, for he has been a sincere, earnest, active and able advocate of the doctrine proclaimed by the convention for many years.

THE DEVELOPMENT OF THE SOUTHWEST.

The object to be attained is the settlement of the rich mining and irrigating districts of the southwestern states. The means necessary to accomplish this end have already in part been referred to in these columns, under several municipal measures which are necessary to establish and to maintain proper order in the project of reclaiming the desert. The pioneer in this work is the prospector, and as a guide to him and his followers the miners and traders I propose to place signs on cross roads, and to indicate where water is to be found on the trail.

The development of water, by increasing the storage capacity of it in natural tanks, by building small dams at their outlet, and by sinking wells in dry washes, to reach underground channels, and in placing short pipe lines from water in hilly, inaccessible places, so as to bring it to a road or trail, are among the means and ways in which our prospectors and miners will require to bring this matter before the supervisors of their respective districts. The supervisors of the districts are well informed as to the necessity of improving the facilities for obtaining drinking water on the desert roads, as it is as needful as bridges over streams in the mountains. We have had and shall have mining work in the arid districts of Australia. The residents of the counties of the southwest are again reminded of this necessary work in aid of the colonist in the United States, and the county roads on the desert fit to travel on, by furnishing free water to prospectors and travelers, as the railway companies do along their lines through the desert, and capital will come in and buy your prospects and work their mines. Many of the older mining districts have
reached the stage of progress where the primitive mule freight wagon train is too slow and too expensive to meet the demands of increasing trade. The narrow-gauge two-foot track tramways for more than 30 years, under electric power in the United States, demonstrated that, for mining districts with rough country and steep grades, it is the most advantageous and economical system of railway. The electric power plant can be located at any point where fuel and water are available. Freight and passengers can both be carried at lower cost than by horses, and with far greater speed. Hence this is the most suitable means of freighting supplies and machinery in and out of mines.

On account of the comparatively steep grades and sharp curves which can be used on a two-foot track, the first cost for grading is about equal to an ordinary wagon road, and the cost of plant less than any other system, as mine cars with suitable brakes can be used. As a feeder to the broad or standard gauge railway, this system is the best means of furnishing freight and opening up a new mineral district. The mining camps on both sides of the200-mile line of trackage to the Colorado River, can best be developed by such tramways. There is no experiment about the system, as it has been in use for several hundred years, and a road of any cost can be transported, in addition to carrying passengers on the trains.

In Australia, the railways are owned and operated by the government, and the roads paid from revenues generated by the taxes on mining, and to profit half the expenses of the government of the colonies.

The mining and irrigation industries of the Western States is as well developed as by issuing stocks and irrigation state bonds, for constructing two-foot gauge roads to mining districts, and irrigation dams for the storage of water, with ditches and pipe lines to the land, and to take advantage of the preliminary and excellent work undertaken by the Federal Geological Survey, in aid of irrigation in the arid districts of the Western States.

As there is profitable investment in these enterprises for private corporations, there is more benefit and profit in having these worthy enterprises undertaken and conducted by engineers and business men in the Legislatures, especially at a time when our silver mines are closed down, and there is a need of public works for the employment of labor, and, to increase the agricultural land area and aid mining development.

The St. Louis Conventions

In these the republican, which assembled June 16, is not included. We have had the references to and comments as convention sessions on the 2nd of July. The silverite was not a party convention, but one that represented elements from all parties that were in substantial accord on the money question. It was an attempt to bridge the gap between the patriotic body and perform its work without rancor and with decorum. The populous was strictly a party convention, but it cannot be said that it was comprised of that candor, sincerity, and unselfishness which ought to be expected from a body of men who claim to have the best interests of the people at heart. The name of a political party is called the"party. This does not apply to the whole body of the convention for in were large numbers who were conservative, and manifested a disposition to subordinate party and personal interests to the public good.

The foleis committed in the populist convention is a death knoll to the party. The displays indicate copiousness, insincerity or both. A great fear that the party would disappear. What of party anyway in the presence of a great principle. All the populists are committed to the overthrow of the present order, and they speak of it with pride and as an evidence of their independence and patriotism. The clanish, ranting, and factiousism manifested were promoted by little men who did not want the movement united with other elements in promoting the common welfare. The sooner the party gets rid of Cyclone Davis, Ignatius Donnelly, John S. Coxey and some others who figured in the St. Louis populist convention the better it will be for the cause of humanity. No party can ever achieve victory under such leadership, nor maintain an organization very long. It has been long since the House of representatives of democrats, and all the populists are agreed that an unwise, deficient, and unjust money system is the chief cause of existing evils, and the proposition has been and is to unite hundreds of thousands of people in behalf of financial measures that will bring relief. Free coinage of both gold and silver on a ratio of 16 to 1, and making the coins a legal tender for private and public, and redemption money for all paper circulation professedly meets the approval of all these elements. It would seem therefore that fusion ought not to have encountered opposition.

The democrats at Chicago adopted a platform and nominated candidates. They went to the very extent of these lines of agreement, indeed they went farther, and declared against banks of issue and in favor of the circulating medium of the government. They sought, however, for the public measures of the United States, and these measures are now in the hands of the minority of the people.

The platform contains a complete financial system which comprises gold and silver coins with unlimited coinage, paper money with unlimited coinage, and a government supply of the wants of the country, redeemable in gold or silver coins. The Chicago convention showed its courage as well as its sincerity by unloading the Cleveland administration and cutting loose from all responsibility for its financial policy. The convention in every feature of its work was anti-trust and anti-monopoly. The silver convention at St. Louis acted, with common sense and prosperity, but it was otherwise with the populists, they were querulous and refractory. It was expected that the advances made by the silverites would be promptly accepted and that their extended hand of fellowship on the line of common convictions would be grasped with delight. The democrats constitute the largest of the political elements in the United States, and of a government system it is proper that they should lead off and occupy the right of the line in the pending contest. The monetary issue is presented after the years and is not out of the question in the Chicago convention. The question needs to be posted in the same way as was done at the San Francisco convention.

Who Demonstrated Silver

Frederick A. Luckenbach being first daily sworn on oath, deposes and says: I am 62 years of age; was born in Buck's county, Penn.; removed to the city of Philadelphia in the year 1856, and continued to reside in said city until 1866, when I moved to the city of New York. In Philadelphia I was in the furniture business. In New York I branched into machinery and inventions, and am the manufacturer of the power pul- ter, which machines are now in use generally in the eastern part of the United States and Europe. I now reside in Denver, hav- ing removed from New York two years ago. I have not been a member of the produce exchange and am well acquainted with many members of that body. I am well known by Mr. Erastus Wyman.

In the year 1865 I visited London, Eng., for the purpose of placing there Pennsylvania oil properties, in which I am interested. I took with me letters of introduction to many prominent oil men. Mr. Erastus Wyman, Mr. Seyd, from Robert F. Foxt, an ex-treasurer of Philadelphia. I became well acquainted with Mr. Seyd, and with his brother Richard. I have known Mr. Seyd, and upon each occasion became his guest one or more times, joining his family at dinners or other meetings.

In February, 1874, while on one of these visits, and while his guest for dinner, I, among other things, alluded to other things afoot, of parliamentary corruptions, and expressed the belief that such corruption should exist. In reply to this he told me he could relate facts about the corruption of the American Congress that would place it far ahead of the English parliament in that line. So far, the conversation was at the dinner table between us. His brother Richard, and others, were there also, but this was table talk between Mr. Erastus Seyd and myself.

After the dinner ended he invited me into an- other room, where he resumed the conversa- tion about legislative corruption, he said: "If you will pledge me your honor as a gentleman, I will tell you what I know about the corruption of the American Congress is true. I gave him the promise and he then continued: "I went to America in the winter of 1873-74, authorized to secure, if I could, the passage of a bill demonetizing silver; it was to the interest of those I represented—the govern- nors of the Bank of England—to have it done. I took with me £100,000 sterling, with instructions that if that was not sufficient to accomplish the object to draw for another such amount, as was "necessary." He told me German bankers were also interested in having it accomplished. He said he was the financial officer of the bank. He said: "I saw the committee. I presented a sense, and paid the money and stayed in America until I knew the measure was safe." I asked if he would give the names of the members to whom he paid that money. He refused to do so. He said: "Your people will not now come prehend the far-reaching extent of that measure, but they will in years. I have a conviction in my heart that the English parliament. I assure you I would not have dared to make such an attempt here as I did in your country. I expressed my shame to him for my country-
men in our legislative bodies. The conversation drifted into other subjects, and after that, though I met him many times, the matter was never again referred to.

[Signed] FREDERICK A. LUCKNACH.

Subscribed and sworn to before me at Denver, the ninth day of May, A. D. 1892.

[Signed] JAMES A. MILLER.

Clerk Supreme Court, State of Colorado.

[SEAL]

That this affidavit is authentic can be verified by hundreds of men both in Colorado, New York and Philadelphia, who stand ready to vouch for the truthfulness of Mr. Lucknach, while the whole transaction is familiar to hundreds of people conversant with legislation during the exciting times from ’70 to ’73.

The advocates of the single gold standard will not acknowledge that they are advocating a British or European policy in demanding a continuation of the twenty years or more of British monometallic rule at Washington. It must have cost the British and European bankers a large amount of money since 1872-3 to keep Congress and the Senate and the large army of American single gold standard papers throughout the United States working at this process, with no reward other than the increased prestige and influence of the American money from the American man.

The profits in the business are large, they could well afford to pay a few odd millions. The $50,000,000 of American silver produced last year when purchased at half price by England and when coined into rupees in India would buy $50,000,000 of wheat and cotton, half the value of all the silver coinage of the world. $30,000,000 a year is a good profit for investing a few odd millions in purchasing legislation and the unutterable utterances of the single gold standard advocates. England monetized silver in the United States, and then demonetized gold in India, and at the same time adopted a single silver standard for India, hence the profits in the double transaction. What the United States requires is the unlimited coinage of both gold and silver (at the ratio of 16 to 1), as stipulated in the constitution of the United States, and the Supreme Court (which seems to be the legislative authority in the land) not be induced to find on American principles that the single gold standard is British rule and unconstitutional.

CORRESPONDENCE

COLORADO.

BOULDER, COLO., July 25, ’96.

Editor Journal—I have received several copies of your valuable Mining Journal, but have failed to see any mining news from Boulder county properties which are second to none in the state. I believe the country is quite good in Colorado. There are many persons who were formerly residents of this city that are now in the beautiful and salubrious city of Los Angeles, enjoying its charming environments, who may be interested in the mineral properties of their old home at the base of the Rocky Mountains, hence this intrusion on your valuable space.

The Dew Drop mine, situated in California gulch, Ward Mining District, is developed by a tunnel on the trend of the vein 600 feet long. Throughout the entire developments, the prominent feature of mineral. At this writing, the ore body is 15 feet between walls; the smelting ore yields 4 ½ ounces gold for four feet thick, while the remaining eleven feet is composed of an excellent quality of milling stuff, which is being utilized by the company’s 30-ton concentrator mill. This company has discovered a vein paralleling the main lode, which is four feet thick. Half of the entire mineralized matter is smelting ore that averages $60 per ton. Crosscuts have been made at stated intervals, from 20 to 30 feet in the north wall, through which the parallel vein is being operated. The mineral output from this property is immense.

The Ute mine at Ward has an annual production of about $250,000, which has been carried on for the past four or five years, giving the company a dividend of from $15,000 to $20,000 per month.

The ore is treated by the company’s stamp mill and smelters in the valley.

The White Pine is a prospect on which a company has been recently organized. The deepest shaft on the property is not over 60 feet, yet the mine has paid all expenses of development, and for placing a first-class plant of machinery over the mine for hoisting purposes.

Forty tons of top quartz have been shipped to the Electro-chemical Works of this city for treatment. No effort has been made to select the top stuff for the process, but the Marshall has paid a good deal more for the quartz which has been taken from along the surface of the lode.

The Slide is a telluride mine, producing wonderful rich sylvanite, that sells at $10 per pound. The vein in bottom of 750-foot shaft is 12 inches thick of this marvelous ore, while the lower grades are shipped to the smelters and treated in the stamp mill.

From the Golden Age mine, lessees are taking out ore that runs over $30 per pound, and the concentrates will sell at $3 per pound. The last returns from twenty pounds of ore yielded thirty dollars a pound. This amount was paid the workmen after expenses of sampling and treating it were deducted.

In the Grand Central—Big Blossom mine, J. V. Sybrandt opened the section in the vein which produced ore that ran over $70 per pound. The telluride mines of Boulder county yield magnificent mineral, and when an ore chute is encountered, a big stake is made in a day.

Another 40 acres in the telluride mines of first class ore run about $500 per ton, while from this grade is selected such mineral as above described.

W. M. RYDEN.

A New York paper gives the following figures relating to electrical development. The capital invested in electric lighting is put at $3,500,000; invested in private plants, $200,000; capital invested in electric mining machinery, $100,000; invested in 50,000,000 stationary motors, $60,000,000. Concerns that use from 50 to 100 motors each are very numerous. It is estimated that more than 60 per cent of all the street and suburban roads are operated by electricity; number of miles, 100,000; total miles, 12,000; combined capital of electric railways, $700,000,000; total investment in electrical industries is placed at $1,410,000,000, covering a period of 100 years. The number of men estimated to be employed in electrical industries, 2,500,000.

The value of gold and silver extracted from the Butteplias mineral district, State of Chi- luminan, Montana, during the years 1892-95, is as follows: Gold, $6,955,592.76; silver, $3,545,049.73; total, $4,500,632.49.

M. D. LATTIN and GEORGE DEFANCE, members of the Denver Syndicate, arrived in King- man July 12th, from the Chemehuevis placer fields. They had sold for $100,000, which they had 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. Mr. Defance says that a great deal of the gravel in their gulch will run one dollar and fifty cents to the pan that from six hoppers they realized $75-76 per day. It is reported that there are seventy-five prospectors working the placer. The draw back to mining in the district is the lack of water but this difficulty will be overcome in the near future. With these men being shipped in, we have fair prospects of getting good water. Where water has been obtained it is so strongly impregnated with magnesium that it cannot be used. About two months from the present time there is not a shilling in the bank. Gold is found over the entire length of the range and in the detached foothills.

MISCELLANEOUS MINING NEWS.

AZ. GEORGE WADDELL is in Prescott from his R. A. M. gold quartz claim on Little Copper, where a doubt is being removed by striking the ledge. Two tons of ore shipped from this claim and twenty tons milled gave satisfactory results. There is now twenty-five tons of milling ore on the dump. This location which showed only a stringer vein a few months ago, bids fair to be a fine mine. The ore is similar to that of the Crowned King.

The machinery and material for the cable tramway to be erected by the United Globe mines, at Globe has arrived at Fort Thomas.

A new mill is to be erected at once on the Dolly mine, one mile below El Dorado Canyon. Some of the machinery goes up the river boat while the balance is freighted from Kingman.

A. L. McKesson has received his first check of $5000 for his interest in the Temple Bar gravel mines near Kingman. A French Syndicate are the purchasers it is now assured that they will be in operation before the snows come. Mr. McKesson thinks more gold will be extracted from the gravel bars of the Colorado than anywhere in the west. His White Hills silver mine is pending out big. The shaft is down 70 feet all in ore. He will ship a car in a few days.

It is reliable announced that the Mammoth mine in Pinal Co. will shortly start work again. The company has been reorganized in London and expects to begin operations soon.

Mr. Otto Moses, superintendent of the Rip- sey mine, in Pinal county, arrived in Tucson July 18th. Under Mr. Moses’ management, development work is going steadily on. The working shaft is now 510 feet deep, and there are over 400 tons of ore on the dump. The company which owns the Ripsey will exploit the mine thoroughly before putting machinery to work. Doubtless they will have a paying property, and the course they are pursuing is the most sensible one.

R. T. Tustin, of the Last Chance mine near Prescott, and S. J. Fleming, an eastern gentleman, purchased the An- nie mines, Big Bug district, Yavapai County, owned by Henry Johnson and Messers. Arnold, Baker and Lewis. The mines were sold for $16,000 cash.

M. D. LATTIN AND GEORGE DEFANCE, members of the Denver Syndicate, arrived in King-
Another shipment of silver ore from the Eclipse mine near Phoenix was to be made next Monday July 20th and the big freight teams had orders to return immediately as still another carload of rich ore worth about $4,000 a car had already been shipped. The mine is the only silver mine in Arizona that works extensively, but Col. Wm. Herring is taking out good ore on the adjoining claim. Champion is already made to be the Silver King. With a fair price for silver it would again become a heavy producer of the white metal.

The Marie Mining Company has bonded one of Frank Langer's gold mines in the vicinity of El Dorado Canyon. The trade was made in Kingman July 15th and the first money paid over. The amount that will be paid for the property is said to be up in the thousands.

Geo. H. Sanford, the superintendent, who negotiated the purchase, was in Kingman last week supervising the shipping of a Kinkead mill to the mines across the river. The plant will handle between twenty and thirty tons of ore per day.

A flood last week took out a section of flume of the Senator mill.

A Burleigh drill and air compressor were taken into the Gladiator mine, on July 18th, for use in that property.

Placer miners are busy now along all the streams and gulches of the county washing out gold wherever they can find it and the effect that they are meeting with good success.

Alex. Thompson has just moved the old boiler of the Bullo Bueno mill, which was brought to the Groom creek country twenty years ago, to be placed on a mine there recently purchased by Dr. Butler.

R. M. Dougherty came in July 19th from the Crowned King mine, on a business trip to Prescott, being his first visit here for a year. Mr. Dougherty is one of the old time miners and prospectors of this section, one of the of this section one of the small army of brave and determined men who built the first trails over our mountains while standing off hostile Indians and blazed the way for civilization. He prospected in the Bradshaw mountains before a while there were placed claims there over thirty years ago, and still owns some promising properties, which he is developing.

The old Peck mine which has in times past yielded over a million dollars and which has furnished many surprises to its owners, has just added another surprise in the shape of a rich body of ore. The mine is a whisical affair. Where rich ore has been expected it has failed to appear and oftentimes where it was least expected to be found has been the place where it has been discovered. The latest strike has been one of the last named. About fifty feet from the vein, which has been worked for the past twenty-five or thirty years, and right on the surface where it has been trodden over all these years by miners, foremen, superintendents, mine owners, lessees of the mine, and expert geologists, a five inch vein has been discovered the ore from which goes over $1.20 per ton. The discovery was made only a few days ago and it has naturally aroused interest in this old camp. The vein has all the appearance of permanency as far as they have developed it and a cross cut will probably be run from one of the lower levels for the purpose of cutting the vein at a greater depth. Pat Donlan, one of the old standbys of the Peck camp also struck a very rich pocket of silver ore recently in one of his mines in that district. While it was not very extensive the ore was quite rich and he has hopes of striking it again. This old camp gives promise yet of coming to the front.

Charles Lynch, John Swieckipher and J. H. Sampson have been working on the Night Hawk mine to work on leases that greatly property.

Tom Burch is in from his rich silver mines, near the Hibernia. He says that rain fell in torrents all over Wallace mountains Wednesday night July 15th.

It is reported that Thomas McMahon has ten thousand dollars worth of ore in sight in his Night Hawk lease and that other lessees are opening up big ore bodies.

T. L. Ayres is rapidly becoming one of the richest men in Mohave county from the sales of Bureka ore. The mine is now one of our heaviest producers and we rejoice with Mr. Ayres many friends over his exceeding good luck.

Mr. Fox came in from the Liverpool Landing country July 13th, after mining tools and supplies. He and Clarence Harris have been prospecting in the vicinity of the Prescott-Yavapie mountains and have made some wonderful discoveries of gold and copper. Not having any drills or powder they were unable to do any work on the claims, but from specimens of gold rock exhibited here they are on the high road to wealth. The rock was a mass of gold. The copper rock will average about thirty per cent and carries gold and silver. The lodes are big and well defined. Mr. Fox says that the country is almost inexhaustible and water has to be packed from the river fifteen miles away. No one who is unused to the desert country should go there until the rainy season sets in. The whole country abounds in gold, silver and copper and we expect to hear of many wonderful discoveries in the near future. Many years ago the country of the Liverpool Landing produced thousands of dollars in placer gold, but no effort was made to find the source from which it came — Mohave County Miner.

The Sundance mining company which is operating the Silver Trail and Thorne mines on the Hassayampa in Maricopa county shipped a car load of ore recently which went $66.83 per ton. The company is preparing for the erection of a mill on this property.

Five large bars of silver copper bullion, valued at about $2,500 was brought into Prescott July 21st from the Tiger mill and was shipped the next day to San Francisco. The ore from which it was obtained was taken from the Rapid Transit mine in the vicinity of Prescott. The ore is now placed on the list of regular bullion producers if it is worked.

McDonald & Boyle have obtained ore from the bottom of the shaft of their Bald Butte which goes $500 per ton in gold. They have about fifty tons of good milling ore on the drum and expect to have about 100 tons in a few weeks. The mine has little developed as yet, shows up well and gives promise of developing into a big mine. It is located only a few miles from Prescott.

A deed from J. B. Tomlinson to the Brown-Dake Gold Mining Company has been filed for record, which conveys the Rochester claim and the Hassayampa for $4,000.

CLIFTON.

The Home of the Arizona Copper Company.

There is probably no town in the territory of Arizona more peculiarly situated as is the town of Clifton, which is a deep canyon, whose perpendicular walls rise to a height of several hundred feet lies the seat of one of the largest copper camps in the world. This company has invested upwards of $5,000,000 in mines, railroads, reduction works and appliances for making the ores return a revenue. They employ more than 300 men and distribute $50,000 per month among its employees, as shown by the pay rolls.

Five hundred tons of pure copper bullion is realized from four thousand tons of ore per month. It is concentrated to four cent per pound and is then subjected to a leaching process which leaves but 1 or per cent. copper in the tailings.

A narrow gauge (26 inch) railroad is used to transport the ores from the mine to the works. The best of the claims are probably the Metcalf and has been worked steadily for about twelve years, with still plenty of ore in sight. Ore is also worked from the Longfellow and has always been a noted producer. There has been a number of claims recently opened up that have proven surprisingly rich.

Superintendent Colquhoun is one of the best mining men in the southwest. He is at present in Scotland on a visit to his old home.

The company also has a large store where supplies of every sort are kept on hand.

Clifton will continue to occupy the position of the center of one of the great mining districts of Arizona and will be a source of handsome profit to its owners as well as to its employees.

A rich strike of silver ore is reported in the Monte Christo mine on Groom creek about six miles from Prescott. The ore is from a depth of 165 feet, and is held together by wire from a silver of immense wealth, and in addition to that, carries gold and silver. The Monte Christo is owned by Messrs. Nolan and Hutchinson.

CALIFORNIA.

INYO COUNTY. One of the Coming Mines.

Over east of the White Mountains is a section which will as development goes on show that it is one of Nature's treasure houses. In that rich mineral region a mine which will be heard from is the Red Jacket owned by R. J. Whitaker and Antonie Cunha.

The Red Jacket is located about 8 miles south of the Tule Canyon placer. The workings of the ledgeshow up the full length of the claim, and on the surface will average 30 inches in width, with a pay streak from 6 to 15 inches wide giving $40 to 60 per ton from silver and a trace of gold. The ledge has a dip of 11 degrees, and runs northly. The owners started a tunnel about 50 feet below the cappings, and on the striking the ledge began to sink. At 12 feet depth the vein held its original width and gave about the same assays in the lower portion of the vein. Since the discovery 40 feet have been sunk in 15 months. After sinking 65 feet drifts were run 42 feet southerly and 37 feet northerly. The former shows a pay streak a foot wide assaying $90 per ton free gold and $25 per ton free silver. The latter shows about the same as where the shaft was started. At the bottom of the shaft the ledge is nearly 3 feet wide, with a 9 inch pay streak, and quartz seams in clay giving $50 assays.
tank and shaft were partly burned. It was at first thought the machinery was a total loss, but all of it came out O. K. Now the origin of the fire was a spark dropped into the water pipe. Work was begun at once, and three days more everything was working fine, and the pump has been going ever since, day and night. J. Rainie and Dick Dunn are engineers.—Aden Rooster.

Work on the Esperanza mine near Acton will begin at once, some very fine rock having been taken out there.

Henry T. Gage, Esq., was in Acton about the first of July, looking after his mining interests. There is no let up on the Rover; but work continues day and night, some of the finest rock having been struck on the sixth level lately. The mine will soon be lighted with electricity, and will be the first mine of Southern California lighted by electricity.

Development work on the New York mine at Acton is being steadily pushed. This mine has a well defined vein, and work is now going on to be one of the best mines in this section of the State.

MONO COUNTY.

The Mono has changed hands. The entire board of old directors has resigned and a new board has been elected, N. Westheimer has been elected President, S. L. Ackerman vice president, R. G. Brown superintendent and M. E. Willis secretary. The Eastern and San Francisco people represented by Mr. Westheimer now have control of the Standard Consolidated, Bodie Consolidated, Mono, Builer Consolidated, Summit and several other mines, in the Bodie district.

RIVERSIDE COUNTY.

There is some talk of erecting a stamp mill in Perris and many of the business men are becoming very interested in the scheme as it cannot do else than benefit the community to a large extent and prove a convenience to the many prospectors in that section. There are numberless claims in the vicinity of Perris and the owners carry their ore to one of the large mines to have it crushed. Perris is the convenient center and a mill there, will be well patronized.

A shift of nine men are now kept constantly at work in the Dominion mine just west of Elsinore. This mine was the original find and its good paying rock is what caused so many to stake claims in its immediate neighborhood. The ore is shipped to Denver for smelting.

The silver mine, which is situated south-west of Elsinore and which has been lying idle for some time past, owing to the low price of the white metal, was started up last week. The mine belongs to Eli Waters and others who are now at work getting out ore in large quantities.

The famous Burcham & Moore mine at Eagle Mountain, near Walters Station, is reported to have been sold to a New York capitalist for $200,000. There has been $10,000 cash paid upon the property, and the New York parties are upon the ground causing the necessary arrangements for taking immediate possession.

SAN BERNARDINO COUNTY.

Walter Wagner of San Bernardino received word that his partner in a prospecting trip, A. B. Montijo, had made a rich strike on the road in the vicinity of March. From what can be judged from the ore specimens sent in, there is reason to believe that the prospect is an exceedingly rich one.

The ore was in uniform appearance and was fairly filled with free gold. No assays have been made but it is reasonable to presume it will go at least $500 a ton. The word sent in is that the claim of 1,000 feet has an exposed and worm haired length of four miles, and the appearances indicate that the ore submitted is only an average specimen.

The shaft of the Iron King mine is down sixty feet all in ore. There is an eight foot vein and contains iron as well as gold. Loads of ore have been shipped away as it requires the best appliances to work the ore, and when the result of the shipment is received the value of the mine can be approximated.

The claim is located about twenty miles from the Virginia Dale and about fifty miles from the railroad station the nearest point being at Walters on the Southern Pacific. The mine is owned by San Bernardino parties, and the improvements being present, if prospected, will prove a rich find for the lucky ones. Water is scarce at present, but can be developed by wells.

Sale of the Rose Mine.

Although the Rose mine is in San Bernardino county it was an investment by Riverside capitalists that had its ups and downs in a man claimed their hopes and aspirations of wealth from one end to the other of the financial thermometer in a way that was at times decidedly unpleasant. When first opened an expert manager was put in charge, with the result that assessments were much more frequent than dividends, and some of the owners touched the bottom dollar of their piles in keeping the works going. It was claimed that the management was in purchasing every form of machinery that was offered him, until a fortune was invested in this useless material, and a halt was called. The manager was sent away Dr. K. Shugart took the place, with the prospect that the prospects brightened considerably as the work progressed under his careful and economical management.

This valuable mine, as it proved to be when properly worked, has been sold for $100,000 to parties who have ample means to continue and extend the work of development. The purchasers are R. L. Grant of Chicago and O. O. Howard jr., nephew of Gen. O. O. Howard. Both men are millionaires, and Mr. Grant is largely interested in Colorado, having recently sold one at Cripple Creek for $300,000.

Although the deal has been in contemplation for some time, it was only last week that the mine was turned over to the new owners. The former owners have a new body of ore that will run from $30 to $40 per ton, and the management are enthusiastic over the brilliant prospects before them.—Saturday Review.

SAN DIEGO COUNTY.

Archie Thompson was granted judgment in Judge York court at Los Angeles July 28th in the suit brought against the Gold King Mining Co. and the Banner Mining Co. The suit was for the recovery of money due for services.
The Fortuna Gold Mining and Milling Company of Salt Lake City, Utah, has been incorporated at Ensenada with a capital of $1,000,000, divided into 100,000 shares of $10 each, to be listed on the Consolidated Exchange of New York. Mr. W. W. Jacobs is president, and Mr. Charles K. French, general manager; B. L. Harding, vice-president; W. H. Dale, secretary and treasurer. The property which is being developed by the company is located at Aguja Dulce Canyon in the Zaragoza district, Lower California.

The Secretary of the City of Mexico, Mr. McCurdy, states that the property is being inspected by experts and that the mining property is expected to be leased to a company of capitalists from the United States. The property is located in the Zaragoza district, Lower California, and is known as the "Santa Juliana" and "Salinas Viejas." The company expects to produce gold and silver ore.

The Santa Juliana located on a hill about four miles to the south of the Salinas, produces lead ore in abundance. Great quantities of carbonates are found and assayed from 25 to 30 ounces silver to the ton of ore, and about 30 per cent lead. The Santo Domingo located on a hill about four miles to the south of the Salinas, produces lead ore in abundance. Great quantities of carbonates are found and assayed from 25 to 30 ounces silver to the ton of ore, and about 30 per cent lead.

A smelting company of this district is smelting 20 tons of ore per day. Another furnace has been fitted up, the capacity of which is 30 tons but which has not begun work yet. There is another smelter in this district of 40 tons capacity daily and the ore extracted is sent to the United States.

It will be remembered that a few days since, notice was given that Mr. Patterson in company with several Americans from St. Louis, Missouri, had passed through Villa Ahumada on their way to the Sabinal District for the purpose of purchasing it, and if found the state of affairs to their taste they were to put up an immense smelter and buy some of the best mines. The result of the visit has not yet been ascertained. The Sabinal District is, taken as a whole, progressing finely and the amount of exploitation that has been done lately is remarkable.—Two Republics.

NEW MEXICO.

Wicks Mine. 85
Richmond. 85
Happy Jack. 55
Snake Camp. 55
Catherine. 55
Key West. 30
Prospect. 70
Eighty-Five. 65

Total output since Jan. 1, 1896, 395

When the news behind received from the mining district of Salinas.

The "Gran Central" mine belongs to Mr. Leijia, and is a heavy producer of high grade ore.

About twelve years ago Pat Green found and located a mine in Black Mountain near El Paso. He took out of a rich pocket about $20,000, and then sold it to Texas parties for $1,000. Two years ago he came to New Mexico and found the mine abandoned. He located it again and has recently opened an eight foot vein of rich ore.

The lessees of the Lady Godiva mine near White Oaks encountered a porphyry dyke in the lead they are opening, and the vein was barren of the latter. They passed through it July 15, and when the section went in to the granite it was well filled with pay ore.

The Wicks mine has been closed down indefinitely, and the miners paid off and discharged. Supt. Williams will remain there in charge, to keep the water out and to look after the property generally.

HILLSBORO MINES AND MILLS.

W. F. Hall and S. J. Macy commenced work to-day on the Percha mine which they have under bond and lease. This is a lead prospect carrying some gold and silver ore and is located about seven miles from the town of Percha river, in a lime and shale formation. The ore is a carbonate and the croppings show an average value 45 ounces silver, 40 per cent lead and three dollars in gold. Such ore would command a premium at the smelters and is worth to the producer about $45 per ton at Lake Valley.

Supt. Hughes has been pretty busy this week at the Snake mine, going over the ground with parties proposing to lease. Approximately the whole surface ground and for much of the underground have been received and forwarded to headquarters. Quite a number of bids have also been offered for the shaft sinking contract of 150 feet. Altogether we may expect to see the Snake properties actively and extensively worked in the future.

In the placer district there has been a remarkable increase in the yield of gold during the last few weeks. Many of the Mexican miners are averaging two dollars a day and others are doing well.

Scott & Owens have certainly struck a good thing in the Sherman mine and they are working night and day to make the most of it.

At the Richmond mine several men are employed in drifting and opening up new ground and ore bodies.

Deep mining has ever been assumed to be the prime necessity in this camp, and we are now about to see something done in that direction. The Eighty-Five shaft is being sunk steadily and will reach the 400 foot point next week. At the same time the contract to sink the Snake shaft to the 500 foot point will be let. In both mines there is a manifest improvement in the value and extent of the ore as it descends, and we may look for development to continue beyond these depths.

Silver City Mines.

The new smelter of the Silver City Reduction Company is running steadily and turning out a copper matte product rich in gold and silver. The plant is a very complete one, consisting of a reverberatory furnace, and a Howell-White revolving furnace, either or both of which are used, as the requirements demand, for the roasting and dephosphorizing of
THE MINING AND METALLURGICAL JOURNAL

the rich pyriteous gold ores of Pinos Altos and other surrounding camps. The smelting furnace is built upon the latest and most improved pattern of copper smelting furnaces. The works have already produced several cars of matte although only in operation about ten days, already the good effects of the plant is felt in the market for the product, and the increased activity in the various mining camps. Mines that have lain dormant for years have been put in active operation within the past ten days. Now that the market is calling for the product, miners are seeking for opportunities to lease mines. The demand for mine supplies and miners outfits has increased, with good results to the general business. S. E. Brereton has proved his capability as a successful metallurgist and has demonstrated that he can handle any and all of the ores produced in the territory and save nearly all of the values contained therein. The new smelter gives every evidence of being a permanent financial success for the promoters, and a positive factor in the welfare of this community.

CENTRAL.

A small force of men are at work in the Texas-Crusher Mill, which has been idle for some time. The men are mainly employed in keeping the water out, the timbers in repair, etc.

The Chance mine is being worked as usual. At the depth of 150 feet, the vein has materially increased in size as well as in value, and considerable quantities of ore are being extracted. The mine is destined to soon rank among the payers.

Ed Moulton has taken a lease on the Gulch mine which in years past had an enviable record as a producer. The mine will be reentered and put in proper shape for active operations. A pump has been put in place, and herewith the workings will not be troubled with water.
The Lost mine continues working a small force of men with satisfactory results. The ore chute increases in richness as development work progresses and the sublevels are reaping a harvest. The property would have been sold ere this has been the case if the company had interfered and stopped proceedings. A party from San Francisco examined the property recently and made a favorable report, and it is quite probable that notwithstanding the back cappers efforts the sale may yet become an accomplished fact.

Pinos Altos.

Dr. Wood is sinking on his Golden Gate claim, one and a half miles northwest of town. The shaft is now down 40 feet and shows a body of copper and iron pyrites the full size of the shaft. The ore runs about 15 per cent copper and carries about $5.00 per ton in gold and silver.

A. Hirscherger is having a mill run made, at the South Martin mill, of rich ore from his Western mine. Twelve men are employed at the mine.

On the Mountain Key the old workings at the 300 foot level are being reentered and put in shape. The shaft is 240 feet deep and the extraction of ore at that level. As soon as the 300 foot level is in proper shape the mine will be drained below to the 400 foot level and that will soon be ready for the production of ore. And one after another down to 700 feet the old workings will be drained and repaired till the mine is entirely reentered and put upon a producing condition, a task which will require at least six months of its prosperity. While the work of reclaiming the old workings is being carried forward,

pipes located on each side of said nozzles and arranged to reciprocate, thus to produce continuous agitation of the material being amalgamated.

July 7.—No. 563,604.—Hydraulic Mining Machinery. T. B. Ludlam, Denver, Colo. A sluice is provided at its discharge end with an outlet projecting and leading to a higher sluice. A sluice. Material is fed into the lower sluice and a stream of water directed upon it to wash it throughly, and a second stream of water under pressure is directed from the bottom of the sluice up through the inclined pipe leading therefrom to carry the material from the lower sluice into the upper one.

July 14.—No. 563,805.—Amalgamator. W. H. Rockfield, Baker City, Oregon. The principal feature of this invention consists of a mercury box having a partition extending nearly to the bottom and a deflector plate on the bottom of the partition thus to cause the material to be amalgamated to pass under the deflector plate before being discharged from the amalgamator.

July 14.—No. 563,880.—Amalgamator and Concentrator. J. B. Rossman, St. Paul, Minn. An amalgamator having its bottom provided with fixed transverse divider strips, are arranged in a side of the sluicer between the transverse strips.

July 14.—No. 568,030.—Crusher Mill. J. Walker, Chicago, Ill. This is a Chinillian mill having its vertical shaft provided with a vertically sliding box in which the shaft of the crushing rolls is journalled, thus to allow the rolls to move up and down independent of the shaft.

Bald Mountain.

C. P. Crawford and James Woodhave work five men at work on the Big Casino mine. The principal value of the ore is in gold.

Camp Fleming.

This long idle camp is again showing signs of activity. Messrs. Sapp & Hannas have started work upon the famous Old Man mine, five miners are employed.

Paschal.

Marty, Reason & Co. are sinking on their New Albany copper claim. The last shipment of ore ran 30 per cent copper.

Thompson & Chapman are working the Colwell copper mine and taking out rich copper ore.

White Signal.

The boiler and engine are being put in place at the Elmore company's mill and it is more than probable that the plant will be producing gold bullion from the ores of Elmore mine before many days have past.

GENERAL NEWS

PATENTS.

Messrs. Hazard & Townsend, solicitors of patents, room 9 Downey Block, Los Angeles, California, report the following recent patents of interest to mining men:

July 7.—No. 563,702.—Machining for Crushling and Pulverizing Ores. J. C. Wiswell, Medford, Mass. This relates to a crushing pan having balls arranged thereupon, and copper shaped rolls having their axes vertically arranged and each covering two of the crushing balls and adapted to be revolved around the pan and rotated upon their own axes.

July 7.—No. 563,706.—Almagator. E. S. Bennett, Denver, Colorado. A tank having inclined sides and valley's formed in its bottom, each valley having a cylindrical row of upwardly projecting nozzles connected with air or water supply source, and apertured

The money in circulation in the United States amounts to between $1,500,000,000 and $1,750,000,000, divided approximately as follows: Nickel and copper coins, $3,000,000; silver dollars, $900,000; silver half dollars, $300,000; paper currency, $1,000,000,000.

The trolley system, introduced in the deep gold mines of the country, is now in extensive use in the Ely's mine for the handling of ore, and has turned out to be a success in all respects.
PERSONAL—NEWS ITEMS

Sam Hubbard, jr., the energetic mining man of Sourdough Mountain, was in Prescott, Arizona, last week on a business trip, and is expected repeatedly for the Branding mountains, where he has some mines.

John Gird came into Tombstone, Arizona, from the Dragoon mountains, the first part of last week.

Hon. W. A. Rowe left Prescott, Arizona, last week for his 30th Alt. meeting of Prescott, and will resume work immediately.

D. P. Carr, of Silver City, N. M., stopped over in Denver, July 26th, on his return to Silver City from St. Louis.

W. A. Long, the rustling and successful miner, is at Prescott, Arizona, in from his favorite mineral section.

S. M. Kelley, of the Lost Horse Mining and Milling Co., of Pinon mountains, Riverside county, Cal., came down to Kansas City, Mo., for a six weeks vacation.

Sidney E. Davis, of St. Louis, Mo., has just returned to Phoenix, Arizona, from a trip to the Cave creek country, where he has been looking over some mining property.

Robert Gardner, of Julian, Cal., was a visitor at the Herald office last week. Mr. Gardner is here on business and is very enthusiastic over the Julian district.

Theo. B. Comstock, of Prescott, Arizona, was in Kingman last week, looking over the Elkhorn mine near that city.

Mr. Wallace, a prominent attorney of San Francisco, Cal., and owner of some valuable mines across the river from Kingman, Arizona, is in that city.

Owen Starr, foreman of the Howard mine, near Prescott, Arizona, is in St. Louis.

James Wilson, owner of the Oro Plata, and other valuable properties in and around Kingman, Arizona, arrived in Kingman, the 18th ult., from St. Louis.

A. Jones, a California engineer, is in Tuscon, Ariz., from the Himmag district, where he is engaged in erecting a ten-stamp mill, to be run by a gasoline engine.

William Springer, who at one time was superintendent of the Cupel mine, near Kingman, was in Kingman the first part of last week. Mr. Springer is putting in a concentrating plant for the Cedar Valley Mining Company.

Frank Nicholson, the mining engineer and expert, of Prescott, was in Phoenix, Arizona, July 24th. He has been examining some mining property in the Cave Creek country, just north of Phoenix.

S. A. Douglas, of Ralby, San Bernardino county, Cal., with his partner, W. P. Nolan, were callers at the Herald office July 30th.

Richard Crowe, superintendent of the Yavapai mine at Yavapai, Yavapai county, Arizona, is in Prescott.

James Ellis, the prominent mining man of Los Angeles, was at Bisbee, Ariz., on a hasty business trip, July 15th.

Congressman Chas. N. Fowler, of New Jersey, arrived in Prescott, Arizona, July 21st, and left the same day for Big Bug cayuns mines.

M. M. Gorman, of the Dragoon mountains, was in Tombstone, Arizona, the first of last week. He has some copper properties in the above mountains.

W. E. Pomeroy, of Metcalf city, Arizona, was in Phoenix this week.

Mr. Pomeroy is a stockholder in the Goldfield Mining and Milling Company, of Goldfield, Arizona.

J. H. Leonard, recently of Death Valley, Inyo Co., Cal., was a caller at the Herald office, 17th ult. He will leave for Hedges, San Diego Co., Cal., some time this week.

G. W. Waterhouse, of San Francisco, was in El Dorado County, near Coloma, in charge of the affairs of the Western Mining Company, during the illness of Mr. Mills.

Col. Wm. Herring, of Tombstone, Arizona, was in Prescott on business, and left immediately for the Branding mountains, where he has some mines.

George Raum, one of the solid men of Wilcox, is visiting Phoenix, Arizona, and is interested in mining property near that city.

Joseph Uphaier, who is well known to old miners of Mohave county, Arizona, is in the employ of an English company in Mexico.

Benj. S. Barrett, who is engaged in mining on Squaw creek property, near Prescott, Arizona, is in the above named city for the present.

T. J. Webster, our correspondent of the Virginia Dale mining district, was one of the many callers at the Herald office July 29th.

J. E. Saint left Albuquerque, the morning of the 25th ult., for his home in the Saunter district, where he is interested in some rich claims.

W. W. Halesworth, of Santa Ana, Cal., was in Los Angeles last week. Mr. Halesworth is one of the owners of the famous Halesworth group of mines in the Virginia Dale mining district.

W. C. Wyncue, manager of the Cochiti Mining and Milling Company's properties, arrived in Bland, N. M., from Denver, Colo., the 21st of July.

The Court House has been moved to White Oaks, N. M., from Cripple Creek, Colo.

Capt. Kernenah came into Bland, July 21st, from the North Fork Canyon, where he is carrying on mining operations.

Moses, Charles and Albert Richards returned to Encinoso from the jumping mining district, in Lower California. Both gentlemen are familiar with mines, their father being the head of the Pueblo Smelting Mills.

M. T. Burgess, the mining man of Guadalupe, is in the City of Mexico.

Joe Peterson, superintendent of the Vizcaya, at Alamogordo, near Encinoso, Lower California, was in San Diego, Cal., July 18th. He reports the stamps of the Vizcaya still standing steady, but the Encinoso mining district, where he has been making some mining surveys.

Aurelio Bueno, the mining broker of the City of Mexico, left that city for Guanajuato, State of the same name, on mining business.

M. Louis Pegot is in Encinoso, Lower California, this week, from the Jucaltias district, where he is engaged on some mining property.

F. K. McNamara, amalgamator at the Piedra mine, in Lower California, has been in San Diego, Cal., for the 25th of July, for the benefit of his health and for a short rest.

W. Guggenheim, general manager of the Aquila Collesaz Battery, has gone to Zacatecas, Mexico, on a business trip.

OBITUARY

An engineer, named A. Rakst, in charge of the engine on the hoist at the Mammoth Mine at Goldfield, Arizona, fell into the 170-foot shaft, July 21st, about 4 o'clock in the morning. He was running the night shift, and it is supposed that while damping the car, he left the trap door open over the mouth of the shaft open and somehow lost his footing. The unfortunate man fell head foremost to the bottom. His neck and both shoulders were broken.

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CANNON CITY, COLORADO.
NEW MEXICO AND ARIZONA SMELTER
Hanover, Grant Co., N. M.

Will buy all kinds of ores: specialty made of copper ores and those containing zinc. Low grade refractory ores desired. Write for prices to either.

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New Mexico and Arizona Smelter.
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Guaranteed to wear longer and prove cheaper than any others, made by use of special appliances. Patented Aug. 18th, 1879.

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Coal Washing Plants Furnace Castings, Mining Machinery, Experimental Plant for Testing Ores by Concentration.

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For Sale!
Steam Shovel, Capacity 600 to 800 cubic yards per day, complete and in thorough working order, will dig 35 feet wide by 9 feet deep. 1 Centrifugal Sand or Tailings Pump, capacity 60 cubic yds. per hour, new. 1 Centrifugal Water Pump, capacity 1800 gallons per minute, new with Primer. 1 Flat Car and Rotary Screen with automatic ore feeder. For price and particulars address:

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Write for estimates on complete Milling, Mining and Reduction Plants.

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Special Facilities for Handling ores from the South-West and Mexico
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Most Perfect Gas Engine Made
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COMPLETEST IN CONSTRUCTION, positive movements of all its working parts, New principle of governing which makes it the most
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Two 50 Horse Power Boilers.
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One 16"x42" Hamilton Corliss Engine.
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Hoisting Apparatus, Patent Grip Pulleys, Transmission of Power by Wire Ropes; 25 years experience; Send for Tramway Pamphlet.

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CONCENTRATORS

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2. Cheaper than the Wooden Frame Mill when ready to run.
3. Saves much labor in construction and it can be set up in as short a time as a self-contained engine.
4. Saves much space.

We call the attention of Prospects to our Self Contained Two Stamp Mill.

We have inaugurated a system of amalgamation and Concentration which renders both much more satisfactory and cheapens the cost of concentration by a great saving in the repairs to the complicated machinery now used. To parties intending erecting mining plants would do well to investigate our mills. We build any mill desired and will deliver F. O. B. Stockton or any point on the Pacific freight line.

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VICTOR AMALGAMATOR CO.

MANUFACTURERS OF
VICTOR AMALGAMATORS FOR MILL OR PLACER USE.

Read what one of the First Mill Men in the County Says of it:

To Victor Amalgamator Co.,
705 South Main St., Los Angeles, Cal., May 20, 1896,

Dear Sirs,—Referring to the run made by me of fifty tons of the black sands near Santa Monica with the Victor Amalgamator I have to say that the results were quite satisfactory, considering the crude arrangements employed in feeding the machine. During the run, in all the panning (of over one hundred) I never missed finding gold before passing through the machine, and after passing the machine, I found only two colors in panning after going through. In other words, only two colors were found in the tailings after passing over no pan. Of the many methods that have been tried for saving the gold from the sea sands on this coast for the last twenty-five years, none have given so satisfactory results as the Victor. I have no hesitation in saying that the machine properly handled, will save a larger per cent. of gold contained in sea-sands than any process in my experience of over thirty years. The machine is equally well adapted to saving the gold from mill tailings when it is too fine to amalgamate on ordinary plates. In milling thirty acres a day, I know of no process so well adapted to saving gold as the Victor Amalgamator. The above run showed the capacity of the machine (small size) to be about twenty-five tons per day. Respectfully,

Geo. O. Kilbourne.

ELEVENTH & MACLYMONT, ASSAYERS


610 Anna Street, San Francisco

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Manufacturers and Dealers in

All Kinds of Mining, Smelting and Milling Machinery,

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ORE TARIFF.
From Points in Mexico, New Mexico, Texas and Arizona, to El Paso, Pueblo, Denver and Kansas City.

ATCHISON, TOPEKA & SANTA FE R.R.

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**Car Loads, in dollars and cents per 1000 lbs.:**

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### SOUTHERN CALIFORNIA RAILWAY.
Rate on Ore in car loads, valuation not to exceed $15 per ton, minimum weight 2500 lbs. Ore Grande, Cal., to Pueblo, Col., $9.35 per ton.
Same, Victor, Cal., to Pueblo, $10.35 per ton.

Ore, car loads, when coming from the Republic of Mexico, will not be charged over $15 per ton. In car loads, the rates on Ore and Concentrations, valuation over $50.00 to charge $9.35 per ton, and receipt must be issued by agent at said rate. Agent at destination is authorized in correct rate for Ore and Concentrations. "Valuation not to exceed $15 per ton." upon presentation of property certified another return, showing that the value does not exceed $15 per ton.

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From Points in New Mexico, Arizona and California, to El Paso, San Francisco and Vallejo Junction.

### ORE TARIFF.
From Points in Mexico, New Mexico, Texas and Arizona, to El Paso, Pueblo, Denver and Kansas City.

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### Notes on Copper or Zinc Ore to Canon City.
Taking Effect July 1st, 1883 - So far as rates on Copper or Zinc Ores are concerned, Canon City, Cal., will be considered as common with Pueblo; in other words, the rates shown in Tariff as applying to shipments at Ore and Concentrations, will also apply on shipments of Copper or Zinc Ore to Canon City.

The market price at destination, to be verified by assays made by the Railroad Company, at owner's expense, will govern the value and determine the rate.

Agent must cause shippers to understand the conditions upon which these rates are based, and should make their receipts read: "Rates subject to correction according to actual assaying," which rates only apply to invoices on lots of ten tons or over. On lots of four tons and under ten, at per cent, and on lots of one ton and less than four, per cent will be added to the above rates. Base Metal, Copper Matte and Ore Concentrations, in lots of less than one ton, will take first-class rates from all the above points, except when the rate based on weight makes that rate higher, that rate on small lots of high value might not be less than the rates when lots of one ton or over are assessed.

Charges on Ore in car loads, are guaranteed, and on lots less than a car-load must in all cases be prepaid.

### SOUTHERN CALIFORNIA RAILWAY.
Rate on Ore in car loads, valuation not to exceed $15 per ton, minimum weight 2500 lbs. Ore Grande, Cal., to Pueblo, Col., $9.35 per ton.
Same, Victor, Cal., to Pueblo, $10.35 per ton.

Ore, car loads, when coming from the Republic of Mexico, will not be charged over $15 per ton. In car loads, the rates on Ore and Concentrations, valuation over $50.00 to charge $9.35 per ton, and receipt must be issued by agent at said rate. Agent at destination is authorized in correct rate for Ore and Concentrations. "Valuation not to exceed $15 per ton." upon presentation of property certified another return, showing that the value does not exceed $15 per ton.

Intermediate points not named will take rates provided for next station beyond.

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BUYERS OF
Gold, Silver, Lead and Copper Ores,
Copper Matte and Bullion.

Refiners of Gold, Silver, Lead and Copper.

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Granulated Test Leads and Litharge.

Pays Highest Prices for all classes of Ores.
Especially Attention to Sampling by most Approved Processes.
Quick Returns on all Consignments.

Kendall Gold and Silver Extraction Co.

THE KENDALL PROCESS is the most efficient method of using cyanide for
the extraction of precious metals from their ores; wherever this process has been
adopted the result has been increased percentages of values recovered and saving of
time; material reduction in consumption of chemical has also been demonstrated
with respect to several classes of ores.

The Kendall System is covered by patents which this Company will defend.

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more than a year ago to introduce and operate the Kendall Process in several
States, have closed contracts with some ten mines for the use of this process after
exhaustive comparative tests with the ordinary plain cyanide method.

Captain De la Mar has adopted the process at his Nevada Mines, where a 250-
ton plant is being completed. He writes that he is saving 65 per cent. of his gold
values, and regards the Kendall Process as the cheapest and best he is aware of for
the treatment of gold ores.

All ores, without exception, amenable to cyanide treatment, can be treated to
better advantage by the Kendall Process. This can be accepted as an axiom.

 Owners of mines and reduction Works can obtain full information on application to
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