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only properly represent his government, but also to give all information desired as to the laws, resources, climate, etc., of the country, and such an office would be of great benefit to the nation. Some millions are invested in Mexican mines by Californians, and closer relations are very much to be desired.

**THE BRITISH NOT SATISFIED.**

In the campaigns of 1884, 1888, and 1892 the British people were profoundly interested in the American elections and gave their influence and aid to the election of Cleveland. They did this because they believed that he would be faithful to the gold standard, and the democratic party had in every platform adopted in those years declared for a tariff policy that would give encouragement to British manufacturing industries and open our markets to their trade.

Now the chancellor, and the English papers say that if McKinley wins his industries are imperiled, and if Bryan wins their financial policy will be discarded in America, and other countries feel that a great source of their profit will be destroyed. What a pity it is that both the tariff and money policies of Great Britain cannot be restored in this country, and both avenues through which our resources have gone to enrich the British people be closed forever. Protective tariff and free silver coinage go hand in hand, one will not be fully effective without the other, and a broad tariff enables our people to produce for themselves without destruction to American wages, it keeps our money at home, gives enlarged employment to our manufacturers, transposes our surplus silver into policies of trade, which have to be paid in just such money as the British people dictate. In order however that the protective tariff shall be effective in the largest measure, there must be a sufficiency of money to put into the fullest operation, to supply the needs of very much enlarged and diversified industries and enterprises. Silver coinage will contribute to that result.

Gold will not be driven out of the country because a protective tariff insures balances of trade in our favor and enables us to draw gold from other countries. Therefore would be more independent and without danger of being put on a silver basis which is so much feared. With protection and an adequate money volume we, and not Great Britain, can dictate what the international medium of exchange shall be in a very few years.

**IT WILL NOT DOWN.**

The money question cannot be sidetracked nor subordinated. It is a ghost of Banquo that will not down. The question is in the minds of all the people. The prohibitionists split on it, the republicans made it conspicuous, and the democrats, populists and silverites made it prominent. The last three elements put revision of the monetary system forward as the first thing to be done.

There was a desire among republican leaders to shirk or obscure the silver coinage issue, but finding it could not be done, to their credit be it said, they tackled it boldly and at once and made the issue clean cut and understandable. The managers of the St. Louis convention even thought they could turn public attention away from the money question to that of the tariff, but finding that the people would tolerate no evasion they have bravely accepted the inevitable, and have vigorously entered upon a campaign of public speaking and a broadcast distribution of goldite literature.

Before the campaign is over the country will probably become more intelligent upon the money question.

The fact is the people are more intelligent upon that subject than the bankers and money dealers think they are. The subject has been actively discussed for a good many years, and the number of the people who understand it is much larger than the number of the people who understand it amongst the bankers and money dealers. Perhaps on no subject has there been as much literature disseminated as on that of money. Our existing system has been commented upon and denounced in every medium of expression, and the consequence of this popular sentiment will not now let the money question be put aside.

The goldites will find out that the silver question is one upon which a large number of men, not politicians or professional, who are familiar with facts and figures and who can make arguments that the most learned of the stumped cannot answer. It will not be a campaign of education from the top down.

There is a prevailing feeling that our money system in several of its features and especially on account of paucity of volume, is calculated to encourage the bargaining and buying to the few over the many. The constantly falling prices, and the heartless greediness with which capitalists put out their money, has forced the people to make inquiry into the money question. They believe, and demand common sense, sustains the belief, that a fruitful course of the distressful condition of the country is the single gold standard as it formerly was, and that supply of money circulation is adequate to the demands of the business of the country, and the further belief is prevalent, and is extending, that business wants cannot be accommodated as they should without a broader and more generous coin basis, and that the only way to secure that is to open the mints to the free and unlimited coinage of silver as well as gold and at a fixed ratio. This will widen the supply of redemption money for a very much enlarged paper volume.

**OUR MONEY SYSTEM.**

It will hardly be controverted that our money system is complex and complicated. It comprises gold and silver coins, including fractional dimes, and copper pennies, gold and silver certificates, greenbacks, national bank notes, and the certificates issued on the silver bullion purchased under the Sherman law, which are called treasury notes. The government supplies the circulation to the National banks, which issue it as principal and the government becomes guarantor for its redemption to the bearer. It is secured by a deposit of its own bonds. The National bank notes can be retired by the banks and their bonds returned by depositing with the controller of the currency greenbacks or gold coin, and then the government redeems these notes in gold coin from the holders.

All these kinds of money are full legal tender, all bullion public and private except the National bank notes. The unit of value is the dollar, and since 1878 the gold dollar. It is a curious fact that no gold dollar pieces are being coined, but millions of dollars are being excused from the gold bullion purchased under the Sherman law, and as we understand such coinage is con-
fined to the seigniorage, and is not for the purpose of redeeming the certificates issued under that law, for two secretaries of the treasury, one of each of the political parties, have ruled that the government is obligated to redeem the certificates at the option of the holders shall so elect; of course, coinage of the fractional pieces, such as half dollars, quarters and dimes goes on constantly, and the mints of this country are open for the coining of everybody's gold free of cost.

It is said that the government is on a gold basis, that is to say, it will redeem all the paper and gold certificates for silver, and silver certificates, though it can and does pay all other debts, except interest on the bonds, in any kind of money which has been named. To be on a gold basis is in fact to make all kinds of money as good as gold in foreign transactions. The gold measure is made for such transactions, and is to be applied in our domestic business, whatever may be the effect upon the country. The Republicans, in their national convention at St. Louis, pledged themselves to maintain the gold standard, and that a bimetallic standard can be established with the principal commercial nations, which they pledged themselves to promote. This does not necessarily mean that they will not make any changes in the laws in other respects than that relating to the maintenance of the principle that gold shall be the standard of value. They are pledged against the free coinage of silver, but not against the coinage of other commercial nations. It is a proposition not to control our own financial affairs in our own way, but to submit to the dictates of other nations, which was not un-American, undignified and humiliating.

The Democrats, on the other hand, in their national convention at Chicago declared for the free and unlimited coinage of gold and silver, at the ratio of 16 to 1, giving the coins full legal tender for all debts and dues, public and private. That ratio substantially prevailed in this country almost from the beginning of the government, and now prevails in the United States, so far as the coinage of the dollar is concerned, which is going on to a limited extent under the unreserved provisions of the Sherman law, and the ratio in Great Britain and Germany when they demonetized silver, while in France and the Latin union, the ratio has been and is 15½ to 1.

The Democrats further propose to deprive the national banks of the power to issue money, and reserve it to the government to supply the country with the necessary paper circulation. In general terms, it has been stated that the two great political parties propose to do with the money question.

There has been a considerable sentiment among Democrats favorable to conferring the privilege and power to supply the country with paper money solely upon banks chartered by the states, with a certain control by the general government; also, there is a sentiment, whether Republican or Democratic party in favor of reserving all government issue of paper money, and permitting the national banks to supply it, but there is no platform of any party in favor of either of these propositions.

As the government under the constitution, must furnish the basic or redemption money, it seems logical that it should also supply its silver and gold. It controls the volume of metal money, it should regulate the volume of paper money. The

HOW TO PROTECT SILVER

California is the largest gold producing state, the third largest mineral producer, and the seventh largest producer of American silver. Some California editors, for political effect at the present time, are stating that California is not a large silver producer and that our silver interests are unimportant, and that the silver question has little industrial interest to the people of this state, or is not a factor in politics at the present time. Every gold mine in the state is a silver producer also to a greater or less extent, according to the amount of silver found alloyed with the gold. The following table shows the gold and silver production of California from 1880 to 1890, and that our silver interests are the third most important metallic mineral product, and is a question of the first importance in the present political campaign.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>GOLD</th>
<th>SILVER</th>
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<tbody>
<tr>
<td>1880</td>
<td>17,400,000</td>
<td>1,400,000</td>
</tr>
<tr>
<td>1881</td>
<td>18,200,000</td>
<td>1,800,000</td>
</tr>
<tr>
<td>1882</td>
<td>16,800,000</td>
<td>500,000</td>
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<tr>
<td>1883</td>
<td>14,100,000</td>
<td>3,000,000</td>
</tr>
<tr>
<td>1884</td>
<td>13,200,000</td>
<td>3,200,000</td>
</tr>
<tr>
<td>1885</td>
<td>12,750,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>1886</td>
<td>14,725,000</td>
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<td>1888</td>
<td>12,750,000</td>
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<tr>
<td>1889</td>
<td>12,350,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>1890</td>
<td>12,500,000</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>

The silver output of California from 1880 to 1890, of one from three millions a year, is the proof of the untruthfulness and ignorance of all who claim that California's interests are not on the side of protection to silver and against the free trade in it by England, as has been the case in controlling the commercial and coinage value of it, and in purchasing no silver from England (as shown in our last issue in the article, "Who Demonetized Silver?"). To decrease the coinage of it, and thereby lower the price, by having the market supplied with silver bars for the Bank of England to purchase at their own price. The silver problem is one of international interest, and as these countries produce the silver supply of the world, and treaties negotiated between the United States, Canada, Mexico, and South American silver producing countries, is the step towards bimetallism, which will alone bring England to her proper position, and force her and other European and Asiatic countries to purchase our silver as coin at $1.29 an ounce, and it cannot buy our cheap silver at 65 cents an ounce as at present. This can be done by the North and South American silver producing countries agreeing by treaties to prohibit the exportation of silver coin, and to permit it to be only exported as silver coin of each country, minted at say a ratio of 16 to 1. This is the protection the silver producers in England ask for, and it cannot buy our cheap silver at 65 cents an ounce, as at present, she will have to pay $1.29 an ounce for coin, and send it to India to be coined into 100 rupees, then our American silver, wheat and cotton will advance in price to gold value and not be sacrificed to the worship of British gold.

The silver question is so far-reaching that it has increased the purchasing power of British gold to double its former value. England has already paid twice as much silver for the amount it used to purchase silver for. Some one, and coin them into Indian rupees, and make 100 per cent profit. Is the silver problem so far beyond the limits of diplomacy that a nation must forsake more to continue to be the tribute-paying slave of British gold?

Some United States industries are protected against British free trade, and the silver mining industry demands the same consideration and protection, by the enactment of treaties with other silver producing countries, so as to control the export of silver. The copper interest of the world, combined some years ago to control the market value of copper, and cannot our legislators have tacit or patriotic enough to negotiate treaties in the interests of silver, and not are the paid and bribed servants of the Bank of England?

TWO MONETARY SYSTEMS CONTRASTED

One of the brightest Americans who has recently visited Mexico is Justice Walter C. Clark, of the Supreme Bench of North Carolina. He went there already a believer in the use of silver as money and a strong and outspoke bimetallist and naturally was gratified to find in the prosperity of the Mexican Republic a living confirmation of his theories. At the border he found that he received nearly two dollars in silver for one sanctioned and issued by the Government of the United States, and the next most marvellous thing was his discovering that the Mexican dollars, does inside of Mexico, quite the same amount of work as a gold dollar does in the United States. Clark says in an article recently published in the Arena that "That silver in fact has not depreciated in the least may be seen right here in Mexico, and throughout the fifty millions of people living on this happy island, south of the Rio Grande, in all which countries the silver dollar will pay as much taxes, as much public and private indebtedness, as much railway freight and passengers fare, as it ever did, and where, consequently, farm produce and land will bring the same prices they formerly did. The standard of value not having been artificially enhanced, fixed charges, as debts, and taxes, are not enhanced, and the same amount of produce and labor will pay them."

Justice Clark then goes on to show that the loss in the Southern States, last year, by the demonetization of silver was, on cotton alone, $210,000,000. And the northwestern wheatgrowers were injured in the same proportion. But in Mexico he found the agricultural interest thing as is testified to by the continually-expanding local traffic of our railways. This is the true test of internal prosperity. Mexico, had it been financially managed, equal to the United States, the United States, would be, today, one of the poorest and most wretched countries on the face of the earth. Imagine General Diaz's Government, the people having decided to adopt the gold standard, our country could have borne the strain then for the
great fall in silver had not come; but a few years after, the tension would have been enormous and everything would have suffered. Our manufactories would have been annihilated, hundreds of new factories would have been opened, and the agricultural produce, now extending itself a marvellous pace, would have remained small and relatively insignificant. In a word, Mexico would have been a ruined country.

Outside of two or three cities, such as the City of Mexico, Monterey, etc., where the demand for houses consequent on an unanticipated growth, has sent rents up rapidly, the cost of living has not materially advanced. It is true that with the penetration of the railways to all parts of the country there has been diffused a spirit of progress, a desire for more luxurious house furnishings, for costlier and more fashionable clothing, etc., and this has added not to the essential cost of living but to the cost of living more modernly, so to say. But everyone familiar with this country knows that one may still make the silver dollar of 1866 go the dollar of 1862. Imported goods have risen, it is true, in proportion to exchange, but our mills are enabling frugal people to dispense with foreign woollen and cotton textiles. Mexican print clothes are both tasteful and durable and our woolens are most creditable to the manufacturers. Articles such as coffee, in active demand outside, have risen in price because they command gold abroad. But a careful investigation, such as that made sometime ago by the careful and intelligent consular representative of Great Britain, shows that the Mexican dollar practically does the same work today as formerly.

Even in many lines of imported goods, prices have not greatly advanced (in some cases they have not advanced at all) and this for two reasons, first, that the increasing perfection of machinery in foreign mills has cheapened production so that the obstacle to importation offered by the high exchange has been overcome, and, second because many costly goods are now most effectively imitated in cheaper materials! Ask any great supplier of women's fashions.

Our home industries, protected by a gold premium of nearly Ninety per cent., are thriving; their dividends fill foreign manufacturers with envy. This question so vastly intricate and so interesting to all of us, is not to be exhausted in a few articles. We shall recur to it, not with a view to converting the people of the United States to a belief in silver money, but to answer the objections raised here at home by those who have not scientifically studied the effects of the monetary system of this country. It is not for the present interest of Mexico that the United States should abandon the gold basis. That huge market to the north of us is paying our coffee, tobacco, henequen and other plants nearly ninety per cent. premium, affording them the most stimulating bounty known to commercial history. Our silver mine owners who live in Mexico are likewise contented, the fall in silver does not harm them. We contend that Mexico's monetary system is the best possible monetary system; the thanks of all Mexico are due to that statesman because he has resisted the appeals of the partisans of gold to currency system.

Mexico prospers because she has a sound-money basis and is not afflicted with fool theorests.

A BIG STRIKE.

A New Mining Camp in the Laguna Mountains.

Henry McCain, Thomas McCain, A. B. Cairnes, George J. Magley and George Hubles have made a big strike in the Laguna Mountains, about ten miles from Moreno and a mile and a half north of Watt Garner's ranch, in San Diego county. The ore goes $60 to the ton in gold, and is free milling. Specimens brought to San Diego show the curious gold bearing quartz. In a prospect hole twenty-five feet deep neither wall has yet been found. The prospectors feel very much encouraged over their find.

This strike only tends to confirm the theory that the mother lode extends all along the Sierra Madre. On the north, in San Diego county, in the new Stephens district, east of Oak Grove; then next in order to the south are the Rice, Mesa Grande, Julian, Stonewall and Deer Park districts, and now the Laguna district. It all goes to show that the Sierra Madre have not yet been thoroughly prospected. And evidence is not lacking that the mother lode can be traced down the California peninsula.

Mr. McCain and his partners have filed location notices of the Wirmetoma mine and mill site, B. A. Stephens, San Diego, Cal., Aug. 7th 1896.

CORRESPONDENCE.

CALIFORNIA.

Crescent Camp, Nevada.

July 30, 1896.

Editor Journal—Even when the political parties are moving their men on the chess board, and politics seem to be the one absorbing question of the time, mining is still being rushed to the front in the desert camps. Your correspondent recently improved the opportunity of visiting the far-famed mines of El Dorado and Montgomery.

At El Dorado camp, the 15 stamp mill of the South Western Mining Company is constantly running on the dump of the Wall street mine, which is turning out well, and, as they have about 4000 tons yet to run, this will be reasonably sure to pay good dividends for several months.

The Little Johny mine, at Montgomery, was recently started, after several months of idleness, consequent on a change of management and the policy of the company. This mine is surely one of the greatest mines on the desert, all the stopes being full of high grade gold ore, and at no point has it indicated the possibility of the great ore chutes becoming exhausted.

On my return from this district, I met Messrs. Hamilton and Buller, who are old time prospectors and experienced mining men. They were fully equipped with a good outfit, and bound for the high altitudes of Charleston Peak, where they confidently intimated that gold was to be found in quantities sufficient to astonish all the residents of this hemispheres. I was so strongly impressed that it was only with extreme of strong will power that I continued my journey.

I understand that Charleston Mountain is attracting quite a number of miners this year; Messrs. Pond and Hammerstad recently started for that region, equipped for a two months' siege. From the well known ability of these men, it may be confidently predicted that they will uncover something good before long.

Development on several claims at Crescent is being pushed, and some very high grade ore has been opened up during the last four months. The lack of feed for stock has been quite a drawback to the prospector, but now that the rainy season is on and the grass is growing, these obstacles are happily overcome.

H. M. S.

Miscellaneous Mining News.

ARIZONA.

The oil-burning locomotive for the Congress Gold Company, of Congress, Ariz., has been tested on a trip over about 30 miles of the D. A. V. & P., which gave the desired up and down grade, similar to that of the road from which an abundance can be taken up the hills with a string of 20 freight cars, under the supervision of G. W. Prescott, of Highlands, Cal., the inventor of its oil-burning device.

All the new machinery works satisfactorily at the Detroit Copper Co.'s plant at Morenci. One hundred and seventy-six cars are being concentrated daily. Another concentrating plant is being added, together with twelve Flu vanners. The company is putting in a new crusher, which will greatly increase the capacity of the concentrators. Over $25,000 per month is paid out by the company.

The railroad companies have contracted for the transportation of 20,000 pounds of machinery from Chicago to Congress Junction for the Planet-Saturn Mining Company, at Fool's Gulch.

J. E. and J. G. Allen have given a bond to Charles McCloy for five claims in Cherry creek district for $30,000.

Another bar of gold bullion was brought in yesterday from the Little Jessie mine. It was valued at $5,500. This is the largest bar of bullion ever brought from Chapparal, and is the result of less than seven days' run of the mill. A new body of good ore has been opened up recently in the mine, and the property never looked so well as at present.

Hon. Nick Galles is pushing work on his Santa Maria properties. He has men at work grading for a mill, and has built a road into the mines. He has a large amount of ore on the dump already, awaiting the construction of the mill, and has ore bodies opened up in the mine from which an abundance can be taken, and is also pushing development work on the properties. The prospect for this camp is very flattering at present. -Journal Miner.

It is stated that the Mammon gold property has been thoroughly explored and a report favorable to its purchase expected, which will pass into the hands of the New York company, who will develop and push this valuable property for all it is worth.

The only work being done in the Golden West at present is that of sinking for water, the active labor on the mine being stopped until the return of Charles P. Kahuen, the guiding spirit, who is at present at Highland, III., his former home.
All news from the Bradshaws is of a most favorable nature. Messrs. Bond and Brattingham of the Replacita have shipped 173 tons of ore at the Tiger mill. The Oro Bonito and Oro Bella will probably be worked in the near future. The ten stamp mill can be put in running order in a very few days. The Cougar and Apache Panther both have a good face of ore exposed.

The new copper property of Joe Ulya and Wm. Stiles has been bonded to a California company at $5,000, which intends operating on a large scale. It is understood that Wm. K. Meade has been instrumental in bringing about these preliminaries.

On September 1st, it is asserted by the parties who seem to know, that the Silver Reef mill and smelter will be in operation under lease, which will work on ores from adjoining properties. A California company has bonds on a number of mines near the mill, and it is presumed they will all work in conjunction. — Tucson Citizen.

A. L. Butler is in from Cherry Creek, where he has done 300 feet on his Jessie mine, and 50 feet on his Consolidated, showing fine bodies of good ore in both cases. Reports from Thos. Calvin, of San Francisco, have two men at work on the Pay Rock mine. Report is that Mr. Burnister will erect a quartz mill on the wheatley group. Chas. Donaldson has had 50 tons of ore from his Crosscut mine worked at the Rocky Pass mill. The five-stamp mill at the Verde is running steadily.

T. S. Bulluck returned from Silver Mountain Saturday much pleased with the appearance of the Mammoth mine, where a shaft is being driven at one point and a contract has been let to run a tunnel into the vein 600 feet under the mountain. This tunnel may be extended 1500 or 1500 feet. There is in sight an immense body of quartz, all of which carries mineral. — Prescott Courier.

Dos Cabezas is slowly coming to the front as a copper mining section. Another one of the properties has been bonded to wealthy parties, who will soon begin operations. In regard to the Miners' Valley News says: "Frank White and J. Billings of Dos Cabezas have bonded their copper properties near the Heads to Mr. Byrum of Chicago for a good round figure. Operations are to commence not later than September 1st, and as the properties are very promising and Mr. Byrum backed by unlimited capital, they promise in the near future to employ a number of men and add materially to the bullion output of the district."

The marble quarries of the Santa Ritas are to be opened up immediately. A company has been formed in Tucson with R. T. Miller for president and Chas. T. Connell secretary and treasurer. The marble is of a very fine quality and the developments are looked forward to hopefully, as it means new business for Tucson.

One of the most promising properties in Arizona is that of the Sun Dance Mining Co., located a short distance from Prescott and the old Hassayampa district. The mines are owned by Chicago people, who have every confidence in the developments. A carload recently shipped was sold for $75 per ton.

Some of the steel rails for the new narrow-gauge railroad to be built from Torres to Minas Prietas in Sonora have just passed through Nogales.

The Co-operative Mining Co. expect to begin operations in a few days. A Pelton water wheel will furnish the power and will also furnish the light for the camp. The property is on the Agua Fria, a few miles east of Bumble Bee. The Westishing Co. furnished the electric machinery.

The 100 ton furnace for the United Globe mine at Globe is being hauled from Geronimo, where it has been for some time.

Captain Kelley, of Crittenden, foreman for the late Col. Fitzgerald of the Empire Smelting Company, has received telegraphic instructions from headquarters to continue work along the lines laid down by Col. Fitzgerald. The company's interests in and around Crittenden are large, and their cessation of work at this time would mean a loss to Southern Arizona which would be painfully felt, and Crittenden is to be congratulated upon the decision arrived at by the Empire Company.

The little Jesse mine declared a dividend Aug. 29th of $5,000, and left a neat little surplus in the treasury besides. This has been accomplished in a six weeks' run, since starting up the last time. — The Arizona Daily Star.

Henry Strothoff has purchased from Chas. Donaldson his interest in the lease on the Miners' Valley, on property in Cherry Creek, and in the Watson & Donaldson mill on the Verde river. Ore from these claims is now being worked at the Sines-Smith mill on the Verde. The ore is milling well.

The New River Gold Mining and Milling Co., located fifty miles to the north of Phoenix, is developing into a mine very fast. The main working shaft is now down over 100 feet, and two others will be run. The vein will average about two and a half feet wide and is of a good grade. — Mineral Wealth.

H. J. Sample and Johnny Withers have out so sacks of rich ore from their lease on the Nighthawk, and are adding to it fast.

Charles Bowers has sold his interest in the Nighthawk lease to Ed. Thompson and Ed. Cain. Hope the purchasers will make big money.

Henry Loven and S. P. Thompson brought in a shipment of rich ore from White Hills last week. They have more of it where it came from.

The Elkhart machinery is in place and the water being pumped out. In a few days silver-lead ore will be coming out in quantity. The mine has produced over 1500 tons of ore and it is one of the big mines of Mohave county. Mining at Chloride has taken a boom.

Frank Hunt (Curly) was the advance guard of a lot of rich ore taken from the Hunt & Burke mine above Chloride last week.

Ronice, Cooper and Swycopher have a fortune in sight in their lease on the Nighthawk, Cal Wilson has opened up six inches of ore on his lease on the Sunlight mine. Stoner & Davis brought in a lot of ore from the Wallapai mountains last Monday.

John Connor and Jim Sullivan have taken a lease on the Cupel.

CALIFORNIA.

RIVERSIDE COUNTY.

The extensive group of mines belonging to Messrs. Holland and Tingman of Pinon Mountain district are to be equipped with a dry concentrator which it is said will save all values without water. The mines of these gentlemen have been worked at different times and have always produced good results, the only trouble being want of water.

Los Angeles County.

We were shown a few days ago a piece of retort gold worth $1,50 taken from Dead Man's, Haskell and Texas canons. It was taken from eighty pounds of dirt. The placer ground is attracting many prospectors, and Los Angeles county may within six months take a prominent place among the gold-producing counties of California.

The Los Angeles Mining and Stock Exchange began calling stocks today. The Brown-Dake of Prescott, Arizona, is on the boards. The exchange will also call bank and other corporate stocks.

The Red Rover mine at Acton is being worked steadily.

KERN COUNTY.

A Mining Deal.

The Mammoth, Little Mammoth and Tom lane mines, in Kern county, have been purchased by the Los Angeles Gold Mining Company. The company consists of H. M. Russell, N. F. Wilshire and O. Pookey, of Los Angeles. The present owners will put up a 10-stamp mill at one time, which will be worked by water power generated from the Kern River. They will also put up a tramway to carry the ore from the mine to the mill. The ore may be worked by the cyanide process.

One of the largest nuggets that has been found for some time was picked up by Messrs. Day, Wallace and Harkins, near Goler, last month. The total weight when found was over five and one-half pounds. The quartz was held together by gold, and the lucky finders brought the lump to Los Angeles, and sold it to Wm. T. Smith & Co.

RIVERSIDE COUNTY.

Work is progressing favorably on the mines of the English Company at Gavi NN, and it is expected that a mill will be erected near the Santa Rosa mill. The prospecting that has been done has been so satisfactory that the company intends to work all the lodes on the grant that will be a reasonable distance from the mill.

Mr. John Nooney has been put in charge of the Santa Rosa mine again. At the present time the company are working thirty-five men. Work on the shaft to the east is being pushed, and good ore is being taken out.
The Golden Chariot still remains closed down. Rumors are afloat that work will soon be started on a larger scale than ever, but nothing definite is known.

The Boulder Company, at Pacific district, is ready to commence operations by September 1st. The Bryan mill will have a capacity of fourteen tons per day. No work is being done at present, but active operations will commence all along the line September 1st. The Company have a number of good buildings and a well-stocked store, and will work about twice as large as they can under present operations. It is estimated that over one hundred men will be working around the district in a short time. Most of the miners from Cottonwood and other desert districts have left their camps on account of the heat.

SAN DIEGO COUNTY.

Mr. Cave Counts has decided to mill his own ore, of which he has out about three hundred tons or more, in the Kluchito looks as well as any other property in Southern California with the same amount of development.

The statement of the Golden Cross Mining Company, for the year ending June 18, 1896, shows net profit of $2,358,000, while the dollar gold is valued at nearly $10,000,000. This is a remarkable showing when it is considered that the property has been in the hands of receivers twice in the last eighteen months.

The last lot of ore mined from the Richmont mine in the Hunter district, turned out very satisfactorily. Judge Gardner, who owns the property, is forming a company in Los Angeles to work his group of mines, among which is the Richmond. Governor Waterman had a lease on the properties owned by Judge Gardner, and had a tunnel, 700 feet long, finished when he died. His death closed down work, and nothing of importance has been done since. The company now being formed hopes to finish the tunnel and cut the rich veins that are known to exist on top.

LOWER CALIFORNIA.

The Messrs. Lacy of Los Angeles have sent the schooner Phoenix, from Louisiana, back bring 50 tons of ore, which will be milled in Los Angeles. The schooner, which is 75 tons, left San Diego July 28th, and arrived in Guaymas, Mex., Aug. 6th, having made the trip, a distance of 2,000 sailing miles, in eight days. This is the fastest time that has ever been made by a sailing vessel. Mr. Richard Lacy joined the yacht at Guaymas, and the party proceeded to the objectionable point to be reached, which is about 200 miles northwest of Guaymas on the Isthmus side of the gulf. They carried on ample supply of lumber and provisions with which to transfer the ore from the shore to the schooner. The mine which they intend to investigate belongs to two Mexicans who have made a large living for many years working the output in the arroyo. The property is located twelve miles from the coast and has a good wagon road directly to the shaft. The owners of the mine have guaranteed the fifty tons that will be taken out and brought to Los Angeles to run $100 to the ton. If the result is satisfactory, the amount extracted is to be applied to the purchase price, and if not satisfactory, any amount left after paying the expenses of the trip is to revert to the owners of the mine. Lower California is apparently at our doors, but it is so difficult to reach the different points on the peninsula that very few people have attempted anything like a thorough investigation, and the near future is likely to produce some genuine surprises in the way of rich mines.

LOWER CALIFORNIA.

At the Aqua Dulce.

The mill of the La Fortuna Mining and Milling Company commenced operations this week. It started on ore from La Fortuna mine, and from the president and manager of the company, Mr. Gay Lombard, who was in Ensenada the early part of the week, the Lower Californians learned that there is sufficient ore in sight in the La Fortuna alone to keep the mill in constant operation for two years. Then there is the Tosora, one of the groups, which has more extensive works than the Fortuna and a larger vein.

The mechanical equipment on these properties is superior in every respect. The mill of ten stamps came direct from Fraser & Chalmers' Chicago foundry, as did also the engine, boilers, steam hoist, etc. There is an abundance of water for perfect amalgamation, and the mill, now that it has started, will be kept running continuously. The almost phenomenally rapid development of these mines is a full of promise, have made Aqua Dulce a very important camp, and that now the stamps are actually falling very favorable reports may be expected.

MEXICO.

One of the great iron mines, which is to be worked in the near future, is a great mountain, some 2000 feet high, situated almost within the city limits of Durango, in the State of Durango, Mexico, and is said to be the most remarkable mountain in the world. It is almost solid iron, and is at the base of three mountains, thus giving enough of the metal to supply the entire iron market of Mexico for years. The ore obtained from this mountain is said to yield about 62 per cent pure iron. The machinery, which is now being built by Durango at the present time, is extensive, and will be put into operation as soon as possible.

Word has been received from James G. Sample, superintendent of the Templar mine at El Socorro, that a rich strike has been made. The ore had been running $710 in gold and $138 in silver per ton, on July 25th, a strike was made that runs $7,000 to the ton. The Templar is a bonanza and increases as she goes down.—Chihuahua Enterprise.

NEW MEXICO.

W. H. Newcomb has twelve men employed mining iron ore on Legal Tender Hill, almost within the Silver City limits. Several teams are employed hauled the ore to the depot, it is shipped to the smelters at El Paso. Two cars per day are being sent out.

The turquoise mine at Azure, twelve miles from Silver City, are employing about twenty men at present, under the supervision of Professor Felix Vogel. These mines are now the greatest producers of turquoise in the world. The stones found here are susceptible of a higher polish and retain their color better than the celebrated Persian turquoises. The heavy rains are causing some inconvenience, and it is probable that work will be temporarily suspended ere long.

The Mountain Key mine at Mogollon is being worked with two drifts. The old Sheridian mill at Cooney is still shut down, but arrangements are being made to start it up soon. The Queen is working steadily. At the Florida Messrs. Kitt, Weatherby and Banks are pushing work and have done over 500 feet of development work.

The Old Abe mine at White Oaks has always been considered one of the leaders of the territory in the production of gold, and new developments show that is entitled to a place in the lead. The new shaft is now down over 200 feet and everything looks very favorable. Work is also being pushed on the Lady Godiva and the Solitaire.

The Silver City Reduction Works are running steadily, and succeeding to all ores offered. This home market for ores in small quantities gives the miner who wants to develop his claim an opportunity to get spot cash for any quantity of ore he may have for sale, from one ton upwards. Many poor miners will thus be furnished the wherewithal to pay expenses and develop their mines, who could not afford to wait and ship in carload lots to distant reduction works in the firmly established reputation of Mr. S. E. Bretherton as a successful metallurgist, and the well known business integrity of Hon. T. F. Conway, the financial manager of the company, induces the confidence of all producers of ore, who are now bringing their product to the smelter in sufficient quantity to insure its steady operation.

PASCHAL.

Herbert Martny has resumed work on his New Albany copper mine, near Paschal. They have a shaft down 15 feet, at the bottom of which they have 18 inches of 39 per cent ore. The hope the last shipment were decidedly encouraging.

COOK'S PEAK.

John A. Deemer and James J. Cullen are working the Summit group, and are taking out considerable high grade ore.

Barney McDougal is working the Minnehaha property under lease from Peter Spry.

TRES HERMANAS.

M. C. Weaver is working his mine in this camp in a quiet way, and will make a shipment some time during this month.

FLORIDAS.

Dave Weaver is doing development work on his properties in this camp, and from all indications he has a good thing.

Work on the Morton, at Hillsboro, has been stopped, and Messrs. Dickey & Laramy, who have been working there, have decided to go on a prospecting trip to Arizona.

The Richmond, at Hillsboro, still continues to ship concentrates. A car load was shipped August 3rd, together with some high grade ore.
Hillsboro Mines and Mills.

Hall & Macy struck another and larger body of lead ore in the Percha mine this week. The ore is a sulphide, running from 60 to 70 per cent lead and about 30 ounces silver.

Lessee Collard is running the Bonanza mill on some El Dorado ore, and will next engage on large consignments from the Richmond and Snake mines.

At the Eighty-Five, work will begin Monday next on cross-cutting the vein in the hanging wall, where the largest ore streak lies. The 425-foot level is reasonably expected to develop in larger quantity the rich sylvanite ore encountered above.

Carpenter & Handel have struck some lead ore in the lime and shale belt, between the Percha Creek and the S. L. C. ranch. Geo. Luftkins, the discoverer of the Lake Valley mines, is also prospecting and has made some locations in the same field.

A. W. Farrington will soon commence running a tunnel into a big ledge of low grade gold ore in the Cave Creek country. The ore appears to be a volcanic slag heavily charged with iron oxide, and carrying gold in varying quantities.

It has been demonstrated, both by the former and present managements of the Richmond mine that the screenings from the old stopes carry from $7 to $20 per ton in gold. With a mill owned and operated in connection with the mine this would constitute a profitable business, and there are thousands of tons to be had at just the cost of screening and hoisting.—Advocate.

Cerrolo Smelter.

At Cerillos, last week, R. H. Ayers, agent for Frazer & Chalmers, entered into a contract with Judge Vaughn and others for the immediate erection of a 65-ton smelter. The plant will be in operation in ninety days.

The Organ mountains, which in years past have produced very largely in lead and silver, are commencing to assume their old-time activity, some of the oldest mines are being put in shape to work.

In and around Hachita, where everything has been closed down for years, considerable prospecting is being done, and some of the lead silver mines will undoubtedly be opened up in the near future.

PINOS ALTOS.

W. C. Chandler is working twelve men on the Mountain Key mine and getting out rich gold ore, which is being reduced at the Stanley-Martin mill.

The Bell and Stephens mill at Pinos Altos is running on ore from their Pacific claim.

About 45 men are employed at the Golden Giant and Pinos Altos mill. A contract was let Monday to sink the main working shaft one hundred feet deeper, which will give a depth of 450 feet on the vein. The width of vein and grade of ore both improve as depth is attained on this mine.

Spiller & McLean will start work on the Pacific next week. The mill at Silver City will also start crushing ore, as the Silver City water works has sufficient water to guarantee ample supply for the mill.

CENTRAL.

Al Corn is working six miners on the 200-foot level of the Texas mine. He has a body of rich ore in sight. Operations on this mine are above normal. Work is proceeding at a rapid pace with the prospects of an early transfer of ownership.

Coleman and Acemia have leased the Chance mine, owned by F. J. Witsel. They are drifting on the 150-foot level and have a body of ore which runs $200 to $300 per ton, more than half the value being gold. This property promises to be one of the biggest mines in the camp.

BALD MOUNTAIN.

Crawford and Woodward shipped 25 tons of good grade gold and silver ore from the Big Casino mine, to the Silver City reduction works during the week.

Nick Rascom and George Bell have five men at work on a recent big copper strike on the head of Little Whitewater near the head of Mangus Valley. The ore carries a small value in gold and silver.

COPPER FLAT.

About 30 men are employed in development work on the Simpson properties and the prospects for a big copper mine are very encouraging.

HANOVER.

The Hanover and New Mexico smelter, which was compelled to suspend operations for a short time on account of bad roads, has started again. The company has an ample supply of copper and coke on hand to run till the Silver City and Northern railroad is repaired and ready for traffic.

GOLD HILL.

C. C. Sharp has bought Henry Snyder's interest in the Lottie mine and will start work on the mine very soon.

F. G. Kline and Jessie Keister are working the Nancy Lee mine. They are taking out good ore.

Kline and Keister started the mill this week on ore from Snyder's claim on Gold Hill.

MOGOLLON.

The Maud S. mill has temporarily suspended operations and a large number of men have been discharged from the mine. The Last Attempt mine, which was being worked by the same company is closed down. Only about 15 men are now employed at the Maud S. mine, and those are on development work.

It is said there is a good ore body in the floor of the lowest level but that the shaft will have to be sunk deeper and a drift run two or three hundred feet to reach the ore from below. A new working shaft is at the extreme south end.

The Confidence mine is producing its regular quota of ore, amounting to 400 tons per day, which is reduced at the mill on Whitewater. Extensive development is being pushed on the mine and consequently more miners employed than ever before. There are about eighty men employed upon the mine.

GENERAL NEWS

The Los Angeles Mining and Stock Exchange is the corner of First and Mission streets. The offices recently occupied by the works are to be moved to Kearney and Francisco streets, where they are now in full operation.

The 3rd fair of the great state of California will be held at Sacramento, on September 1st, and will last three weeks. The exhibits will consist of live stock, products of the soil, electric motive power, mechanical display and mining. The management will secure free transportation for all exhibits, and also reduced fare to Sacramento. All inquiries to the secretary will be cheerfully answered.—Edwin F. Smith, Sec.

The Consolidated Kansas City Smelting and Reining Co., who for some years past have been working the lead carbonate mines at Sierra Mojada, State of Coahuila, Mexico, have discovered another deposit of lead ore, which is said to be even more extensive than those of Sierra Mojada. The property is located near Carmen, in the State of Coahuila, and the company is now making arrangements to open up the deposits.

According to Prof. Mulhall, the estimated wealth of the United States is $64,120,000,000; that of Great Britain, $47,000,000,000; France, $41,900,000,000; Germany, $31,185,000,000. From this it is seen that the United States is far ahead in the matter of aggregate wealth, having about 60 per cent more than Great Britain, about 50 per cent more than France, and about 100 per cent more than Germany. With these facts, we ask: Why should the United States bow before the throne of Lombard street, and beg Shlyocks to dictate how we should frame our financial laws?

The next meeting of the U. S. Debris Commission will be held at their room, 59 Flood building, San Francisco, Cal., Aug. 24th, '96.

Most of the Mica produced in the United States is found at Bakersville, North Carolina. The price depends upon the size of the blocks, and varies from 12c. per pound to 5c.

We are in receipt of a letter from the Costa Rica consulate, at Philadelphia, asking for information about our business houses and manufacturers on the Pacific Coast, the consul also asks to have manufacturers send two sets of catalogues to his office, 233 South Fourth street, Philadelphia, with detailed information about prices, terms of credit and discounts, manner of payment and custom of packing and shipping. He expresses his willingness to give special data on goods desired or for which our patents office, or any other information that will bring the American manufacturer and the Costa Rican producer or consumer in closer and more profitable relations.
The great improvement that has been made in the use of steam, as applied to power, has necessitated the discovery of something that would enable the power of the steam to be used by all steam engine users. It is claimed that this device returns two hundred, degrees of heat more than any other feel-water heater ever constructed. One of the most interesting facts in the operation at the factory of the Chicago Lumber Co., at Denver, Colorado, is that of the Smelting Works. The Kellers heater being manufactured by the Star Boiler and Sheet Iron Works, of 265-75, 15th street, Denver, Colo. All desiring information and particulars can address the manufacturers.

El Campo de Wm. T. Smith y Cia.

Este campo está establecido en el No. 128 calle Main Norte, Los Angeles, California, el gran salon anteriormente ocupado por la Corte Suprema. Aqui se encuentran mesas, sillas y escritorios abastecidos con los materiales necesarios para escribir, etc. También se reciben noticias en acreditados por los laboratorios de investigaciones técnicas y regeladores de precios. Tenemos un boletín donde publicamos advertencias para dudas de los monopolios anárquicos por mineros, mineros, etc., decir: noticias de toda especie que se pueden insertar en el. Tenemos una gran mesa dividida en compartimentos donde los mineros pueden dejar sus metales en exhibición, dejando una descripción impresionante de la situación de la venta con el certificado de ensayo. Este salón estará abierto desde las 7 a.m. hasta las 6 de la tarde. Nuestro solo objeto en establecer este campo es para efectuar en contacto al prospectador, minero y capitalista y al mismo tiempo dar celebridad a y anunciar la casa de Wm. T. SMITH y Cia., Rendhierers y Ensayadores de oro, 128 calle Main Norte, Los Angeles, California.

"The Jeffrey Manufacturing Company of Columbus, Ohio, have taken up the manufacture of the ROBSON PATENTED COAL WASHING MACHINERY. There are many in daily use in the country, and it is conceded to be a most efficient and simple washing machine. Points of special advantage are: its simplicity, compactness, low cost of installation, low cost of operation, economy in the use of water, and its washing of coal that is not closely sized."

For catalogues address the above Company.

New Edition of Mining Laws.

We have received the ninth edition (just out) of Copp's Mining Code, published by Henry N. Copp, a lawyer of Washington, D. C., who has given many years to the study of mining laws. It is a book of more than 200 pages and will be found of great interest to mine owners and prospectors, as it gives the United States mineral land laws and the official instructions thereunder, the various state and territorial mining laws, miners' liens, rights of way, &c., numerous forms for use from the location to the patenting, lease and sale of mining lands, and is accompanied by a large number of abridgments of court and land office decisions and rulings. Every enterprising mining man will secure a copy. The San Francisco News Company handles Mr. Copp's publications on the Pacific coast. The book is for sale by the principal book stores and by the publisher in Washington, D. C. The price is 50 cents.

THE COMING VEHICLE. (Continued from July 13th.)

The present century now drawing to a close, the mechanical inventions have shown vast changes and probably the greatest revolution of all; the one which has had the most influence on every department of our national life, exists in the marvelous systems of locomotion and conveyance with which we are now so familiar.

It is not perhaps, too much to say that our successors in the not far distant future will wonder at our want of enterprise or forethought in allowing so many years to pass away before we discovered that our railways even at first so successful, ought to have been supplemented long ago by lines of motor vehicles to serve as feeders to the great main lines and that locomotives to run on common or public roads would have added greatly to our convenience and prosperity. Very remarkable is the progress made in the use and extension of the latter problem has been removed and it is evident that promises made will be kept and that we are soon to have established in this country a line of motor wagons for heavy haulage.

They will, of course, be a boon to the agricultural and mining interests in the districts where they may be established, and incidentally the United States will be thrown open to the railways with which they afford communication.

The certainty of remuneration is well calculated to induce capitalists to go into these enterprises.

So between the railway companies, local enterprise and the welcome assistance of capital, the necessary circumstances of war for equipping and establishing these lines of transport should be forthcoming in abundance.

At all events when those who place their trust in the expansion of means of communication can promote lines where they are needed, the hardest part of the battle will be over, and agriculture and mining will have another helpful hand stretched out to it.

In this connection it is likely to be of the country great bonanzas of silver and gold comparable in value to the famous Comstock lode is not to be doubted, but under present conditions and perhaps, the work has been commercially impracticable to open these mines because the excessive cost of transportation made it prohibitive.

These properties are not necessarily the richest, on the contrary, the greatest producers have been mines possessing ores of very low grade in large quantities and so favorably situated that they could be worked cheaply. Given these conditions where they are ore, intelligent economical management and facility of transportation, the production of gold and silver becomes as prosaic and legitimate a branch of any other department of the commercial world.

The statement that a company has been organized for the purpose of constructing motor vehicles having the operating same over the common highways has a great significance. It indicates a remarkable revolution in transportation interest of the change in methods of locomotion foreshadowed will be most radical.

They having determined to build and operate motor wagons over the existing roads in a certain portion of the desert region to enable miners to convey their products to local markets or to railroad, have been fortunate in working out the problem of cheap transportation of these goods, so peculiarly suited to the circumstances of that country.

While in the electric railway, as in electric lighting, the tendency of inventors has been towards the development of new methods, for the purpose of more easily adapting electric devices to public use, in the system of haulage here referred to, a decidedly new departure is taken. Mr. Herbert Spencer, if we remember aright, once drew attention to the survival of conventional curved lines in the bodies of the English railway cars, which thus present the aspect of the old and obsolete stage coaches; and we might instance the more recent case of incandescent lighting in the introduction of which to general notice and use, Mr. Edison sought as far as possible to adhere to methods that had become familiar in the employment of gas. His mains, branches, meters, brackets, electrifiers, and switches are, practically, so many like parts of a gas lighting system, and may be safely left to the handling of the gas companies. Generating stations, the apparatus requires technical skill and knowledge on the part of those who deal with it. Regarding this system, some may say that it is so perfectly simple that any man who gets a mo-
culation of water from the cylinder to the radiator and return is continuous. The inner vessel or carburettor is filled with an absorbent material, which absorbs the charge and leaves no liquid to be lost should a leak occur. Air is drawn automatically through the absorbent material, thoroughly carburetted, and supplied to the engine in exact proportion to the power required. There is not the least element of danger attending its operation. The gas is ignited by an electric spark.

The principle of all gas engines is speed; their speed cannot be varied like the steam engine, but they must run at a nearly uniform rate; therefore special mechanism was required for transmitting power to the axle at any desired rate of speed. It was absolutely essential to complete success that this should be accomplished, and in such a manner that the speed of the wagon could be varied at will of the driver by moving a single lever. For this purpose, a new type of transmission was adopted, embodying as many as four ratios, and the necessary gearing was made adjustable without disturbing the balance of the transmission, and admitting of a great reduction in weight and size.

The wearing parts are easily and quickly replaced. The engines of this size are of very much the same type as the pleasure steamer on the Hudson, and are made to run on paraffin oil, or on any other fuel which may be found on a voyage of any considerable distance.

The engines of this size are arranged so that in descending deep grades they act as air pumps and at the same time, as most efficient brakes, by means of which the speed is easily controlled. On a level road the motor can be stopped within its length when running 12 miles an hour, and on grades in a time longer or shorter in proportion. Independent motors that consume the same amount of power regulate the speed of the vehicle when starting and, above all other advantages, transmits maximum power when driving a vehicle at minimum rate of speed.

The system here employed is one of the most efficient and reliable, and it is to be hoped that it will soon be adopted by other companies. The system has been in operation for some time, and with a few modifications, it is capable of being adapted to any class of work.

It is evident that such a system is free from danger, and that a mere right of way is sufficient without the cost of the fee.

It is adapted to uneven surfaces, sharp curves or grades, and can be made to run on any road, without any serious obstacle. The opportunities for the application of this system are vast and the variety of uses to which it can be put is great, both in cities and in the country.

The rate of speed will depend on the service to be rendered, the only limitation, however, is in the nature of the roadway.

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For working the sands from separating box.

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Works the alums from the separator.

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Concentrates ores in the water. The above machinery is being set up and can be seen at our store.

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Highest cash price for old gold and silver, placer and retort gold; we will make returns in Southern California, Arizona, New Mexico from 4 to 6 days quicker than from any other point.

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Enterprising Machine Works

GENERAL REPAIRING

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Over 4,200 in Actual Use

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It can be safely stated, without going into a description of several new and unrivaled concentrators that have lately come into the market, that where the time has been the special value is to make close and accurate measurements necessary, the Frue Vanner is always used. It is the only endless belt concentrator in the market that can be handled by the ordinary miner, and gives universal satisfaction. (In all competition of concentrators the Frue Vanner is taken as the standard machine of the world, and all comparisons made by it. There have been over two thousand machines sold, and many more are being sold on the Pacific Coast alone.) They are in use in every part of the world where mining is carried on, and in all cases they have given perfect satisfaction. From time to time valuable and important improvements have been made in this machine to increase its capacity and durability, and particular attention is given to the lining the bottom so that it will stand the strain and cracking, as in the old style of flange, making the life of belts more than double that of other similar belts in the market. The top of flange is rounded, which is going over the large end rolls, thereby distributing the strain in the solid rubber, and bringing virtually no strain either at the edge of or at the base of flange, as in the case of belts with inclined edge.

Price of 4-foot wide Flange Belt Frue Vanner... .600.00 c. o. b.

Price of 6-foot wide Flange Belt Frue Vanner... .800.00 c. o. b.

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Surveying, Architecture, Drawing and Assaying.

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CRIPPLE CREEK.

The heart of the Mining District is reached by the Cripple Creek and Midland Railways, which is the direct connection of the Atlantic and Pacific Railroad.

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Steam Shovel, Capacity 600 to 800 cubic yards per day, complete and in thorough working order, will dig cut 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 J. R. T. Journal Office, Silverton, Colorado.

Cheap Fuel for Gas Engines!

The “Best” Engine can be operated on Distillate, Crude Oil, Gasoline, City Gas and Kerosene.

Write for cost of running, for test materials, circuits and Terms.

PUMPS

Irrigating Machinery.

Keystone Foundry and Machine Works, LOS ANGELES, CAL.
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ORE SHIPPERS!

BY SHIPPING YOUR ORES!

to us you obtain the highest price paid on competition in the public market, to

gather with a careful and accurate sample, as
with our own men and inspectors, we are ab;

give perfect satisfaction to all shippers

Write for our Premium Reference Book.
The highest cash price paid for gold bullion
and gold ore returns.
The State Ore Sampling Co.,
Denver City.

ANGELES IRON WORKS

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Mining Machinery.

KNOW \ CALIF.

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

THE CHEAPEST PLACE ON EARTH

TO OUTFIT A MILL IS AT

The J. H. Montgomery Machinery Co.,
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Just Listed—Belleville Steel Whirls, price reduced to $100. Steam Hollowers, $200 and up; hand hollowers $50 each; all prices net; poppet mills, $200; 10 h. stamp mills, $700; 20 h. stamp mill, new, $1,000.

latest improved, only $200. Ore tested and analyzed, concentration mills built to fit the ore and guaranteed to prove what the ore will do. New patents, new designs, new ideas. Write for our Premium Reference Book.

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Manufacturers of Special
MACHINERY, DIES, MODELS,
All Kinds of
PERFORATING

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The Lighter Quartz Mill
Something Good and Cheap

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LUBRICATING OILS AND COMPOUNDS

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 Anti-Friction Metal and all other Grades of Babbitt Metal

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ASSAYERS', MINE
& Mill Supplies

Chemicals and...

Chemical Apparatus

Salt Lake City, Utah


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William Irelan, Jr.,
Mining Engineer, Chemist, Metallurgist, Mineralogist, etc.

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MILLS AT SEATTLE, WASH. CARGO AND CARLOAD ORDERS SOLICITED

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Gold and Silver Mills & Smelting Plants

For the Reduction of Gold, Silver, Lead and Copper Ores.

We are now installing complete Crushing Plants for Cyanide, Chlorination and Bormine Processes, guaranteeing any capacity per day desired to any degree of fineness.

The Finlayson Patent Wire Rope Tramway

Embodies all the good features of the Old Systems with the Addition of Many New Patented Ones, making the Most Perfect System of Wire Haulage extant. It is Automatic and has large capacity. Write for Special Catalogue.

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OF EVERY DESCRIPTION

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SAN FRANCISCO

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For Saving Gold
In Quartz or Gravel Placer Mines. Made of Best Soft Lake Superior Copper

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Completest in Construction, positive movements of all its working parts, New principle of governing which makes it the most Economical; Runs as Smooth as a Steam Engine; Starts without charging on the fly wheel; Crank and Piston are Protecte from Dust; Is adapted to all work where power is used. For full particulars address

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Assaying in all its branches
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Manufacturers of Lewis's Perfection Asbestos Covering
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Between Hyde and Fremont

Merralls' Hydraulic Quartz Mill

The only Mill in the world for reducing hard and tough ores cheaply, either wet or dry. Guaranteed superior to Stamps; less power required, very much less wear and tear, and a much higher per cent. of gold saved. Other so-called Quartz Mills are positively "not in it."

In operation daily. Custom Mill. Send us your ores. Call or address
Merralls Mill Co.,
45 and 47 Fremont Street, San Francisco, Cal.
Mineral Machinery For Sale!

Two 80 Horse Power Boilers.
Two 60 Horse Power Boilers.
One 16½ x 12½ Hamilton Carline Engine.
One 16½ x 24½ Atlas Engine.
One 12 x 20 Double Cylinder Hoisting Engine, Drum 4½ x 6, 500 feet Wire Cable, 6 foot Sheave Cages, 2 Buckets.

One Friction Hoister to be run by belt, capable of hoisting 1000 feet.
Two No. 8 Stillwell Water Heaters.
One Cornish Pumping Plant, Ten Foot Stroke.
One No. 9 Cameron Steam Pump.

This Machinery is nearly new, is in First Class Condition, and will be Sold Cheap for Cash. Apply to

W. E. DAME, Cerrillos, N. M.

To Gold Miners!
Silver Plated Copper AMALGAM PLATES
For Saving Gold.
GOLD REMOVED FROM OLD PLATES AND REPLACED
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GOLD, SILVER and NICKLE Plating Works
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Telephone, Main 394

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Packing,
Oil, etc.

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Particularly Adapted for Mining Use.

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Special attention paid to Mining Timbers
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FOR THE
Transportation of Ore, Fuel and other material, has been erected by us all over the country and is the most economical and efficient method known. Nothing to get out of order; has always given satisfaction.

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Office, 8 Fine Street, San Francisco, Cal.
HAMMOND MANUFACTURING CO.  
MANUFACTURERS OF  
STAMP MILLS  
CONCENTRATORS  
And all Classes of  
MINING MACHINERY  

Wire Rope Tramways with Automatic Loading Apparatus permitting the ore bins to be permanently open.

Speciality made of the Improved, Iron Frame Self-Contained Stamp Mill, the greatest success of the day in reduction of ore to pulp. A great boom to mill builders in countries where timber is plentiful and therefore a greater boon to those who have no timber from which to draw the huge pieces needed in old style mills. We claim for this mill:

1st. It is no longer a new thing, but well tried and its durability proven.
2d. Cheaper than the Wooden Frame Mill when ready to run.
3d. Saves space and can be set up as fast as you have it. Takes less time to get the equipment.
4th. Saves much space.

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

We have inaugurated a system of amalgamation and Concentration which renders both much more satisfactory and cheaper the cost of concentration by a great saving in the repairs to the complicated machinery now used.

Parties intending erecting mining plants would do well to investigate our mills.

We build any mill desired and will deliver F. O. B. Steamers or cars at San Francisco, California.

HAMMOND MANUFACTURING COMPANY  

VICTOR AMALGAMATOR CO.  
MANUFACTURERS OF  
VICTOR AMALGAMATORS FOR MILL OR CHARGE USE  

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

To Victor Amalgamator Co.,
703 South Main St., Los Angeles, Cal., May 20, 1890.

Dear Sirs—Referring to the tests 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 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 two passes. Of the many methods that have been tried for saving the gold from the sea sands, except the Victor Amalgamator, I have had no hesitation in saying that the machine properly handled, will save a larger percentage 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 tailings over, 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,

G. D. KILBOURN.

69 First Street, PORTLAND, OR.

E. H. BURLINGAMPS  
ASSAY OFFICE  
Chemical Laboratory  
Established in Colorado, 1866. Samples by mail or express will receive prompt and careful attention. Gold and Silver Bullion refined, melted and assayed, or Purchased.

Address 1708 and 1709 Lawrence St., Denver, Colo.

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Machining, Milling, and Smelting Machinery  
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J. K. ELYEA  
ELEVENTH & MACLYMONTE,  
ASSAYERS  
Miners and Analysis of Ores. Ball mill Millings by 3-Stamp Mill and Concentrating Plant.

10 Annie Street, San Francisco  
Cable Address: Villeneuve, San Francisco

LLNEWELLYN IRON WORKS  
Manufacturers and Dealers in  
All Kinds of Mining, Smelting and Milling Machinery,  
LOS ANGELES, CAL.
## 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. (A.T. & S.F. R. R.)

<table>
<thead>
<tr>
<th>FROM TO</th>
<th>Valuation not in excess of 2%</th>
<th>Valuation not in excess of 4%</th>
<th>Valuation in excess of 4%</th>
<th>Valuation in excess of 4%</th>
<th>Valuation over 10%</th>
<th>Lead Britannia, valuation not in excess of 5%</th>
<th>Lead Britannia, valuation over 5%</th>
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### SOUTHERN CALIFORNIA RAILWAY

**Rate on Ore in car loads, valuation not to exceed $35 per ton, minimum weight 2500 lbs.**

- **Gumna, Calif.:** all grades, will be at $1 per ton higher than the rate to Kansas City.

- **Notes:** All shipments of Ore and Concentrates valued not to exceed $35 per ton must be billed as Ore or Concentration, "Valuation over $30, not to exceed $35 per ton," and shipping receipt must he signed by agent at division point. If valuation is less than $30 per ton, the rate based on valuation must be the lower rate. If valuation is over $35 per ton, the rate based on valuation must be the higher rate. If valuation is over $30 per ton and less than $35 per ton, a rate for Ore or Concentration will be charged at the rate for Ore and Concentration, "Valuation not to exceed $30 per ton," upon presentation of properly certified original return, showing that the rate used did not exceed $30 per ton.

### SOUTHERN PACIFIC R. R. COMPANY

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

### DODGE CITY, EL PASO & SOUTHERN PACIFIC, SOUTHERN ARIZONA & SOUTHERN PACIFIC, SOUTHERN CARIBBEAN, SOUTHERN PACIFIC R. R. COMPANY

**Rates on Copper or Zinc Ore to Canon City.**

**Taking Effect July 1st, 1891.—So far as rates on Copper or Zinc Ores are concerned, Canon City, Arizona, will be considered as common with Pueblo; in other words the rates shown in Tariff as applying to shipments of Ore to Pueblo, will apply also to shipments of Copper or Zinc Ore to Canon City.**

**In the absence of positive information as to the value of Ore, Concentrate, or Base Metal, Agents will bill at rates sufficiently high to protect the Company. These rates can be corrected when evidence of such value is produced.**

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

**Agents must cause shippers to understand the condition upon which these rates are based, and should make their receipts read: ‘‘Shipment subject to correction according to value at destination.’’ These rates only apply on lots of ten tons or over. On lots of four tons and under ten, and over four tons and under ten, two per cent, and on lots of one ton and less than four per cent will be added to above rates. Base Metal, Copper Matte and Ore Concentrations, in lots of less than ten tons, will take 1st-class rates from the above points, except when the rate based on valuation is higher, that rates on small lots of high value may not be less than the rates when in lots of one ton or over.**

**Charges on Ore in car loads must be guaranteed, and on lots less than one car load must be in all cases be prepaid.**

**Oroba (Copper) Min. Ore:** all grades, will be at $1 per ton higher than the rate to Kansas City.

**Notes:** All shipments of Ore and Concentrations valued not to exceed $35 per ton must be billed as Ore or Concentration, "Valuation over $30, not to exceed $35 per ton," and shipping receipt must be signed by agent at division point. Agent at division point is authorized to correct rate for Ore and Concentration, "Valuation not to exceed $35 per ton," upon presentation of properly certified original return, showing that the rate used did not exceed $35 per ton.

**Intermediate rates and rates for first station beyond.**

### Rates on Copper or Zinc Ore to San Francisco

**Taking Effect July 1st, 1891.—So far as rates on Copper or Zinc Ores are concerned, San Francisco, will be considered as common with Pueblo; in other words the rates shown in Tariff as applying to shipments of Ore to Pueblo, will also apply to shipments of Copper or Zinc Ore to San Francisco.**

**In the absence of positive information as to the value of Ore, Concentrate, or Base Metal, Agents will bill at rates sufficiently high to protect the Company. These rates can be corrected when evidence of such value is produced.**

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

**Agents must cause shippers to understand the condition upon which these rates are based, and should make their receipts read: ‘‘Shipment subject to correction according to value at destination.’’ These rates only apply on lots of ten tons or over. On lots of four tons and under ten, and over four tons and under ten, two per cent, and on lots of one ton and less than four per cent will be added to above rates. Base Metal, Copper Matte and Ore Concentrations, in lots of less than ten tons, will take 1st-class rates from the above points, except when the rate based on valuation is higher, that rates on small lots of high value may not be less than the rates when in lots of one ton or over.**

**Charges on Ore in car loads must be guaranteed, and on lots less than one car load must be in all cases be prepaid.**

**Oroba (Copper) Min. Ore:** all grades, will be at $1 per ton higher than the rate to Kansas City.

**Notes:** All shipments of Ore and Concentrations valued not to exceed $35 per ton must be billed as Ore or Concentration, "Valuation over $30, not to exceed $35 per ton," and shipping receipt must be signed by agent at division point. Agent at division point is authorized to correct rate for Ore and Concentration, "Valuation not to exceed $35 per ton," upon presentation of properly certified original return, showing that the rate used did not exceed $35 per ton.

**Intermediate rates and rates for first station beyond.**

### From Points in New Mexico, Arizona and California, to El Paso, San Francisco and Vallejo Junction.
THE PUEBLO
Smelting and Refining Company,
PUEBLO, COLORADO.

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

Refiners of Gold, Silver, Lead and Copper.

Manufacturers of Bar and Pig Lead, Lead Pipe, Antimonial Lead, Copper Ingots,
Granulated Test Leads and Litharge.

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

Kendall Gold and Silver Extraction Co.

THE KENDALL System of gold and silver milling comprises 1) the Extraction Process, in which the chemical solution extracts the values from ores, 2) the Recovery Process by which the gold and silver are obtained from the solution and 3) a modified form of plant, not indispensable, but permitting the use of unskilled labor.

Kendall Gold and Silver Extraction Co.
47 Broadway, New York City

FOR SALE.
Two Little Giant Hydraulic Nozzles with Screens for connecting with 3 or 4 inch pipe all conditions of class condition and will be sold at a bargain.
Address:
The Journal Office,
Los Angeles, Cal.

CLARENCE HERSEY,
Assayer and Chemist,
(Established 1879)

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