The MINING and METALLURGICAL JOURNAL
FORMERLY THE PACIFIC COAST BULLION.

Vol. XVII., No. 4

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Mr. Dingley, of Maine, chairman of the Ways and Means Committee, and leader of the House of Representatives has been interviewed, and he has frankly stated the object his party has in view in enacting a high duty tariff law. According to him, the chief object is to produce a surplus of revenue that will enable the government to retain the goldbacks received in the Treasury, and not put them out until they can be exchanged for gold.

It has been supposed that the real purposes are to produce a sufficiency of revenue to defray the expenses of the government, to encourage the enlargement and diversification of industries, and to protect American labor against competition from cheap foreign labor; but, according to Mr. Dingley, they are incidental and inferior to another and the main purpose of curtailing the circulation of the greenbacks, or, in more explicit language, the plan is to have the public tax the people in order that the central bank shall circulate a medium, and to further cripple the energy of the people, by retarding enterprise and embarrassing commerce.

It is intended to keep up with the schemes of the gold interests and to promote the interests of the possessors of gold, and at the expense of the masses, to enable them to further rob the laborer of his rightful share of wealth produced by his toil. While this plan can have no other effect than to contract the volume of money, nothing has been devised or suggested to expand the volume, or even to counterbalance the contraction proposed. The gold interests have long been in a career of madness. "Whoa the gods would destroy them first make mad."

THE MINING AND METALLURGICAL JOURNAL.

A DISCLOSURE.

Mr. Thurber, of New York, and others of the Wall street club, would have the law so changed that all our bonds now payable in gold coin be payable in gold. This will enlarge the function of gold and increase the demand for it, and make it more potential than it now is.

The new provision for this change is that it will enable us to obtain money from abroad. It is all very pleasant while we are receiving and expending foreign money, for times are easy, as there is an enough of money, but the situation is quite different when a day does come around, and for interests and dividends it makes its appearance every six months.

Our government and corporations owe British people $1,500,000,000, and it would seem that we are sufficiently distressed to pay the interest on that without incurring a larger indebtedness. A large number of our people believe that it would have been better had we postponed some of our railroad building and other enterprises until we had been able to carry them on with our own money. It is feeble to continually look across the water for money. We must have better take steps that give us money enough of our own, for we will never be prosperous until we rely on our own resources.

The proposal to get money from abroad is a confession that we have not enough of our own. The goldites, however continually assert that we have a plentiful volume of money, yet they urge measures that will enable us to borrow foreign money. We certainly would not borrow if there was no need for it.

When we adopt policies that will promote American interests, we shall have no occasion to ask for foreign loans.

ARE WE PROSPEROUS?

Bank clearances are falling off and failures in business continue. These facts do not indicate prosperity. We do not hear of any diminution of idleness. It is true that a tariff law has not been enacted, but that one will be, which will give more encouragement to industries, on the one hand, and the balance is, on the other, that it would seem that steps should have been taken ere this to inaugurate new enterprises or enlarge old ones, but little or nothing has been done, and it cannot be for the want of money, if the pretentions of the goldites are to be believed.

The fact is, the most depressing influence today is the meagerness of the money volume; and it is the greatest cause of the depression that has gradually been coming upon the country for several years. When more money is provided there will be more enterprise, more employment for the people and less idleness and want. While this is apparent, nothing is suggested by the President or by the majority in Congress that will assure a larger volume. How much longer are we to suffer before the cause of business dullness is recognized by the powers that be?

Anyone having an intention of filing new mining locations will do well to look into the law on the subject, and see how it stands at the last session of the legislature. The old law has been changed and a mistake in this particular might cause complication or a serious loss to some one when a little precaution would insure the party's right.
CORRESPONDENCE.

CALIFORNIA.

Owd Mountain Mining District, May 16, 1897.

EDITOR JOURNAL.—Having a little news from the Mojave Desert, that perhaps might interest some of your readers, in reference to gold mining on the desert, I would like to state that we have found quite a little bench in the Old Mountain mining district.

Jos. Rice and James Strong, prospectors for the Queen Mining Company, have struck a rich fine gold ore in the vicinity discovered last February—a rich porphyry ledge 5 to 6 feet wide, assayed by Belby & Co., gave them $233.17 in gold. They are now down 25 feet on the shaft, and the last assay of the claim gave $38. in free milling gold. They have various other claims which show up nearly as well, and give promise to be a big thing.

The Demi-Centum Prospecting and Developing Company, of San Francisco, have a force of men developing and prospecting their claims. They have sunk a 33-foot shaft on a ledge which assayed $50 to the ton, and gives good indication of being a first-class claim. Another claim, called the Griffith, assayed $100 to the ton, with a 5-foot ledge of free milling gold. They are taking out lots of ore.

Messrs. Blackman & Jett, of Los Angeles, have a promising prospect, which improves with every foot sunk. They have recently discovered another rich claim, which gives good prospect of being a first-class claim.

John Read, one of the best miners on the desert, is here, and washing out gold with a dry placer machine. He has also several good quartz claims which are being developed.

Messrs. Ackerman & Denning have an exceptionally good claim of a 3-foot ledge, assaying $200 to the ton, and shows the ore thickly studded with gold.

This district promises to be one of the best in this part of the desert. Prospectors are flocking in and finding good claims. Lots of food can be had for horses and pack animals. It is a land of plenty.

From the Desert.

GARLOCK, May 15, 1897.—H. C. Lee has bought the Mammoth copper mine at Colorado camp, and is busy putting up a small mill, and has the ore taken from the coal mine. The Heath coal, which is within a few yards of the spring, will be used in the smelting and the copper ore will be hauled up the grade, which is less than half a mile from the coal.

This town now has two cyanide plants, both in operation. The experiments have been quite successful upon the tailings of the various mills.

It has been discovered that the town of Garlock is two miles south of where it was supposed to be, and the last government survey, of which Stakes remain, is a violent fraud.

The mills are doing very little work at present on account of the ore being a little dry. It is said there is plenty in sight, but the owners are afraid to mill it because the cementing suits are almost always run against it for wages, etc.

Water wagons are becoming more evident each day as the weather reaches up to 100° in the shade, and many of our good citizens are leaving for the summer to points on the sea coast and in the mountains.

OLD CORRESPONDENT.

Miscellaneous Mining News.

ARIZONA.

The directors of the Prescott Mining Exchange had an interesting business meeting last evening. The attendance was good and the deliberations were encouraging in nature than those of the last meeting. John Martin and M. G. Burns were present, also J. W. Wilson. Mr. Burns made a very direct and sensible talk on the ore reduction plant proposition. He felt certain that a reduction plant would pay in that vicinity; said there was not an ore condition in Yavapai county but what there was a prospect to take out the gold from that condition of ore. He said the main point was to get enough citizens interested in the project to carry it out. The sense of the meeting was that such works were to be run for the benefit of the country and not for a month or month investment. By request, Mr. Burns agreed to appear at the next meeting of the Mining Exchange, in the courthouse, a week from Tuesday, May 11th, when he would state his ideas as to the character of plant needed.

Max Canin bought the Annie Rooney mine in Walker district, near Phoenix, near the Eagle mine, recently, paying $1,000 for it. This is a good looking prospect.

The tailings of the old Vulture mine, for a large part one of the producing camps in the territory, and which has lately passed into the hands of new owners, are to be treated by the cyanide process, for which a 100 ton plant will soon be erected. Parties who are well acquainted with the character of these tailings, of which there is a vast amount, say the working of them cannot fail to net the owners from $75,000 to $80,000.

Work on the mill is progressing rapidly and it will not be long before Pearce will be turning out silver bullion in large quantities.

The Banner mine in the Sierra district, which was bonded recently by Bethune & Satterwhite, is showing up fine. They are working two shifts a day and are in a fair way to have one of the best mines in the territory. They have a large body of ore which is increasing in volume the further they go into it.

G. B. Hallsten, who owns the Alabama and Tennessee mines in the Papago mining district, was in Tucson last week. He has recently bonded the Tennessee to a Kentucky company who are working two shifts a day, and the mine is showing up some fine ore. The returns from the smelter show 20 percent, copper, with a large percentage of silver and lead also. The crops are very large.

Changes that will more than double the output of the Detroit Copper company are to be made at once, and the management of the camp is to be remodeled upon the plan of Bisbee, which is recognized as the best governed camp in the southwest, as Morenci has been nothing but the opposite condition. At present water for the smelter must be pumped, with more than 1,000 feet of lift, and
there are many difficulties attending transportation to and from the mines over a twenty inch gauge railroad and steep surface inclines owned by the Arizona Copper company, at Clifton, and reports sixty and eighty ton ore cars are being moved from a distance of twelve miles, to the San Francisco river, on the line of the Arizona & New Mexico railway. Sulphuric acid leachers will then be erected for the treatment of the rebellious ores.

Robert Downes and John Burke of Hua- chuca have recently bonded their mine to eastern capitalists for a nice little sum. The mine is showing up well and gives every assurance of becoming a valuable property.

The new Empire smelter at Crittenden was blown in and was run one day last week, in which twenty-seven tons of ore were smelted, from which was realized $103 to the ton in gold. This ore came from the Hardshell and Flux mines which are owned by the company.

The Minnehaha strike in Yavapai county continues to hold out. The strike was made on a ledge on patented ground in the vicinity of the Fortuna mill. The claim has been sold to Messrs. Rily, Swasey & Orton and they will use the old Fortuna mill to work the ore.

The Gladiator mill and mine, near Prescott, are running twenty men and shipping bullion with accustomed regularity.

Joe Kornherc of Pearce, Arizona, who is now prospecting in the Harqua Hala region, has made a gold discovery in the Big Harqua Hala mountains. The vein lies six feet in thickness and can be traced 3,000 feet. The ore shows free gold and horns well.

A party of stockholders of the Franco-American Mining company, situated at Oro Blanco, are expected to arrive at the property from the east soon to look into the affairs of the company and straighten out matters preparatory to putting a large force of men at work. The mine has never been worked for some time.

Dr. W. H. White, of Silver City, N. M., went to his new gold discovery, near Clifton, the fore part of this month. The vein is from 10 to 30 feet in width and prospects well in gold across the entire width of the vein. Work upon the mine is at present confined to rich body of ore, which is from fifteen to two feet in width. The ore is sufficiently rich to bear cost of transportation and smelting establishment and leave a good profit to the owners above wages for mining. A car load is now sacked ready for shipment and will be sent to the Silver City Reduction Works.

Globe will be seriously affected by the temporary shut-down of the Old Dominion Copper company. There are upwards of 250 men employed by the several mining companies operating in this district, and active development work is going on in every part of the district on claims owned by individuals. The United Globe mines are purchasing all the good copper ores offered, and this has greatly stimulated prospecting and development.

The Prescott Courier prints this interesting news concerning mining operations in the northern part of the territory: P. C. Clark of the Bozal Mining company is in town. He reports six shafts at work on the Minnehaha and Bismuth claims, upon each of which 500 feet is to be sunk. The Minnehaha has a double compartment shaft, the Bismuth a single. Mr. Clark says he has taken $2,500 in gold rock from the mine. Jim York is superintendent. About fifty men are at work in the Flat, Shackelford & Marsh have just finished sinking a timber for the company. Lumber is for boarding houses, bunk houses, etc. A cyanide plant is to be put up to work over 400 tons of tailings from the old Fortuna mine. Men are now at work erecting this plant. Mr. Kiley is running the Bozal mill. The Fortuna mill will start up in a few days. Mr. Clark and David Art own the Los Arzona mine. Bull Run gulch, two miles south of Minnehaha, on the Orge Bella road, in which there is a 140-foot tunnel. They started to sink but had to quit at a depth of forty feet, on account of water. They are now looking up a new place of working and a vein which runs from two to three feet wide which will run an average of $50 in gold. A deal for this property is now about to be made with eastern capitalists, who will work it on a large scale.

The Peabody Mine.

An enterprise which may result in great benefit to the mining interests of Cochise county is now under way in Russellville district. The old Peabody mine, which belongs to W. D. Hubbard of Hartford, Ct., and which has in the past been a large producer, was some months ago loaded to Messrs. Fiege and Joers and since rebombed by them to a Philadelphia and English company, whose expert is H. Van F. Furman. The company has purchased and removed to the mine the diamond drill of the Sterling Silver company of Tombstone and will thoroughly exploit portions of the Peabody ground which have never yet been opened. Operations will be under the direction of an experienced mining man and the disclosure of new ore bodies is confidently expected. The mine has been worked under the several years by Mr. W. W. Wirtz and Mitchell and regular shipments have been made to a reduction plant in New Jersey. Only the richest ore could be shipped, and as a consequence there is at least 5,000 tons of low grade ore now on the dump.

It is announced that if the presence of new ore bodies is discovered by the diamond drill, a smelting plant will be erected just a mile near Cochise station, in which event mining in the Dragoon district will receive a powerful impetus. The low grade product of the Peabody mine is said to be valuable fluxing ore.

Phoenix Register.

Among the good properties in Arivaca district, in Pima county, are the Oro Fino group of nine mines, two and one-half miles south of Arivaca. The Longrane’s main shaft is 110 feet deep, with open cuts and two other shafts. The Savage has a shaft fifty feet deep, the Oro Fino main shaft is 120 feet deep, with a tunnel run in 300 feet. Several small cuts and shafts are also in the ledge. The extension of the Oro Fino has a 200-foot tunnel and the other claims have several hundred feet of work on the ledges. This group of mines belongs to Salvador Pignataro.

Hon. Thos. F. Weedin is putting up machinery on his Arcide group of mines, in the Tortillitas, and before many weeks will be making regular shipments of concentrates. The machinery consists of a 10 horse power Weber gas engine, a concentrating mill capable of working a ton of ore an hour, a Blake crusher, and a Hatiz jig washer. Twenty tons of ore will be reduced to one and shipped. The Arcide mine, at a depth of 125 feet, has a 4-foot vein of ore which assays 500 ounces to the ton.

There is a great excitement over an immensely rich strike on the lower levels of the Tres Amigos gold mines at Oro Blanco. In a large body of high grade ore there is a two-foot streak of ore which yields over a dollar a pound.

It is rumored that the Commonwealth Mining and Milling Company lately refused an offer of $8,000,000 for the Pearce mine. It is claimed that there is in sight in the mine $32,000,000 worth of ore.

A Big Deal Near Panamint.

The mining outlook in far southeastern Inyo is as encouraging as ever, and favorable opinions seem to be justified by solid facts. L. F. J. Wrinkle went north last week for the purpose of purchasing the Constance and Mendocino mines, located in the Funeral range, northeast of Panamint. The present owners are offered, for the two, $100,000, a guarantee that $100,000 worth of work will be done, and one-thousand of non-assessable capital stock. Ashdown and Cole, the original discoverers, drifted down from one of the Nevada towns, and after locating the two mines consolidated them. Ashdown sold his half interest for $5,000, while Cole was fortunate enough to get $25,000. The figures now offered, considering the isolated location of the property, indicate that a bonanza is believed to exist there.—Inyo Register.

Cyaniding machinery to the amount of 25,-000 pounds, for use at Mammoth, arrived at Bishop station a few days ago.

KEEN COUNTY.

The Garlock Cymide company, a new custom cyanide plant located near the town of Garlock, started up last week on the tailings from the McKiernan’s mill.

Si Dowillard and Wm. Bower have signed an agreement with T. E. Bawden for $4000 all their interests in the Sequoia and Sequoia No. 2 copper mines. The agreement is not to be binding until Bawden pays the money over. These claims are good ones and are located about thirty miles east of the Sequoia lumber mills in the mountains east of Viasia.

The Los Angeles Gold Mining company have opened up new bodies of ore and will put in ten more stamps to their Mammoth mill near Keysville. They will also erect a tramway from the mines to the mill and will soon put in new ore bins.

The new machinery has been placed and more men are being put on at French Gulch in the Keysville district.
John Farnell is opening the Rip Van Winkle mine and says he has the best mine in the Keyesville district.

P. Reddy, J. C. Campbell and W. H. Metson have given notice to the world that the partnership heretofore existing between themselves and the Singleton-Moore-Burcham interests in and to the Rand group of mines, near Randburg, has been dissolved and no such partnership now exists.

The Colorado Gold Mining and Development company are seeking rich ore in the Three Chimneys mine at Keyesville preparatory to milling. A new and rich ledge was struck during the past week.

C. M. Root has sold the Gilliam mine, in the Keyesville district, to San Francisco parties and has a force of men at work taking out ore and is hauling it to the Tiberbets mill.

The old Sunner five-stamp mill has been sold to Ed Mills and is being taken to the Glen Olive mine, also of the Keyesville district, where it will soon be crushing ore.

Kern County Echo.

The shaft of the Wedge mine has reached a depth of 230 feet. The ledge at this point is so free and wide, and the ore has steadily gained in value as the shaft has been lowered and is now worth $160 a ton. Mr. Rogers states that the shaft will be sunk as rapidly as possible to 415 feet, the capacity of their present hoisting apparatus. This will certainly settle, once for all, the dispute concerning the stability of the ledges in this section.

Randburg Miner.

The new ten-stamp mill of the Visalia Mining and Milling Company at Garlock, Cal., has been put into service with equal success.

MADERA COUNTY.

The Madera county miners are excited, says the Fresno Republican, over a rich strike made in Wagner's mine, which is situated about eight miles above Raymond and the same distance from the old mining camp and station known as Wagner's Gold. The reports which have reached this city are based on reliable authority, and they indicate that a wonderful deposit of the yellow metal has been found. As yet the mine has been worked only on a small scale, and there are good reasons to expect that when more extensive work is done the mine will develop into a real bonanza.

Mr. Wagner first began striking gold in his crude shaft about the first of March, and up to April 1st he extracted in the neighborhood of $31,000 worth of highly productive ore. On April 1st he sold the mine for $14,000 to Shaw Bros. of Raymond. They have great faith in the future of their property, and those who have investigated the mine give the new owners every encouragement by expressions of high opinion.

The precious metal exists in the form known as wire gold, and is of unusual purity, the rock abounds with it and it is easily worked out. The ore measures two tons of ore from the usual manner of the “chump,” and it is sacked and stored in a building, where it will be kept until worked in a mill, which Shaw Bros. will erect.

The old miners in the neighborhood of the new bonanza are very enthusiastic over it, and all those who own claims in the vicinity are digging for the vein of the wonderful ledge. Mr. Wagner, whom fortune has smiled upon so favorably, has resided at the place with his family for the past 20 years, and prospecting with poor success all that time. He is now about 42 years of age, and he and his family have already been enjoying their wealth. They have bought a complete set of furniture for their mountain home, a new piano, and provided themselves with other comforts that wealth can afford.

RIVERSIDE COUNTY.

The ten-stamp mill, being erected by the English Company who own the Gavilan grant, is nearing completion. The property is under the management of H. B. Verecoo, who, when he took charge of the property, closed the Temescal tin mines (owned by the Company) on account of the tin being an inferior grade, and began prospecting for gold—locating and developing over a dozen claims, in which the outcrops range from $20 to $100 per ton. As this company has ample capital behind it, the result will, doubtless, be a systematic development of these mines.

Much interest is felt at Leon, in Riverside county, over the mine which is being developed about eight miles east of there. The mine, the Utica, is the property of C. H. Briggs and Wm. Toole, of Leon, Lon Martin, of Riverside, and J. S. Louini. A very large body of ore has been tested by the cyanide process and works perfectly. There is also water on the property and they are now running a crosscut on the vein, cross-cutting the ledge at a depth of 200 feet. Already much over twenty-five feet has been cross-cut, and there is no sign of getting through the ledge. The ledge crops over some 2000 feet and can be tapped with a tunnel at a depth of 500 feet.

RIVERSIDE ENTERPRISE.

SAN DIEGO COUNTY.

The Helvetia gold mine, in the Julian district, owned by W. H. Holcomb and others, has been bonded for $40,000 to a party of Denver capitalists. There is being driven a 1200 foot tunnel to tap a ledge 700 feet below the surface.

TOLUCA COUNTY.

The main shaft in the famous Rawhide mine is down now nearly 1500 feet, with sinking steadily going on. The principal portion of the ore sent up for reduction comes from the stopes between the 1000 and 500 and 900 and 800-foot levels. A big force is being driven to put the shaft on the 800-foot level. The vein at all points is big and rich. In the line of improvements, we may mention that a large changing room and new offices are being put up, course of erection. Nor has Captain Nevills forgotten his men, but has just had completed an immense cellar in which will be constantly kept about two thousand feet of everything fresh and cool for the boarding house. The company contemplate putting up at once either a hundred ton concentrating plant or a cyanide outfit of the same capacity. It has not yet been decided which will be adopted, but with the idea of proving which of the two methods of treatment is the better, experiments are being made at the mine and also at San Francisco by chemist Price.

The old Riverside mine, four miles above Italian Bar, on the Stanislaus, has been bonded to a syndicate, who propose to commence active operations immediately. The decline is constant, has few switch cuts, and a tunnel on the vein runs in for 600 feet. Assays of rock in the face of the drift are reported to have given very good returns.

The Gray Eagle, at American Camp, will soon be running in full blast. A six-foot vein in true metallic slate has been uncovered that went by mill test $50 per ton.

The Royal mine, at Experimental Gulch, has a small force of men at work and, from developments, is proving a good proposition. With a strong five feet of free milling quartz, it certainly looks like a good place in which to dig.

The Sunset will shortly be reopened by owners Dolph Davis and T. T. Lane. The property is an extension of the Riverside. At one time there was a good mill on the mine, but this was burned down a few years ago. A new one will be dropping stamps just as soon as the outlook justifies the outlay.

Sonora Union-Democrat.

A $40,000 Mining Deal.

The Omega gravel mine, owned by C. W. Ayers and S. S. Bradford, has been sold to the Scotch syndicate who own the Jumper mine for $40,000, of which $10,000 has already been paid, and the remainder will be forthcoming shortly. The property is situated on Table Mountain, between the Alabama and Rawhide. Operations on an extensive scale will be commenced at once.

Work on the Sunset mine near Sonora has been resumed. The machinery is now on the ground and lumber, which has been a scarce article, will be supplied as soon as possible.

The Golden Rule has struck a vein of very rich ore.

The Dutch mine's crosscut, on the 300 level, shows up a vein with 18 feet of pay ore.

The Rosedale gravel mine, near Jamestown, has been sold to George Deeney and Melvin Price.

The Queen mine, at Stent, is being actively worked by a San Francisco Company, which has bonded the property.

The Alameda mine is actively sinking in its main shaft, and has encountered some very rich ore during the past week.

The Providence mine, on the North Fork of the Tuolumne river, has struck an eight-foot vein which shows up well in fine gold.

The mill at the Norwegian mine is nearing completion and will shortly be put to work crushing the fine body of ore now being taken out.

The Columbus mine in the Cherokee district is driving on the 200 level, under the superintendency of J. E. Summers. Good ore has been encountered.

The five-stamp mill at the Pena Blanco mine is to be taken down shortly and erected on Mormon creek. It is to be replaced by a much larger one, which is now an absolute necessity to properly work the massive body of ore awaiting treatment.

The Rappahannock has its shaft down 650 feet, and has started a station on the 600 level. Mr. Chute proposes to sink a thousand feet and will put up a mill this summer.
The ore bodies are proving most flattering. A contract has been let for 500 or 600 cords of wood at $5 a cord, and he will thus obviate any danger of a lack of fuel next winter.

—Toutemine Independent.

COLORADO.

(Extracts from the Mining Investor.)

Idaho Springs.

The Miller tunnel, a cross-cut driven to reach a group of parallel lodes lying within a distance of 750 feet. It pierced them and without proving the lodes to any extent work was stopped and the group has lain idle for about four years until a few weeks ago, when a Pennsylvania company was organized for the purpose. The group consists of about 200 feet in the mine, some of which are exceptionally strong bodies of mineral. The drifts have been cleaned out and reambered for the work of the new company has begun to fill the plats with mill dirt and the ore. The former values ranging from $3.34 to $12 per ton, the average being $10, and the smelting at $30 to $7 per ton, with an average of $5. A force of 30 men has been placed at work and will be increased to about 50 miners underground. Air compressors for power drills will be put in with a full complement of machinery. A mill will also be erected for the treatment of the milling ores, a member or the firm of Hendrie & Ballough having been at the mine this week for the plans for a 25-ton capacity mill to be built and ready for an increase to 100 tons capacity without much additional expense. As soon as the compressors are installed the tunnel will be driven further into the hill in the hope of finding more rich leads. Several new buildings are now in course of erection.

Loy & Straub are driving a cross-cut to reach the Sullivan lode, on the west side of the Chicago mountain. It is silver bearing and the shaft at 150 feet the returns show 200 ounces of silver per ton and two ounces gold.

Redding & Co. from the Freeland Extension mine are shipping 100 of ore which is netting them $40 per ton.

A number of Denver gentlemen, of whom Jones & Jones, the assayers, are at the head, are driving the Sears tunnel on Chicago creek to reach their own group of claims in addition to furnishing drainage and transportation for a number of other properties on the Alps mountain. The tunnel has been under way but a short time, it having been driven 160 feet, and will cut its first known lode in another 50 feet.

Central City.

Denver parties are expected to operate the Air-Line property, in Russell gulch, at an early date. This well known property was a good producer in the early days, some very rich free gold having been taken out.

The new shaft house on the Big Spring lode is completed, and the new machine is now in place, so that active operations can be commenced immediately. This property is owned by an English company, and the intention is to work at least 300 feet further, believing they will open up the mine in good shape when additional depth is gained.

Leasors who are working in the Washington Extension mine, in Lower Lake district, are taking out some fair grade mill ore, their smelting ore running from $50 to $63 per ton. This ore is being taken from the 160-foot level.

Sinking operations have been resumed at the U. S. mine, on Lawrence street, with three eight-hour shifts, the contract calling for another lift of 100 feet, which, when finished, will make shaft 700 feet deep.

The new shaft house on the Prompt Pay, in Russell gulch, is in balance of the excavation, and will be finished during the coming week, when the machinery will be put up and active work started at as early a date as possible.

Eastern parties who are operating a large property in Russell gulch, are reported to be intending starting up the Leavenworth mine, in Leavenworth gulch, at an early date.

Empire.

The somewhat extensive work done on the Cleopatra mine is now bearing fruit in the shape of a good grade iron pyrites, carrying $50 per ton in gold and silver. The property is operated under lease and bond by Dr. J. B. Thompson, of Denver, with its owner, P. Schnur, as manager. Two adits of 100 and 250 feet respectively have been run upon the Cleopatra proper, and one of 275 feet upon the Little Josephine. The Cleopatra has been merged into the new mine, the Cleopatra has been taken up by the Miller company, and the ore will be shipped to the new mill.

The Colorado Tunnel company, the proprietors of some 60 acres of mining land, embracing the Hillside, Denman No. 2, Bimetallic and Gold Coin Nos. 1, 2 and 3, have done development work, and have opened a new adit on the Hillside, which has led to the discovery of a rich strike in the vein which the lessees have been drifting on for some time. It is thought the ore will average fully $1 per pound.

Returns from ore shipped last week from the Vandenburg lease on the Jack Pot gave a value of $37 per ton. Another shipment will be sent out in a few days. There are eighteen sets of lessees in all working on the properties of the Jack Pot company.

For the past two months the Elkton Consolidated has had an output of $5,600 per month, fifty per cent of which is profit. The fourth or 400-foot level at the Elkton shaft has been driven through the Elkton and the Katherine claims and is now in the Walter ground a distance of seventy-five feet. The south drift at the same level has been driven 200 feet, but has not found much ore. The number of men employed.

Thirty pounds of dirt was washed from the Jennings Brothers’ and on the Chat. Two pannings were made from this amount of the auriferous soil and the little particles of the yellow metal were taken by Mr. Jennings to an assayer, who moulded it into a gold button, which is of pure, solid stuff and as large as the face of an ordinary collar button and estimated to contain from $1.30 to $2 worth of gold.

The new pumping plant on the C. O. D. is now in place at a depth of 500 feet. There are three pumps in place, which will handle 2,500 gallons of water per minute. The station is arrow shaped and the management is expecting great things within a short time. A cross-cut from the shaft to the veil will be started in a few days. The work has been done under the direction of Mr. C. E. Palmer, the well known mining and pump man of Colorado Springs.

Mr. R. M. Maloney is keeping up production at the Orphan Bell, where he made a sensational strike some weeks ago. Last week he sent out 100 tons of ore and expects to keep this rate up. The stuff went to the Cripple Creek sampler. The shaft is being continued down. It is now forty feet below the 300-foot level, and 250 tons of ore may be cut at the 400-foot level and the indications are that a larger ore chute which will be found

Cripple Creek Notes.

A shipment of one and a half tons of high grade sacked ore has been made from the Metz and Armstrong lease on the Hillside, on Wednesday last. The returns came from the main shaft and weighed about 350 pounds, a rich streak in the vein which the lessees have been drifting on for some time. It is thought the ore will average fully $1 per pound.

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when that depth is reached. The level has been driven 315 feet all is in ore with the exception of the last 150 feet on the south drift. This drift still has 170 feet to go before it reaches the Buena Vista side line and it will be opened for the full length.—Mining Record.

LOWER CALIFORNIA.

Sale of the Moceterna Mine.

The Moceterna mine in the Alamo has been sold by Messrs. W. E. Howard and P. L. Griffin to Mr. F. M. Bradshaw and Chicago associates. The transfer of the property was made for $70,000. The price is not stated. The owners have recently driven a dyke, and there is now a well-defined ledge of good ore. The shaft has a depth of about 125 feet, and the property is considered one of the most promising in that district. Mr. Bradshaw will continue to work the mine in conjunction with the Aurora in the same camp, and the Wiswall mill on the property will have started up Saturday morning, May 8th.

Mr. Bradshaw and his associates in Chicago are entering into mining quite extensively on this property. They have a large force of men employed on the Aurora mine, which they recently acquired, and the five-stamp mill is in constant operation. With their new acquisition they will more than double their milling capacity, and they have enough ore in sight for the steady employment of both mills.—Lower Californian.

MEXICO.

Sonora Notes.

Last week the Planchas Mining Company shipped 300 pounds of silver bullion.

Senor Enrique Ronstadt, of Magdalena, has recently denounced a mining property ten or twelve leagues from Magdalena—a new discovery rich in copper.

A number of Bisbee miners are outfitting a prospecting party into the Yaqui river country, now opened by the recently negotiated peace with the Yaqui Indians.

It is rumored that the Don Ignacio ground, adjoining La Colorado mine (at Prietas) has been sold by La Compania Union Minera to a syndicate of Chicago capitalists.

In his copper mine, some thirty miles from Ortiz station, P. B. Chisme has the shaft now down eighty-three feet and has commenced cross-cutting. Already ten feet of high grade ore have been developed, and more coming.

Near Bacacoche, the Cerro del Oro Company have some 300 men employed, and have recently discovered new and very rich ledges upon their properties. All the lumber, supplies and machinery necessary are upon the ground, and construction work upon the mill will be pushed with all vigor. Large reserves of ore have been developed and when the mill starts it will be for a long and prosperous run.

One mile from El Tiro mine, in the Cienega country, is another property called La Yaque, on which a New Orleans syndicate, headed by General Miller, a prominent Louisiana capitalist, has secured a sixty-day bond; and Mr. Whitaker, representing the company, is now on the ground arranging to put up a whip, to draw the water, and to put it in operation in a short time which has been ordered. Mr. C. H. Gibson, superintendent for the

Gold and Silver recovery Company, at Cerro Colorado, has received orders to have his company handle the Yaque for the new syndicate.

(Extracts from Mexican trader.)

Chihuahua.

Mr. Andrew J. Stewart, of Pennsylvania, states that there are two big mines, the Sahanel and Corralillo, which produce not less than $1,500,000 a year each. Both properties employ about 2500 men and ship about 200 tons per day, which averages over $50 per ton. Mr. Stewart claims, and with reason, that the opportunities in that state were never better than at present. The same thing may be justly said of some half dozen other Mexican states.

Sonora.

We have repeatedly called attention to the state of Sonora as a promising field. We now learn that J. E. Enzenegger, representing the South African-Australian Mining company, has just visited some of the rich gold districts in this state and has recommended his company to invest $250,000 there in mines. Then the British Gold Mining company of London has just purchased a mining Zone in the Arena districts, the purchase price being $1,500,000 in gold. Furthermore, a syndicate of New York and Boston capitalists has recently paid $4,000,000 for a group of mines in the Copala district. This is not all. Through the effort of the Hon. Brewster Cameron, who was in Mexico some months ago and will shortly be there again, a London syndicate, known as the Campana Consolidated Gold Mines Limited, has invested some $1,000,000 in gold in the Altar district.

Durango.

It is stated that the Avino mine has been purchased by a St. Louis, Mo., company and that the new owners propose to invest upwards of $400,000 in developing the property.

Chihuahua.

During March the concentrating mill of Chiapala Mining company ran twenty-one days, crushing 1,850 tons of ore, yielding twenty-two tons of gold and silver. The stamp mill ran eighteen days, stamping 1,540 tons of tailings, yielding 175 ounces of gold. The stoppage was mainly due to want of water.

Zacatecas.

There is quite a boom in this district, in fact, there are no miners at present employed. The Queretlida company is employing large numbers in new exploratory work.

The San Luis del Oro has let the contract to the Industrial company of Chihuahua for a twenty-stamp mill, with plates and eight concentrators, two standard boilers and a 150 h. p. Corless engine, a complete electric light plant for the mines and reduction works, and a larger pumping plant for the mines. The mines are well developed and have large ore bodies in sight, besides some 1,500 tons on the dump.

The Central company, under the able management of Mr. Gardner, has erected a fine plant, consisting of two Bryan mills with plates and eight concentrators, one standard boiler and a 750 h. p. Corless engine. Their mines are well developed and show large ore bodies.

A big high and low pressure Reider pump is being put in on the 2000 foot level of the Creston mine at La Colorado.

It has just leaked out that Mesers. Vicente Lombarde and Antonio Ferrer, of Tezutnaiyen, in the state of Puebla, closed a deal a few days since with the Guggenheim for the transfer of part of their lead mine, which is situated six miles north of the above-named point. It is asserted that the controlling interest is in possession of the Guggenheims. The transaction was affected by Messrs. C. H. and D. B. Benjamin. The property will be operated in the future under the name of the Compania Beneficiadora de Metales Atriferos de Tezutnaiyen.

NEVADA.

Herman Zadig, the mining expert of San Francisco, recently visited the Buckeye placer and he says he believes the finding of the river channel is the most important mining event in this country for years. He has in all his experience, never seen so much gold in a given space in the ground. One pan turned out $125 in nuggets and in places it was up to the cubical yard. Nevada 15 cents to the cubic yard makes a mining excitement. He thinks that the millions of gold this placer will produce, will startle the world with its productiveness and add millions to the wealth of Nevada. Why such a property has been unsold so long astonishes him.

An important strike was made in the Carlin Virginia last week in the shape of five feet of $500 rock. Good assays are also being taken from the Brunswick, in Virginia City.

The White Pine Boom.

From a private letter we learn that White Pine county is on the eve of a boom which promises to equal in extent the famous White Pine excitement of 1868, but with the difference that this time everything points to a permanent and substantial prosperity.

Our correspondent reports the business in and around Elko and Cherry Creek is picking up in good shape as a result of mining operations, which have been practically at a standing still since the winter. The miners are now waiting for the price of silver to go up. Now agreements have been reached by which capitalists have taken hold of the closed down properties and are investing money unselfishly, with every indication of profitable returns.

The Star and Gray Eagle properties at Cherry Creek are being improved extensively. Pump and hoisting works are being erected and a concentrator will go up soon. The pump is now at Toano awaiting transportation to Cherry Creek. When put up it will be the largest in operation in the state, having a capacity of 3000 gallons a minute. The managers of this mine say that the road between Toano and the Old Star mine won't have any grass in the middle of it from now on. The Star has been and still is one of the best silver mines in the state. The superintendent is Joe Parren, a thorough mining man.

The Newton Dunvan mine of Kinlay has about 1200 sacks of low grade ore out for shipment, and should the returns meet with their expectations the owners will continue extracting ore for shipment, have a practically unlimited quantity in sight in their mine.

A five stamp mill is to be put up shortly at the Ben Hur gold mine, 25 miles from Cherry Creek.
The Chairman mine at Ely will have a good sized mill soon. Bids are now out for hauling 132,000 feet of lumber. If present intentions are carried out, an electric light and power plant will be erected and operated in connection with the new mill. The extensive improvements indicate a general business revival for that section, something which hasn't been in evidence for years.

The owners of the Adelaide copper mine, at Golconda, in Humboldt county, are looking for a site to build a smelter on, in the neighborhood of Golconda, with which they intend to work their valuable copper ore. It is also reported that they will erect a mill for the working of customer ores. The company is composed of Salt Lake people, and has plenty of capital and means business.

Some rich strikes have recently been reported from Wadsworth in Washoe county.

There will be a five-stamp mill erected on the property owned by Robert Denio and J. W. Cowden in the Denis district, near Winnemucca, in Humboldt county.

**Silver Peak Notes.**

The tunnel started a month ago by Mr. John Chichovich is progressing rapidly and is in good ore. The pay streak is six feet wide and will work between $20 and $50, where they raised up on it from the tunnel level. The north drift is 20 feet in good quartz, the south drift about 15 feet, and the whole ledge indicates strength and permanence. In a week or ten days the ground will be opened, so that stopping on the ore will commence when a few men can keep the ten stamp mill running.

The owners of mines in the White Mountains, above Fish Lake valley, are to begin work as soon as the snow goes off. There are some fine mines there of lead, silver and gold. In fact, the gold is what they rely on for profit. Louis Leidy's Great Gulch mine improves as he gets deeper and is one of the most promising prospects in the district. It is a new find and in a new field, and shows the great extent of this mineral belt.

The miners of lower Tule Canyon are doing well. There is too much snow at the upper end for them to work the placer mines.

Sam Case is extracting good ore from the Homestake.

Fred Vollmer is repairing his little mill and will start up shortly.

Joe Lang is prospecting his mines and they look well.

The Valdala brothers are running the O'Kane mill on ore from their mines and are doing well.—Hatchorne Bulletin.

It is reported that the London Exploration company has secured an option on the great De Lamo mine in De Lamo, Nevada, and that within a few days that property will pass into the hands of that powerful corporatio?

**NEW MEXICO.**

**Black Mountain Notes.**

Mr. Francis, another old mining man, has consolidated his own with the claim of Messrs. Foss and Humphreys, all on the vein with and between the Sunol and Mormon mines, has let a contract for 500 feet of shaft work, and has in his camp 5000 pounds of laborers' supplies. Messrs. Niles and O'Leary have an excellent prospect at the foot of Black Mountain. They have sunk a shaft 72 feet and find the vein widening and improving in quality.

Reports coming into Cimarron from the Urraca and Bonito districts, which are nine miles from the above place, show that work has begun in earnest this spring.

The owners of the Elkhorn are running two shafts on their tunnel and will complete it to a distance of 170 feet inside of the next thirty or forty days, they having already done 130 feet.

The "Wm. Jones" tunnel is in sixty feet and is to be entered thirty feet more, where it will intersect a large vein of low grade ore.

A contract has been let for a 200-foot tunnel on the Bonito Camp, the property of Messrs. Clouthier & Abrici, from which some very high assays have been obtained.

Work will commence in a few days on the placers that are now in camp and a most prosperous season is looked for.

The second carload of machinery for the American mine at Nogal, in Lincoln Co., was sent across the country from San Antonio.

It is reported from a reliable source that the Old Abe mine at White Oaks has started up.

A law just passed by the New Mexico legislature is of a stringent character, making it impossible to do "lead pencil assessments," and this law will result in a great many locations changing hands at nominal prices. Ninety days are allowed in which assessment may be done, and it is a misdemeanor, punishable by fine and imprisonment, to lay new claims on old locations.

**A Rich Strike.**

On Monday, May 3rd, in a cross-cut on the Gold Standard mine, at Cerrillos, about 17 feet from the surface, a piece of ore 14 x 16 inches was taken out, which surpasses in richness anything before encountered, even in that wonderful mine. The ore weighs about 75 pounds and is literally filled with gold. The estimated value is about $2000. The ore from the rich vein in this mine has all been sacked and stored, and the owners estimate the value of ore stored to be from $1200 to $2000 a sack.

Output of Hillsboro gold mines for the week ending Thursday, May 6th, 1897, as reported for The Advocate:

| Wicks | 25 |
| Butte | 10 |
| Richmond | 30 |
| Happy Jack | 50 |
| Snake Group | 30 |
| Opportunity | 10 |
| Sherman | 15 |
| Prosper | 5 |
| Eighty-five | 5 |
| Percha (silver-lead) | 10 |

Total output since Jan. 1, 1897, 2,800.

In the face of the main adit level of the Confidence mine at Mogollon, a large body of ore has been encountered which is of higher grade than that recently mined. The vein at this point is 12 feet in width, and the ore body is 2 feet wide, with a strike of 45 degrees, with every foot driven. The ore body is compact and gives many indications of being of very great extent. The adit level, in the face of which the ore body is 1500 feet in length, and attains a depth of about 400 feet. For the past 100 feet or more the ore in the adit level has been of low grade, but this new strike demonstrates that the barren interval is comparatively small between the ore chute.

On the Mound S mine also at Mogollon, a fine body of high grade ore has been struck on the 375 foot level. Another strike has been made on the 150 foot level, and is supposed to be the upper portion of the ore body found below, showing it to be of great extent vertically in the vein, and the indications are that it will be of great lateral extent as well. The ore is of higher grade than anything found hitherto in the mine.

John T. Mitchell, who came from Denver to expert the Tellurium mines at Little Dry creek has secured the option on the property and will commence work immediately. He exhibited a chunk of the ore, weighing 25 pounds, which will run $600 per ton in gold.

The Silver City Turquoise Mining Co. has been organized and articles of incorporation filed with the secretary of the territory. At a meeting of the stockholders held in Silver City, Monday, May 3rd, the following named gentlemen were chosen to constitute a board of directors: E. M. Young, E. B. Moorman, secretary, and C. C. Shoemaker, treasurer. The object of the incorporators is to own and operate a lapidary and all other machinery and appliances necessary to carry on mining and to buy, own and sell state, mines and precious stones and metals. The capitalization is $1,000,000, divided into 100,000 shares of $10 each. The company has some valuable turquoise mines in the Burro mountains as well as some good copper properties—Silver City Enterprise.

**Bland Notes.**

The Crown Point began a shipment of a carload of ore to the Silver City smelter on Monday May 3rd.

Matt Powers has the contracts to drive 20 feet in each the north and south drifts of the Albermarle in the 65 foot level.

Work on the Yellow Jacket in Colla canyon is progressing well, and that valuable property is showing up under development.

Jack Carpenter and Henry Brown have a continuous contract sinking the shaft on the Pamlico, one of the Albermarle group of mines.

Good reports come from the Sheridan north on the Albermarle lead. A large quantity of high grade ore has been opened up on the big level.

The Lone Star is working the usual number of men with a day and night shift on the upraise in the second level which lacks about 10 feet of being completed.

Lots of work is being done on the Black Girl and a good deal of fine ore is being piled on the dump, Messrs. Hart and Young, the lessees of the property, being confident of the outcome.

Hon. J. B. Sheridan, editor of the Silver City Enterprise is an applicant for the position of territorial mine inspector of New Mexico.
S. P. Mahan, mining expert and manager of the Albermarle group of mines, expects to soon leave for the east, to be absent for ten or twelve weeks, during his absence all work on the mine will be done under contract already let.

Martin Hart has finished the assessment work on the Mogul, one of the properties in Cola canyon. The fine character of quartz shows up well in the lead and would indicate that very little development would be required to make it a paying mine.

The Rising Sun, owned by Messrs. Chase, Paxton and Lazarele is at present showing up better than ever before. It is now being worked by the last named who has begun to sink a winze near the end of the 120 foot tunnel and on a four foot vein of slightly decomposed quartz that is well mineralized. As it is no longer on the Rising Sun rock gave a return of four ounces gold, 40 ounces silver to the ton.

Messrs. E. Beekman and W. B. McPherson, who will have the management of the new Bland mill, arrived May 7th from Los Angeles. The machinery for the necessary changes has been shipped and should have reached here before the time they expect it and the delay in transportation will hardly arrive until sometime next week. In the meantime there is considerable work to be done in the way of preparing for the change. The mill will be equipped with a 330 horsepower engine and is expected to do a large amount of work and ore will be delivered to the Silver King pay day. In addition to the employees receiving their monthly checks, the sum of $37,500 will be distributed among the fortunate stockholders.

It is whispered in an undertone that the test run made on Anchor ore with the Ellis concentrator the latter part of last week and the first of this was entirely satisfactory, the results proving even better than expected.

The condition of the Creole road is such that no attempt has as yet been made to haul the new engine and boiler to the mine. Until that shall have been done, Lessee McGrath will make slow progress in developing the property, in the upper workings of which he recently exposed a deposit of high-grade ore.

It leaked out that an important strike was made in the Cumulus about the middle of last week. Details are difficult to procure, but as near as can be learned a five-foot vein of gold-bearing quartz has been cut near the surface, assays on which reveal $20 in gold and from three to four ounces in silver.

Tuesday, May 4th, was the date set for the annual meeting of the stockholders of the Constellation Mining Company, but in the absence of the requisite number of shares an election of officers was not held. The name of Israel Barlow was added to the list of directors. An assessment (No. 14) of 1 1/2 cents per share was levied on the capital stock of the corporation, payable immediately. Three shits are now employed in the mine, the new pump having overcome all obstacles to the prosecution of work uninterrupted.—Record.

Tintic Notes.

The Swansee Mining company on Tuesday May 4th, declared its regular monthly dividend of $5,000 or 5 cents per share. The mine is in excellent shape and the usual amount of ore is being sent out.

At a meeting of the board of directors of the West Cable Mining company held in Salt Lake Thursday May 4th, an assessment of one-half cent per share was levied on the capital stock, the purpose of the assessment being the continued prosecution of development now in progress. Two shifts are at work on the property.

Joseph Gerber and Jacob Hupper have sold the Hungarian mine to Frank Knox of the National Bank of the Republic, the purchase price being $15,000, $1,000 down and the balance in payments to be completed in a year. The Hungarian joins the Ajax of which Mr. Knox is president, and will undoubtedly be consolidated with that property. It has a good record as a producer, although never worked to any depth.

The lessees of the Cleveland mine at Mammoth commenced work on the property the 1st inst. The work is being done through the Stone-Ajax tunnel, and the workmen are thoroughly prospect the vein. The Cleveland is a property with most excellent indications for ore, and we believe with proper development will make a valuable mine. Its position with respect to other producers is all that could be desired.

William Hatfield, George Sutherland and Henry Peary have taken hold of the Martha Washington mine, in the south end of the district, and will at once proceed to the development of the property. A new whim arrived in Silver City Wednesday May 5th, and we are advised that the cleaning up of the old workings has already commenced. The Martha Washington has a good record as a producer and will undoubtedly develop into one of the good things in the district.

Articles of incorporation of the Molly Bawn Mining company were filed in Salt Lake the last of April. The capital stock is fixed at $50,000, divided into shares of $1 each. The officers and directors are A. C. Hose, president; R. E. Norrell, secretary; H. S. Elderbeck, treasurer; F. A. Merriman, J. A. Kersh and H. W. Fuller. The company will operate the Molly Bawn and Last Chance claims in the south end of the district, on which they hold a lease and bond.

Shipsments from the district for the week are as follows:

From the Bullion-Beck mine 10 carloads ore, from the Bullion-Beck mill 15 carloads concentrates, from the Madreka 1 carload ore, from the Uncle Sam 4 carloads ore, from the Mammoth mill 7 carloads concentrates, from the Utah 3 carloads ore, from the Beck and Stockton 1 carload ore, from the Swansea 3 carloads ore, from the South Swansea 5 carloads ore, from the North Star 3 carloads ore, from the Black Dragon 1 carload ore, from the Dragon Iron Mine 2 carloads ore daily.—Tintic Miner.

GENERAL NEWS.

Recent Mining Patents.

Messrs. Townsend Bros., Solicitors of American and Foreign Patents, 9 Downey Block, Los Angeles, California, report the following list of recent patents of interest to mining men:

No. 581,493. April 27, 1897. Amalgamator. W. Wright, New York, assignor to the Electra Manufacturing Co., of West Virginia. A vessel containing water, for containing a slip of amalgamating across above an amalgamating plate and each pipe is provided with nozzles formed of carbon; electricity is supplied to the nozzles and to the plate and water is discharged through the nozzles, upon the plate over which the amalgamation is passed.

No. 581,425. April 27, 1897. Gold saving device. Joseph Mait, Oakland, California. The device passes from a hopper through a regulating gate to an inclined oscillating screen; ruffles are fixed transversely across the screen, each having a short upturned edge and having the longest降低成本 directed upwardly along the screen; a fan is arranged below the screen and forces air therethrough to carry away the lighter material.

No. 581,629. April 27, 1897. Machinery for concentrating mineral from the Richard Simon Co., Philadelphia, Pa. This consists of apparatus embodying a conveyer, a classifying screen, a trough, a washing pan, jiggers, a picking table and chutes and pipes connecting the various parts with each other.

No. 581,428. April 27, 1897. Ore washer. C. W. Oehler, 4552 Main St., Pittsburg, Penn. An endless open open carrier trough through which a wash trough, being supported above the bottom of the trough, and water is directed upon the
ore upon the carrier and passes through the trough both above and below the ore.

No. 581,476. April 27, 1897. Shaft for Stamp Mills. E. A. Blanton, Jr., Wallingford, Penna., assignor to Townden Bros., of Milwaukee, Wis., by his Executors. The ore is placed in a rotating receptacle and subjected to the action of a solution containing hydrochloric acid and also to the action of air or oxygen; the solution containing copper salts in suspension is separated from the ore and the salts reduced by metallic iron, to metallic copper.

No. 581,886. May 4, 1897. Gold Saving Apparatus. J. Marshall, Fairfield, California, assignor to the Marshall Gold Saver Co. The gold is discharged from a hopper, upon screens, and a blower carries a portion of the ore between rotating amalgamated rollers.

No. 582,112. May 4, 1897. Miners Tool. J. W. Bray, Aspen, Colorado. The combination of a canvas bag and canvas bag with a canvas flap is to be used by miners when mining for precious metals.

No. 581,755. May 4, 1897. Ball Pulverizer. William L. Morris, Cleveland, Ohio, assignor to the Morris Ball Pulverizer Company. This is an improvement in the driving mechanism of the Morris Ball Pulverizer, which is provided with a circular grinding track, balls arranged within the track and a driving ring arranged to bear upon the balls to rotate them.

No. 581,756. May 4, 1897. Ball Pulverizer. William L. Morris, Cleveland, Ohio, assignor to the Morris Ball Pulverizer Co. A wedge is interposed between the moving jaw of the crumpling jaw as the rear jaw, and the wedge is adjustable to regulate the movement of the jaw.

The following is a copy of the new law which is of interest to every mining man locating claims.

An Act prescribing the manner of locating mining claims upon the public domain of the United States, recording notices of location thereof, amending defective locations, and providing for the deposit of district records with County Recorders, and prescribing the effect to be given to a lawful record of notices of location and affidavits.

[Approved March 27, 1897.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. The location of mining claims upon the public domain of the United States shall be made and perfected as provided in this Act.

Sec. 2. The discoverer of any vein or lode shall immediately upon making a discovery, erect at the point of discovery a substantial monument or mound of rocks, and post thereon a preliminary notice which shall contain:

First—The name of the lode or claim;
Second—The name of the locator or locators;
Third—The date of the discovery;
Fourth—the number of feet claimed in length along the course of vein each way from the point of discovery;
Fifth—the width claimed on each side of the center line of vein;
Sixth—the general course of the vein or lode as near as may be;
Seventh—Such notice shall be recorded in the office of the County Recorder of the county in which the same is posted within twenty days after the posting thereof.

Sec. 3. Within sixty days from the date of the discovery of a vein or lode, the discoverer must perfect by labor upon such location or claim in developing the vein or lode to an amount which shall be equivalent in the aggregate to at least ten dollars ($10) worth of such labor for each twenty acres, or fractional part thereof, contained in such location or claim.

Sec. 4. The discovery of placer or placer formations or deposits, hereafter made, which do not conform to requirements of this Act, in any part of the same are respectively applicable thereto shall be void.

Sec. 5. All notices of location of mining claims, millsites and other notices, heretofore recorded in such district records, if such notices conform to the local rules and regulations in force in such district, are hereby declared valid. Within thirty days after the passage of this Act the district recorder or custodian of the records of the several mining districts in this State, shall transmit to the County Recorders of the respective counties wherein the respective districts are situated, all the records of said respective districts, and thenceforward to each County Recorder shall be deemed and considered the legal custodian of such records. Thereafter copies of such records, certified by the County Recorder, may be recorded in evidence with the same effect as the originals.

Sec. 6. This Act shall take effect and be in force sixty days after its passage.
The Mining Laws of the State of California by Frederic Hall, author of Halls Mexican Laws, includes the new laws passed by the Legislature of 1897. It is published by J. Bell of Los Angeles and will be bound in paper.

PERSONAL NEWS ITEMS

J. H. Gyger, of Garlock, Kern County, Cal., has gone to Perris, Riverside County, Cal., for a six weeks’ vacation.

W. F. Goodhue, engineer, in charge of the Excelsior company’s water system at White Hills, in Mohave County, Arizona, returned the other day from Albuquerque, N. M.

O. E. Lee left Salt Lake, Utah, for the Dexter mine at Tuscana, Nevada, the first of the week, accompanied by J. Lurke, who is now heavily interested in that gold property.

C. H. Wilbur, a mining man of Salt Lake, Utah, was in Reno, Nevada, May 12th.

C. A. Rice, who is interested in mines in Eldorado canyon, Nevada, was in Kingman, Mohave county, Arizona, last week.

Tzunman Schmick, of Salt Lake City, left, May 14th, for Mountain Home, Idaho, for the purpose of making an examination of a gold property in that locality.

C. S. Lewis, of San Francisco, was in Bill William’s Fork, Arizona, last week, examining some mines.

Wm. McCormick, formerly mill foreman at La Colorado mill, in Sonora, Mexico, is now in California, where he has secured a similar position.

David Murphy, of Denver, and W. H. Randall, of Nogales, Arizona, who were in Tucson last week, examining the Young mining company, in the Silver Bell district, near Tucson, returned home last week.

S. P. Mohan, the mining expert and manager of the Alhambra group of mines, in the Cochit Mining district, near Blanding, Navajo, expects soon to leave for the east on a short business trip.

John A. Rein, a mining man of Prescott, Arizona, has just left for Telluride, Colorado, where he has secured a good position.

H. C. Bement, of Sacremento, N. M., has gone to British Columbia, to invest in mines.

W. Larson, a mining man of San Francisco, Cal., was out in the desert, near Riverside, Cal., where he is interested in some mines, for a few days, last week.

Chas. A. Van Zandt and Edward Zwickley, of Butte, Montana, have gone to Idaho, on an extensive prospecting trip.

P. F. Davis and George Thompson arrived in Gold Creek, Nevada, May 3rd, from Mercur, Utah, in the interest of Utah capitalists.

Capt. Mooton, of Butte, Montana, recently went to Calumet, Michigan, where he will assist his father, who is the general superintendent of the great Calumet and Hecla properties.

P. S. Cole, president of the Bank of Commerce of Kansas City, Mo., is now in Arizona, near Prescott, examining some mines, which he may become interested in.

Chas. D. Lane, of the Uteca mine, was in Kingman, Arizona, the first part of May, looking into some propositions from T. L. Ayres, who owns the Uteca mine, one of the richest gold mines in Mohave county.

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MEXICO

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Note—The above Mexican stocks are figured on the basis of Mexican silver.
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S, Silver; G, Gold; L, Lead; C, Copper; Q, Quicksilver; I, Iron; E, Borax.
Miners' Outfits.

Iron Mortars, Amalgam Mortars, Gold Wash Pans, Miners' Horns, Batter, Crucibles, Horse Shoe Magnets, Magnifying Glasses, Iron Retorts, Chemicals, Scales, Weights, etc.

STATESORE

Sampling Works

Established


Ore Sold On Competitive Basis.

Write for our references book. Address STATE ORE SAMPLING CO.

Gold Bullion bought.

Denver, Colorado.

Angels Iron Works

Derkert & Fuller, Prop.

Mining Machinery.

Angels, Calip.

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

WANTED

A well developed copper mine also a body of more valued ores for treatment by the cyanide or other process.

F. C. Garbutt

Stimson Building, Los Angeles, Cal.

We are the Sole Agents and Manufacturers of the

Finlayson Patent Wire Rope Tramway.

This tramway is the best that has ever been placed on the market. It has no rival. It is strictly automatic and its capacity runs up to 1000 lbs. per bucket. We especially call attention to the automatic loading and unloading terminals and intermediate stations, as being an important improvement over all other systems.

If you are interested in a tramway and want the best that can be had, write us for information.

THE COLORADO IRON WORKS CO., COLO.

Contracting Engineers for and Manufacturers of

MINING, MILLING AND SMELTING PLANTS

We design and erect CRUSHING PLANTS with guaranteed capacity to any degree fineness. Investigate late improvements in our line of machinery.

CORRESPONDENCE INVITED CATALOGUES ON APPLICATION
C. Ducommun,
300-302 N. Main Street, Los Angeles
Assayers Materials, Mine and Mill Supplies
Dixon's Black Lead Crucibles, Denver Fire Clay Crucibles, Muffles, Scorifiers, etc.; Quicksilver, Drill Steel, Retorts, Mortars, Gold Pans, Drilling Hammers, Drifting Picks, Horn Spoons and Shovels.

The Machinery and Electrical Company,
Southern California, Arizona and Northern Mexico.
TREMAIN STEAM STAMP MILLS,
Oil City Boilers and Engines,
Kumway Power Pumps,
LAWRENCE CENTRIFUGAL PUMPS,
Egan Wood-Working Machinery,
Bates Corliss Engines, Bliss Turned Steel Shafing,
SNOW STEAM PUMPS,
Olin Gas Engines, Bradford Mill Co. Lathes,
GATES STEAM WORKS MINING MACHINERY,
Jewel Leather Belting,
Globe Rubber Belting,
Garlock Packing,
Westinghouse Electric and Manufacturing Company's Lighting Railway and Transmission Apparatus,
Sawyer-Man Incandescent Lamps,
Also Dealers in
Rolling Hengiers, Boxes, Dudge Wood Pulleys, General Mining Machinery, Mining Hoists, Whisks, Ore Buckets etc. All kinds of Electrical & Engineering Supplies.

FULTON ENGINEERING AND SHIPBUILDING WORKS
MINING AND MILLING MACHINERY
Adapted to every description of Mining and Milling.
Office and Branch Works. 213 First Street, San Francisco, Cal.
We Manufacture
STAMP MILLS,
CRUSHERS,
CONCENTRATORS,
ENGINES,
PUMPS, HOISTS,
Best equipped works in California, outside of San Francisco.
CORRESPONDENCE SOLICITED
Matteson Manufacturing Co.
STOCKTON, CALIFORNIA.
Los Angeles Tent and Awning Company
Manufacturers of Tents, Wagon Covers, Ore Sacks, and Camp Furniture
A. W. Swanfieldt, Proprietor.
250 South Main Street, Los Angeles, Cal.

HALLIDIE PATENT ROPEWAY
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.
California Wire Works
Office, 8 Pine Street, San Francisco, Cal.

WIRE TRAMWAYS
Ropeways, Incline Planes, and Railways.
Hoisting Apparatus, Patent Grip Pulleys, Transmission of Power by Wire Ropes; 25 years experience; send for Ropeway Pamphlet.
California Wire Works
Works: 332 Bay Street, San Francisco, Cal.
ORE TARIFF.

From Points in Mexico, New Mexico, Texas and Arizona, to El Paso, Pueblo, Denver and N. Mex. City.

ATCHISON, TOPEKA & SANTA FE R.R.

<table>
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<tr>
<th>FROM</th>
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<th>Ore Concentrates</th>
<th>Car Loads in dollars and cents per ton of 2,000 lbs.</th>
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<td>Value per sack</td>
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<td>Value per sack</td>
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**FROM**

| Guaymas...Mex. | Denver | 5.00 | 10.00 |
| Guaymas...Mex. | Kansas City | 4.80 | 9.60 |
| Guaymas...Mex. | El Paso | 4.90 | 9.80 |
| Guaymas...Mex. | Pueblo | 4.80 | 9.60 |
| Guaymas...Mex. | San Antonio | 4.80 | 9.60 |
| Guaymas...Mex. | Chicago | 5.00 | 10.00 |
| Guaymas...Mex. | St. Louis | 5.00 | 10.00 |
| Guaymas...Mex. | Kansas City | 4.80 | 9.60 |
| Guaymas...Mex. | Denver | 5.00 | 10.00 |
| Guaymas...Mex. | Kansas City | 4.80 | 9.60 |
| Guaymas...Mex. | El Paso | 4.90 | 9.80 |
| Guaymas...Mex. | Pueblo | 4.80 | 9.60 |
| Guaymas...Mex. | San Antonio | 4.80 | 9.60 |
| Guaymas...Mex. | Chicago | 5.00 | 10.00 |
| Guaymas...Mex. | St. Louis | 5.00 | 10.00 |
| Guaymas...Mex. | Kansas City | 4.80 | 9.60 |
| Guaymas...Mex. | Denver | 5.00 | 10.00 |

**TO**

| El Paso | 5.90 | 11.80 |
| El Paso | 5.80 | 11.60 |
| El Paso | 5.70 | 11.40 |
| El Paso | 5.60 | 11.20 |
| El Paso | 5.50 | 11.00 |
| El Paso | 5.40 | 10.80 |
| El Paso | 5.30 | 10.60 |
| El Paso | 5.20 | 10.40 |
| El Paso | 5.10 | 10.20 |
| El Paso | 5.00 | 10.00 |

**ORE TARIFF.**

Rate on Ore in car loads, values not to exceed $5 per ton, minimum weight 3,000 lbs. Ore Grade, Cal., to Pueblo, Colo., $150 per ton. Same, Victor, Cal., to Pueblo, $150 per ton. Ore car loads, when coming from the Republic of Mexico, values not to exceed $100 per ton, San Diego or National City to Denver, Colo., and Pueblo, Colo., $150 per ton. Ore car loads, values not to exceed $500 per ton, and per carload, for minimum weight 5,000 lbs. $150 per ton, to Denver and Pueblo, from all points on the Southern California Railway.

**SOUTHERN CALIFORNIA RAILWAY.**

Rates on Ore in car loads, values not to exceed $100 per ton, maximum weight 3,000 lbs. Ore Grade, Cal., to Pueblo, Colo., $150 per ton. Same, Victor, Cal., to Pueblo, Colo., $150 per ton. Ore car loads, when coming from the Republic of Mexico, values not to exceed $100 per ton, San Diego or National City to Denver, Colo., and Pueblo, Colo., $150 per ton. Ore car loads, values not to exceed $500 per ton, and per carload, for minimum weight 5,000 lbs. $150 per ton, to Denver and Pueblo, from all points on the Southern California Railway.

**ORE TARIFF.**

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

**SOUTHERN PACIFIC R. R. COMPANY.**

Rates on Copper or Zinc Ore to Canon City.

Taking Effect July 1st, 1901. So far as rates on Copper or Zinc Ores are concerned, Canon City, Colo., will be considered as common with Phoenix, Ariz., for all purposes. As shown in Tariff as applying on shipments of Ore to Pueblo, will also apply on shipments of Copper or Zinc Ore to Canon City. In the absence of positive information as to the value of Ore, or Concentration in Ore, the rates on Ore Concentrations will be sufficiently high to protect the Company. These rates can be corrected when evidence of actual value is produced. The market price at destination, to be verified by assay made by the Railroad Company at owner's expense, will govern the value and determines the rate. Agents must come shippers to understand the condition upon which these rates are fixed, and should make the reciprocation: 'Rates subject to correction according to value at destination.' The rates may be applied on lots of twenty tons or over. On lots of four tons and under twenty, so per cent, and on lots of one ton and less than four, so per cent will be added to 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 where the rate based on valuation, which means actual value, 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. Above rates are subject to correction according to value at destination. Charges on Ore in car-loads may be guaranteed, and on lots less than a car-load must in all cases be prepaid.

**Omaha Rates.** The Rates to Omaha, Neb., all grades, will be $50 per ton, subject to the same limitations as above. No rates. All shipments of Ore and Concentrations valued not to exceed $50 per ton must be billed at the rate for Ore and Concentrations. 'Valuation over $50 not to exceed $60 per ton,' and shipping receipt must be issued by agent at said rate. Agent at destination is authorized to correct the rate for Ore and Concentrations. 'Valuation not to exceed $50 per ton,' upon presentation of properly certified smelter returns, showing that the value does not exceed $50 per ton.

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

**ORE TARIFF.**

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

**SOUTHERN PACIFIC R. R. COMPANY.**

Rates on Copper or Zinc Ore to Canon City.

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

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