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RECORDING PROGRESS IN MINES.

The mineral wealth of a State is one of the nation’s assets, and is worthy of protection and supervision with regard to its use by our successors in years to come. In every mining county there are to be found one or more abandoned mines, and in many cases several mines in a mining district. It matters not from what cause the mine has been closed but trade conditions change or ownership is vested in others than those last operating it and it is desired to reopen the long closed mine. The former manager, foreman and miners are gone from the district and there are no plans to tell how the workings are. In fact, there is a shaft in the ground and the new manager, owner, or the employees have no guide to aid them in the work of entering the new dangerous and unknown workings. They experience much difficulty and run great risks to life in the dangerous operation of entering the old workings. With a plan of the former workings in hand the operation is made more easy and safe, and it is the duty of every mine manager worthy of the name to leave such a record of his work so that his successors may be able to follow his work in years to come. Another case may be mentioned where a fall or cave-in has occurred in a mine and years afterwards under different ownership and management and different trade conditions it is desired to reopen the workings cut off by the fall or caved in ground, but there being no plan of that part of the mine great difficulty and accidents with loss of life are occasioned, where if a plan had been available the operation would have been made less expensive and possibly accident and loss of life avoided. For these and other good reasons it ought to be made compulsory on every prospector, owner or manager to place on record each year a correct plan and statement of the mining work done and timber put in each prospect and mine in the State and deposit for record and safe keeping a copy of such plan and statement with the Recorder of the county and also a similar copy with the State Mining Bureau. Our plans of surface properties are carefully recorded and preserved, but any record of the underground operations in almost all of the States is at best a mere and mostly neglected. It is against the interests of the whole country to neglect such an important duty as recording the progress in mining development underground. It is the duty of the posterity to leave a record of our underground workings for their protection and guidance in years to come. The mine owner who neglects this duty is guilty of a crime, as carelessness may cause loss of life at a future time. The subject is one which our State Miners’ Association can take in hand and obtain the necessary legislation to have the mine plans recorded and the plans of the yearly progress of all prospects and mines hereafter added to these and made a matter of record as before suggested.

THE STATE MINERS’ ASSOCIATION.

Before another issue of this journal can reach our subscribers the annual meeting of this association will have been held, as that event commences at San Francisco on the 18th inst. It is the duty of all mine owners, managers and others, interested in the mineral development of this State who have the opportunity to do so to attend the annual meeting and give this necessary and worthy institution all the support it requires. Union is strength and it is to the retaining State and Federal legislation in aid of our diversified mining interests and what benefits one branch in particular must necessarily benefit all indirectly. There is no way in which the Southern part of the State can bring its wants in regard to aid to development and increasing the support required to get aid and capital for the requirements of our Desert districts. This is strength to the retaining State and Federal legislation in aid of our diversified mining interests and what benefits one branch in particular must necessarily benefit all indirectly. It is the duty of the State to bring its wants in regard to aid to development and increasing the support required to get aid and capital for the requirements of our Desert districts.

THE GOLD BUG.

The new cyanide plant gives great satisfaction. The mine looks as well as ever. This is one of the most valuable mines in the state. The monthly output is very large. The gold bug has erected a 10 horse power hoisting engine, sinking. The draper mine is sinking a winze on the 300-foot level. The run shows heavy gold, although yet small. The abra mine.

Surveyor Hopper has been making surveys the past week, determining boundaries of mine and mill site, also underground works. The vein is large, and may be considered high grade, worth $14 per ton. Sulphurates are very rich. Main shaft sunk 150 feet; good rock in sight. Work is suspended, as owners are erecting a new hoist. The new 10-stamp mill is shut down, owing to lack of water for power, this being the off season. A large number of other mines are temporarily shut down from lack of water.

GAYWATER MINE.

Shaft sunk 300 feet; large ore body. Grading for a 20-stamp mill is in progress; mill will be running on rock in December next; ore dumps are piled up, awaiting mill.

THE PATTERSON MINE.

This old and heavy gold producer is about to be resuscitated; a 40-stamp mill is to be re-erected, and the laborers employed. This shows confidence—that the owners have faith
that a new mine will be found. Shaft was sunk nearly 800 feet; large ore bodies, low-grade rock.

THE GOLDEN STAR 
is running two tunnels on good ore.

THE ALAMEDA 
struck rich ore at the 600-foot level, showing free gold all through the vein; vein large.

THE RAPHAELHANNOCK 
rich rock, comes to grass last week. A gold find will undoubtedly place this mine on the top list of gold producers in a very short time. This strike was made at the 600-foot level.

The majority of mines are still hung up—i.e., those that depend on water for power. Large retaining reservoirs are being built by the Tucumcari Water Company, so that in another year there will be no scarcity of water. All the mines are guaranteed a full supply all the year round; besides, there will be several large electrical power plants placed thither, so that owners desiring that power can be accommodated with all the power and light needed.

Fifty thousand dollars has just been taken out of the Lewis claim, Bald mountain. It is expected fully five thousand more will be extracted, and the ore will be shipped out as the gold in sight warrants that statement. This is from the pocket belt.

AUGUS.

ISABELLA, CALIF., Oct. 6, 97.

EDITOR JOURNAL.—Noticing an article in your issue of 15th ult., in regard to Mr. Porter’s new method of amalgamating, by the electro-chlorine process, reminds me that Erisken Creek, a short distance south of this place, was the scene of his first experiments in that line. He was baffled in his efforts to use the ordinary cyanide process, on account of the claims of the miners sometimes encountered in this region; being an untrained student, he turned to electricity.

Mr. Porter has now returned to the scene of his early work, and I understand he is making a complete success in extracting the bullion from the ores which defied his former treatment. This success means more than the working of a single mine.

Vendell & Gilliam laboring with a certain class of their ores which, while it will assay several hundred dollars to the ton, will yield but a very trifling percentage of its assay value to any ordinary milling plant; and these gentlemen have come to think that smelting offers the only promising solution in treating their heavy sulphurites. The mine is rich in both gold and silver, and Porter’s process may yet add hundreds of thousands to its value.

I understand that the Russian Bear mine at Glen Over is also south of this place, is at present yielding ore of extraordinary richness; but the express company having withdrawn their service from this route, in retaliation for the robbery of a year ago, men resort to all kinds of expedients to get their bullion to market, and great difficulty is offered in tracing the output of the mine.

The Pioneer mine may be expected to eclipse its previous record.

As a rule, private mining enterprises in this section are meeting with a high percentage of success, while stock companies, as a rule, are being successively reported as frauds or failures. This seems to be the history of forty-five years of mining here as a rule.

STEPHEN BARTON.

MEXICO.

CIUDAD DE MEXICO, Oct. 6, 97.

EDITOR JOURNAL.—One of the most important mining deals, and probably the largest that has ever been attempted in Mexico, is about to be consummated in the transfer of the extensive copper deposits, known as the Inguaran Copper Mines, to the Rockchild interests. Not only the purchase of these mines, at the enormous sum of $5,000,000 in gold, but also the subsequent construction of a railroad from the mines to the coast, over a distance of 2,000 kilometers, at a cost of upwards of eight million dollars, as well as the erection of immense reduction works to treat the vast output that these properties will yield.

These mines are located in the State of Michoacan, whose copper deposits have long been recognized as the largest in the Republic.

The Inguaran mines comprise a mineral extension of 2,000 mining claims, with a copper deposit 500 feet in width extending along the entire length of these claims. A prominent French mining expert who reported on these deposits estimated twenty million tons of copper ore in sight that would average 4 per cent copper.

Mr. Carl W. Eisenmann, of this city, who is the main promoter of this immense deal, and who is the owner of the Bolso copper mines in the northern part of the Republic to the same syndicate, is now at the mines with a corps of mining experts and civil engineers, who are making a thorough and final examination of the properties, as well as a preliminary survey of the projected railroad.

PETENT.

Miscellaneous Mining News.

ARIZONA

Mr. George T. Hoyt of this city is binging about Cochise county, Arizona, backed up, it is said, by a number of local capitalists who think they have several good things thereabouts. He has recently leased four mines in the Huachuca mountains that are described as excellent prospects, with a good future before them. One is located near the Post Canyon, where there has been considerable activity for some months past. The claims and owners are: Mountain Dew, owned by John Burke and L. Scramont, price $10,000; Excelsior, owned by John Burke and J. P. Poe, price $40,000; Miracle, owned by J. R. Sheehy and P. McCarty, price $10,000; Klondyke, owned by John Poe and Robert Downey, price $10,000.

CALIFORNIA

KERN COUNTY.

Steve and Robert Price and J. W. Kelly have bought the combination, which is an extension of the Meteor, paying $5,000 spot cash.

The Little Butte has established a level at the depth of 385 feet, and is now drifting both ways in a vein of good ore. It is expected that the twenty-five horse power gasoline engine will be here within the next two weeks.

A trip up to the Rand gang showed much activity; men are working at all points taking out ore and doing development work, and teams loading ore to take to the mills at Garlock. The old mill seems almost a solid body of ore, much of which is high grade and all of which is easy to mine.

The Minnesawha and Philadelphia are moving along in their accustomed grooves and taking out good ore.

The machinery for the Johannesburg stamp mill is at Kramer and will soon be on the ground. The building is completed and the work of erecting a large tank is now going on. It is hoped to have the stamps dropped within the next thirty days, though unforeseen delays may slightly prolong the time.

At the dry concentrator all interested parties are smiling and good natured, as well they may be. The dry concentrator is an unqualified success in every way. It comes as near saving everything as anything yet invented in either wet or dry process. If there is gold in the rock, be it ever so small, the little wizard-like machines will find and produce for the use of mankind. It has solved the vexatious problem of the dry reduction, and made the desert country, therefore worthless, a possible bonanza.—Randburg Miner.

SAN BERNARDINO COUNTY.

G. H. Harn has purchased the entire interest of T. B. Lyon in Virginia Dale, and has also bought the O. K. copper deposit near there. These properties he will commence to work at once, and will erect a mill as soon as he can get it here.—Free Press.

SAN DIEGO COUNTY.

The Mountain View Mining Company sent out from San Diego a big load of men, tools, and provisions, on the 15th inst., to its property in the Julian district. Work is to be vigorously prosecuted under the superintendence of C. L. Hubbs. The first work will be the taking out of a ‘mill run’ of high grade ore to be treated at the Owens mill at Julian, and immediately following permanent development will have precedence.

On the 16th of the present month several men will leave San Diego to go out and develop the property of the Laguna Mining Company in the Laguna mountains, a lot of ‘trimming ore’ having been sold to provide for the purpose.

Report comes by letter that ruby and borax silver has been struck in the Alpine mine in the Laguna mountains. It has been known that some portions of the vein or ledge were rich in silver and lead.

The famous ‘Bay Horse’ mine, which is represented in this city, seems to have some annoying litigation ahead of it, says the Express. Captain Polhamus of Yuma this week came in to that town from the Mesquite district, where the mine is located, and stated that the property was claimed by him, in that, on the 27th of February, 1896, he had filed two claims to the exact territory now worked by the Bay Horse people and had recorded them in San Diego. He had a claim that had been compiled with all of the provisions of the law and that he has proof and to spare that he made the locations as claimed. He has gone to San Diego to perfect his claim to what is considered one of the most wonderful mining districts in the West, and intends to force the issue.

C. W. Witham & Co. have located some new copper claims joining the old Excelsia copper mines, and have some twenty teams at.
work hauling material from San Diego for the purpose of constructing a dam some sixty feet high across a gulch to form a reservoir of sufficient capacity to furnish them with all the water necessary to carry out their scheme. They are trying to purchase about 200 acres of mineral land of the Encinitas grant. They intend to put in a smelter, and have been offered fifteen acres of land by Mr. Reesek in a suitable place to be used for that purpose. Quite a number of loads of cement, lumber and other material for the dam are already on the grounds.

COLORADO.

The San Juan Mining and Development Co., the properties of which are located in the Animas mining district, near Silverton, in San Juan county, Colo., and whose main office is in San Diego, Cal., where the president of the company, Mr. C. L. Warfield, resides, includes a half dozen or more valuable claims on which $10,000 have been expended in development. The assays of the surface rock give a total of gold, silver and lead of $49.05 per ton, and still no returns of copper are made.

Another increase has been made in the shipment of manganese iron ore from Leadville, Colo., where steel works are made and now amount to nearly 150 tons daily. It is stated by representatives of the steel company that still further increases will be made.

A discovery has been made of nickel in the Cepango district, on the Little South Fork of the Poudre river, in Colorado.

IDAHO.

John W. Eddy, of Helena, was a visitor at Gibbonsville last week, and was looking after his mining interests at that point. The gentleman is one of the owners of the Twin Brothers property, and it is thought that another company has been formed to work several of the valuable properties in the vicinity that are now lying idle.

An important mining deal was consummated at Salmon City last week, when the entire plant and mill of the Idaho Gold Mining and Milling Company was transferred from the present owners to William E. Hubbard of Salt Lake City, Utah, the consideration being $50,000. The mine has been under bond for several months to R. W. McBride, to whom the credit of making the sale is due.

P. L. Gaarden, who, in company with Mr. Gailey of Pittsburg, has an option on the Golden Rule mine, joining the Placer Basin, near Weiser, has struck the ledge he was crosscutting for and found a small place where it is 300 feet by 150 feet and full of large lead and silver. The only three-stamp mill, recently put up on a mine owned by Mr. Nye, Nels Bottcher, the Bunch boys and Naz Carpenter, has been crushing good ore. After a three weeks' run something over $800 was cleaned up. Considering the size of the mill, the job was extra good. The stamps weigh only 150 pounds each.

MONTANA.

(Extracts from Western Mining World.)

H. W. Shearman and others have incorporated the Sonoita Bonanza Mining Company, with a capital stock of $10,000. A rich discovery of copper and gold is reported as having been made in Capt. Lyons' mine at Rock Creek, three miles above Chugwater.

At the Big Indian mine, up Mill Creek, near Sheridan, the new hoist is now being placed, and every preparation made for active and extensive development.

It is reported here that the parties operating the cable-way placer machine on German bar have taken up their boom on Phil Conroy's ranch, at the mouth of Alder Gulch, preparatory to very extensive operations next year.

The Murray district, which is tributary to the Castle road, is beginning to ship a little copper ore. There are good copper leads in the district, and when the mines are developed, it is expected that a large amount of ore will be shipped from there.

It is reported on good authority that Geo. Hammond has purchased a tract of land between Georgia and Nugget, in Madison county. A representative of the smelter company was there last week, but no satisfactory deal could be consummated for the ore.

W. H. Albright, of Great Falls, is arranging for the development of his mining property near Montana City. Mr. Albright has the contract for furnishing the Great Falls smelters with lime, and delivers about 200 tons per day to the Boston and Montana and the silver smelter.

Senator Hoffman's mine, near Iron Rod, Madison county, is getting to be quite a producer, and the ore for the present is being reduced at the Iron Rod mill. As a result of 15 days' running at Mr. Hoffman's mill, about $5,000 of the yellow metal the other day, and there appears to be a lot more where that came from.

NEVADA.

Smelter Blows In.

On the 28th of September, the furnace of the Montana-Nevada Copper Mining Company's smelter was blown in at Yerington, Lyon County. Everything went off like clock work; not a bung or leak was made part of the work. H. A. Keller, a prominent metallurgical and mining engineer of San Francisco, and a man who has had over fifteen years' experience in Leadville and Butte, complimented O. B. Hardy, under whose supervision this smelter was erected, that no change of any kind was necessary at the test. Mr. Keller says that it is very seldom that new works of this kind are started up without a number of changes being necessary before the plant can be successfully operated, and that the successful operation of this smelter is due to the knowledge and management of Mr. Hardy.

The smelter is now running steadily and turning out over eight tons of matte per day.

This will keep teams on the road continuously to Wabaska, where the matte is to be hauled and shipped east. The plant is a large one, and so constructed that another furnace can be added but very little expense. If the expectations of the management are realized, another stack will be up in the early spring. A. Whiteside, of Massachusetts, has been installed as assistant superintendent.

Capt. John Englin last week sold a three-quarter interest in the Ruby copper mine, near Luning, to Mr. O. H. Hardy of Mason Valley. The consideration named in the deed is $2,000.

NEW MEXICO.

Output of Hillsboro gold mines for the week ending Thursday, Oct. 7th, 1897, as reported for The Advocate:

<table>
<thead>
<tr>
<th>Mine</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wicks</td>
<td>50</td>
</tr>
<tr>
<td>Butler</td>
<td>15</td>
</tr>
<tr>
<td>Richmonon</td>
<td>10</td>
</tr>
<tr>
<td>Happy Jack</td>
<td>5</td>
</tr>
<tr>
<td>Sherman</td>
<td>10</td>
</tr>
<tr>
<td>Prosper</td>
<td>5</td>
</tr>
<tr>
<td>Eighty five</td>
<td>5</td>
</tr>
<tr>
<td>Rex (silver-lead)</td>
<td>5</td>
</tr>
</tbody>
</table>

Total: 165

The Llewellyn Cyanide Company are employing all the men they can to work on their leased mines and in the construction of the works. A large stock of supplies and provisions has been laid in and is arriving at the headquarters store, at Dutch gulch. Machinery is beginning to arrive and there is every indication that the Company will make rapid development of the Animas Peak district, Hillsboro.

Some samples were recently taken out of the Rebel Chief No. 2 at Elizabethtown in Colfax county that assayed better than $6,000 to the ton. This, of course, does not represent the ore, but they have considerable ore that will go over $100 to the ton. Mr. Pat Lynch says the rock bears a great resemblance to Red Bandana ore. Mr. Manning has 25 men at work now and confidently expects to have 100 men at work ere long.

Ore hauling from the Lone Star mine to the mill at Bland has been steady all week. The mill is at present treating this ore and good results are expected. The rich ore body in the Lone Star mine still holds out and the force at work there continues producing large quantities of it.

We are in receipt of a copy of the North-west Mining Mirror, a publication recently launched at Tacoma, Washington, which bids fair to rival any other mining journal in the State of Washington. There are twelve pages in all, and it contains a good list of advertisers, accompanied by an excellent selection of mining notes. We wish the new enterprise all the success attainable, and extend our hearty co-operation in every way possible.
OREGON.

Some Southern Oregon Mines.

There has been, and still is, less mining in Douglas county than in either Josephine or Jackson counties, says the midsummer special edition of the Oregon Mining Journal; the county is, however, within the Southern Oregon mineral belt, and the formations are similar to those existing in the other counties named. In early days, considerable gold was obtained in the South Umpqua and Cow Creeks and their tributaries, and both of these streams are still the seat of considerable mining operations.

On Steamboat Creek, in the northwestern part of the county, is the farthest point north where gravel has been worked for gold. This creek is an affluent of the North Umpqua. On all other tributaries of the North Umpqua gold can be found. However, but little mining has been done in this section. Some prospecting has been done there, and some good quartz has been found. The district also contains some copper found in serpentine.

The most noted tributary of the Umpqua is Cow Creek. The gravel of this creek has been worked for over thirty years. The placers are still extensive, and some noted bodies of deep gravel are found. On Tennesse Gulch, some twenty miles up the creek, some good mining ground is also found. Just above the mouth of Tennessee Gulch is the Union quartz mine, which has been extensively worked, producing some very rich ore, treated in an arrastra. The vein is small, however. It was in this vicinity that the "Starve Out Strike," otherwise known as the Green Mountain mine, was discovered some years ago, and is a well-defined ledge, some six feet in width. Another discovery in this creek was an iron mine. There is also found considerable copper.

But the principal enterprise on Cow Creek is the Victory mine, near Glendale, the property of the A. B. C. Company, a corporation whose chief stockholders are residents of Chicago. The president of the company is John Addison. This property until lately was operated by the Victory Placer Mining Company, of which Col. Taylor was manager and promoter. There are several hundred acres of rich gravel, but the difficulty has heretofore been the insufficiency of water.

To supply this, Col. Taylor undertook to erect large pumps, but, before he could demonstrate his ability to mine profitably by this means, the company became involved in financial difficulties, with the result that the property was sold under a judicial decree, and purchased by Mr. Addison and his associates. To increase the water supply, the new company is now constructing a system of ditches, 25 miles in extent, which will tap several creeks putting into Cow Creek, and which, it is claimed, will furnish ample water for the greater part of the year.

One of the most noted districts in Southern Oregon, and one which is the oldest in the country, is Galice Creek District. It lies about twenty-five miles west of Grant's Pass, in Josephine county, and gets its supplies from the above city. Merlin is the nearest point on the railroad. From there a wagon road runs for six miles to Crow's Ranch, where a trail covers the balance of the distance, but steps have been taken to build a wagon road in lieu of this old trail.

The largest, most prominent, and best-equipped hydraulic mines here are those of Jadson Bent and Adin Alexander, both of whom reside in Southern California.

The Alexander and Bent mines are located near the junction of Galice Creek and Rogue River. They consist of 757.82 acres of gold-bearing gravel, covered by United States patent. The ground covers a channel four miles in length, and is divided by the right-hand fork of Galice Creek into two separate mines, each having an independent water supply. The upper property, which is at the head of the channel, is supplied with water by a ditch seven miles in length, from the left fork of Galice Creek. The lower property is supplied by an eight-mile ditch, from the right fork of the creek, and by a ¾ mile ditch from Rock Creek.

The lower property is fitted up with all necessary buildings for mining, also a saw mill and fine blacksmith shop. Two giants are run day and night throughout the mining season, that is from seven to nine months in the year.

Just north of Alexander and Bent's mines, in the same old channel, high up above the Rogue River is the Rocky Gulch mine, which is owned and operated by an incorporated company, the chief stockholders of which are L. L. Jewell, J. W. Sherer and S. S. Prentiss, all residents of Grant's Pass. The ground covers 150 acres, and includes five distinct channels, lying along the mountain side, one above the other. This ground has been worked off and on for the past 20 years, with varying success. The present owners have done much to equip the property: a ditch several miles in extent has been built, and a large reservoir constructed.

The other mines in the district are Ellwell & Casler, who have recently partially equipped their property on Stratton Creek, and a few others.

The hydraulic mine of Eugene Merrill, an illustration of which we print herewith, is equipped with one giant and has plenty of water to operate it nearly the whole year round. The gravel banks are not as deep as the Alexander and Bent mines, but it is stated that the gold is more evenly distributed. They have excellent water rights and possess good dump facilities.

The San Bernardino Free Press has very kindly placed us on their exchange list. The Free Press is a bright, newy, little weekly, and a strong advocate of the free and unlimited coinage of silver at 16 to 1. It contains considerable first class mining notes.

EUGENE MERRILL'S MINE, GALICE CREEK, JOSEPHINE COUNTY, OREGON
UTAH

The Mercantile, in its weekly mining review, says:
This week, in the Rosa, on the hillside, facing the Chloride Point, the shaft broke into a vein taken at eight feet to 65 per cent. The lead and from 150 to 300 ounces silver. This strike was made at a depth of 80 feet, and at the time this information was obtained it was not known whether the ore was in a vein or occurred in a pocket. The Rosa lies between the C. L. C. and Columbia lodes, and is owned by Fraley, Parks and Lambert.
Rumors of an unexpected dividend at the cent. The Sacramento are in the air. It is known that the mine and mill are operating very successfully. The Sacramento gets bigger every day, and those who have been holding the stock and backing their faith with their money, are bound to be amply rewarded.

WASHINGTON

Hydro Smelter at Work.
The works of the Hydro Smelting and Refining Company, at Lake View, were put into operation a few weeks ago. Many people were present to witness a practical demonstration of the merits of the new invention, which combine the requirement of only a few men for operation, cheapness of production of necessary heat, and great saving in the cost of construction, compared with the old method of smelting and refining.
Although the works have a capacity for 60 tons of ore a day, only half a dozen men are necessary to operate with ease, and the entire plant can be manipulated from one stand by one man. It is the hydro-carbon process, regulated by valves, so that the operator can get any temperature he desires at will.
The company is using mixed ores at present, some of which are very refractory.
The plant is designed to smelt precious metals, wrought, pig and Hemetite iron, and can be adapted to matte furnaces. Some very creditable specimens of wrought and pig iron and steel have been produced by this process, and can be seen at the office of the company. Also some fine specimens of bar bullion, weighing 118 pounds each, have been produced.
The merits of the invention are utility and economy in operation, and cheapness of construction, the latter permitting the erection of the smelter at the mine, thereby saving the cost of transportation of ore.
The company will run the Lake View smelter commercially, and build plants throughout the western states through their agents.
R. R. Bradley, a gentleman of wide experience in mining matters, has been made general agent, and will enter upon his duties at once.
It appears that the Hydro Company has rosy prospects for a large and expanding business in the near future.—Northwest Mining Mirror.

In the Brimstone mine, located near Nevada, there are strings of tellurium, from which assays running as high as $2,600 have been obtained.
The Golden Fleece Mining Company has begun operations on their placer claims, the Third Amendment. Last Chance, near the Republic, and are taking out coarse gold in paying quantities.

The owners of the Belle of Wameta group on Fish Creek, near boundary, are arranging to work the mine on an early date. For present they will ship only that of above 45 percent lead, 60 ounces silver, 6 per cent copper and about $5 in gold to the tの.
The Wells Fargo Mining Company has organized, and will start work on the Wells Fargo mine, located on Huckleberry range in the Springdale district. Considerable work has been done on this claim, and the ore in lead carbonates, assaying as high as 75 per cent lead and 30 ounces in silver.
A force of men was put to work this week on the Gentle Annie, owned by the Antie Gold and Silver Mining Company. A cabin has been zero and arrangements made to work this property all winter. This is the result of a visit of the company's president, J. W. Douglas, a month ago. Mr. Douglas was much pleased with the showing made, and the work will be continued on a much larger scale.
The Copper-Gold Mining Company is now one of the most substantial companies operating on the Wallace Indian Reservation. Mr. Baker has returned from the east, where he floated all the stock deemed necessary for the development of the mill, it being 100,000 shares. For the present, there is no Copper-Gold stock on market. The company's claims are the Ironside and Big Bear, located on Toulou Creek, about a mile and a half from the Bossburg and Grand Forks stage road, and less than five miles from Bossburg. The original owners were John Ranahan, T. F. Mitchell and Chris Ness, and who are principal stockholders of the company, the former being the president and manager. Five assays, from a depth of about 20 feet and less, taken from the main ledge, went $1.65, $0.60, $1.48, $2.48 and $26.75, making an average of $45.48 to the ton, principally in gold. Work is now being prosecuted day and night on a tunnel, which will crosscut this ledge at a depth of about 250 feet, and at the present progress the main ore chute will be under the roof in 60 days. They are now in 45 feet and are working in heavily mineralized rock.

FOREIGN MINING NEWS

BRITISH COLUMBIA.

(According to the B. C. Mining Record)

A four-foot ledge of nickel ore has been found in the Trout Lake district, B. C., near Ferguson.
The huge bodies of low grade ore on Jervis Inlet are being noticed by capitalists. These mines are but seventy miles from Vancouver.
Of the Channe Mine Company's properties in Kootenay very good reports have been received. The mining company on Willy Horse Creek, is showing up well, the lead having widened from three and a half to seven feet with good indications. On the Centaur, twenty-five miles from Golden, the outcrops away $16.80 ore at an early date. On the Bock Rest and Golden Hope, at the head of Ice River, the lode, which is three and a half feet wide, assays from $76.00 to $194.00.

Members of the Golden Cache Company left for Lillooet last week to be present when the mill is put in operation.

Mr. J. R. Seymour, who visited the Lillooet and Fairview districts last month, gives the following report of both camps. The Excelsior Mine adjoining the Golden Cache, is the talk of the camp. The tunnel was in 100 feet at the time of his visit, and is valued at $79.00, $42.00, $32.00 and $7.00.
There are many mining products produced in Cariboo. Near Quesnel is found lignite, also on the tributaries of the upper Horsefly and in a formation similar to that in which occurs the coal of southern Alberta. (Med. Hat and Lethbridge.) It is quite probable that where this lignite is found coal exists below.
On the divide between the Clearwater and Quesnel water systems are huge bodies of galena, which are at present being exploited very quietly. South is the Mica Mountains, well earning their name from the tremendous beds of mica which they hold. West and northwest are the mountains surrounding Horsefly, Quesnel and Cariboo Lakes, extending to the Barkerville division in Snowshoe's Peak, Butte, Island and Island Mountain, all containing quartz lodes well worth exploiting. At present only Snowshoe and Island Mountain are getting any attention, but they are all worthy of it.
Cariboo has hundreds of thousands of acres of promising but unexplored ground for placers, miles upon miles of quartz reefs, gave British Columbia her first lift towards making her the choicest state in America.

Work on the Blue Jay is rapidly progressing. Mr. Latimer having taken a contract to build a mill, the company are in great length, and from the continued explosions heard in Vernon that gentleman must be in a hurry to complete his work.
The hundred-foot tunnel on the Denzy has been completed, and Mr. G. Stamps has taken a contract to drive sixty feet further in, and splendid results are anticipated. The owner, Mr. Kempton, recently arrived at Vernon and expressed himself well satisfied with the clearance of the country, and the wonderful progress of his work.

The Morning Glory Mining Company are now hard at work putting in their stamp mill, which, after much delay, arrived in Vernon from Denver, Colorado, last week, and the owners have every hope of showing that they have not invested their capital for nothing.

Very encouraging reports are brought in to Vernon from the Silver Queen, one of the Silver Star claims, where work is being prosecuted by the energetic prospectors.
The old War Eagle Company will pay its last dividend in a few days. The War Eagle, it will be recalled, sold its mine to a Canadian syndicate and afterward disincorporated. Treasurer Lucas was at work last week calculating the value of the remaining assets, and said there would be about $2,500 to be distributed among the shareholders. This would give a 4 3/4 per cent dividend.

Since the mine was sold for $700,000 it has paid a dividend of six cents a share, or $30. If there are gold lodes, it is said there are gold lodes, so that when the final dividend has been paid the owners will have received a dividend more than $1,50 a share as the proceeds of the sale. One of the shareholders, the mine had paid $187, 700 in dividends. So, all things considered, the War Eagle Mining Company has returned its owners' dividends to $490,000. This, for the expenditure of about $30,000, is not bad, being a little more than $3 per i. But the original owners did better than that. The
original War Eagle Company owned the War Eagle, the Iron Mask, the Virginia and the Poorman in separate agreements into four companies and the stockholders in the original company received shares in each of the new companies equal in number to their holding of shares of the original company stock. The owner of 25,000 shares of War Eagle stock received in addition to these shares, 25,000 shares in the Iron Mask, 25,000 in the Virginia and 25,000 in the Poorman. At one time the Iron Mask sold briskly at about 75 cents, and some shares were sold as high as 85 cents. Virginia sold for 20, and Poorman for 12 to 14. So original owners who sold at these figures received more than $2.50 per share for their original holding. Mining men just down from Rossland report that the War Eagle and the Iron Mask are showing up well under development. It is said the owners of the War Eagle intend to push development work for two years before trying to pay dividends, and that they expect to enter upon a long period of dividend paying.

The No. 1 furnace of the Hull smelter at Nelson, which has been idle for a time, is to be converted into a lead furnace.

Col. Baker, minister of mines, has bonded a group of claims in the south fork of St. Mary’s river, East Kootenay. The bonds for the payment of $60,000 is in easy installments.

The Iron Cap mine, Kamloops, is now shipping, the ore assaying nine ounces in gold and 15 per cent copper. This is the property Patsy Clark bonded, sunk down on it 50 feet and then threw up his bond.

Although the Cariboo Mining, Milling and Smelting Company suffered a loss of $12,000 in stolen bullion and legal expenses incurred in connection with the theft, and expended $6,000 in new machinery, it has paid during the past year $7,800.84 in dividends, and has $21,297 in the treasury. To date the company has paid $41,564.76 in dividends.

A shipment from the Athabasca mine, near Nelson last week consisting of twenty-nine tons gave a smelter return of $577.70 per ton. Twenty-seven men are now employed at the mine, and only a portion of the ore taken out is being shipped. The balance, which is free milling ore, is being put to one side for the mill, which will probably be erected this winter.

Sandon Notes.

It is reported that the Payne has struck a large body of ore in the lower tunnel. The Last Chance struck ten inches of clean ore and two feet of carbonates in the No. 3 tunnel, which was made on the Hillside claim at Whitewater. In the inclined shaft, being sunk on the vein, at a depth of ten feet, six inches of clean ore and carbonates and two feet of scattered ore was found on the lower wall. The ledge, which is eighteen feet wide on the surface, is strong and well defined, and as the ore is not complicated with every foot of depth, great results are expected. The Hillside is one of a group of four claims belonging to the Hillside Silver Mining Company, E. C. Ward and Frank Forlin, who hold interests in the company, are in charge of the development work.

The D. C. Mining Critic says: The offer of Mr. W. H. Remin of Seattle, to provide Vancouver with a smelter of 300 tons daily capacity, in return for a civic bonus of $100,000, payable at the rate of $1 a ton on out put, is, although the bond market is larger than that first expected, based on the business lines of actual operations and pro rata. The offer is, therefore, well worth full consideration by the City Council. Perhaps of even more importance to the city was the guarantee of solidity, from the Mr. J. H. Rothschild, of London, England, who has so long been promising great things in regard to smelter working in the state.

The Coast and Island mines stand in growing need of smelter provision in or about Burrard Inlet.

HONDURAS, C. A.

San Juanico is situated about seven leagues easterly from Tegucigalpa, the capital of Honduras, in a cluster of mountains which rise to an elevation of some 7,500 feet above the sea. The climate is fine, ranging in temperature from 65 to 85 degrees with temperature and humidity everywhere. The climate is dry, with a very light wind, and the vegetation is quite luxuriant. The city is the chief seaport of the country, and is connected with the interior by a fine road. The coast is very indented, and the harbors are fine. The city is well built, and has a population of about 20,000. The government is republican, and the capital is at Tegucigalpa, on the Garifuna river, about 40 miles south of San Juanico.

The Rosario mine is the largest enterprise of its kind in Central America. Its mills, and the buildings of its employees, constitute the village of San Juanico, which it owns and operates. Its smelting plant is one of the largest in the world, and is equipped with the most modern machinery. The ore is furnished by the Rosario mine, and is shipped from the mine to the smelter. The ore is shipped by rail to the smelter, and is smelted in the furnace. The copper is then shipped by rail to the smelter, and is smelted in the furnace.

The mines of this company have been working for about 15 years. They are owned entirely by the company and its officers. There are present nearly eight miles of tunnels, in all, of which about 6000 feet are underground, the remainder being on the surface. The principal entrance to the mine is a shaft about a mile long, and the tunnel is about 2000 feet long. The tunnel is about 2000 feet long. The ore is shipped by rail to the smelter, and is smelted in the furnace. The copper is then shipped by rail to the smelter, and is smelted in the furnace.

The ore carries both silver and gold. The mill has 35 stamps, and is equipped for amalgamation by cyanidation, with roasting furnace for concentrates.

To this date the company has paid over $500,000 in dividends, of which $120,000 has been paid since Jan. 1st, 1898.

Yours truly,
C. W. KEMPION.

LOWER CALIFORNIA.

The Piedad Group Bonded.

The Piedad mine in the Jacutie district, together with a number of adjacent properties, and known as the Piedad group, has been bonded to a Los Angeles company, of which ex-Governor Markham of California is a member. Mr. Louis F. Krastkow, who has passed quite a portion of the past year on the Peninsula, is the representative of the company at Escondida, and he and Mr. W. F. Schmerling, of the same company, who is also operating in the mines, were in Escondida last week, preparing to commence developments.

Considerable work has been done on the Piedad mine in recent months. The shaft is down 150 feet with quite extensive drifts and cross-cuts, and there is a five-stamp mill on the property. About a year ago there was an attempt at a sale with rather unsavory consequences, since which time all work has been suspended. It is only recently that this unfortunate tangle of affairs has been straightened out, and now that the mine has been secured by a company for the honest purpose of development, some decisive results may be anticipated. In other words, the district is getting into the hands of men.

In the Rincon Vista mine at Alamo, Joe Goyote, the owner, has struck a fine 250-foot ledge at a depth of 65 feet. Many samples of this ore are full of free gold and the general average is in the neighborhood of $100 per ton.

Work was commenced last week on the air compressor to run the Rand drills in the Aurora and Mocetumina mines, and as soon as the balance of the machinery arrives in Alamo these properties will start in on a large scale.

The St. David mill, under the supervision of Mr. Saville, is running day and night, and the supply of ore in that mine seems to be unlimited. At the Aurora, one of Alamo’s largest properties, they are preparing for the ledge on the 140-foot level. The indications are very favorable for them striking the pay-shoot in a short time. The other day they struck a fine body of quartz on the cross-cut on the 150-foot level on the Mocetumina mine. It prospects very fine and at the present writing they have not determined how wide the ledge is. They have gone in another 300 feet, but have not yet struck the foot-wall.

Reports from the Visnaga mine are very encouraging; a four-thousand-dollar gold brick was brought to this city the other day. The ledge is holding stronger than usual, and the ore is getting richer all the time.

MEXICO.

Yaqui Gold Fields.

The first of last week Capt. T. C. Cox, of California, returned from the Bonanigo region, in the Yaqui country, where he went to examine the newly discovered placer fields, of which considerable mention has been made of late, but no accurate information has been forthcoming. The gentleman went to examine only the property included within a certain concession, and passed judgment on no other portion of the region visited; but he is profuse in praise of the property he examined. He says that the ground is very rich and will pay handsomely to work. A concession covering 150 acres, comprising a portion of the entire ground, had been secured, and Capt. Cox’s mission was to examine that in the interest of a syndicate which will take advantage of the opportunity and work on an extensive scale.

As soon as the treaty of peace between the Yaqui Indians and the Mexican government was signed at Ortiz, on May last, Mr. B. Chism went immediately to that region, took his pick of the ground and secured the concession. During twenty-five years he had known of the value of the region, but never before could it be purchased. The Yaquis were an effecual obstacle.

Ever with an eye open for good investments, Messrs. Harlow & Gowan, learning that Mr. Chism had succeeded in heading off
all competitors and had obtained absolute title from the Mexican government to the new El Dorado, Mr. Gowan of the firm immediately proceeded to Guaymas and succeeded in obtaining a bond on the property, the result of which is the formation of a powerful syndicate of capital to handle the proposition. They enlisted men of heavy capital residing in Phoenix, San Francisco and the east, and Capt. Cox, an eminent expert from California, was sent to examine and report.

"El Bonancito" is a rolling valley, about thirty-five by sixty miles in area, and the locality therein visited by Capt. Cox is only thirty-five miles from Oritz station, on the Sonora railway. The road from the station is good, being almost level the entire distance, but one small canyon to pass through and only two or three low hills to overcome.

The formation is a decomposed granite, the gold is coarse and heavy, and all the water necessary for operation is easily procurable.

Capt. Cox states that in the region are many very valuable quartz ledges upon which some development work has been commenced. The ledges are wide and the ore is free milling gold rock, very rich.

H. T. Collins has returned to Mexico from Sydney, Australia, where he went three years ago in the capacity of a mining engineer. He has returned to take charge of the gold, copper and silver properties of the Chupas Mining Company. He received word from the London owners to return to Mexico and relieve the parties now in charge of the property. As he has not seen the mines as yet, all he knows is that the mine works about six hundred men, and is reported to be good property that has been operated for five years.

Mr. W. A. Clark has placed an order with the Edward P. Allis Company, of Milwaukee, for a large compound condensing engine for the United Verde mine, at Jerome, Arizona; also an order for a blast furnace for the Butte Reduction Works, with the same company.

BURNETTIZING.

This process was proposed by Sir W. Burnett in 1838. It has been in constant use in Hanover since 1849 and later has been adopted as a standard method throughout Germany and Austria. It was introduced in the United States in 1859, but has been extensively used only within the past twenty years. This process, so far, is principally in use for the treatment of railroad ties, but there seems to be no reason why it should not be successfully used to prolong the life of timber for mining purposes.

The process of Burnettizing is simple. The timber is dried by steam, and the antiseptic solution then forced in. The theory of the use of chloride of zinc is that this substance is both an antiseptic and a powerful coagulent of albumen.

Chloride of zinc is cheaply and easily made by simply immersing zinc in muriatic acid until the acid is saturated, leaving no free acid to attack the piping, etc. This salt is now largely manufactured, both in the East equal to one-half pound of water per cubic foot of timber. The retort is then filled with hot chloride solution, and the required quantity of solution forced into the timber by a pressure pump. The entire process with large retorts holding 15,000 feet of timber, usually requires a little less than seven hours’ time.

This process renders timbers much less combustible, and is therefore valuable as a fire preventive. All soluble chlorides have a great affinity for moisture. They will cause substances impregnated with them to remain moist, and, therefore, much less inflammable than if untreated. Common salt (sodium chloride) has long been known as a fire preventive for timber.

The Société d’Encouragement de Paris about ten years ago awarded a prize of 2000 francs for a fire proofing solution to be applied to theatrical scenery, woodwork, etc. The principal effective ingredient of this solution was sal ammoniac (ammonium chloride).

PORTABLE BURNETTIZING PLANT.

![Diagram of Burnettizing Plant](https://via.placeholder.com/150)

Zinc chloride is extremely hygroscopic, much more so than either salt or sal ammoniac. The affinity for moisture is such that it will keep timber damp in the driest climate.

The net cost of Burnettizing in large quantities is about $3 per 1000’ B. M. for treatment. The estimated cost of a portable Burnettizing plant complete is $3000.

A new use of aluminum has been discovered in the manufacture of reproducers for talking machines. The reproducer is the apparatus which holds the vibrating diaphragm of glass. Heretofore the recorders and reproducers of talking machines have been made, as a rule, of hard rubber. For hard rubber aluminum has been substituted with what is regarded as much success. It is claimed that the blazing, blaring or "chattering," as it is called in the trade, which is often noticeable in the performance of the talking machine, is almost completely absent when an aluminum reproducer is used.
GENERAL NEWS.

The Weber Gas and Gasoline Engine Co., of 434 S. W. Boulevard, Kansas City, Mo., reports the following recent sales in the mining trade of Weber engines:

Twenty H. P. Weber gasoline engine and pumping plants, to the Texas Gold Mining Co., of Buffalo, Ga.

Four Weber gasoline engines, including pumping and electric light plant to Squaw Creek mining district, near Phoenix, Arizona, for Mr. Biddle Reeves.

One double drum Weber geared gasoline hoisting engine, 40 h. p., and one single drum Weber gasoline hoisting engine, 10 h. p., to the Gugenheim Smelting Co., Mexico.

One 10 h. p. blowing engine, to Geo. C. Uplegger, Sargent, Col.

Two Weber gasoline heavy engines, to the M. A. Schering Mining and Milling Co., at Benson, Ariz.


Two complete placer mining plants, including two Weber gasoline engines, to W. E. Putnam, Nyssa, Oregon.

Two in these H. C. Monahan gasoline hoisting engines, single drum, geared, to the Consolidated Kansas City Smelting and Refining Co.

One 10 h. p. Weber gasoline engine (hoisting) single drum, geared, to the Gopher Gold Mining Co., at Plush, Cal.

One 10 h. p. friction Weber gasoline hoisting engine, to J. T. McLaughlin, San Pedro, N. M.

Patents of Interest to Mining Men.

Messrs. Townsend Bros., of Los Angeles, furnish us with the following synopsis of patents issued Sept 28 and Oct. 5, '97. Complete copies can be obtained of the Commissioner of patents, at five cents each. (Stamps not accepted.)

PATENTS ISSUED SEPT. 28.

596,673. — Process of, and apparatus for, electrically treating ores, R. H. Oden, Chicago, Ill. Filed Aug. 8, 1896. Invention consists in subjecting the ore to an alternating action of alternating currents, such as hydrogen, and during the interval between the half-periods of the alternating current the ore is subjected to a direct current by the agency of a conductor imbedded in the ore, to heat it with the electrically heated conductor and by the resistance of the ore presents to the current shunted through it. A receptacle is provided with doors, having connected with them hinged sections of a perforated diaphragm, normally forming in the receptacle an upper gas-chamber. A sectional screen-diaphragm is a part of the receptacle forms therein a gas chamber. A discharge port opens down from the lower gas chamber and a covered inlet pipe leads into the lower gas chamber. A pressure valve is provided for the escape of gases from the receptacle and valve-controlled pipes lead into the lower gas chamber. The conduction rods extend across the receptacle, to be heated in the ore.

596,675. — Ore Concentrator, A. R. Wilhie, Denver, Colo. A transversely-inclined movable concentrating table, having a number of longitudinally extending partitions of the table's length, from the head toward the foot, and being of unequal length, the uppermost being the shortest, while the other riffles increase in length from the upper edge to the lower edge of the table. The table has a plain or unriphed portion at the extremities of the riffles, to receive the material caught by the riffles. Means are provided to move the table, so as to carry the material longitudinally toward the tail or foot of the table, where, as it leaves the riffles, it is subjected to the riffles. The riffles are formed on the smooth portion of the table, and the final separation from the gangue is effected.

597,239. — Process of Separating Ores, B. E. Henn. Air is admitted below the surface of water or pulp, to precipitate ore held therein. This separates the ore from arsenic.

597,745. — Suction Box, M. F. Williams and C. H. Dickey, St. Louis, Mo., assigns, to the William's Patent Crusher and Pulverizer Company, same place. The classifier comprises a casing having a hopper opening a shaft to rotate in the casing, and with hammer supports mounted thereon, with hammers pivotally mounted in the supports. The hammers are carried around in a circular path and operated in conjunction with a barred cage and a dead plate to crush the ore.

598,663. — Treating Rebellious Ores, W. L. Brown and H. E. Brown, San Francisco, ore finely divided and mixed with water is added a suitable compound which contains an element which has a chemical affinity for the base constituents of the ore. Then an electric current is passed through the material to unite the said element chemically with the base constituents to liberate the precious metals. Then the material is circulated over an amalgamated surface of the electrical circuit and the material is finally returned again through the field of electrolytic action.

598,830. — Magnetic Ore-Separator, L. Elrod and Camden, N. J. A conveyor belt travels within and beyond the magnetic field of an electric machine. A receptacle is provided beneath the conveyor within vertical lines through the horizontal limits of the magnetic field and a device is provided beneath the conveyor beyond the magnetic field of the electric machine.

PATENTS ISSUED OCT. 5, 1897.

591,149. — Amalgamator, J. P. Schmitz, San Francisco. The ore is fed through a pipe or a pipe of mercury or lead and carried up by brushes worked by the shaft of the screw and discharged over the edge of the pot.

591,412. — Process and Apparatus: Electrolytic Extraction of Metals from their Solutions, J. W. Richards, Bethlehem, Pa. The solutions are subjected to the electrolytic action of an electric current passing into the solution by a hard-anode which is separated from its cathode by a porous partition. A tank contains a liquid amalgam anode in its bottom region and an electrolyte in the region above the anode. If the partition is ranged in the region of the electrolyte, and a porous partition arranged above the anode divides the region of the electrolyte horizontally into two compartments, it is a stand pipe communicates with the lower compartment so that a body of liquid-electrolyte may be maintained in the lower compartment at a pressure exceeding the pressure of the body of liquid-electrolyte in the upper compartment.

591,335. — Concentrator, H. L. Elton, Philadelphia, Pa. A casing is provided having an outlet at the lower end of the casing, and valves controlling the inlets and outlet, within the casing containing a rotatable cylinder provided with an agitator comprising a spirally arranged plate. Openings are provided in the sides of the cylinder between the convolutions of the spiral plate. Suitable chemicals are placed in receptacles in the cylinder which has an outlet at the upper end and has a discharge-outlet at the other end.

Lew E. Anbury, formerly of Bodie, Tombstone and other coast mining camps, and who for the past few years has been an agent in San Diego, has concluded to establish an office in Los Angeles at 115 West First street. The San Diego office will be run as a branch office, and will be under the control of M. W. Anbury, the well-known assayer, of Kaslo, British Columbia, and associated with his brother in mines on the coast for many years. For the past 18 years they have been associated with mines, mills and assay offices at various camps on this coast. Owning the great amount of outside work, it has been found necessary to also establish an assay office at some central point. Both offices are equipped with the finest balances and other material necessary for good work. A new system of handlingbullion, gold dust, etc. are fully appreciated by the patrons, and shippers will be able to receive the highest possible price for their gold. At the same time returns will be made the same day as received, all work being attended to personally by the Anbury brothers, no clerks being employed. Their work will be guaranteed and results held strictly confidential. As the Anbury brothers have been with the mines of the West all their lives, they have had abundant opportunity to familiarize themselves with the various ores encountered in the West, and they have made a special study of all branches of the mining business. To those needing the services of practical men, anything in the mining line will be promptly attended to.

The Colorado Iron Works Company, of Denver, Colorado, reports the following shipments of recent date: A ten-stamp mill, including crushers, etc., to the Star Gold Mining Company, Baker City, Oregon; two carloads mining machinery to Kilton Gold Reduction Company, Florence, Colorado. They have also just closed a contract for a smelting plant to be erected in Mexico.

Among the recently published pamphlets received by this office is one, entitled "Laws of Alaska," pertaining to civil government, mines and land, by Frederick Hall, author of "Hall's Mexican Law," etc., etc. Prack & Blech, of 322 S. Main st., are the publishers. It is a very neat pocket edition of 32 pages and cover, printed on heavy book paper. Nearly one half of the space occupied is devoted to the mineral laws and mining sections of six of the lower states of the United States, sections 238-238. The publishers also devote a few pages to "Land for townships, commercial and manufactures." In the Preface, Mr. Hall furnishes evidence of the iniquities of the American soil in Alaska, and says: If the development on American lands should prove what is expected of them, it is needless to say that a knowledge of the laws pertaining to Alaska will be essential to all who desire to transact business in that Territory.

Five nuggets, valued at a total of $1,300, were recovered at the Central City, Or., by a miner last week from the Gindleville placers, in Grant county.
THE MINING AND METALLURGICAL JOURNAL

PERSONAL NEWS ITEMS

A. F. Minear of New York says: "Mining on the Pacific Coast is only in its infancy. The surface has only been scratched over. So far as quartz mining is concerned, it will increase for a thousand years, as tin mining has done in Cornwall, England, and this California country will be the great gold mining district of the world, and all in the heart of a rich agricultural country. There is nothing like it anywhere else."

J. W. Haley of Milford, Me., has invented a self-lubricating bearing that is thought will prove useful. It consists of a compound of metal and graphite made in such a way as to hold the graphite in solution, which is said to have never been accomplished before. All the metals used will fuse at a much lower temperature than will vitrify glass, which requires 4000 degrees F. These metals are thoroughly mixed while in a powdered form, and combine before the glass becomes liquid. They are then pressed into the journal, and make a hard and self-lubricating bearing, and one which cannot be melted by any friction that could occur as it will stand a red heat. Glass alone makes a journal that will run with less oil than babbitt metal, but it is too brittle. Mr. Haley makes his journal of glass, lead and graphite, which renders it self-lubricating. For light shafting he uses a little antimony; for large shafting he uses a little tin, and with its increased pressure he adds powdered brass and aluminum.

Idaho is the fifth state in the Union in the output of gold and silver, having produced in round numbers $50,000,000 in the year 1896, says the Grangeville Press. California, famed for its mineral wealth, produced only $160,000,000. The outlook in Idaho gives indication that within the next few years the output of the state will exceed that of California. The interior of the state is just being opened up. The prospector who has for years been known as a man of observation, will stand a red heat. He will see the development of these properties. Active mining in the interior of Idaho is as yet in its beginning. Owing to the inaccessible nature of the country, rich ore deposits have been neglected. This year will see a great development of promising properties and it may happen upon some of the famous ledges whose fragments found in placer ground made Idaho so noted as the Golden Golconda in the good old booming times in the early sixties.
## Tin

Although the foreign tin market has advanced, the quotations in New York have declined. New York quotations for spot are $13.50.

### Platinum

Prices are firm at $14 and $15 per oz., New York. For chemical ware, best hammered metal, Messrs. Eimer & Amend of New York furnish the following quotations: prices given below being respectively for orders of over 250 lbs., for orders of over 100 and less than 250 lbs. and for orders of less than 100 lbs. Crushed and dishes, 45c., 55c. and 56c. per lb. Wire and foil are 52c., 53c. and 54c. per lb.

### Quick Silver

The market is steady with some little trudging. The New York quotation is $35.50 per lb. Bank quotations are 35c. for domestic consumption.

### Powder

The demand is good at San Francisco with no change in quotations. For Hercules No. 1, from 11$c. to 17$c., according to strength and quantity. No. 2, from 9$c. to 11$c., according to strength and quantity.

### Copper

The market is quoted as follows at San Francisco:

<table>
<thead>
<tr>
<th>Copper</th>
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<tbody>
<tr>
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### Lead

The lead market has been dull and is still declining on account of a decrease in consumption. The quotations were 4$c. 27,5c. The foreign market, however, remained firm at 4$c. 25, good prices.

### Silver

A very satisfactory demand for silver is reported, but prices do not seem to advance much. The St. Louis market is quoted at 4$c. 00 and the New York market at 4$c. 25.

### Antimony

The quotations are 8c. for Cookson's, 7c. for Halleck's, 7c. for J. & S. and 7c. for U. S. for 1 oz.

### Nickel

There has been some movement, but no change in prices can be reported. New York quotations for Los Angeles are 75c., 85c. and 36c. per pound and for smaller orders 35c. and 36c.

### Acid

The trade in acids has been featureless and prices have remained unchanged.

### Carbonate of Potash

The demand for nitrate of soda continues rather quiet and quotations are $1.00/$1.05 per 100 lbs.

### Nitrate of Soda

The demand for nitrate of soda continues rather quiet and quotations are $1.00/$1.05 per 100 lbs.

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**THE MARKETS.**

New York, Oct. 12th, 1897.

The following are the Silver, Copper and Lead quotations for the past two weeks:

<table>
<thead>
<tr>
<th></th>
<th>Silver</th>
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<tbody>
<tr>
<td>Sept. 1</td>
<td>3$c. 25</td>
<td>2$c. 40</td>
<td>19$c. 50</td>
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<tr>
<td>8</td>
<td>3$c. 25</td>
<td>2$c. 40</td>
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<tr>
<td>15</td>
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<tr>
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The market price of silver is very uncertain. On account of the closing down of the principal silver producing mines of the country, the market price has advanced slightly but not enough to cause the mines to reopen again. It seems to us that one of our greatest industries has been ruined by the policy of our government—allowing the price of silver to be fixed by the Bank of England (one of their own statements) at its pleasure.

The United States assay office in New York reports the total receipts of silver at 251,000 oz., for the last two weeks.

## TIN

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MINING MARKETS.

Los Angeles, Cal., Oct. 12, 1897.

The market for ore here this past week has been characterized by a resumption of Pacific Consolidated, and the better feeling that has been noticeable in all stocks except the Wedge property. This property, an account of whose decline was noted some days ago, is still on the drop-shoot; prospects are not exceedingly fine for its improvement; reports from the mines are as good as ever, but the quotations still hang low. That it will eventually recover to ten or fifteen cents, no one doubts for an instant, but when that better turn will come is the problem that at present confines most of the brokers on the floor.

Magellan is in good ore and looking splendidly; therefore we undoubtably advance to five cents.

Rumors from Pacific Consolidated company advise that there will be a shipment of ore from this property in the near future, and in fact, they are predicting that this will be the first property to be a shipper among all the prospects. Sales have not been as heavy as was anticipated by the stockholders, but there is still good legitimate trading. The new quarters at the Miners Union, Bullion and Exchange, are pleasant to everyone who visits them and the brokers are continuing to be well pleased with the move in every particular. The call room is now fitted up with a luster gallery and every facility for trading. As far as conveniences, light, air and ventilation go, there is not a better ventilated hall anywhere in the state, although, of course, for size and convenience of the lobbies at the Hall and at San Francisco.

Cobb & Hesselmeyer,
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Cobb & Hesselmeyer, mechanical and hydraulic engineers, have designed and engineered some of the most prominent and successful mining developments in the West. They have a wealth of experience in the design and construction of mining machinery and equipment, and are well known for their expertise in the field.

An Assay
Will show what is in your ore....

A Mill Test
Will show what you can get out of it

We Do Both
Practical working tests made of all Classes of Ores and advice given as to best methods of extracting values. Also Anodic, Bedell, Acidic, Barlow, and Modular processes. Free estimate on work reported on. Twenty years experience on the Pacific Coast ores.

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GOLD MINE LOCATIONS
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Assayer and Chemists' Supplies

Cobb & Hesselmeyer, mechanical and hydraulic engineers, have designed and engineered some of the most prominent and successful mining developments in the West. They have a wealth of experience in the design and construction of mining machinery and equipment, and are well known for their expertise in the field.

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NEW IMPROVED
McGlew Ore Concentrator
In use in California
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Nevada
Arizona
Utah
Mexico
Central America
Australia
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We guarantee these machines to handle an average of ten tons per 24 hours, and to do cleaner and closer work than any other CONCENTRATOR in use.

Price, $300 Net Cash, f.o.b.

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Stockton, California

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STAMP MILL AND CONCENTRATOR IN OPERATION ON PREMISES

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Assistant Chemical Consolidated Kansas City Smelting and Rolling Co., Argonne, Kansas.

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Telephone, Main 951.

E. G. DENNISTON,

Send for Circular.

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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 untried concentrators that have lately come into the market, that where sulphides are of such value as to make close saving necessary, the Frue Vanner is always used. It is the only machine the manufacturer of which has been and in all cases they are giving perfect satisfaction, and its operation is endless. The machine is simple and easy to work, and the work that can be done with it is not limited to any particular kind of ore or any particular size of mill. The machine is designed for the purpose of concentrating the finest ores and it is not limited to any particular size of mill. The machine is designed for the purpose of concentrating the finest ores and it can be used any time and place where it is wanted and will do the work as well as any other machine.

Price of 4-foot wide Plain Belt Frue Vanner...

For any information, pamphlets, circulars or testimonials, call or address
JAS. S. BROWNELL,
Western Agent FRUE VANNING MACHINE CO. Successor to ANDERSON & CURTIS
152 Market Street, SAN FRANCISCO
THE MORRIS ROCK BREAKER & ORE CRusher

IT MAKES A FINER AND MORE EVEN PRODUCT THAN ANY OTHER ON THE MARKET, AND IS PARTICULARLY ADAPTED FOR DISTRICTS WHERE FUEL AND WATER ARE SCARCE.

IT REQUIRES LESS POWER THAN ANY OTHER MACHINE PERFORMING THE SAME AMOUNT OF WORK.

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D. M. DOUB, General Agt., 137 First St. San Francisco.

E. C. CREEL, Presidente.

JUAN A. CREEL, Gerente

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