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KLONDIKE ALIEN LAW.

The motto of the ultra loyal class of Canadians is "Canada for the Canadians," and to this class the French Canadian Premier and his Cabinet belong. It will be seen from the following extracts from the act of the Canadian Parliament that it is illegal for an American citizen to grub stake a prospector, with the intention of prospecting in Canada, and that the gold and cold of the Klondyke are both to be reserved for the Canadians:

90-61 VICTORIA.

CHAPTER II.

As Act to restrict the importation and employment of aliens.

Her Majesty, by and with the consent of the Senate and House of Commons of Canada, enacts as follows:

1. From and after the passing of this Act, it shall be unlawful for any person, company, partnership or corporation in any manner to prepay the transportation or in any way to assist or encourage the importation or immigration of any alien or foreigner into Canada, under contract or agreement, parole or special, express or implied, made previous to the importation or immigration of such alien or foreigner, to perform labor or service of any kind in Canada.

2. All contracts or agreements, express or implied, parole or special, hereafter made by and between any person, company, partnership or corporation, and any alien or foreigner, to perform labor or service, or having reference to the performance of labor or service by any person in Canada, previous to the immigration or importation of the person whose labor or service is contracted for into Canada, shall be void and of no effect.

In clause 3, a penalty of one thousand dollars is imposed for every violation of any of the provisions of section one of this act, by the person, partnership, company or corporation violating it by knowingly assisting, encouraging or soliciting the immigration or importation of any alien or foreigner into Canada, to perform labor or service of any kind under contract or agreement, express or implied, parole or special, with such alien or foreigner previously to his becoming a resident in or a citizen of Canada.

By clause 4, the master of any vessel who knowingly brings into Canada on such vessel, and lands or permits to be landed from any foreigner, on the representation or by the mistake of any mechanic or artisan who, previous to embarkation on such vessel, had entered into contract or agreement to perform labor or service in Canada, shall be deemed guilty of an indictable offence, and, on conviction, shall be fined five hundred dollars for each alien so landed, and may also be imprisoned for a term not exceeding six months.

Under clause 6, any American prospector, who has been grubstaked for the Klondyke, is liable to be sent back to the United States and the expense charged to the party who grubstaked him.

Informers are offered, in clause 7, a reward not exceeding fifty per cent of the penalties collected. American mining engineers, and others employed in any way by American mining companies operating in Canada, come under the ban of the act. American capital is cautioned against investing in mines in Canada or otherwise.

The act applies to such countries as have an alien labor law, and, in consequence, it includes the United States. It is an additional and excellent reason why American prospectors should remain in their own territory, where the mining laws are more liberal and just, and the officials of the Land office do not plot and plan to rob the prospector, as has been done in Canada.

BEGIN WORK.

If Southern California is to share in the benefit to be derived by the deliberations of the California Miners' Association, it is time that county organizations were effected and live delegates appointed. It will be useless to call meetings, as was done last year, and appoint a large list and have no representative there. The editor of this Journal has been the sole delegate from Southern California for several years, and, while the honor is appreciated, it is time the counties in the southern part of the state, which have made substantial proof of their interest in the association, and sent a good delegation from every mining camp in Southern California, be allowed to send the outside world to know that mines exist in Southern California. The seven counties contain thirty-eight and one-half per cent of the entire area of the state, and certainly need more advertising than the northern counties, where good paying mines have been in operation for the last forty-five years.

County organizations are once more urged to be set on foot, and both by sending delegates and appropriating funds to carry on the work which has been so ably begun by the northern counties. The Mining and Metallurgical Journal will send any desired information regarding the convention.

CALIFORNIA MINERS' ASSOCIATION.

In our issue of November 15, 1885, we devoted considerable space to the importation of foreign labor and our own opinion of the importation of labor, and our opposition to a well-arranged line of action, both in regard to the furthering the interest of hydraulic mining, and the protection of the birthright of the miner to the minerals on Federal lands, which were being fraudulently acquired by railway corporations as agricultural lands. As times for this line of action approaches, it is in order to remind our readers of the need and importance of this society, and of its increasing sphere of usefulness and necessary recognition as the only means of financial control, and by representation from each and every mining county in the state, as some have not taken that interest in it which the times require.

The extent of the mining interests within this state are so large and diversified in their character as to require at times state and federal legislation for the protection of the various branches of the industry. When such legislative action was necessary in the past, the difficulty was to obtain united or concerted proceedings on the part of those interested, and for whose benefit it was desired. What was everybody's business was nobody's business; but now this association consolidates into an organized and active union the individual interests of the various branches for mutual aid, protection and industrial intercourse at its meetings, and its strength and influence is now felt. It has recently been able to support claims in the Nevada counties and the merchants of San Francisco during the past two years of its existence. Other mining counties and cities of the state have had to look to themselves, in not giving that recognition and support to the association which the needs of the industry in their own counties require.

With age, the usefulness and importance of the organization is felt for what it has accomplished for the mining interests of the north, and which can be as well undertaken and obtained for all the other mining counties, according to their peculiarity and the matters which the united action of mine owners can obtain is better roads in their county.

Organized action to obtain better freight rates from railway companies, on mining products from the mining districts to seaports and smelting works, and lower rates on mining tools and mining machinery and supplies going to the mines.

To obtain municipal, state and federal legislation and action to secure control and improve the transportation and storage of water for mining camps in the arid sections of the state, as was pointed out in our last and previous issues. These are some of the requirements of the mining sections of the south and east which the association can obtain for them, by attending its next annual meeting in San Francisco, of which we will give notice in due course in a future issue.

NEW COPPER PRECIPITANT.

It is a well-established fact that copper held in solution in water can be easily obtained by using iron as a precipitant, but as the precipitant of copper in solution with iron is comparatively slow and in many instances costly, a more active and less expensive precipitant was much in demand. But Thomas Wren, late of Eureka, now of Reno, Nevada, seems to have solved this problem beyond a doubt. Wren has made a study, and, after repeated and numerous experiments with different substances, has discovered that copper in solution in water can be precipitated by iron in contact with alkali. Alkali will precipitate the copper at once, while iron requires from twenty-four hours to several months—depending upon the amount of iron used.
SANTA GERTRUDIS MINE.

Among all the mines that have been discovered, and on which development work has been commenced in the last two years in Mexico, none look more favorable than the Santa Gertrudis.

It is located 110 miles east of Mazatlan, in the state of Sinaloa, and 30 miles from Rosario, where the famous Minas de Tajo are located. The discovery was made by G. E. Ward, and denounced in Jan. 1896. He conveyed a controlling interest to a company in March of the same year. After doing some prospecting, a ten-stamp mill was erected in June, 1896, and commenced operations Jan. 1st, 1897.

The location is very favorable for cheap milling, the Baluarte river, on which the mill is located, is one of the most important streams in southern Sinaloa, and a project is now on foot to arrange for running the mill by water power. One of the chief difficulties encountered was transporting the ore from the mine to the mill. The distance is only one mile, but the mine is 600 feet higher than the mill, which necessitates pack animals. A good trail, which is shown in the illustration, was built at the mine at an expense of nine thousand dollars, and the trip is now made in one hour. The ore is oxide of iron, carrying $25 in gold and two ounces in silver.

All the machinery for the mill, as well as everything used in the camp, is packed from Rosario on mules. The company also purchased twenty-seven square miles of timber land, much of which is mahogany. All the timbers in the mill are of this wood. Two Kinkead mills and a new crusher were recently added to the plant, and commenced operations Aug. 15th, 1897. The Kinkeads are reported to be doing good work. The mill has been crushing 600 tons of ore per month, that will average $25 in gold. The development on the mines consists of over 2000 feet in tunnels, drifts and shafts. The width of the vein has been from 4 to 12 feet. In the San Jose tunnel, 180 feet below the surface, the vein averages 12 feet in width. The lowest workings have attained a depth of 220 feet. The vein is perpendicular. The formation, as far as has been ascertained, is porphyry. In the Santa Rosa tunnel, 2000 feet from the main workings, a tunnel has been run 175 feet to the vein and exposed a body of ore 4 feet wide.

The lode extends across the chain of mountains, and has been opened up at various places on the twenty pertenencias owned by the company. Another lode has been discovered, running parallel, about 500 yards to the southwest, on which ten pertenencias have been located and on which work will soon be commenced. Within the last month, good ore has been found a short distance from the mill on the river. The altitude of the mine is 2700 feet, while the mill is 1700.

The milling results have not been entirely satisfactory, as it was apparent that the process in use did not save 50 per cent of the gold, and the services of Mr. Leon Bolandar, a French mining engineer, were secured, and he demonstrated that 85 per cent of the value could be recovered, by roasting the ore before crushing it. This seems to be the desired panacea for saving the values, and it will probably be adopted by the company.

The bullion is shipped to the Nevada Bank, in San Francisco, where most of the supplies are purchased. The majority of the stock of the Santa Gertrudis mine is owned by residents of Los Angeles, and they are satisfied that with further development the mine will take its place among the great producers of the Republic of Mexico.

SAVING SULPHURES IN GOLD MILLS.

The methods employed for saving sulphur in gold mills has undergone but little change for many years until quite recently, which is the more remarkable since a number of persons have been almost exclusively engaged in trying to perfect mechanical contrivances to accomplish the profitable saving of them.

The treatment of sulphures after concentration has been modified in some localities, by the introduction and substitution of the cyanide process for the chlorination method of roasting and precipitation, also in using mechanically stirred furnaces instead of the usual reverberatory hearth worked by hand; but, generally speaking, the old methods have not been materially changed.

It must be confessed that the inventors, or adapters of concentrators have shown but little originality for the work accomplished by them seems to have consisted almost wholly in copying each other as nearly as possible, resulting in the introduction of a
number of machines, all very similar in a general way, but differing somewhat in the details. These machines are known to the public as the Frue, Woodbury, Johnston, and others, consisting of a slowly moving endless rubber or canvas belt, having a side or end sketch.

These concentrators turn out a product very materially increased from the sands of the slimes, which usually carry the most valuable metals, sometimes float gold, not caught in the mortar or by the copper tables outside of same. What this loss amounts to would astonish mine owners, could they be truthfully informed, but in most instances the actual losses occasioned by poor concentration and poor management is enough to more than pay the cost of mining and milling.

Belt concentrators, similar to the kind mentioned, were first used and discarded in Germany, a century ago, and before their introduction to this country. The original Frue machine was a close copy of the German contrivance, and, since its introduction to this country, all improvements, all improvements in the construction of the machine, and the mechanical contrivances used for regulating the speed and shaking motion, the general operation of the machine, and the results obtained, have made little or no advance, nor are they ever likely to, as they only mark one improvement over the old style sluice, riffle and blanket.

In Europe, where the close and economical concentration of low grade, galena, copper and other ores has been reduced almost to an exact science, concentrators of the belt type find no place.

Hart and Clausthal Jigs, Hydraulic sizers, Rittgenberg percussion, and the various types of slime tables and sifliz are generally used for both coarse and fine concentration, doing a class of work which any style of belt concentrator would be totally inefficient to accomplish.

In the State of Colorado they have recognized the imperfect, not to say crude, methods and results of concentration with all kinds of belt mechanics for some practical purpose, for they have there perfected a machine to supersede them, which has proved so much superior to the belt concentrator that, wherever the new device is introduced into a milling plant, the belt machines are discarded as practically useless.

The apparatus herein referred to is known as the "Willey concentrator," consisting of a flat table, 7 feet x 16 feet, resting upon rollers, so arranged as to incline, having a peculiar movement quite unlike that of any other machine.

The operation of this concentrator is extremely positive and effective. The adjustment of feed and current is simple. The sulphurates are kept constantly submerged, and are not therefore subjected to loss by exposure to the air during the process of separation from the gangue or silica of the quartz and other important parts (fre- quently overlooked by millmen) and the capacity ranges from 20 to 50 tons per day, depending upon the character of the material treated, which means that one of the Willey concentrators will do more effective work and far better service than three or four 4 feet, or two or three 6 feet belt machines, of any style or pattern, and a great saving in year of operation, requiring only from 1 to 2 H. P. to run it, and consequently effecting a large saving in space, power and first cost, in many instances making it possible to work a mine at a profit when, with poorer appliances, it would be impossible.

This machine represents the only practical improvement in concentrating that has been developed since the Frue concentrator was first introduced into this country many years ago, and it is such a valuable addition to the money-making appliances of the modern up-to-date milling plant. No wide awake mining company can afford to ignore these machines in the operation of any mill in which the sulphurates are worth concentrating and saving, and the closer this statement is investigated, the more apparent will its force and truth appear.

E. B. ROGERS, M. E.

CORRESPONDENCE

CALIFORNIA.

On the Desert at Garlock.

Parker & McConnell, whose mine is south of Garlock, have bought the McKiernan mill and leased the Henry & Co. mill, both of which are running day and night. Their vein is very wide and ore is mined for 50c., hauled for $2., and mills $1.2 to $1.8 per ton. The Ballarat stage is taking a great many people to Panamint lately, and especially since the very hot weather is over. Ballarat itself is getting to be quite a small town, serving a demand a school and post office.

F. H. Heath has sold his gold mines near this place to the Cavil Gold Mining Co., of Yuma, for $1,000,000 in stock, and the property is to be developed at once. It is located by the coal mines, and has a good water supply.

It is reported that the Rand Mining Co., are making plans for a 60 stamp mill at Garlock. The question of water is no longer difficult, as all the mills are prepared to work over the water and over when necessary.

D. Webb has sold a third interest in his mine to the inventor of the Huntington mill for $10,000, and five of those mills are to be put in here.

All the big teams are busy, and a half dozen more fourteen to twenty-mile teams could find employment hauling ore to the mills.

Old Cor.

TUOLUMNE MINING NOTES.

The Wooster and C. R. I. S. Mines, both on North Fork of Tuolumne River—both old mines—now being reopened. The veins are large, and have paid near the surface $40 to the ton.

THE PENNSYLVANIA MINE.

A very rich strike has been made in this mine at the bottom of an old shaft. A new hoist is being erected. Active development is now in progress.

THE CARLOTTA.

At this mine a new hoist has been put up, and work of opening up the mine is proceeding rapidly. Rock worth from $14 to $20 per ton.

WHEAL RUPT.

Very rich rock is being extracted from this mine—almost equal parts of gold and quartz. This rock is 16 inches wide, value makes $500 to $1,000 per ton. This is an extension north of the Soulsby mine or Wheal Penan. The sulphurates assay very highly, in places a heavy percentage.

TIR PARER.

is running full blast. Rich ore has been shipped last south of main shaft at the 300-foot level.

THE JUNCTION.

This mine improves daily as developments are made—veins increasing in size and quality.

BLACK OAK.

Main shaft nearly 800 feet deep. The ore chutes are very long, nearly 400 feet. The drift at No. 1.0 is cut out 16-foot wide, and no wall in sight. The vein carries a large percentage of sulphurates of high grade. The mill reduces 25 tons of ore daily. 200 tons of selected ore is shipped monthly to the C. W. Co. Of San Francisco. The new 7 drill compressor is doing satisfactory work. Henceforth the output of ore will be materially increased. The product of bullion from this mine monthly is very large.

THE GOLD RUSH.

have sunk 50 feet in new shaft. The vein is of exceedingly high grade, shaft 8 x 4 in. clear, inside measurement of timbers. A hoist will be immediately erected when sinking will be resumed.

Middle Belt.

GOLDEN CREEK.

A cyanide plant is being put into this mine to work the tailings. The chlorination plant is at all times in full operation. The 20-stamp mill crushes regularly day and night.

THE OLD VIRGINIA.

is pumping out the water from shaft. Repairs to hoist and water wheels being finished. An old tunnel has also been cleaned out—showing a fine vein. This mine will, when put into shape and complete with main vein, a distance of 200 feet to drift, disclose rich ore that will be equal to any mine in the county, as far as richness is concerned—judging from surface assays, etc., of very high values.

Other Lode.

THE SANTA YSABEL GROUP.

A find of about $50,000 was taken out in the Mascot mine. The rock was one mass of gold and taken from the 200-foot level.

The mines all along the line are reported to be extracting rich pay rock. The mills are all running on full time. The general clean-up from the various mines aggregates into the hundreds of thousands of dollars. The Shawmut and Eagle, Santa Ysabel, Jumper, App, Dutch, Rawhide, are among the heaviest producers.

SHAW FLAT.

A very rich discovery was made this week at Shaw's Flat, 2/3 miles from Sonora. $50 to $100 was washed out of the gravel. The find, more strictly speaking, is near to the old Caldwell diggings—from which fortunes were taken in the early days. How extensive this find is, it is too early to predict yet, but so far it is a regular Klondyke.
A considerable number of mining deals were consummated this week. Many propositions changed hands—both mines and real estate. The influx of people is steady. Prosperity reigns supreme all over the country.

RECENT METHODS OF ORE TREATMENT.

NUMBER 12.

Written for the "Mining and Metallurgical Journal."

BY F. M. IKERD.

LEACHING.

Within recent years, the ascendency which cyanide solutions have obtained and maintained have caused other, similarly effective, metal solvents to be almost lost sight of. Prominent among these latter are chlorine, or modifications thereof, and they have for a long time past held a preeminent place. The efficacy and promptness of response of this element, and some of its compounds, in converting given metals into either soluble, or otherwise readily extractable combinations, has heretofore been handicapped by the difficulty of applying its properties. Within a short time since, however, it has been found that brine (solution of sodium chloride in water) could be decomposed by suitable application of electric agencies in such a manner as to yield free chlorine at small cost. While this discovery has not, as yet, received the attention to which its vital importance entitles it, it has been applied lately upon a commercial scale by Mr. Porter of Los Angeles, California.

Mr. Porter’s inventions open a comparatively new field for investigations and ore-reduction, a field worthy of much of the work brought before those who are technically or commercially interested in the extraction of precious metal values from the ores containing them. A description of the invention of the inventor’s process and machinery must of necessity be brief and, perhaps, somewhat unsatisfactory, but sufficient data can be given to afford a general idea of the results aimed at.

Before proceeding further, it may be well to state that while the process in question by no means claims to be exclusively a cyanide one, yet application of cyanide solutions may be used to advantage. In a general way, the use of a "barrel," a cylinder with square ends, with the assistance of electricity in proper form, and use of chemical solutions may be said to constitute the essence of the inventions. Two classes of these "barrels" are used, the one for ordinary ore-pulp, the other for slimes or slimy pulp.

1. Ordinary Barrel. This barrel is usually constructed of steel, 6 feet in diameter, 7 feet long, and takes a charge of 7 tons, which is expected to be ready for discharge within 5 hours. The charge is made upon the physical and chemical character of the pulp. To this charge of 7 tons of pulp is added a charge of 3½ tons of an aqueous solution of soda and potassium cyanide, the strength of the solution depending upon the gold and silver contents of the pulp.

The inner surface of this barrel is lined with copper and the latter is amalgamated. Along the barrel shaft the electricity (see below) is conducted to electrodes to which the pulp in suspension has free access during the eight revolutions which the barrel makes per minute. These electrodes move over the barrel and are of extensive surface, being placed within about six inches of the copper lining. The chemical action apparently would consist primarily in the liberation of chlorine gas, the partial decomposition of water, the formation of gold and silver chlorides in an alkaline solution (due to the presence of free carbon dioxide), or incoherent or total conversion of these chlorides into cyanide salts, (if cyanide is present in the solution) a precipitation of the latter by contact with the machinery or sub- stances in solution, and a direct or secondary amalgamation thereof. Such or similar reactions and fully satisfactory results therefrom, are claimed to have been obtained both in the laboratory and in practice. At the works erected by the Argus Gold Mining Company, a saving of 66 per cent is quoted as having been obtained on an ore containing $35 in gold and from 3 to 4 ounces silver per ton.

The removal of the amalgam from the interior of the barrel is a simple matter, and requires but ordinary methods for the eventual production of bullion.

2. Filter Barrel. In this invention Mr. Porter has made a decided departure. Speaking broadly, he has constructed a centrifugal filtering machine, horizontally, with lateral discharges. This appliance is intended to handle pulp that is very slimy, or of such fineness as to remain usually in suspension for a long time. It is essentially the same as the preceding, but smaller, being four feet in diameter, five feet long, with a capacity of one from to three tons per hour. The inner surface of the shives, the smaller the capacity. This barrel revolves on a hollow shaft at the rate of 700 revolutions per minute, obtaining, as stated, a pressure of about 350 pounds per square inch on its inner periphery, which is lined with amalgamated copper. The shell is of steel and supplied with an efficient inner filter, which consists of—beginning at the shell—a coarse metal screen, cocoa matting, canvas, burlaps, and a fine screen. In case acid solutions should be used, then asbestos fabrics are substituted for the fibrous ones. There are 60 square feet of such filter-surfaces.

Within the barrel, and attached to the hollow shaft along which the electric current is introduced, are the carbon anodes, distant five to six inches from the inner copper-lined and acid-covered filter. The water, the current passes through the solution containing the desirable metals. The chemical metals is supposed to be essentially the same as described above. The virtue of the high rate of speed maintained, the free mercury is thrown to the inner periphery, and the cleared solution is forced in the same direction.

Thence the latter, after partial amalgamation, is discharged by means of plug holes, and further treated if desirable. Washwater is subsequently introduced through the hollow shaft and similarly discharged. Such metal as cannot be extracted by amalgamation and have passed the filter are then found in the inner side of the shell. This latter can be cleaned by the introduction of an excess of quicksilver, and a consequent washing and washing of the amalgamated surface, or by withdrawing the filter bodily and removing the amalgam in the usual manner. After the process has been ended the waste pulp is discharged from the barrel. An important modification of this machine is that, by withdrawing the electrodes, and either maintaining or increasing the rate of revolutions, a very efficient centrifugal filter is produced for the precipitation of the residues derived from various hydro-metallurgical processes. In the latter cases, where the residue would be the desirable portions to save, (instead of the filtrate) a slight change in the construction of the filter would readily accomplish the requisite purpose.

Concerning the use of electricity which may be required, the inventor furnishes the following figures: as high as 5 amperes per square foot of electrodes may be required; with the machinery and ranges from a machine of 300 amperes capacity will amply suffice for a one-barrel plant of 25 tons per 24 hours. (Note.—In the larger barrel about 100 square feet of electrode surface are figured; in the smaller ones, about 40 square feet.)

Several 30 ton plants, based upon the above method, have been erected, and others are in course of construction or in contemplation. It is understood that a corporation has recently been formed to prosecute the introduction of this system of ore-treatment more vigorously.

Essentially, the process may be described as an electro-chlorination, with incidental amalgamation, or other suitable method of treating the product obtained. There can be no question as to the desirability and efficacy of the "filter barrel" for a variety of purposes, and it seems as if it might fill a long-felt want. At any rate it is to be hoped that in the operations of this inventor his method may be realized to the full: all the more as his experiments, noted above, show, an unusually high rate of extraction, and as it is on a standard scale, of about 30 tons per day, will exceed the normal cost of free milling and ordinary concentration by only about 15 to 20 cents per ton, figuring extreme cases in each instance.

Miscellaneous Mining News.

KERN COUNTY.

Alameda Mine.

The owners of the Alameda mine, at Johannesburg, incorporated under the laws of California, September 1st, by the name of the Alameda Gold Mining Company, for $500,000, at a par of $1, all paid up. The officers and directors of the company are:

J. W. Ragdale, President;
K. R. Hillton, Vice-President;
Geo. W. McPherson, Secretary;
William Sim, Treasurer;
Wm. H. McEwen, Superintendent.

They have six shafts down on the Alameda. No. 1 is down 90 feet on a two and one half foot vein of $25 rock, with about 40 feet of drifts and cross cuts. No. 2 shaft is now down 40 feet, with fully two feet ore that mills $40 per ton. No. 3 shaft is down 50 feet, with three feet of good pay ore in the bottom. No. 4 is second in depth, it being 70 feet, with three feet of $50 ore in sight. No. 5 shaft has reached 60 feet, on a ledge of low grade ore, three feet wide. Work is being steadily pushed on this shaft, with a day and night shift.

Hallowell and Riggins have a contract sinking on No. 6 shaft, and have it about 35 feet at the present time. The width of the ledge has not been determined as yet, but it is very large and of low grade.

J. H. Underhill bought the Belladona mine from D. J. McCormick & Co. North last week for $500. The claim lies out on the Kramer road, this side of the Black Hawk.
and is a fine prospect. A ledge, two and a half feet wide has been discovered on it that horns well throughout, and there is about eight acres of the plant in very rich very place taken out showing free gold. The work of developing the ledge will be taken up immediately, and all indications point to the opening of a mine.

Articles of incorporation of the Randsburg Placer Mining Company have been filed with the County Clerk at Bakersfield, with a capital stock of $1,000,000, of the par value of $1 per share. The incorporators are J. M. Bassett, J. C. Carroll, D. C. Kulp. S. H. Reynolds and W. H. Heaton. The company was organized for the purpose of operating a group of eighteen placer claims, comprising 300 acres, lying about two and a half miles south-west of town.

The Little Butte is making a shipment of ore to the mill at Caddeback Lake.

The stamp mill which is soon to be erected at Johannesburg is now being constructed at the foundry, and work is being pushed as fast as possible.

The upper shaft of the Val Verde, at Johannesburg, is now down 240 feet. At present they are working on the lower shaft, where now they are taking out $200 ore.

Frank Cole, who is putting up a concentrator for the Alameda at Johannesburg, has bonded the G. B mine, owned by McCormick, and will begin work upon it this week.

Up around Tchacheepi considerable mining work is being done, both gravel and quartz claims paying.

The Durnul quartz mine, near Piute, will soon put up a mill.

Los Angeles County.

Red Rover Gold Mine.

This mine is conveniently situated 3 miles northerly from Acton station, on the Southern Pacific Railway, 55 miles from Los Angeles. The altitude at the mine is 3,000 feet above sea level, and, consequently, mild and healthy. The mine is worked by a incline shaft, about 700 feet deep, and has levels opened east and west at almost each 50-foot station.

A vertical shaft, 400 feet deep, on the Logan claim, which adjoins it on the northeast, is connected by a 350 feet cross cut to the 400-foot level of the Red Rover mine, and furnishes a shaft of good air for healthy conditions in the mine. A ten stamp mill, 400 feet from the shaft, crushes 15 tons of ore per day. A pumping plant at Acton and water tunnels furnish water for the mine, mill and camp.

We print in this issue a cut showing the vein in an overhand stope above the 200-foot level, which is one of the best underground flash-light photographs we have had the good fortune of obtaining, to show the advantages of photography in illustrating underground work.

A company has been recently organized by Henry T. Gage and Senator Stephen M. White, attorneys-at-law; Earl B. Miller and others, of this city, and this mine and three adjoining claims, the Logan, Earl and Toeke, are to be vigorously operated.

Riverside County.

Messrs. Sears, Hickey and Wilson, proprietors of the Lake View Gold mine, five miles east of Elsinore, are going ahead with their work of development. They have now a tunnel in 160 feet, and have cut the vein of a large body of low grade ore—$10 per ton—on a cross cut of 150 feet. It shows up 90 feet between the walls.

It is reported that Jim McManus and his brother William, discoverers of the Desert Queen mine, west of Banning, have made a rich strike in the Pinon district, near Twenty-nine Palms, the ore going over $700 per ton in gold.

The Riverside Globe says: B. E. Body has disposed of one-third interest in his group of valuable mines in the Eagle Mountain district to Chas. H. Briggs. The group consists of the Gray Eagle, Waterloo, Blue Bird and Corner Mines. This property is situated about eighteen miles northerly from the Granite mine owned by Riverside parties.

San Bernardino County.

An English syndicate has acquired ownership of 320 acres of auriferous ground in the Hucumac placer district, San Bernardino county, and have spent about $50,000 for a hydraulic plant to work it. When they started up last year it made the waters of San Antonio canyon so muddy that they were enjoined. Under the new law they have been permitted to resume operations under certain restrictions as to time, and brush dams have been put in to protect the users of the canyon water.

Colorado.

Cripple Creek Notes.

Sixty-five tons of smelting ore were shipped last week from Carl Johnson’s lease on the Half Moon. The ore came from the new chute recently opened in the lower level, where there is four feet of sylvanite. The ore came from the breast of the two drifts, and from the winze. No stopping has yet been done on the ore body.

Lamberton and Stevenson are working the old Anderson lease on the Lucky Corner. A70-foot winze is sunk by former lessees about 40 feet from the mouth of the tunnel, and from the bottom of this winze a drift was run on the vein. The lessees are now pushing this drift hoping to open up the extension of the ore chute opened by Hoskins and Keith, on top of the hill in the Mountain Monarch.

Jesse Vandenberg has taken a lease on the Bogart on Raven hill. There was an old 30-foot shaft on the property, and he began prospecting this. One round of shots in the wall opened up 30 inches of ore, which yields a ton of ore, which yields 350 tons per ton.

The Hartell mill is now running full time, and the management expects to run it continuously in the future. A thousand tons of ore are now ahead, with more to come. During the recent stop, the machinery was thoroughly overhauled and repaired. J. C. Chamberlain has severed his connection with the mill, Mr. Hartell assuming his duties.

Pine Creek News.

A small shipment of ore from the Nancy Hanks tunnel was shipped to Black Hawk this week as a test lot.

The Fourth of July tunnel is now in 220 feet, and is showing up better than ever. It is a cross-cut tunnel, being run to the Lillian group on Utah hill, and is being operated successfully by its owner, Charles Werdenhoff.

Purdy & Andrews have put in a car and track in their London tunnel on Utah hill, and preparations are being made for active development right away.
A small pump has been placed in the Nancy Lee property on Ingham Hill, as of late there has been an increased flow of water in that property. Development work is still being prosecuted with more encouraging results than ever.

**Fairplay.**

The Dauntless mine, located a short distance from the famous Silver mine in Georgia, which has lain idle for a number of years, has again become a large producer. A short time ago a lease and bond was taken on this property by two mining parties and after a small amount of development work a large ore body has been uncovered. It is silver and lead-lead predominating. This is an entirely different ore body from the one which shipments were made some years ago.

The Last Change property, owned by the Hilda Mining company, of which Messrs. Sheedy & Kanzite of Denver are principal owners, some time since started tunneling entirely separate and some distance from their old workings. They have got on the contact and developments seem to promise the continuation of their already large ore bodies.

**Idaho Springs Budget.**

The Gem mines, during the past month, produced a greater tonnage of ore than ever before known in the history of the district. The mill is turning the greatest amount by concentration, and it was recently overhauled and placed in shape for the successful treatment of the Gem ores. There is some smelting going on elsewhere.

The Standard company is now working a force of men, with Colonel J. D. Fredd in charge. The mill is doing good work and the output from the mine is all that could be expected. One ore body is gradually being opened up under the driftings from three air drills. It is found that the values of the mineral have somewhat improved from that first tested. It is an exclusive gold proposition.

**From Copper Rock.**

The shaft house of the K. T. mine in Spruce gulch was destroyed by fire; cause unknown. Casper Widmer, who is operating the Summerville, expects this week to return from Kansas City. The mine will resume active work at once.

The Meadow Lark's application for a patent was successful. Work will be pushed on this mine all winter, as there is plenty of ore in sight.

Thompson & Co. have erected a pony stamp mill of 10 to 12 stamps at the mouth of Potato gulch, and is running it successfully on surface quartz from the Ypsilanti.

W. Fletcher is driving an adit on the Home Lodge. A large body of low grade mill ore is in sight. The property is in the town limits.

**IDAHO.**

Idaho has one industry that is beginning to prosper. It is taking on a new growth. It is nourished by the destruction of other industries, and increases in magnitude and importance as they die out. It is gold mining. The first important discovery of gold in Idaho was made by a party led by Capt. E. D. Pierce, at Oro Fino, in 1860, says the *Belle World*. It was followed by a considerable influx of prospectors, and during that year and the next year, Oro Fino and Pierce City became the Meccas of gold hunters. In 1861 the discoveries at Elk City and Elmore intensified the excitement, which swelled the throng, and by the first of August, 1862, there were 10,000 people in Idaho. Its gold fields were limited and were haunted. Alverson's diggings and Boisé Basin were discovered. Warren's was at first overran by prospectors, miners and other fortune hunters from Idaho. Boisé Basin was, being about 30 miles in diameter and circular in form, Marion Moore and party reached the mouth of Moose creek; and, finding gold in the sands, followed the creek to its confluence with Elk creek, and located Bannock bar, one of the most important finds ever made in the world. Immediately following this came a rush of men, notwithstanding the fact that the rigors of a mountain winter were at hand, and no probabilities of supplies being gotten in before spring. Ophir, Wolf and Granite creeks and their tributaries were worked by thousands of miners. Numerous springs which fed the streams were discovered. Their fabulous riches were heralded to the world, and the arrivals were multiplied by two, then by four and then by twenty. Springs which fed the streams were worked. Thousands of men found employment in their own mines. Wages were from $5 to $10 an hour ($16) a day. Men were pushed to the limits of the compass. Idaho City sprang from a tent to a place of 15,000 inhabitants. Buena Vista Bar became a city in an equally short time. Pioneer, Centerville, Placeville, each numbered from 4,000 to 8,000 people, Placeville being the largest. Stores, hotels, restaurants, saloons, meat markets and livery stables greeted the wayfarer. Everywhere in the towns and in mining camps gambling houses of every description were openly conducted. Money was lavishly thrown away. Under such conditions a collapse was inevitable. Men who would not work for less than $20 a day ran after new excitement, or went further into the mountains to search in vain for another Boise Basin. They didn't find it. It will have to be discovered by fortune hunters. Other rich placers have been worked; fortunes have been made in many other localities; a placer miner in California has become nearly twice a millionaire from the proceeds of a placer mine; but there never has been but one Boise Basin. No other locality of only thirty miles in diameter has to its credit an output of gold exceeding 700 tons gold in the brief period of 35 years. That is the record of Boise Basin, and it is not yet emptied of its treasures. Its vast system of quartz lodes, the source of its marvelously rich placers, are practically untouched.

For the past year or two placer mining in the vicinity of Idaho Falls has not created much excitement, although it has been carried on to some extent. Last year James Stanger worked on a small scale about two miles down the river on the west side and took out about $500. This year he has associated with him Frank Caldwell of Pocatello, and they have put in a large machine capable of working from 100 to 150 yards of dirt per day. They have not done much yet, but from all that has been done thus far they expect to clean up from $50 to $100 per day. The ground where they are pans out about 250 cents a yard. They get water from the Porter canal.

The most important changes of the past week—the past year, for that matter—was the starting up of the Helena-Frisco. A controlling interest in the property was sold last November, and the last day of the year the mill was put into full running order. Since then, 70 to 100 men have been employed doing development work in the mine, and in making additions, alterations and improvements in the mill. Several tests of the new machinery were made last week, and the other day the mill started up to run full time. The 525 tons daily handled by the old mill will hereafter be 800 tons, the additions to the mill having made that difference in its capacity. The number of men employed during the first half of the year will be doubled from now on.

W. G. G. May, who left Idaho about six weeks ago to work placer diggings near Marshall Lake, returned the fore part of the week with about $450 in gold, which he and his partner washed out since they left there. This is not bad, considering that the ground has to be fitted up before any mining could be done, and goes far to show that good diggings still exist in that section, awaiting the pick and shovel of miners.

For some time there has been a deal pending for the Trade Dollar mine, at Silver City, Idaho. It is now rumored to be the subject of the transaction has been extended so as to settle the Black Jack mine and the property of the Florida Mountain Mining Company, these being on the same vein as the Trade Dollar. The Trade Dollar was examined by Fred Cornng some months ago. Recently another examination was made by F. N. Bradley, manager of the Bunker Hill & Sullivan mine. The owner of the principal is the Black Jack, and the principals have never been disclosed, but it has been supposed that they were the owners of the Bunker Hill. Rumor now states that it is the Standard Oil people who are intending to purchase. The deal, according to the rumor, also embraces the railroad being constructed from Nampa to Silver City. The Trade Dollar mine is paying at the rate of $2,000,000 a year, and the Black Jack is also paying large dividends. There are three mills in the group of properties. If all the mines go into the deal, the price will reach large figures and the net profit will be the heaviest ever made in that part of the state.

**MONTANA.**

At Lampson reports that work on the Spotted Horse mine, in Fergus county, will be pushed on an enlarged scale. There is likely to be some developments made in the Spotted Horse gulch ere long.

Reports from Indian creek, Madison county, say S. Lowman has found some $45 rock on the Chiser farm and William Steiner has reported finding a body of rich ore within a stone's throw of the old Virden house.

During the summer now drawing to a close a party of placer miners has been working the Missouri south of Great Falls by means of a small boat. Reports say that they have reaped a reasonable crop of gold, and are expecting their summers toll.

They are putting in a concentrator at the Silver Cable in Libby. The size of their vein varies from four to twenty feet. Assays run from $5 to several hundred dollars. The character of the ore is pyritic, carrying gold, silver and some lead. The machinery will soon be in place and they will start with about 10 tons of concentrates per day.
In the Anaconda district, in Jefferson county, Holmes Bros. are about to begin development work on the Gold, recently bonded by them. The Great Northern is being worked with a good showing of copper ore.

The Elk horn mine, according to all reports, will continue to run if silver does not go below its present price, though it is no doubt of a very uncertain future, as the price is out of present conditions, the property undoubtedly has excellent management to run at all.

At the Harkye mine, in Dry George, Madison county, the work of development is going on with Nick Tranfler as superintendent. In a short time he expects that he will be turning out 50 tons of ore per day. The property is under lease and bond. The Montana Mining and Smelting company.

Richard Lockey, who recently visited Miles City, says that in a number of places on the Yellowstone river men are at work shoreline and dredging in the stream, all that is necessary being a Chinese pump, a pick and shovel and a wheelbarrow. It is said that they average from $2 to $3 a day.

George A. Wells and Matt Dunn of Great Falls have a large interest in the Queen Elizabeth sapphire mines at Yogo to Messrs. Johnson, Walker and Tolhurst of London, England. These gentlemen were given an option on the interest early this month, which option would have expired Dec. 15. They prefer to wait and take it up earlier than anticipated.

Mr. Thomas J. Riley, of Deer Lodge county, has incorporated the Good Will Mining and Milling company, with 2,000 shares at a par value of $5. The property of the new company comprises eight claims lying about 12 miles west of Deer Lodge, the surface ore of which runs five to eight per cent copper. Mr. Riley is an experienced mining man and evidently has a fine showing. It is to be hoped the company will soon be under way and the prospective new copper district speedily evolved into a healthy producer.

There is considerable surprise in mining circles in May, in Cataract, Jefferson county, is closed down. The miners were laid off on the 24th of August and the mill closed on the following Saturday. About 40 men were employed on the operation and it had been regularly of late and it was generally supposed that the ore was getting better all the time. No reason is given for the shut down and no time set as far as known for a resumption of work.

A special meeting of the stockholders is called for increasing the capital stock of the company from 200,000 to 250,000 shares at a par value of $10 per share.

M. L. Stone, of Helena, who has been building a mill for the Great Northern Consolidated, which is working the Galena group of claims at Pony, says the plant was formerly a pulverizing plant, but as such was entirely unsuited to the purpose for which it was intended and has been changed to a 20 stamp mill. Its capacity will be in the neighborhood of 50 tons a day, and in speaking of that section, adds: "It is the best country I have seen. There are no signs of activity and prosperity in a mining way there. It is a coming country."

The Galena company will mine the ore and run the mill with about 12 men. It has been open all year and there are several hundred tons of ore in the dumps.

Dredging has been so successful at Bannack, it is being tried with profit elsewhere. Another dredge is being successfully operated by a man named Johnson 12 miles from Avon. It differs from the dredge first put in, in that runs on a track and is hauled by a derrick on a barge. The operators bring a drain behind it as they go, and have the dredge on a truck. Mr. Johnson believes he can work on level ground or on a gully equal to that of the creek near Montana City, on the ground formerly known as the Herschfelder. Carter ground, now owned by E. F. Smith of United States senator Thomas H. Carter, will apply a still different principal to the process of raising the gravel. It will be by means of a large suction pump that will take the gravel clear down to bedrock and convey it to the sluice boxes, where the treatment will be much the same as in the other dredges. The Avon dredge is saving the gold and making money for its owners. The machinery for the new one near Montana City is said to be partly on the way now. —Western Mining World.

NEW MEXICO

Cook's Peak Items.
Jim McGee is looking around for some property to take a lease on.

Dennis Peoples returned from Deming yesterday. He is pushing his contract on the Keef property.

Miller & Hull are doing contract work on the Dr. Bryon property.

Cotton & McDaniel are shipping ore from the Leadville mine.

A Mexican has made a rich discovery in the quartzite.

Charles Poe has located a tunnel site. He proposes to run a tunnel under the quartzite, as it is believed by all here that there is a rich ore deposit under this formation.

Central.

The Bayard Milling and Smelting Company employs 16 men upon the Texas, Grant and Rio Grande mines in development work. The great increase in the influx of water in the drift on the 300 ft. level of the Texas mine is taken by the miners as an indication of the near approach to a larger ore body. Samples of the ore, argentite, which was found in this mine last week, assays 1143 ounces silver and two and forty eight one hundredths ounces of gold per ton.

Mogollon.

Al Lauderbaugh is reported to have made a big strike on the old "Billy" on Spider creek, in the higher mountains of the Mogollon range. The mine produced some very rich ore on the surface and for several years past Mr. Lauderbaugh has been running a tunnel from the base of the mountain to try and find ore in the vein at a greater depth and where it would be of easy access through its tunnel.

A big strike of rich ore is reported on the 375 ft. level of the Maud S. Mine. A large piece of the ore taken from the breast of the drift on the 375 ft. level assays $700 per ton in gold and silver.

The Confidence mine has 70 men employed and is keeping the 30 stamp mill on White water steadily at work crushing the ore. The frequency with which the bricks of gold and silver pass through Silver City, from the mill, is on of the paying basis upon which the property is running. —Enterprise.

WASHINGTON.

The White Rock Company has a force of men driving a tunnel on the Everette claim, in Ana Cortes gulch. The boys are in about 80 feet and have about six inches of fine looking ore. The better showing on the property is in the west end near the mouth of the gulch right, where there is a foot and a half of good looking mineral. This company is working on a solid basis, and only does work for which it has the money ready.

A few rods beyond the White Rock Company's work, the Great Western Company of Ballard is driving a tunnel on the Fortuna claim. They are in 25 feet and have a good showing. The whole face of the tunnel is in quartz, and about 18 inches of it is highly mineralized. This company also owns three or four other claims in the vicinity upon which they are doing assessment work.

We are told that the Cleveland, which was for a long time the cherished project of Hartman & Wilson, has been sold to Fred Brown, a practical miner, who will be pushing, at all hazards, the work upon the property in a considerable scale. In connection with the Cleveland is the Violet, an extension of the Independent lead.

One of the most marvelous discoveries of mineral has recently been made by the Seattle Copper Smelting company. The minerals, of which Ezra M. Egbert is president and W. Rudebeck general manager, last June, E. M. Egbert and his brother, Arthur C. Egbert, both of whom are well known throughout the state as sturdy, enterprising young men, resolved upon a prospecting trip, and after one or two attempts to locate something in the Sullivan district, concluded by the advice of Mr. Rudebeck to prospect the Trout Creek district—not more than six miles from Index, on the Great Northern Railroad.

There will doubtless be some interesting developments, as the result of this summer's work, in the Piere Lake district, on the Colville Reservation. Copper has been unusually busy thus far this year, and the entire district is now pretty thoroughly prospected and staked out. Though common enough in the Pierre district, the most of this property really lies in the Bosburg district, which was organized during the spring, and has now a regularly elected recorder located in the town of Bosburg. Many of the claims have been well opened up, and some already have large dumps of ore awaiting transportation facilities. At present the only means of getting out the ore is by freight wagons to Bosburg or Marcus on the line of the Spokane Falls & Northern. This, of course, an expensive undertaking, but it is said that in several cases the ore is of such quality that the freight wagons will soon be commended. The ore is generally a gold-bearing quartz, carrying a high percentage of copper.

Some very fine looking gold and silver-bearing ore has been brought to Seattle from the Silver Tip claim, on Ruth Creek, near Moscow, Baker county, located in Valley county. The claim is only a short distance from the state trai, and is said to be very easy of access and easily worked. A half interest has been sold to a representative of Seattle, and arrangements made to do a certain amount of development work this year. Considerable interest is again being awak-
LOWER CALIFORNIA.

The Piramide Mining Co., of this city, has secured a patent from the Mexican Government for the Bolivar claims at Alamo, owned by the Piramide Gold Mining and Milling Company, covering about 1,000 acres.

The above company is composed of John McCoil, of Winchester, Riverside county; D. G. Mitchell, Bradford Morse, Sheriff Johnson, W. D. Devany, J. O. Brown, of Riverside, and P. L. Griffin, of Los Angeles. Besides what the company has obtained patents for, they own what is called the "Piramide Claim," covering about 800 acres, for which they have not yet received a patent.

These are all placer claims and are known to be quite rich. A pumping plant and several hundred feet of pipe, which has been stored at Los Angeles, will be sent down at once and work commenced on the claims for which the patent has been received. Herefore these claims have been worked to some extent by Indians, the dirt having to be packed or hauled several miles to water, and by this mode, including the other crude measures used in mining, good wages were made. The company has developed water, which, by pumping over a hill from sixty-five to seventy feet high, can be delivered on the claims. They have a flow of fifty inches of water now, with the prospect of greatly increasing this. The pumping plant is for getting the water over this hill.

The Los Angeles Evening Express has established a mining department, and will devote from two and one-half to three columns to the mining industry of Southern California and other sections, and will give the latest mining news and stock quotations. The Express is one of those large daily papers that has made a reduction in their subscription price. From September 1st, the price will be 10 cents, per week by carriers, and 2 cents per copy from the newsboys.

Wm. Ainsworth, of Denver, Colo., is now offering for sale a weight, as shown herewith of 204.6 milligrammes, which was suggested and first put into use by Mr. Charles F. Shelby, assistant chemist at the Globe Smelting and Refining Co.'s works, at Globeville, which is coming into general use very rapidly.

Its use is to facilitate the present volumetric method of managasese determinations, where the liberation is done with the standard 1 per cent permanganate solution for iron.

By taking this amount of ore, we read our final results from the burette, t C. C. equals i per cent; thereby saving all further calculations and reducing the liability of mistakes to a minimum. These weights are made of platinum, and the weight is guaranteed by the maker.

Further particulars regarding this weight can be obtained from Wm. Ainsworth, of Denver, Colorado.

The Colorado Iron Works Company, of Denver, Colorado, reports the following shipments for the last two weeks: One carload of mining machinery to the Midnight Mining Company of Vasques, New Mexico; one carload of mining machinery to钾 Ore Purchase Company of Goldfield, Colo.; one five-stamp mill complete to L. A. Martinez, of Guadalupe, Mexico; two three-stamp mills to Creston-Colorado Co., of Minas Prieta, Sonora, Mexico; one large Elliptical Bowl slag truck, to Puget Sound Reduction Company, of Everett, Wash.
GENERAL NEWS.

Trans-Mississippi and International Exposition.

OMAHA, JUNE TO NOVEMBER, 1898.

The perspective drawing accompanying this article of the Mines and Mining building shows a handsome structure, designed by John J. Humphreys along rigid classic lines of the Doric order, modified to comply with nineteenth century requirements. The facade presents a frontage of 400 feet, accented at center and end with pavilions, sixty-four and forty feet respectively, thereby obtaining sufficient variety of mass. The solidity of these pavilions and their strong perpendicular lines and shadows will give a strong contrast of light and shade.

The height of the building to the top of the main cornice is forty feet; the height of order thirty feet, resting on stylobate ten feet high. The height of the center pavilion to the top

PERSONAL NEWS ITEMS

A. W. Cogswell, a mining man of Butte, Montana, was one of the callers at the Journal office the 14th inst.

Mr. Lonesan, of Lonesan & Calkins, is in Nevada examining properties.

Ex-Gov. Hansen, who recently returned from New York to Helena, Montana, announces that while in the east he made arrangements for putting up a Peck machine to work over the tailings at the East Helena smelter.

Richard Crow, who has a lease on the Wilson property, is working several men on the same.

L. E. Aubrey, M. B., of San Diego, Cal., spent last week in Las Vegas attending the meeting of the Native Sons of California.

Bruton Davis of Corralitos, Chihuahua, Mexico, just came in El Paso, Texas, and reports a rich strike at the Cerralitos mines.

E. L. Sharp, president of the Gold Coin Mining Company, accompanied by some Cleveland stockholders, made a visit to the mine near Butte, Mont.

Jack Wilson of Kingman, Ariz., will leave very shortly for the Alaska gold fields.

MINES AND MINING BUILDING AT OMAHA


S. Marchescau has returned to Butte, Mont., from the east, and reports the mines on the Atlantic side board suffering more from the fall in the price of silver than the western mines.

J. E. Bush of San Jacinto, Riverside county, Cal., left for the Klamath gold fields a few days ago.

Geo. E. Sutliff is working two men on the old Crook mine at Crook's cany on, Arizona.

Taylor D. MacLeod of Yuma has sold his group of gold mines to Colorado people and will superintend the development of the property himself.

H. R. McCullough, representing the Sterling Company of Chicago, was in Butte, Mont., last week.

M. G. Burns of Pasadera, Cal., has put two men at work on the group of gold claims recently bonded by him in Copper Basin, Arizona.

T. A. Richardson, M. E., of Denver, Colo., author of "Stamp Milling of Gold Ores," has left for Australia, N. S. W., whether he has gone on professional work.

Hermann Thrope, expert in electrolytic metals, has returned to Montana from a trip to New York. He will resume his duties as consulting engineer of several properties.

F. J. Dobson, the well known mining engineer of the Fort Steele district, B. C., was one of Butte, Montana's notable visitors last week.

W. S. Hopkins, a prominent citizen of Hilliboro, N. M., has recently been in Silver City.

E. W. Merrill, a former superintendent of the famous Golden Cross mine at Hedges, San Diego county, Cal., was a caller at the Journal office the other day.

F. E. Kravich, president of the Gold Bug Mining and Milling Company, has gone to Randburg, Cal., to look after the mining property of his firm.

H. D. Smith, one of the directors of the Gold Bug Mining Company, has gone to Randburg, Cal.

Jo Williams of Bisbee, Ariz., expects to come to California in the near future on a prospecting trip through our rich gold fields.

Obituary.

Gen. Orlando Evans, one of the best known men in Nevada, died at Reno, Nev., recently, after a brief illness. General Evans came to California in 1849; was a successful miner in Nevada county, Cal., owning and selling to an English Company the celebrated Buckeye Hill mine, near North San Juan. He was one of the original owners of the Gould & Curry mine at Virginia, Nevada.
THE MARKETS.

New York, Sept. 11th.

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Silver</th>
<th>Copper</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 1</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 2</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 3</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 4</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 5</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 6</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 7</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 8</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 9</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 10</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 11</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 12</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
<tr>
<td>Sept 13</td>
<td>9.85</td>
<td>99.85</td>
<td>3.30</td>
</tr>
</tbody>
</table>

The silver market made a new record last week, spot silver selling at 513½c., owing to the continued increase in the London market, which neither demand nor pressure of sales.

The closing, Thursday, Sept. 9, however, was strong on Mint orders in London, with sales in New York at 523½c. London writes under date of August 22nd: "There has been a moderate enquiry for shipment to the East, but sales of the metal in the London bourse have been a good deal restricted, owing to the fear of an increased import duty being imposed upon the metal. The future of the market is most uncertain, and no permanent rise of importance seems probable without a decreased production."

COPPER.

The market has been very steady. The volume of business continues to improve, and prices have a tendency to advance. Lake copper is quoted in New York at 11½c. for less, while the Electrolytic is quoted at 10½c. for less. Copper at 10½c. for less. The statistics for the second half of August show a decrease in the visible supplies of 400 tons.

LEAD.

Has been very active, the price having advanced to 44c. per 100 lbs. in London, and we understand very limited. Indeed, manufacturers are buying very cautiously and it is thanks to this policy that the market has not advanced more rapidly.

Arrivals of lead at the port of New York during August are reported at 1,450 tons, from Mexico. The exports of Mexican lead in bond from this port for the month were 2,829 tons to Europe and 11 tons to Canada. The barter market at N. Y. and nearer ports amounted to 2,566 tons on July 31st. The total exports of August by the barter market were 2,105 tons on August 31st. During August there were entered and withdrawn for consumption 680 tons.

TIN.

Is somewhat quieter, the metal being now fairly offered at 49c. at East St. Louis, with buyers not better than 48½c. Production in the increase and even if consumption should appear during the next six months, which is not likely, the price will not rise to such an extent as to absorb the increase in the output, which sooner or later will have to be exported.

ANTIMONY.

The quotations are unchanged at 8c. for Coosook's, 7½c. for Hallev, 7½c. for Japanese and 7c. for U. S. Star.

MAGNIFIC.

New York, Sept. 11th.

Business continues quiet, and no changes in prices can be reported. New York quotations for spot lots are 33c. and 36c. per pound and for smaller orders 35c. and 38c. per pound.

TIN.

Is declining in demand, and the premium on spot has entirely disappeared. The market price on spot has also disappeared. The market price is now 15c.

Were it not for the renewed decline in silver, prices for tin would undoubtedly have improved, the statistics at the end of August again showing an improvement of 800 tons. Under different conditions for silver, this would without doubt have had a very favorable influence on values.

The shipments of tin from Australia and the Straits in August are estimated at 4,000 tons, and the deliveries for the month at 4,056 tons. The visible supplies on September 1st were as follows, in tons of 2,420 lbs.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total in Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>3,254</td>
</tr>
<tr>
<td>Amsterdam</td>
<td>3,100</td>
</tr>
<tr>
<td>Holland</td>
<td>865</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>1,500</td>
</tr>
<tr>
<td>Total</td>
<td>8,610</td>
</tr>
</tbody>
</table>

The total supply shows a decrease of about 300 tons from August 1st, and 2008 tons as compared with September 1st, 1896.

PLATINUM.

Prices are firm at 140 and 125 per ounce, New York. For chemical ware, best hammered metal, Messrs. Eimer & Amend of New York furnish the following quotations, the prices given below being respectively for orders of over 300 grams and over 500 grams of 100 and less than 250 grams and for orders of less than 100 grams. Crucibles and dishes, 5c., 8c. and 10c. per gram. Wire and foil are 5c., 8c. and 10c. per gram.

QUICKSILVER.

The New York market is firm and unchanged. For Heraclius No. 1, from 11½c. to 17½c. according to strength and quantity. No. 2, from 8c. to 10c., according to strength and quantity.

COKE.

The market is quoted as follows at New York:

<table>
<thead>
<tr>
<th>Quality</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steam</td>
<td>25c.</td>
</tr>
<tr>
<td>Coke</td>
<td>20c.</td>
</tr>
<tr>
<td>Buffalo</td>
<td>17c.</td>
</tr>
</tbody>
</table>

BISMUTH.

The New York market is steady and unchanged. The price is quoted as follows:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 lbs.</td>
<td>35c.</td>
</tr>
<tr>
<td>1000 lbs.</td>
<td>30c.</td>
</tr>
</tbody>
</table>

THE MINOR METALS.

Quotations are given below for New York delivery:

<table>
<thead>
<tr>
<th>Metal</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>40 lbs.</td>
<td>$1.00</td>
</tr>
<tr>
<td>Brass</td>
<td>50 lbs.</td>
<td>$1.50</td>
</tr>
<tr>
<td>Copper</td>
<td>100 lbs.</td>
<td>$2.00</td>
</tr>
<tr>
<td>Tin</td>
<td>80 lbs.</td>
<td>$3.00</td>
</tr>
<tr>
<td>Nickel</td>
<td>200 lbs.</td>
<td>$5.00</td>
</tr>
<tr>
<td>Silver</td>
<td>100 lbs.</td>
<td>$7.00</td>
</tr>
</tbody>
</table>

CHEMICALS.

The market in New York is very firm, although as yet the slight extra demand for heavy chemicals has had no effect upon prices which remain the same in every substance as they were last week. Quotations generally are as follows:

CAUSTIC SODA.

60 per cent., $3.00; 50 per cent., $3.50.

ACID.

90 per cent., $3.50; 70 per cent., $4.00; 60 per cent., $4.50.

MURGAGE.

We quote New York and Boston, 7.7561; New York and Norfolk, 7.7661; Charleston, Savannah, Wilmington and New Orleans, for 80c per cent. basis of 80 per cent., 1.7c. per cent. in lots of 50 tons and upward.

NITRATE OF SODA.

The market for this chemical may be summarized as supply, heavy; demand light; yet prices have not weakened much if anything. We quote $1.65 per 190 lbs. for the heavy, $1.40 per 190 lbs. for the ordinary.

BICARBONATE OF SODA.

The market has been fairly steady, but prices are firm, owing to heavy demand.

BICARBONARTE OF POTASH.

The market has been firm, but prices are firm, owing to heavy demand.

ACIDS.

The market for these chemicals is showing every symptom of the normal summer revival and, before long, a very encouraging demand is expected.

Prices are per 100 lbs. in New York and vicinity in lots of 500 bushels or over. Quotations are as follows: Acetic acid, commercial No. 8 (in barrels), $1.40; b. & s., $1.50; in cars, $1.65; redistilled, 25c. per 10 lbs., in bbls., $1.70; b. & s., $1.80; in cars, $1.90; b. & s., $2.00. Muratic acid, 18°, 75°/10°C.; 20°, 80°/10°C.; 22°, $1.00; 25c., $1.25, according to make and quality. Nitric acid, 36°, $5.00; $6.00; 42°, 5c. per lb; 45°, $6.00. Oxalic acid, $7.50 per ton; $7.50 per ton, according to grade.

ACIDS.

Acid is quoted as follows at New York:

<table>
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<tr>
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<th>Price</th>
</tr>
</thead>
<tbody>
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<td>17c.</td>
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BISMUTH.

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Gold and Silver Exports and Imports
At all the United States Ports, July, 1897, and years from January 1, 1897, and 1896.

<table>
<thead>
<tr>
<th>Denominations</th>
<th>Pieces</th>
<th>Half</th>
<th>Quarter</th>
<th>Dimes</th>
<th>Nickels</th>
<th>Pennies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>$100</td>
<td>$5</td>
<td>$2.50</td>
<td>$1.00</td>
<td>$0.50</td>
<td>$0.05</td>
</tr>
<tr>
<td>Silver</td>
<td>$5</td>
<td>$2.50</td>
<td>$1.25</td>
<td>$0.50</td>
<td>$0.25</td>
<td>$0.125</td>
</tr>
<tr>
<td>Miner</td>
<td>$5</td>
<td>$2.50</td>
<td>$1.25</td>
<td>$0.50</td>
<td>$0.25</td>
<td>$0.125</td>
</tr>
<tr>
<td>Totals</td>
<td>$250</td>
<td>$12.50</td>
<td>$6.25</td>
<td>$2.50</td>
<td>$1.25</td>
<td>$0.625</td>
</tr>
</tbody>
</table>

The statement of the United States Treasury, on September 24, shows balances in excess of outstanding certificates as below, comparison being made with the statement for the corresponding date last week.

<table>
<thead>
<tr>
<th>Denominations</th>
<th>Pieces</th>
<th>Half</th>
<th>Quarter</th>
<th>Dimes</th>
<th>Nickels</th>
<th>Pennies</th>
</tr>
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</tr>
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<td>$1.25</td>
<td>$0.50</td>
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<td>$0.125</td>
</tr>
<tr>
<td>Miner</td>
<td>$5</td>
<td>$2.50</td>
<td>$1.25</td>
<td>$0.50</td>
<td>$0.25</td>
<td>$0.125</td>
</tr>
<tr>
<td>Totals</td>
<td>$150</td>
<td>$7.50</td>
<td>$3.75</td>
<td>$1.50</td>
<td>$0.75</td>
<td>$0.375</td>
</tr>
</tbody>
</table>

No gold was exported this week; of the silver $750 went to South America and the balance to London. The gold and silver importers came chiefly from Central America and the West Indies.

The United States assay office in New York received the total receipts of silver at $6,000 for the week.

**FINANCIAL NOTES**

The Secretary of State for India, in Council, gives notice that the sale of bills of exchange on Calcutta, Bombay and Madras has been suspended for at least ten weeks. This action is due to the poor financial condition of the country. The opinion exists in banking circles in London that gold will be shipped to India when business resumes.

The coinage executed at the Mints of the United States during August and the eight months of 1897 is reported by the Treasury Department as follows.

<table>
<thead>
<tr>
<th>Denominations</th>
<th>Pieces</th>
<th>Half</th>
<th>Quarter</th>
<th>Dimes</th>
<th>Nickels</th>
<th>Pennies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
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</tr>
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<td>Miner</td>
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<td>$1.25</td>
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<td>$1.25</td>
<td>$0.625</td>
</tr>
</tbody>
</table>

The market for the Exports and Stock Week is unchanged for the period of the year. It must be remembered that the Exchange is at present passing through the dull season; the summer heat has not entirely left us, and the market is a waiting one. As the result of this nature, therefore investors and speculators are all looking on the Exchanges for prices, and those that are here waiting for further development in the properties before taking in any of the large holdings.

The principal feature has been the spurt in (1) American, this stock rose from $90.00 to $103.00 in the last thirty days on one day's call and the prettiest flurry yet experienced on the Exchange was a consequence.

The call-room ironed every morning by the dealers, and it is certain that the public is becoming aroused to the good chances offered for investment on the Exchanges. Rand Mountain, after selling at $25.00, has strengthened up to $25.75 and it closed firm at that figure. Margarettina is especially strong at 20.00, and Hardtine remains stationary and is included in the range of the market. It is not by any means in the public eye and was doubtless everyone in a short time. Reports from the property indicate that they cut their new vein in about a week, tunneling in very close to the vein.

Among the unlisted stocks Old Dominion and Crocker & Company with gorging and spurted bidding, on every day's call. This stock was put on at two weeks ago and is now selling at $2.50. Some of the finest ore has been shown at the Exchange, and all of it was taken from this property. It is quite novel, and another good prospect, has also been an active trader. It is being worked steadily and the new ground is showing up well. The balance of the list has developed no new features but continues strong and healthy.

**NEW YORK, Sept. 8, 1897.**

Although speculation in the New York market for the last four weeks has shown a quiet period in the trading, the market is still firm to a few figures. On the Consolidated Stock and Exchange, the London and Chicago figures were lower, compared with last week, and the prices were more marked in the New York market for the week. The Colorado stock, especially those of the Crockett Creek group, fluctuated to a few figures, and the silver stock was bought and sold at lower prices, to be depressed in consequence of the fall in the New York market for the week. The California securities were quiet.

The most active stock on this Exchange this week was the American, which is quoted at $19.62 to $11.25 per share.

The Mining Exchange is doing a moderate business, which is confined principally to a few Colorado stocks, such as Rocky Mountain, Amosia and Mina. The chairman of this board is in the habit of calling the Crockett Creek stocks, and all offers are made there is little or no buying in this direction.

**CHICAGO, Sept. 10, 1897.**

The market on the Exchange took a decided advance the past week. Savage advanced from 22 to 276. The Gould and Curry was quite a feature. Occidental also advanced to $2.75 a share and then took about five cents. Development work was being steadily pushed ahead on a new body of ore at 650 foot level in the Occidental, which is said to be 30 feet wide and averaging 20 to 25 per cent. It is expected that the mill will be started in the near future.

The Yellow Jacket and other Comstock mines remain about the same as in the past few weeks. The Consolidated Virginia stocks are holding their own. The Nevada Consolidated is the same as it has been, with a rise of 22 1/2 cents.

They have commenced operations on the 1750 foot level. At present they are working to reach the 1650 foot level. Reports have been received the past few weeks of the mining of the property. In Sierra Nevada considerable exploration work has been done on the Layton tunnel and the 950 foot level.

Mexican stock is at a standstill. There has been no change in the developments of the 3000 foot level worthy of attention.

The south drift on the central tunnel of the Ophir is being pushed slowly ahead. Work is continued west to the 1500 foot level. At last advice the crossing was in over 400 feet with no material change to note. Ophir stock is steady, no change from last week's figures. The Gould and Curry Car and Carrier were not working.

Several developments are crossing the border to the Brunswick stock, which is now selling at 1150 feet with expectations of striking the lode in the near future.

Reports of several important works is to be started in Ander, but official letters do not indicate any. From Com. Imperial, Challenge and Confidence is about the same as published last week. From Yellow Jacket nothing has come to hand to indicate what they want management money for. There is nothing new from Kentucky, Crown Point, Belcher, Seg. Belcher or Overman.

**SALT LAKE CITY, Sept. 9, 1897.**

The market was dull this week and for the first time in sixty days closed stronger than the opening. Any has resumed work in a comparatively small way, but full operations will shortly be in order. The stock was somewhat stronger and in fair demand. Steady operations continue time at the Anchor, and some inquiry was made for the stock. A meeting of the Bullion-Bank directors is scheduled for September.

Better quotations prevailed on Cen-
NEW IMPROVED McGlew Ore Concentrator

IN USE IN
California, Oregon, Washington, Nevada, Arizona Territory, Mexico, Cuba, America, Australia.

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.
Write for Descriptive and Testimonial Circulars.
The McGlew Ore Concentrator Co.
101 First Street
San Francisco, Cal.

GET THE
ORIENTAL GAS ENGINE
It is the Only Engine on Earth.
Write for Particularly.
LOS ANGELES WINDMILL COMPANY
223 E. 4th St., Los Angeles, Calif.
Dealers in all kinds of Pumping and Irrigating Machinery.

WASHBURN & MOEN MFG. CO.

WIRE ROPE AND
WIRE
OF EVERY DESCRIPTION

PACIFIC WORKS
SAN FRANCISCO
Los Angeles Mining and Stock Exchange

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