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CALIFORNIA MINING JOURNAL

OFFICIAL ORGAN OF THE MINING ASSOCIATION OF CALIFORNIA

VOL. I, NO. 1.

AUGUST, 1931

Published Monthly



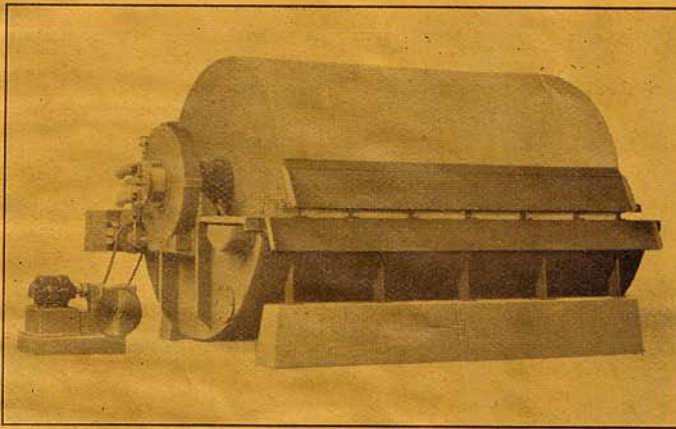
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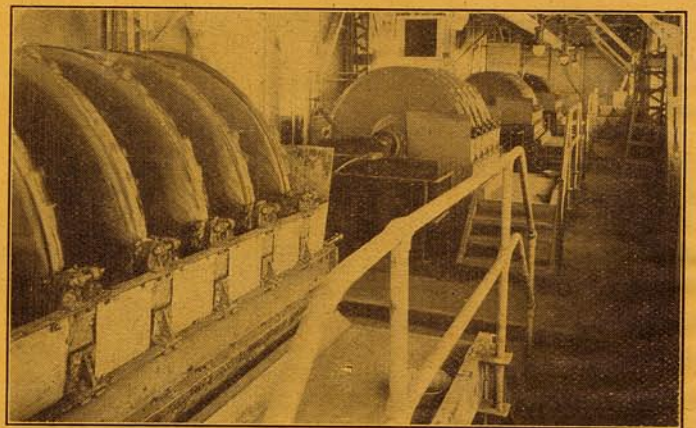
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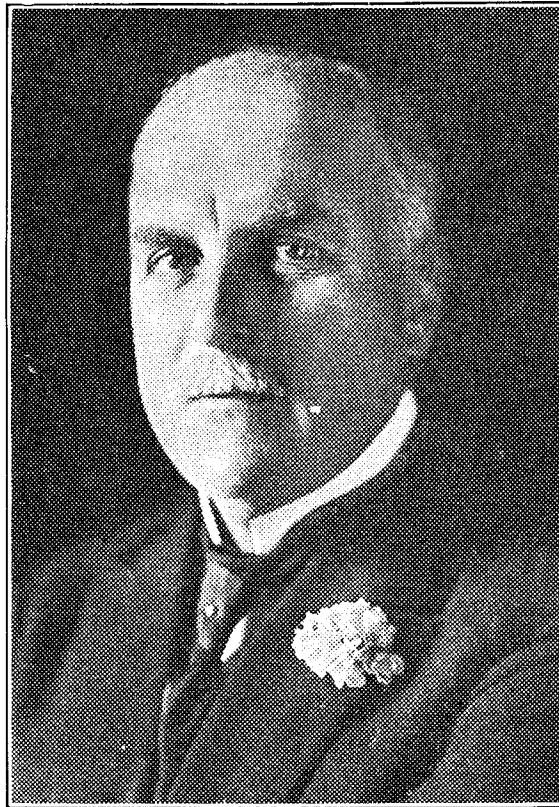
JAMES ROLPH, JR.
GOVERNOR



Governor's Message

May I confess that, while I have never engaged in mining, that earliest and most picturesque of California industries has always had a strong appeal to my imagination. One of my urgent ambitions as governor is to accomplish something in the way of stimulating and reviving that languishing industry. I would like to see the entire mother lode and all the mining regions humming with activity. Legislation, of course, cannot put gold into the ground. But I shall be responsive to all sound suggestions for the benefit of the mining industry and the mountain counties.

The gold in California's stream beds and mountains was responsible for her birth both economically and politically as a member of the family of states. California's gold was an important factor in sustaining the federal finances and credit during the stress of the Civil War in the '60's; and in spite of recession in annual yield in recent years, this commonwealth is still one of the leading states in production of the yellow metal. The decreased production of new gold is due to nationwide and world-wide economic conditions over which the gold miner himself had no control; and because the price of his product is fixed by governmental action as the basis of our (and other nations') monetary system, the gold miner is entitled to special consideration at the hands



CALIFORNIA'S MINING GOVERNOR

of our law-making bodies both of the state and nation to the end that whatever statutory or taxation burdens are now hampering the flow of new gold from out of the ground may be either eliminated entirely or at least ameliorated to the maximum degree. California should be in the forefront of the movement to help. We need more gold. In the United States today we are consuming in the arts and industries more than twice as much gold as we are taking out of our mines each year. Unless something is done to help, it is conceivable that the foundation of our financial system will sooner or later be affected.

But gold is not California's only bid for fame and attention. This state is prolific in available minerals of commercial value, and the diversity of her products is not approached by any other commonwealth. Mining in California marches alongside of and goes hand-in-hand with agriculture, as one of the great basic industries upon which our people depend. Our wealth in structural and other industrial mineral raw material is wide-spread throughout California and in great variety, and if properly fostered and adequately supported by governmental promotion, will continue to grow in importance and will continue to support an ever increasing industrial population in this state.

EDITORIAL PAGE

ELSIE P. WILLOUGHBY, Editor and Publisher

CALIFORNIA MINING JOURNAL

Official Publication of

The Mining Association of California

Entered at the Nevada City Post Office this first day of August, 1931.

Published Monthly (per year).....\$2.00

THE need of an official publication of the Mining Association has been keenly felt ever since the beginning of the organization. Without it the Association in such an organization is to functioned the coordination necessary properly. The secretary has from time to time sent out communications to the various chapters but these have not been sufficient.

An attempt was made last year to publish a bulletin of four pages. Two issues were sent out under Mr. Kimmel and later Mr. Brooks published eight pages, but the advertising was not sufficient to cover the printing cost so the idea was abandoned.

The Nevada City Nugget established five and a half years ago for the purpose of furthering mining has for the past two years published an annual edition. These editions have been so popular that the supply has been exhausted.

In June The Nugget publisher made a business trip to San Francisco to solicit advertising for another special edition. While there she received the inspiration and encouragement to publish a mining magazine monthly which would cover California mining.

At a meeting of the Directors of the Mining Association held in Sacramento, in June the California Mining Journal was endorsed as the official magazine of the Mining Association.

Since plans were all ready underway for a special edition of The

Nugget, the editor decided to make the first issue a special edition of Nevada and Sierra Counties. The supervisors of these two Counties have been most generous in their support.

Oroville Chapter has requested that the second number carry the message to the interested public of Butte County's mines. Butte County has experienced a remarkable awakening this year in mining. Material is all ready being gathered for the Butte and Yuba County Special. Other mining counties will be taken up in special numbers until every County having mines within its confines will be covered.

This plan is most feasible as without a large and expensive editorial staff it would be impossible to cover all of the state.

However each month mining news of the state will be published. Chapter secretaries and mining men are invited to send in mining news of interest. Arrangements

are also being made to have paid correspondents at each mining center.

The initial issue of the California Journal is humbly submitted to you for your approval. Suggestions are earnestly requested.

We plan improvements and are eager for ideas.

Yours to bring California back as the greatest mining state in the Union.

Elsie P. Willoughby

Editor and Publisher.

DEDICATED
TO
ARTHUR A. WILLOUGHBY
Born September 25, 1883
Died June 1, 1930.
Whose dream of a mining magazine for California we are humbly attempting to fulfill

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MURCHIE MINE IS NOW SPLENDID PRODUCER



M. C. C. van LOBEN SELS
President American Foundation Company

The mining revival which the Nevada City District is enjoying and the advance it has made in regaining its former outstanding position in the gold mining industry found its initial stimulus in the successful reopening of the Murchie Mine. This old property had been idle for twenty-five years and we can speak only in the highest terms of the courage and faith of M. C. C. van Loben Sels who has made possible the mine's present success.

At the time Mr. van Loben Sels undertook the financing of the reopening of this old property the shaft and much of the underground workings were caved and the mine was flooded to the shaft collar. A substantial capital outlay was required for the rehabilitation of the mine and surface plant and, with this accomplished, his task had but begun. A careful study of underground conditions was made and a development program was formulated which involved shaft sinking and many thousands of feet of lateral development. As this work progressed Mr. van Loben Sels faith in the ultimate outcome never wavered, although many trying periods were experienced. The community is appreciative of his courage which has made possible the gratifying results attained.

The property consists of 352 acres of patented land together with mineral rights upon 225 additional adjacent acres. Of the latter area, 145 acres have been acquired during the past year.

Two systems of veins occur within the

property and twelve major fissures have been noted and developed in some amount. The Big Blue (or Murchie) vein has been developed to a depth of 135 feet and the Independence vein to a depth of 700 feet in the Independence shaft. Half of the total production has been secured from each of these operations.

While the development of the other veins is limited, the general conditions surrounding their occurrence are such as to encourage further prospecting upon them. This appears to be particularly true of the Alice Belle, Fillmore, and Lone Star Veins.

Geologically, the ore occurrence differs from that of the western area of the district, yet much of similarity is noted as to conditions which have controlled the localization of ore shoots here and at Grass Valley.

Mining operations were limited some seventy years ago, the attention of the early day miners having been first directed to placer operations upon two channels which cross the property. The first quartz mining was done upon the Lone Star vein which was exposed in the bedrock beneath the old gravel channel. Operations were later started upon the Independence vein and were profitably extended to the 700 level, which corresponds to the present 400 level of the Murchie shaft upon the Big Blue vein. At this horizon the intersection of the two veins was developed and a very satisfactory ore condition was found in the previously undeveloped Big Blue vein.

Several inadequately financed efforts

were made to reopen the mine, following a fire which destroyed the surface works, and it was not until 1927 that this was successfully accomplished. The campaign in preparation for production was carried out and includes the unwatering of the mine, rehabilitation of the underground workings and surface plant, much new construction and new machinery installation, together with the remodeling of the mill and the introduction of an entirely different metallurgical process of ore treatment in July of 1929, and has been continued since that date.

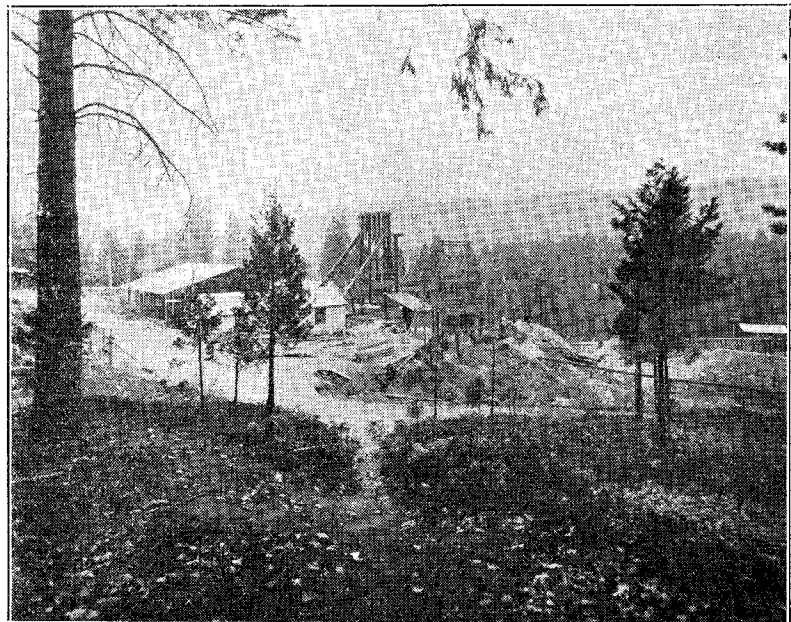
In the design of the new mill a radical departure from normal local metallurgical practice was employed in simplifying the treatment to a strictly concentrating process by flotation. The results of this are gratifying, as an extraction of 94% to 97% is secured at a substantially reduced unit cost. As the practice is unique for California gold ores, a brief description follows:

Ore transport to the mill is accomplished by a gravity tram operated in balance. Mine run ore is automatically dumped into a grizzly bottomed bin from which fines pass to the mill storage bin and oversize is drawn through a Blake type crusher for primary breaking.

Ore is fed by Challenge feeders to four five-stamp batteries crushing to pass a ½ inch mesh in two batteries and a 3-8 inch mesh in the other two.

This pulp then flows by gravity to a 54 inch Akins classifier, the oversize being elevated to a 5' X 12' Allis Chal-

Continued on page 19)



MURCHIE MINE

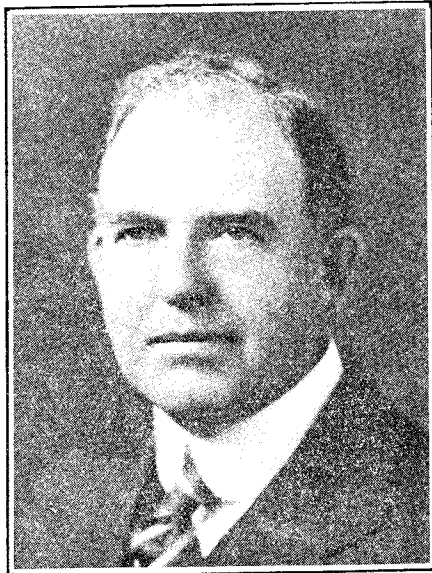
California Mineral Production

By WALTER W. BRADLEY, State Mineralogist, Chief of Division of Mines of State Department of General Resources.

Although California's first bid for fame as a mineral producer eighty-two years ago was through her gold mines and in which metal she still leads all other commonwealths of the United States, she has risen to and has maintained first rank for at least a time in several other minerals of commercial importance. Not only that, but California leads in the total number of economic varieties and the diversity of her mineral wealth. The number and diversity combine to make one of the interesting and outstanding features of her mineral industries. Exclusive of a segregation of the precious and semi-precious stones grouped under "gems", the number of mineral products utilized commercially from California's mines and quarries has for a number of years totaled from 55 to 60 different substances annually.

Even the distinctly gold-yielding counties such as Nevada, Amador, Yuba, and Sacramento have accounted from time to time for a number of other items besides the yellow metal. For example: silver, copper, granite, lead, crushed rock and gravel, pyrite, chromite, asbestos, platinum, tungsten, barytes, mineral paint, from Nevada County; silver, coal, copper, pottery clays, brick, limestone, marble, glass sand, asbestos, chromite, sandstone, soapstone, silica, manganese, platinum, lead, mineral paint, from Amador; silver, platinum, sand and gravel, brick, pottery, clays, copper, natural gas, from Yuba; silver, platinum, brick, granite, natural gas, crushed rock and gravel, copper, pottery clays, lead, potash, from Sacramento.

In spite of the layman's conception or impression that mining in California is a thing of the past, based no doubt upon his hinking of it in terms of gold mining, the future still holds much of promise and progress for our mineral industries. Although gold has fallen from her once high estate and is now surpassed annually by our output of petroleum, natural gas, cement, and crushed rock, California still continues to lead all the other gold-producing states of the United States including Alaska, and at present is credited with approximately 26% of the yearly domestic total. From two to three hundred fine ounces of platinum are obtained as a by-product from the dredges and other gold-placer operations. Gold mining today is in a much more favorable position economically than it



has been at any time since the World War. Having a fixed price, with other supplies at lower levels, gold is relatively more valuable. Inquiries are being made, in increasing volume by financial interests, for gold properties, mainly for quartz, but an occasional one for placers either drift or hydraulic. A contributing factor to lower operating costs is the labor situation. Although the per-day wage scale has not lowered, the fact that a large number of men are seeking employment has led to more efficient work by hose on the jobs to keep their places. It is estimated by certain of the larger operators that labor today is nearly 100 per cent more efficient than it was several years ago; and as labor represents, on the average, some 60 per cent of a mine's total operating costs, it is plainly to be seen that this item alone has an important bearing on net profits. Inquiries coming to the State Division of Mines as well as reports from the mining districts all show renewed activity and interest in gold, especially along the Mother Lode, in the Nevada-Placer-Sierra, and the Shasta-Trinity-Siskiyou districts.

An interesting feature of the geographic distribution of the economic minerals of California is the fact that of the non-metallic groups (structural, industrial, saline, but not including the fuels) — those mineral raw materials mined and utilized for purposes other

than the extraction of their metal contents—approximately 55 per cent of the annual value (taking the 1929 data as the latest detailed available at the moment) is credited to the counties south of the Tehachapi. Of the fuels (coal, natural gas, petroleum), 88 per cent came from the same southern units. These figures, combined, show the southern counties yielding 83 per cent of the total value for that year of all non-metallic products including petroleum and natural gas. Of the metals group, approximately 96 per cent of that value is credited to the counties north of the Tehachapi. It will be readily seen that this is a fortunate geographic distribution, when it is realized that California's more abundant water resources are likewise north of the Tehachapi, notably along the Sierra Nevada and in the Klamath Mountains at the extreme north end. Water is particularly essential in the beneficiation of the metallic ores, especially in the cases of gold, copper, lead, and zinc.

California's fuels, including petroleum, natural gas and coal, made up a combined total value estimated at \$282,000,000 for the calendar year 1930, or 81 per cent of the state's total. Of this, coal was almost negligible, because of the overshadowing dominance of oil. Natural gas has increased rapidly in recent years in the quantities utilized and its value, due to the enormous flows tapped in the Los Angeles Basin, Ventura, and Kettleman Hills oil fields. Californian crude oils are all essentially of asphalt base with a few notable exceptions where certain localities have wells yielding crudes containing both asphalt and paraffine constituents. Specific gravities range from 8° Baume in the Casamalia Field, Santa Barbara County, to 56° Baume in Ventura County, and 60° Baume in Kettleman Hills, Kings County.

Of the metals, copper though important (to California), does not compare with the annual yield in the red metal of others of the western states—Utah, Arizona, Montana, for example. The output in 1930 was 26 million pounds and 3 1/3 million dollars value. Quicksilver is another metal (besides gold and platinum) in which California leads the United States, having been for many years credited with 75 per cent of the

domestic product, though only 44 per cent last year due to increased amounts from Nevada, Oregon, Washington, Texas and Arizona. At that, California's quick-silver was valued last year in excess of a million dollars. With the exception of three localities, our silver comes as a by-product with gold, copper, lead, and zinc ores. Other metals mined in lesser amounts are antimony, manganese, tin, titanium, and tungsten.

The greatest developments proportionately in the past fifteen years have been in the non-metallic groups of structural and industrial mineral raw materials. In the structural group, Portland cement leads with an annual value approximately thrice that of our gold. This with the extensive operations of crushed rock, sand, and gravel plants has made possible the carrying on of our extensive road-paving improvements, not only in California but in our neighboring states as well. It has likewise contributed to the building programs for business structures, and hydroelectric power and irrigation dams. Brick and hollow-tile manufacture here amounts to around six million dollars annually, being especially important around the metropolitan areas. Granite production is valued at a million dollars. California has an abundant supply of unexcelled quality stone. Chromite, marble, sandstone, and slate are also available.

In the list designated as "Industrial", California presents a remarkable variety and diversity of products. These are non-metallic mineral substances which are required and utilized through a wide range of manufacturing plants and processes. Up to within the last few years at least, production has been in the majority of cases dependent upon more or less of a strictly local market (within the state or possibly the Pacific Coast). With our rapidly growing population and expanding industrial plants, coupled with a reaching out for distant markets, especially the Orient, the demand for our mineral raw materials is advancing with rapid strides.

The more important of these minerals thus far exploited, as measured by value of their output, are: barytes, pottery clays, diatomaceous earth, (or "diatomite") dolomite, fullers earth, gypsum, limestone, mineral water, pyrite, sillimanite, soapstone, and talc. As an example of its diversity of products and economic importance, the ceramic industry has risen to a rank of major standing. Exclusive of the clays used in brick and hollow building-tile (which are listed under the "structural" group), there was utilized last year in California, over 940,000 tons of raw clays valued at more than a million dollars at the pits. These went into the

manufacture of such wares as: architectural terra cotta; chimney, conduit, drain, and sewer pipe, floor, faience, mantel, are, decorative, and roofing tile; red earthenware, sanitary ware, electrical porcelain, refractories, garden furniture, oil-well drilling mud, are pottery, semi-vitreous tableware. The total of these products was over \$12,000,000, f. o. b. plant, for the same year.

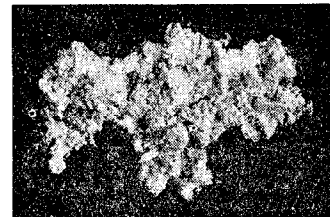
Limestone is another of our minerals with a wide range of industrial uses. These, in addition to the "structural" applications such as cement manufacture, macadam, concrete aggregate, and building lime include sinter and foundry flux, glass and sugar making, and other special chemical and manufacturing processes. They include such uses as: fertilizers (agricultural "lime") "roofing gravel", paint and concrete filler; whitening for paint, putty and kalsomine; terrazzo, paving dust, chicken grit, carbon dioxide gas, facing dust for concrete pipe, rubber and magnesite mix.

Other minerals of the industrial group produced in California, in addition to those listed above, include asbestos, feldspar, gems, lithia, mineral paint pigments, pumice and volcanic ash, silica (sand and quartz), sulphur.

There is yet another group of mineral substances which has important economic and industrial applications — that classified as the "salines". Common salt with which every housewife is familiar, is here prepared mainly by solar evaporation of Pacific Ocean water, and the "crop" is valued at a million dollars or more, annually. The year 1929 was the high record when the value reached over 2 1/2 millions. Salt has many other industrial uses besides its culinary applications. These include hide and fish curing, refrigeration, pottery glazing, and chemical manufacture. California is the leading world producer of borax. This comes from underground mining and from salt-lake brines. Present production exceeds three million dollars annually. The Searles Lake area is at present supplying an important portion of the domestic requirements for potash for agricultural fertilizer, its value likewise exceeding three million dollars a year. Other salines produced in California are soda, bromide, calcium chloride, and magnesium salts, all of which have essential industrial uses, and which, collectively, add several million dollars each year to our mineral wealth.

The California State Division of Mines, under the State Department of Natural Resources, maintains surveys and an information service relative to all of this commonwealth's varied mineral resources, and in 1930 celebrated the fiftieth anniversary of its creation (originally, as the

State Mining Bureau). Its activities today also include a comprehensive geological survey of the state with which is being coordinated the geological work of the several universities, the railroad companies, the major oil companies, and other interested agencies.



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HOGE SUCCESS OUTSTANDING

The Hoge Development Company, located in the Blue Tent section, is fast becoming one of the leading mines of this famous old district. It is less than two years since their main three compartment shaft was started, during which time they have sunk 326 feet and have run over a mile of drifts and cross-cuts.

In their Western development they have opened up an ore body for a distance of 375 feet. In drifting and stoping they have taken out some four thousand tons of ore from the Hoge vein. From this vein they have shipped some 350 tons of ore to the Selby Smelter, which averages about \$100.00 to the ton. The rest of the ore is on the dump ready for milling, and should net them around \$25.00 per ton when milled.

The majority of the ore has been taken out of the footwall stope, which is at the start of the ore shoot. This stope is 75 feet long and is being carried to the surface. During the past three months another stope has been started on the hanging wall ledge, from which ore has been running from \$75.00 to \$150.00, per ton. The ore from the hanging wall ledge is more silicious and carries more free gold than the ore from the footwall stope, which is very heavy in sulphides.

At the present time a drift is being run in the East, in the slate country, for a large north and south ledge. During the past week they have struck the vein from which high assays have been obtained. This ledge is a strong one on the surface, and should, with further development, prove to be as good as the veins opened up in the western development. In this eastern development, molybdenite has been found. This is very encouraging, because in the old Harmony channel, when they encountered rich specimen ore, it was generally associated and mixed up with molybdenite. The quartz boulders found in the Harmony were angular, showing that they came from a large ledge close by. It is possible that this new ledge was the one which fed the large quartz boulders to the Harmony channel. This channel produced, according to Government records, about \$15,000,000.00 in less than three miles, below the Hoge Development Company's eastern operations.

At the present time the company is confining their operations solely to their promising quartz operation in Blue Tent. They plan to develop and explore their

9000 feet of virgin channel ground, which will be tapped through their eastern development work. Once into the channel, they can utilize the Penn-California tunnel for their gravel operations. This tunnel has been so constructed so that it will be entirely a gravity operation.

During the past year the Hoge Development Company has acquired additional ground in the Blue Tent section which has several potential surface croppings, which the company plans to develop in the near future. This new ground together with their other extensive holdings along the Harmony Ridge, and in the Willow Valley District, constitute nearly two square miles of ground in a highly mineralized zone. This large acreage gives the company ample territory to develop and work for years to come. In the Willow Valley section, this company has several small mines, which were worked to a shallow depth in the early days; and from which ore of a good grade was milled. They plan to develop the ledges of these several small mines through a centrally located vertical shaft. This week will be started as soon as their present operations in Blue Tent are upon a sound paying basis.

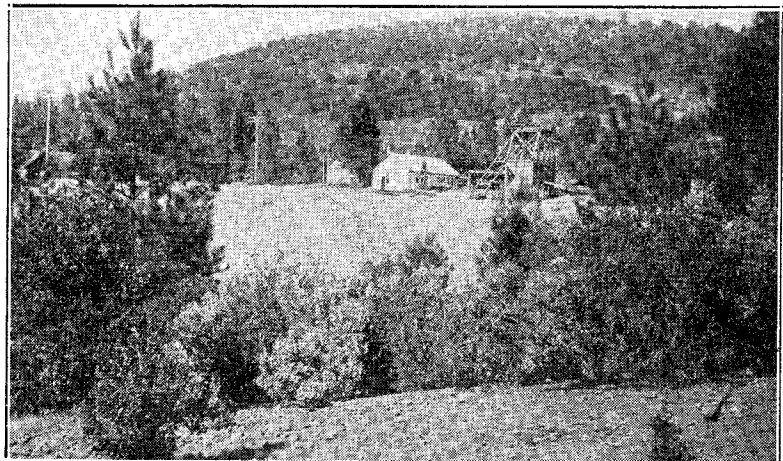
The Hoge Development Company's plant in Blue Tent is modernly equipped in every respect. Recently a 1050 foot Laidlaw Feather Valve compressor was installed. This compressor will supply adequate air for further development on the present three hundred level and for the sinking of their shaft to lower depths.

Present plans are to sink the shaft to the six hundred level, cutting stations on

the four fifty and the six hundred level. Plans are now being drawn for a fifty ton oil flotation mill and a cyanide plant. Sufficient ore has all ready been opened up to warrant the erection of a fifty ton mill. In erecting the mill they plan to put in a fifty ton unit now, and to make provisions for an additional 50 tons, so that when ore is opened up on their deeper levels, they can install the additional 50 ton unit.

With the company's large holdings in a virgin territory, and in a zone which is considered one of the best in the United States, by the leading geologists; they have a very promising future. With plans, as stated above, put into execution, this company should, in the next five years, have one of the largest mine operations on the West Coast.

Arthur W. Hoge is the President and executive head of the company. O. E. Schiffner is General Manager and in active charge of all mine operations. The officers of the company are as follows: Chas. L. Walther, Chairman Board of Directors, 602 Frick Bldg., Pittsburg, Pa.; Arthur W. Hoge, President, Nevada City, Calif.; Cornelius D. Scully, Vice President and General Counsel, 602 Frick Bldg., Pittsburgh, Pa.; Arthur M. Hoge, Secretary and Treasurer, Nevada City, Calif.; A. M. Slater, Asst. Secy. and Tres., 602 Frick Bldg., Pittsburgh, Pa.; Otto E. Schiffner, General Manager, Nevada City, Calif.; Edw. C. Uren, Consulting Engineer, Nevada City, Calif.; S. S. Wales, Consulting Engineer, Carnegie Bldg., Pittsburgh, Pa.; W. E. Wright Counsel, Nevada City, Calif.



Hoge Mill

EASTERNER THRILLED WITH DISTRICT

By JOSEPH E. MERRIAM, Mt. Kisco, New York

Miningwise, I have travelled from the confines of Canada to the lower reaches of South America, where the glories of your own superb Rockies are even excelled by the wonders of the historic Andes, and from the Puritanic regions of conservative old Boston to the splendors of the Golden Gate. In such travels, I have necessarily seen many mines, but I do believe in that wonderful state of yours, that there is more hope in the future for the mining industry than any place which I have visited, unless it be on the Peruvian slopes of the Andes, a country which I would hardly recommend to an investor at present, due to the lack of stability of the government, and the consequent rather flagrant disregard of the inhabitants for vested property rights. The same situation obtaining in South America has been, in my opinion, the great drawback to Mexican mining investments.

In California, however, you encounter a situation where you find the following facts:

First, a mining field which is proven, whether the investor locates along the Mother Lode with its known and proven geological situation; or in new fields where the investment is more in the nature of a prospect, as for example, in Siskiyou County, where mining has been carried on for a long time, but has never reached the status of mining along the Mother Lode, or in such proven counties as Sierra and Nevada, with their history of vast production, and still containing immense stores of unexploited mineral wealth. You cannot read your Bret Harte either out there in those historic scenes, or back here before a log fire in your home in the effete East, and not thrill with all the old spirit of the '49er in those rare old days of "Rough and Ready" "You Bet", "Red Dog", "The City of Six", "Angels" and "Poker Flat". I have visited most of those scenes and yes, the ghost towns of the days ago, and am never so happy as when perhaps at twilight hour, after a busy day investigating mines, I pass through such a town, with its old buildings, deserted halls and scenes of former mining glory. Somehow or other there is a something that grips the heart and soul, lifts one out of the sordid present, and into those magic days of the old spirit of '49. Unreality, fiction, imagery, come out of the shadows, and merge with the stern and real facts of the past, i. e. that despite the halo and mist of that legendary past, the truth is the Civil War won and that great Cali-

fornian empire founded upon the metals thus wrung from California's fields by those sturdy miners of the past.

Second. Geology, mineralogy and metallurgy have made such vast strides since those early days that the investor can well divorce himself from the gamble of the early days, and play with more or less certainty if he be endowed with the ordinary common sense of the reasonably prudent business man, and safeguard himself with the proper precautions of a veteran mining investor; that, is he should not buy mining stocks from lurid circulars depicting millions of dollars of returns from a few hundred dollars invested from hard earned savings. Beware of this type of circular. Consult some good mining engineer, check up, if you desire to be very conservative, his opinion afterwards by that of another mining engineer, get a group of your friends together, and appoint one of them as business manager (he need not be a mining man), and then employ the same business ability that you would in any business in the East or West, working under the guidance of a capable mining engineer, and employing a practical working superintendent, an experienced mining man. Follow this recipe, and your net returns will average better than those of most any other business. In making this suggestion, however, I would want to limit the investment to a gold mine, rather than to the other metals at present. There are many mining engineers of respect in California, but right there in your own neighborhood, you have those whom one one might well consult, for instance, men like W. W. Waggoner of Nevada City, E. C. Uren of Nevada City, James Stewart

of Auburn, Lloyd L. Root, the former State Mineralogist of California, Mr. Bradley, of San Francisco, Wallace McGregor of Berkeley, A. E. Vandercook of Sacramento, and Mark N. Alling of Oakland, who is an authority on the drift mines of your region, also Mr. Bennett of the famous "Sixteen to One" mine at Alleghany.

Gold, in my opinion, is coming into its own. Prices have fallen during the past year 29%. Thus, with the same production of gold as formerly, the profit is over one-quarter greater. Remember the gold mining industry languished during the World War, and subsequently during the period of the high cost of living. Remember this too, that the gold formerly mined from the placers is only a small item in the great mineral wealth confined in quartz mines, the origin of the placers. Remember too, that **this is the only product which you can produce which always has a market.** Uncle Sam is glad to take it from you, and all you need to do is turn it in to him, and your money is waiting for you. You need not worry whether the public is going to consume your product or not. Your only concern need be the quality of the mine which you purchase, and the business management of it. With a fair mine and good management, you are bound to be successful.

And oh, the thrill of it, the romance of gold mining, when you feel that perhaps you will have some of the good fortune that was encountered there in the mines of Nevada County and in Alleghany, where one set of lifters threw out on to the muck pile over \$300,000. Don't count

(Continued on page 12)

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MINING ASSOCIATION OF CALIFORNIA

By C. S. BROOKS

Mining Association of California is the outgrowth of the old Mining Bureau of the Sacramento Chamber of Commerce. That body was organized nearly seven years ago, at the time Sacramento secured the meeting of the American Mining Congress. Subsequent thereto, this Bureau held regular Luncheon Meetings at which mining problems were discussed, and every activity, which would attract to Sacramento the trade of the mining counties, was initiated.

Every effort was made to encourage the use of California materials in highway work, and in buildings, especially public buildings.

Finally, the problems of taxation, Workmen's Compensation Insurance, and the attempts of various Government Bureaus, both State and Federal, to impose upon the Mining Industry oppressive regulations and restrictions, convinced the Bureau that it would be necessary to enlarge its scope to that of a statewide organization, if we were to secure the numbers necessary to get attention from the legislative and other public authorities. Accordingly, a call was issued, and on September 4, 1929, a meeting was held in Sacramento which was attended by about 150 representatives, from twenty-two mining counties.

Local Capters were formed in a number of counties, which have functioned very actively. At the present time, there are eleven Chapters in our Organization, one of which, a Northern California Chapter, comprises the counties of Siskiyou, Shasta, Plumas and Trinity.

A little more than one year ago a Chapter was organized in Los Angeles, and quite recently one was formed in Oroville, Butte County. It is expected within the next few weeks that a Chapter will be organized in Marysville, Yuba County, and the nucleus for another Chapter in Tuolumne County has been formed.

The ideal situation will be when we will have at least one Chapter in each County representing the gold mining industry, other Chapters representing copper and other non precious metals, and still other Chapters representing the non metallics, as for instance, cement, tile, and pottery products, marble, granite, and other building stone, limestone and the like. When this time comes, there will be a unit in every county specializing in its own particular industry. Such Chapters should embrace every one in the County engaged in, or dependent upon, the particular industry to which the Chapter is devoted. Everything happening within a

County, which can affect, favorably or unfavorably, the interest of each particular industry represented by such a Chapter, should be reported to and discussed by the Chapter members at their meetings, and if necessary, passed on to the officials of the Association at the head office in Sacramento.

Cases have come to our notice where irrigation districts have filed wholesale locations for water rights which have conflicted with and threatened existing water rights of miners. Cases are constantly being reported to us where applications for patents for Railroad Lanes are threatening the mining rights of locators, whose means did not permit them to battle so strong an organization as a railroad corporation.

Possibly through ignorance, witnesses will testify to the non mineral character of lands that really are mineral in character.

If our organization had the strength in membership and finances, which it would have, if everyone joined the Association who is interested in or dependent upon any branch of the mineral industry, we could employ an Association Attorney, Association Mining Engineer, and other experts, who could appear in such cases and protect the interests of individual prospectors, and mineral land claimants, who would be unable alone to battle against the more powerful claimant trying to despoil them.

We also have heard of cases where individuals have wrongfully withheld from development numbers of mining claims on which with their own limited finances, they could not do the required annual assesment work.

Individual prospectors are unable to fight such cases, but a Local Chapter of the Mining Association, if appraised of the facts, could come to the rescue and see that the prospector had a chance.

We have secured about 600 members out of our twenty-two counties. This is an average of about thirty members to every county. The mere statement is sufficient to show how far short our membership is of what it should be.

Our Local Chapters should be clearing-houses which would maintain lists of every active working mine in the respective counties. This information should also be on file in the head office at Sacramento.

If we had the membership we should have, a request from our organization for some measure of relief from the burdens of the mining industry, or for the passage of some measure which would be of some manifest benefit to the mining industry, would receive attention and favorable response from legislative and other authorities.

It was the hope and dream of the founders of this Association that it would be a spokesman for the mining industry, prepared to sound the alarm at the least sign of danger to that industry. It cannot fully realize that hope, nor function as such spokesman, without a large membership, and the resources which will follow from such membership.

If we are to make the battle for the mining industry which conditions demand, we must have support in membership and in funds. We need the help of every friend. Cooperation and organization only

(Continued on page 12)

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MINING ASSOCIATION NEWS

GREETINGS

WHEREAS, It is the desire of the California State Grange and of the subordinate Granges to co-operate with all movements and organizations working for the benefit of the people of our State and Nation, and

WHEREAS, There has been recently organized the Mining Association of California, which organization is endeavoring to do some of the things for mining interests that the Grange is endeavoring to do for agriculture, and

WHEREAS, It has been pointed out by this Mining Association that a large part of troubles of the mining industry and especially of quartz mining, are caused by restrictive legislation, bureaucratic regulations, rather than economic conditions, and

WHEREAS, A successful mining industry would mean a greatly increased market for agricultural products, therefore, be it

RESOLVED, That we favor a more liberal attitude towards the mining industry by the governmental agencies of our State and Nation, and be it further

RESOLVED, That we send greetings to the Mining Association of California and welcome them as brother producers, into the field of co-operative endeavor.

BE IT FURTHER RESOLVED, That a copy of this resolution be forwarded to the Mining Association of California at Sacramento, California.

Received from:

Mrs. Martha L. Gamble,
Secretary, California State Grange,
Santa Rosa, California.

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OROVILLE MAKING GREAT PLANS FOR 1932 MINING CELEBRATION

The second annual State Mining Celebration which was awarded to the Butte Chapter, Mining Association of California, by Governor James Rolph, Jr., for the best representation made in the mining parade at Mariposa on June 20th, 1931, will be held in Oroville, California, during the month of May 1932, the exact date of which will be decided by the Governor in the near future.

This celebration will be conducted under the auspices of the Butte Chapter, Mining Association of California, which is one of the most progressive chapters in the state. The Oroville Chamber of Commerce and other civic organizations of Butte county will play a big part in co-

operating with the Butte Chapter in making the celebration a great success.

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DIRECTORS MEETING

The Directors of Mining Association of California held a meeting at Travelers Hotel, Sacramento, California, on Saturday, June 27 1931.

Vacancies in the Board were filled by the election of the following Directors at Large:

Roscoe J. Anderson, Redding, Calif.
W. F. Gormley, Sacramento, Calif.;
Charles L. Gilmore, Sacramento, Cal.
Lee I. Rowland, Los Molinos, Calif.

Thereupon, Errol MacBoyle, of Idaho-Maryland Mines Co., Grass Valley, was elected President of the Association, in place of J. C. Kemp Van Ee, Jr., resigned, and Mr. Lee I. Rowland, of Mariposa Chapter, but now a resident of Los Molinos, Tehama County, was elected First Vice President, to succeed Roscoe J. Anderson, of Redding, resigned.

The complete Directory of the officers, directors, chapters and chapter officers of the Association appears elsewhere in this issue.

Mr. MacBoyle is able, aggressive and very popular. With these qualities and his high standing in the mining industry, it is predicted that the Mining Association of California will make rapid strides under his leadership.

The Directors authorized such chapters as might find it desirable, to arrange for auxiliary memberships, with annual dues of \$1.00 each. This is intended to permit a large mine to have its entire working force join the Association. These members would not have voting or office holding privileges, but they could attend chapter meetings and participate in discussions and other activities of the chapters. The Directors also approved an amendment to the By-Laws, providing for the election by and from the membership of the Board of Directors, of an Executive Committee of five members, to handle the business of the Association between Board meetings, and such other business as might be referred to it by the Board, subject to the Board's approval.

This amendment is being voted upon by the membership, through a referendum vote. The Board is so large that it is not always easy to get a quorum, and it is thought the smaller committee can dispose of much business more promptly, because easier to assemble it.

Plans for securing a larger membership through a Field Secretary, to be paid on a commission basis, were discussed and

referred to a Committee. It is expected this matter will be settled at an adjourned meeting of the Board, to be held at Sacramento on August 8th, 1931.

The Directors officially endorsed the California Mining Journal, a new mining monthly to be published by Mrs. Elsie P. Willoughby, and voted to make it the official publication of the Mining Association of California.

C. S. BROOKS, Sec'y.

—0—

ASSOCIATION HAS BOOSTER

Helen Swain Gilmore, wife of Charles L. Gilmore, attorney for the Mining Association, is a real booster as is shown in the following extract from an article appearing in the Sacramento Union of Sunday, July 1931.

"A question concerning California mining struck a spark. Gold is Mrs. Gilmore's professional enthusiasm. In mining she sees the state's future as clearly as pages of history tell us it was California's past.

"It's ridiculous for California to have hard times," Mrs. Charles Gilmore declares. "Last year's production of gold was \$8,000,000 in this state; it could have been \$185,000,000, for only the surface of our mineral wealth has been touched.

"At one time there were a quarter million people employed in California's mines and there will be that many and more when the revival of mining comes. Then there will be no orchards reeking with fruit rotting on the ground and no stores with dusty shelves for there will be workmen and their families to buy.

"What is needed is proper legislation. Prices of labor, equipment, everything have gone up, but the return from gold remains constant at \$20.67 the fine ounce.

"All that is needed is state legislation, reducing mining property taxes and compensation insurance requirements, together with public support. The popular belief that mining isn't legitimate business is ridiculous. A Dun and Broadstreet survey has shown 64 per cent of all mining investments are successful, while only 46 per cent of investments of all other description meet with success. Mark Twain's description of a miner as a liar with a hole in the ground was more entertaining than accurate.

"When the mining revival comes, Sacramento particularly will benefit. Other sections of the state are profiting from oil. But oil only makes wealth; gold is wealth."

MINING ASSOCIATION HAS MANY PROBLEMS TO SOLVE

The Mining Association of California was organized October 5, 1929 by mine operators and business men who had the welfare of California's mineral industry at heart. The Association is a non-profit corporation formed for the protection and stimulation of the mining industry. First by prompting a better understanding on the part of the general public of the social, legal and financial problems now confronting the mineral producers and the close inter-relation of the prosperity of the mining industry with that and the other industries of the State; Second, by co-ordinating the study of taxation and legislation both Federal and State, which might affect directly or indirectly the mining industry; Third, by providing ways and means to bring before the legislators and the public clear expositions of the effect of proposed legislation on the industry; Fourth, by securing by all legal means the passage and adoption of laws which will aid the mineral industry; Fifth, to establish a bureau of information and a magazine to give the needed publicity to the various phases of the mining industry and afford a source of authentic and reliable information for the benefit of its members, legislators, businessmen and the general public.

The mining industry as the producer of metallic and non-metallic minerals is one of the great basic industries upon which in a great measure the prosperity of the agriculture, manufacturing and the general business of the Nation depends. Heretofore those interested in the development of the mineral industry of California have rather opposed the formation of associations or blocs to represent their industry in legislative matters. However with the insidious changes in the methods of legislative enactment, brought to perfection by the all-to-numerous type of selfadvertising politicians and political hangers-on, it has become not only advisable but absolutely necessary for the mining industry to secure concerted action and strong legislative representation to prevent the mining industry from being overwhelmed by the deluge of ill-considered, laws which are being passed every session of our legislative bodies.

In the past, because of a lack of co-operative effort on the part of the various branches of the mineral industry, many laws have been passed, at the behest of certain political blocs, bureaus, or commissions with strong legislative lobbies—which have had a very serious detrimental effect on the mining industry as a

whole. Many startling examples of this legislative strangling of the mineral industries can be cited and it is the intention of the Mining Association of California to publish articles regarding the most glaring and unjust examples of these oppressive laws, regulations, and rulings, in the forth-coming issues of this magazine. These articles will be published in the hope that if the plight of the mining industries are brought to the attention of the fair-minded public and their representative legislators, the mining industry will be accorded the justice and fair dealing which the industry deserves. Many laws have been passed inadvertently which in their administration have worked a financial hardship on the mineral industry; the California irrigation laws are an example. Mining properties have been bonded as security for irrigation bonds and are now paying taxes for the benefit of irrigation districts thereby increasing the cost of mineral production.

In the past 15 years the gold industry of California has been dwindling because rapidly rising costs have made gold mining unprofitable. Not only was this due to the general rise in commodity and labor charges but to many other causes such as increased federal, state and county taxes, irrigation taxes, and increased cost of compensation insurance. The insurance rates have doubled in the past ten years, until now with a base or minimum rate of \$10.54 cents for every \$100 payroll, which is highest in the United States, the mining industry is paying for compensation insurance fifty cents per day for every man employed. Of course gold mining is more at the mercy of rapidly rising costs than other branches of the mineral industry because the value or selling price of its product,—the ounce of gold by which all other world values are measured,—is fixed by international governmental agreement at \$20.67 per ounce.

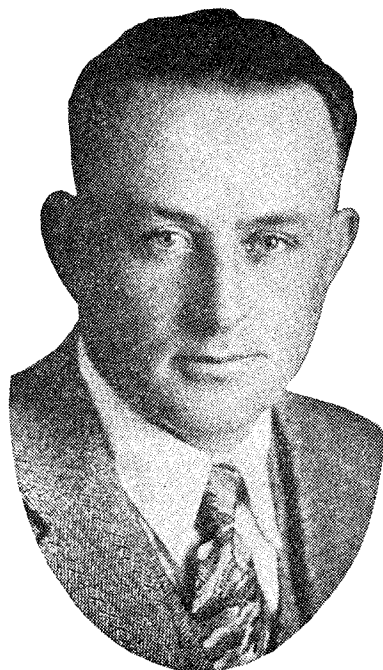
Therefore when the operating costs for labor, supplies, power, insurance, taxes and other changes to produce the ounce of gold become greater than \$20.67 per ounce, the mine finally closes down, the miners lose their jobs, the thriving mining communities become ghost town, and the vicious circle of increased costs for the other mines and communities which may still be struggling to survive continue until finally all the mines shut down and the gold mining areas of the state are depopulated and the inhabitants go to swell the unemployed of the congested cities. The closing down of the gold mines not only affects the mining districts

but also the agriculturist, the manufacturer, the power companies and the business man of the metropolitan centers, who without appreciating the real cause, find that there is a decreasing demand for their products.

In this connection, if I may be permitted to digress for the moment, the State of California has now a wonderful opportunity to rejuvenate the gold mining industry and bring it back to its old zenith of prosperity. At the present time the world needs gold and needs it badly. Many of the largest mine development companies and individual operators who heretofore have been primarily interested in copper, silver, lead and other base metals, are combing the world for GOLD MINES. California has potential gold deposits which are as extensive and as rich as any in Canada or any other part of the world. Yet California's gold production has decreased from \$21,400,000 in 1915 to \$9,100,000 for 1930 while Canada, financed in a large measure by capital from the United States, has increased its gold production from \$19,000,000 in 1915 to \$43,600,000 in 1930. During the same period the gold production of the United States has dwindled from \$101,000,000 to \$42,400,000. Why? Because in the United States and California in particular restrictive legislation and bureaucratic rules and regulations have so increased the cost of gold production that even United States capital refuses to take a chance in the developing of gold mining properties in their own country. They prefer to invest their money in Canada and foreign countries that are wide awake and shrewd enough to pass helpful laws and regulation for the mining industry; knowing full well that the money invested in the development of mineral deposits, and the minerals produced, especially gold, will go a long way toward restoring prosperity to the agriculturist, the unemployed, the manufacturer, and business in general. If our California political and labor leaders, our farmers, bankers and business men could only visualize what it would mean to California to have millions of dollars spent in the rehabilitation and development of our now dead gold mines and undeveloped prospects, the thousands of men who would be put to work, the resultant increased purchases of farm products, mining supplies and machinery, power, transportation, automobiles and trucks, radios, washing machines, etc. I feel confident that immediate and active steps would be taken by all to correct the

(Continued On Page 18)

MINING ASSOCIATION MUST PLAN PROGRAM FOR LEGISLATION SOON



By J. L. "Jerry" Seawell.

Assemblyman 3rd California District

As a result of the present world depression threatening the gold standard of the world the gold mining industry is being revived to meet this economic condition. Everywhere throughout the world gold mining is receiving the attention of investing capital in the hope of finding new claims and placing old claims on a profitable basis.

California is enjoying a portion of this money but is not receiving the consideration that her gold mines indicate she is entitled to receive. There are many reasons for this but they can be eliminated if the mining people of California band themselves together and seek proper legislation that will remove these obstacles.

During the 1931 season of the Legislature the Placer-Nevada-Sierra and Yuba Chapter of the State Mining Association made a very friendly gesture in an effort to remove this condition when this chapter invited the members of the State Legislature to be its guests at a meeting many Legislators remarked that they did not realize the importance of the mining industry and were surprised to learn the many obstacles that mining men had to overcome in order to make the business a paying one.

It was my privilege to be Chairman of the Assembly Mines and Mining Commit-

tee during the 1931 session of the California Legislature and for that reason was in constant contact with the mining situation of this state. I was very much disappointed to learn that no concentrated effort was made to improve our laws effecting this industry or the establishment of new ones to aid mining in general. It is my opinion that the mining people of the state must organize and work out ways and means of eliminating the present unsatisfactory conditions by submitting a definite program to the Legislature of 1933. If this is done I am sure that with friendly feeling held for mining by the present Governor and with the Legislature in a very receptive mood the mining industry of the state will have an opportunity of placing itself in the position it once enjoyed, that of making California the leading gold producing center of the North American Continent, at the same time bringing to California Millions of Dollars for investment purposes.

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MINING ASSOCIATION

(Continued from page 9)

will win. You cannot help by remaining on the outside. If you are for us, show it by sending in your application and payment of your membership dues. With the help of your membership and your funds, this Association will be on the alert to help in every way to advance the interests of the mining industry, and out of such efforts, every individual member will share his proportionate benefit.

MINING ASSOCIATION OF CALIFOR.

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EASTERNER THRILLED

(Continued from page 7)

on this. Count on a good steady return, but oh, the thrill of its anticipation.

I cannot conclude without a word about the good fellowships of the mining field. There friends are friends and a tried and true friendship in the glory of those Western hills, with all the glamor of the past surrounding them, is worth more than all the fortunes to be gained from the smokestacks of grimy manufacturing cities.

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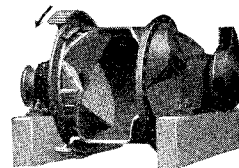
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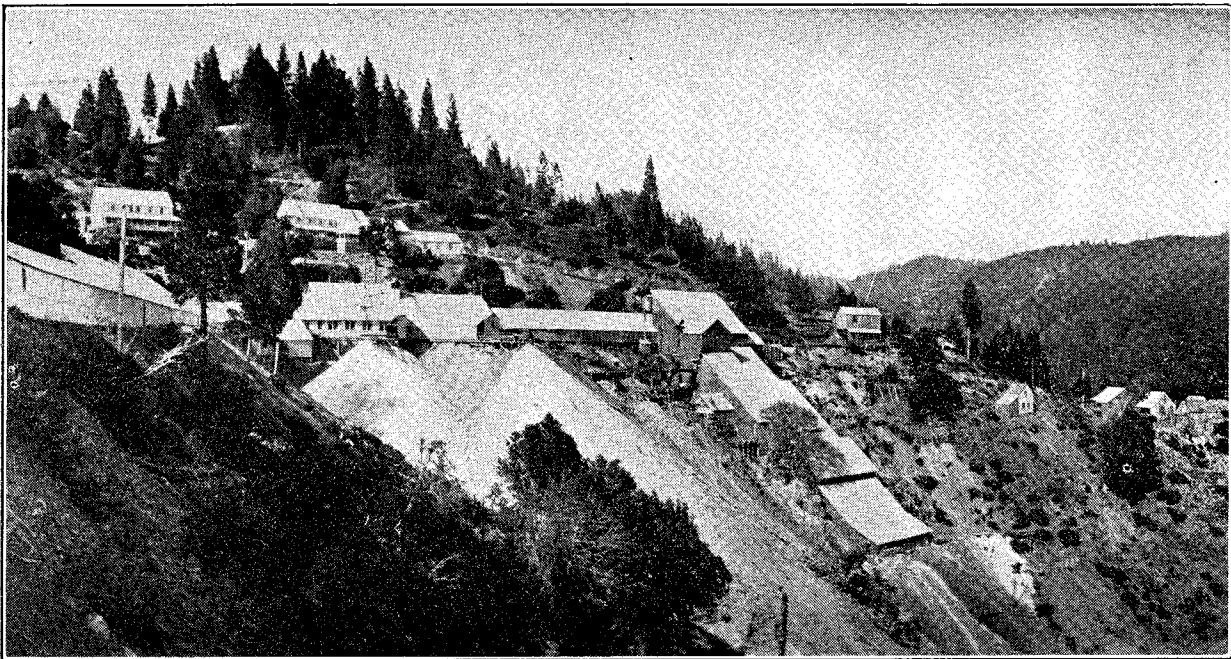
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SIERRA COUNTY PRODUCES RICHES



FAMOUS SIXTEEN TO ONE MINE AT ALLEGHANY

By Harry S. Tibbey

The mining situation in Sierra County has taken a decided spurt forward during the past few months, and real development work has begun on several properties which, under desultory prospecting by the owners, have shown very encouraging indications of becoming producers with intelligent development and sane management. In most cases such development by the owners was impossible on account of lack of finance, not in lack of confidence in the value of the property. It costs real money to open a mine nowadays, much more money being needed now than in early times when "shallow diggings" were the rule; these diggings are mostly worked out now but the many lava-capped channels are still intact, only awaiting the magic wand of capital to yield up their hord of golden grains and nuggets.

Sierra is distinctly a quartz mining county, three distinct belts of serpentine which cross the county from north and south having enriched the usuary porphyry belts which themselves are invariably gold-bearing. Some of the richest quartz and sulphurets in the world have been taken out in Sierra County, mostly from veins adjacent to the serpentine, but veins in porphyry slate and other mineral-bearing formations have all contributed good milling ore bodies, besides many "bunches" of high-grade. While no attempt will be made to mention each property individually, the most outstanding are as follows:

The old Sierra Buttes, at Sierra City,

was discovered and worked on the surface in the early 50's, and many people claim this was the first quartz ledge to be worked in California—by-the-way, the Hayes Brothers of San Jose, present owners of the Buttes, have a crew of men prospecting at that mine still. There are a great many other quartz properties in the Sierra City district, many of them having been large producers in the past and now only awaiting capital to again pour out their flood of gold.

The Original Sixteen to One mine at Alleghany is undoubtedly the richest mine ever found in California, or anywhere else for that matter, and millions have been extracted in the comparatively short time it has been worked. The Tightner and Twenty-One properties, both adjacent to the Sixteen-to-One, which have been acquired by the owners of that property, have both yielded thousands of dollars when worked by their owners. They all lie in what is locally called the eastern serpentine belt in the Alleghany district. There are a number of other very promising mines in this district, some of which have been producers but need money for further development. A short distance north on the same serpentine belt are the North Fork at Forest, the City of Six at the head of Slug Canyon, (so-called by early day miners on account of the coarse or slug gold found therein) the Triple Pocket, Australia, Finney Bessler, Oxford and Standard, the latter in Sailor Ravine but all close to Downieville, and every one with notable records of production.

On the middle serpentine belt further west are the Kate Hardy and Brush Creek near Forest, and the Black Bear or Telegraph, all with production records to be proud of. The Gold Bluff, close to Downieville, lies in black slate to the east of the serpentine; this has produced thousands of dollars worth of gold but was closed down during the late war and has not been reopened as yet. Still further west is another serpentine belt on which lies the noted Alaska mine at Pike City and the St. Charles Hill mine, besides many other locations in the prospecting stage. The Alaska in particular has produced over a million dollars and was worked profitably to below the water level when extra heavy pumps were found necessary. A long drain tunnel must be run to drain this mine and when this has been done the flow of gold will be resumed.

In the northern part of Sierra County the quartz has been neglected to a great extent, but wherever a ledge has been prospected encouraging results have resulted. Some of the richest hydraulic mines in the state have been worked in this district and it was found that where a gravel channel cut a contact or quartz ledge the gold was plentiful and rough, proving it was made close by, so when the numerous veins are properly developed the yield will be great.

The future of mining in Sierra County is indeed bright and only needs the proper spirit of co-operation between the mine owner and the capitalist to flourish. The

(Continued on page 19)

"Hearst Walked Away With A Million But Left Enough For King Midas," Says Hoff.



By L. S. K.

OPERATOR WHOSE FAITH IN DISTRICT
BROUGHT OLD MURCHIE MINE INTO NEW LIFE
BACKS JUDGMENT WITH ACTION AND
BUILDS SECOND FLOTATION MILL ON DEER CREEK

AT A RECENT conference in San Francisco, at which several mining personalities were present. Colonel W. H. Metson, who won his spurs in the famous Champion Mine case, as attorney for the Champion Company, turned to one of the group sitting on his right—a cheerful, rudy-faced and congenial person and directed this question:

"When did you walk out of Steamboat Springs."

There followed a hearty laugh as the question had been addressed by the veteran attorney to J. M. Hoff, who has been winning his spurs in the Nevada City Grass Valley District, during the past several years, as a champion of the oil flotation system.

Hoff never walked out of Steamboat Springs, which among mining men is known as the rendezvous for prospectors and grub-stake men, who get stuck during the winter in Nevada. The warm springs rising out of the ground afford warmth and a degree of comfort during the chilly winter months and to have "Walked out of Steamboat Springs" is tantamount to suggesting that you went broke prospecting in Nevada.

Although Hoff, who is now an outstanding figure in the Deer Creek workings in Willow Valley, never walked out of Steamboat Springs, he has been in nearly every mining camp on the Pacific Coast, Idaho, Montana, Nevada, Arizona, Colorado and California, and his activity over the past twenty-five years has carried him into the oil fields as a rig operator and into the mines in every roll from mucker to an owner. It was in the face of a wave of skepticism that he induced capital to pump the water out of the old

Murchie Mine to the 1100 foot level some four years ago. Inasmuch as it had been abandoned for 30 years and its surface works were in a state of decay, this called for great persuasive ability, but the job was done and the property today is one of the best mines in the State, yielding ores at such handsome values that no offer of purchase has so far been considered.

Disposing of the Murchie properties, Hoff immediately acquired all the claims he could on Deer Creek East of the Murchie, and now is operating the St. Louis Mill, the last word in modern mill installations with flotation unit; the Constitution, Federal Loan, Le Compton, Jackson, Cyane and the Bellefontaine mines and their adjacent claims.

When he first came into the district he was convinced that the old mines carried great values and that there was only a problem of metallurgy to be solved. Assuming that the old timers were able to recover the free gold in the upper decomposed oxidized areas, Hoff sought the precious metal in the lower sulfide areas.

"The 'Old Timers' were up against it," claimed Hoff. "They worked the oxidized upper levels for free gold, but when they hit the lower levels where the formations became sulfide—they quit. Senator Wm. Hearst, with a million, walked out of Deer Creek, leaving, I believe, more millions in the Le Compton Mine, than he took out. He walked out with a million, but left enough for King Midas. The old timers "panned" the drifts and if they got no colors they stopped. Today we know that you can't get colors by panning the rich sulfides—but she runs richer than many of the free gold areas.

"What's the answer,"

"With flotation we are on the threshold of a new mining era in California—greater than the days of '49. Our mines in Willow Valley have been worked on the surface only, 200 to 1,000 feet deep. Whereas, we all know the formations in the district are good for 10,000 feet.

"The answer is—DIG!" There is not a geological reports written by anyone for whom we can have an iota of respect, that does not insist that our district is full of deep fissure veins. Metallurgy has caught up with mining—and now we can recover our values that once were washed down Deer Creek. Unless you know flotation, you don't know mining in the Grass Valley-Nevada City districts. What was good judgment twenty-five years ago, is fatally bad judgment today.

Within the past four years, the Hoff interests have consolidated some of the most promising claims in the Willow Valley District, all located on what is known as the Big Blue running Easterly through the Deer Creek zone from the old Murchie. He is directing manager of the Federal Consolidated Mines, Ltd., and of the Nevada County Mines Corporation. Ore is being shipped from three of the mines to the St. Louis mill which started operations in July.

The success of Hoff is no piece of sudden luck. Following in the footsteps of his father who was a geologist for E. L. Dohaney, and who has an intimate knowledge of all the major properties on the West Coast, the son has applied himself with indefatigable energy to the mining industry and his achievements are the fruit of sound judgment, and long experience. His work has carried him

(Continued on page 18)

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—OPERATING PROPERTIES—

Constitution Mine Belle Fontaine Mine St. Louis Mill
Federal Loan Mine Cyane Mine
La Compton Mine

MANAGIING Opertors of the Federal Consolidated Mines, Ltd.,
Nevada County Mines Corporation, Steep Hollow Syndicate.
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mining properties throughout the Grass Valley-Nevada City District.
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BIG PRODUCERS IN GRASS VALLEY DISTRICT

By FRED M. MILLER

Hallowed in romantic history of the earliest creek-bed placer mining of the "days of '49", and rich in its continued production of gold from its quartz veins, first discovered in 1850, Grass Valley as the "Quartz Crowned Empress of the Sierras" takes first rank as the oldest successfully operating and most productive quartz mining district of California. The quartz mining industry of the west had its birth and infancy in this early day camp, and today its mining plants and deep operations exemplify the best in fully developed equipment and methods of large scale mining.

So rich were the gravel beds of Wolf Creek with the accumulated coarse gold deposits, concentrated through geological ages from the erosion of the quartz veins of the hillsides of this district, that the earliest placer miners adopted a "three length" or about 15 feet square as the extent of a "claim" to be appropriated for each sluice diggings. Later a 30 foot square covered the hillside or bench locations, and finally, with the discovery of gold in the quartz veins of the firm bed-rock of the hillsides, units of 100 foot square area or "shares" of 100 foot length along the vein became the rule and law of the camp.

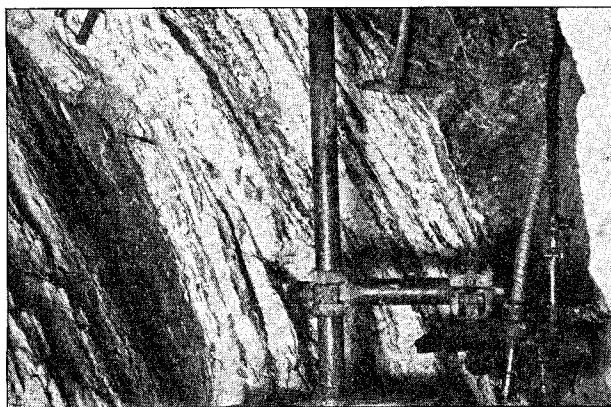
The old Eureka, Union Hill—Lucky, Gold Hill—Massachusetts Hill—Rocky Bar Ophir (Empire)—Heuston Hill, Osborn Hill Ben Franklin—Ione, Lafayette—North Star, Omaha—Allison Ranch and Norambagua developments into richly productive mines at shallow depth in the '60's established the fame of this district as an exceptionally rich and probably long lived deep mining territory.

Subsequently scores of comparatively small mines, actively operating in the Spring Hill—Golden-Gate; Coe—Powning;

Crown Point—Badger; Dromedary—Lawrey; Scotia—Peabody; New York Hill—Larimer—New Rocky Bar—Ford & Mullen—Irish American—Hudson Bay; Wisconsin—Hartery—Horse Shoe; Diamond—Bullion—Alaska; Pennsylvania WYOD; Magenta—Rich Hill Cassidy; Daisy Hill—Conlin—Comet; Orleans—Sultana—Centennial; Ben Franklin—Lafayette; Black Hawk—Gold Point—Brunswick; Idaho—Maryland vein systems of the main central and eastern area of the district, and finally the Perrin—Shamrock—Amador and Syndicate vein systems of the extreme southerly Wolf Creek basin, de-

averaging \$80 per ton at the Norambagua at the extreme south.

During recent years the former small claims and properties have been, in greater part, merged in the central area into the very extensive holdings of the Newmont Mining Corporation, whose subsidiary the Empire Star Mines Ltd., now operates the enormous Empire—Pennsylvania—Osborn Hill Holdings to about 7,000 feet incline depth, and the great North Star properties to 9,000 feet on the flat dip of the veins; the latter workings being over 1,000 feet below sea level. In



1900 Vein, 4 to 8 Feet Wide, Showing Free Gold

developed the prosperous history of the '70's and '80's with underground workings approaching 1000 feet average depth on the dip of the veins.

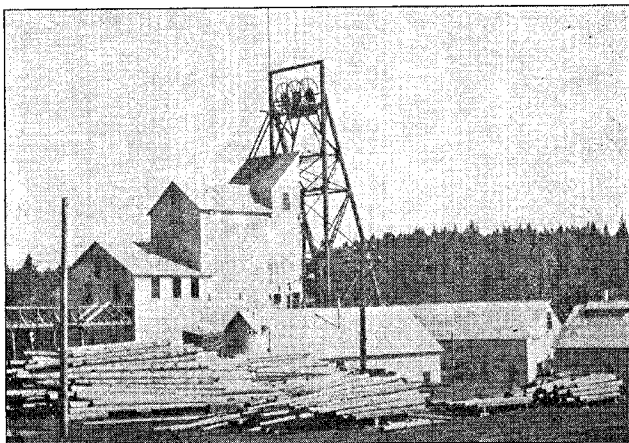
Production from these numerous comparatively small sized mining properties to depths of but a few hundred feet probably totaled close to \$40,000,000; the ores being in small quartz veins possibly averaging not over 12 inches in thickness and yielding from \$35 to \$50 or more per ton in gold in the main area of the district, with a recorded production

the easterly area the Idaho—Maryland Mines Co., now hold the old Eureka, Idaho—Maryland, South Idaho, Gold Point, Union Hill and Brunswick properties, being extensively and successfully developing at about 2,300 feet in depth.

Production from these two large operating properties during the past year has been about \$2,000,000 from ores yielding about \$10 to \$15 per ton in gold.

In addition to the properties controlled or operated by these two major companies, successful exploration and material production of gold has been realized from operations at intervals during the past few decades from the Golden Center to depth of 1100 feet on the old Dromedary Vein; the Boundary Mines to 300 feet depth on a strong vein of the old Church Hill system in the footwall of the famous Peabody vein; the Empire West workings in the Omaha Lone Jack—Homeward Bound; the Allison Ranch to 1050 foot depth; the Ben Franklin to 600 feet and the Orleans—Prescott Hill, each about 1200 feet incline depth.

Production reached a maximum of \$3,000,000 or more per year from the Grass Valley district during several years in this century, and it is estimated that



New Brunswick Plant on Idaho Maryland Holdings

to date a production of fully \$150,000,000 in gold has been obtained from its gold quartz mines. The early day placers no doubt added several million dollars in sluice mining gold production, and a very material production was realized from drift gravel operations at depth of about 200 feet beneath the lava capped ridge of Alta Hill at the north of the Grass Valley area of Wolf Creek basin, and in old Town Talk or Howard Hill workings into the Union Hill area southwest of the town of Grass Valley.

Geologically the district is divided into four main subdivisions; First The North Star-Gold Hill area of diabase at surface with numerous interlinking vein systems generally of east-northeast dip; Second, the Empire-Osborn Hill diabase formation with remarkably strong parallel systems of generally west dip veins; Third, the central and southern granodiorite core or dome-like plug with west dip veins west of Wolf Creek channel and generally east dip veins east of the channel, and into which massive underlying formation the veins apexing in the diabase pass on downward dip, or more correctly from which deep seated magma they have originated; Fourth, the serpentine-gabbro-and schist or diabase area at the northeast and east, extending from the Union Hill-Idaho Maryland mines to and across Deer Creek at several miles northwesterly and into the Newtown district.

The central diabase-granodiorite formations are confined between prominent and important slate belts, the one forming the westerly boundary or the extensive North Star-Rocky Bar vein systems and the other forming the easterly or footwall boundary of the Empire-Osborn Hill area.

The veins in the central area are characteristically small, being not over 12 to 15 inches thickness in the upper workings, but strengthening or spreading somewhat in depth in the granodiorite. They are of sinuous course, with frequent interlinking or reverse dipping junction or intersection of veins; and are normally of flat dip usually not exceeding 30° below horizontal. The ores are of quartz vein material containing lead, copper and iron sulphides, with occasional trace of zinc and arsenic, the gold being comparatively coarse and quite free milling for amalgamation. Developments in the veins through well over 100 miles of underground exploration are recorded as resulting in the yield of ore from an average of 35 per cent or more in length of development.

The Eureka-Idaho Maryland vein of comparatively steep south dip shows for 2100 feet of incline development an ore shoot, remarkable in vein geology, for its regularity of unusually flat "rake"

in the vein apparently following a narrow tongue of diabase in its contact depth with the overlying formation of serpentine or gabbro. This ore body, which averaged about 2½ feet in thickness of exceptionally continuous heavily mineralized quartz, averaged generally from \$25 1935 per ton in yield of gold, and extended quite uniformly about 600 feet horizontally or 350 feet normally in length across the rake.

Exploration below and development into the footwall of the main contact has exposed larger vein formation which gives favorable indication of strong and extensive ore bodies below and above the base of initial exploration.

In this serpentine area, at or near its easterly contact with Mariposa slate, interesting prospecting has been carried on until recently in a series of strong veins at the Pioneer or Mitchell property, and successful development is being accomplished at the Grass Valley-Boreham Mine.

Northerly in the Deer Creek area, extensive croppings show the existence of interesting vein systems in the Snyder-Hennessy claims on the south hill slopes, and exceptionally strong surface trace of quartz outcrop defines a strong vein in the Moynough Ranch and at the Newtown Mining Co., property on the north of the creek basin. Active prospecting has been commenced in these northerly areas.

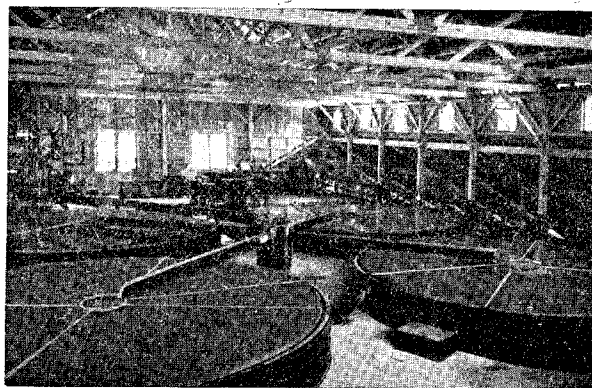
The recent reopening of the Golden Center Mine by the Cooley Butler interests, with their extensive holdings along Alta Hill and to Deer Creek in vein systems lying along and west of the easterly main slate belt offer an extensive and interesting field for prospecting.

Current reports indicate the possible reopening of the southerly area of the Bullion or old Galena-Ione portion of this property. This area, held in greater part by Eugene De Sabla, contains several strong and formerly productive east dip vein sections at the westerly base of the slope of Osborn Hill along the State Highway.

Probably the most interesting and unusual geological formation or vein occurrence in the Grass Valley District is the anticlinal or roll-over vein forming a "hog-back" at about 85 feet beneath surface in the westerly area of the North Star property. From the roll-over crest and downward on the north and south dipping flanks of this vein formation, the old Ford & Mullen, New Rocky Bar and Chevonne workings extracted some of the richest ore and most extensive specimen deposits in the history of that time. The history of production from these workings to shallow depth of not over 170 feet beneath surface in the late '70's and early '80's presents an exciting record, the climax of which is probably recorded in a publication of October 1880, which states "there has been sufficient development in the claim to prove that it is the richest spot of ground in California, as no piece of quartz ground has ever yielded as much gold from the same space and there is no indication that the bonanza is near exhaustion." This roll-over vein and its parallel fissures, together with a series of west dip veins of rich yield to shallow depth in the old Hudson Bay and Black Ledge workings are included in a tract of 100 acres or more leased to the writer hereof by Empire Star Mines Co., on which it is hoped to begin active development soon.

West of the Grass Valley district, extending from the slate belt at the west boundary of the North Star, is an area about 3 miles in width by 5 or 6 miles in length embracing the Deadman's Flat Osceola, Squirrel Creek, Randolph Hill and Deer Creek areas of the Rough & Ready mining district, in which frequent early day discoveries of rich pockets of specimen ore at surface led to exploration to depths of not over 400 to 600 feet in the Alcalde, or old Seven Thirty and Bowery; the California or Pittsburg; the West Point; the South Star; the Osceola; the Olympus and Gold Mound vein systems.

(Continued On Page 19)



North Star Cyanide Plant

MINING ASSOCIATION

(Continued From Page 11)

laws, rulings, regulations and tax problems which now seriously hamper the gold mining industry and prevent the large companies with the millions of capital from developing California's dormant gold mines.

During the recent session of the California legislature, many of the most influential legislators and representatives of the various industries, expressed themselves as ready and willing to assist the mining industry in any way possible. They suggested that as a first step a strong organization of the various branches of the mineral industry be effected so that specific information and recommendations might be available for legislative consideration. This the Mining Association of California is now trying to accomplish. Every man and woman directly or indirectly connected with the mining industry as stockholders, operators, investors, manufacturers, bankers, and business men, should join the Mining Association of California and take an active interest in the welfare of this basic industry to which the people of California owe so much of their past prosperity and which hold such wonderful promise for restoring prosperity once more. The secretary of the Mining

Association of California, 430 J Street, Sacramento, California will be glad to give anyone additional information regarding the purposes and activities of the Association and to receive subscriptions.

HEARST WALKED

(Continued from page 14)

through the oil industry, through the whole scale of minerals, and through the precious metal which is once again being brought to the surface in the oldest mining district in the United States. Mucker, miner, shifter—right up through the firing line—Hoff now enjoys a place at the top with the recognized operators.

The present operations at the Murchie properties involve an investment of over one-half million, and they maintain a payroll of approximately 125 men. The current operations of Hoff has brought into the district, another large payroll with the present force of about seventy-five people. The main offices are maintained at Nevada City, with corresponding offices in San Francisco and New York.

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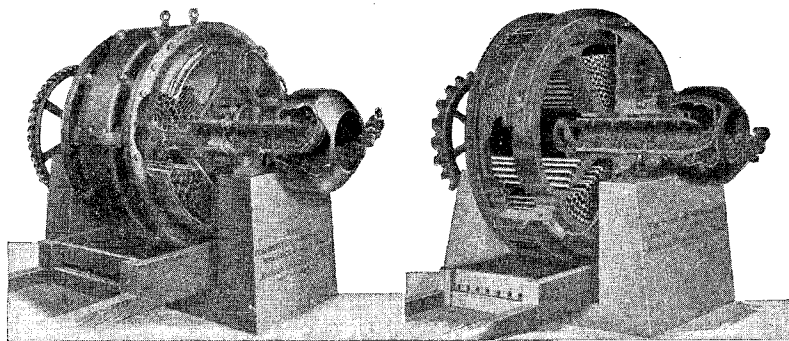
Special investigations made for mining men, stockholders or investors. We supply such information as can not otherwise be obtained.

References Furnished Upon Request

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MURCHIE MINE

(Continued from page 3)

mers ball tube 3 inch chrome steel balls. Ball mill discharge goes to a closed circuit with the classifier, the overflow being diluted to 30% solids, 75% of which passes a 150 mesh screen. Sodium sulphide is added at the ball mill as a conditioner in the amount of 0.1 pound per ton of ore treated.

Classifier overflow (slimes) passes by gravity to eight Kraut Flotation Cells, 0.1 pound of No. 1 Xanthate as a collector and 0.1 pound of Pine Oil for frothing being added at the head of six roughing cells which make a middling concentrate and a tailing to waste.

Middling concentrate is treated in two finishing cells, yielding a finished concentrate and tailing, the latter being returned to the roughing cells for retreatment.

Finished concentrate is elevated to a 10' X 12' Dorr thickener. The thickened concentrate is drawn off by a 4 inch Dorreo pump to a 3' X 4' Oliver filter. Filtered concentrate carries from 8% to 12% moisture and is sacked for shipment to smelter. No amalgamation is practiced. The higher grades of ore offer a better extraction than do the lower grade ores.

During 1930, a total of 3,399 feet of development was accomplished, benig 76 feet of shaft sinking, 153 feet of cross-cutting, 2,063 feet of drifting and 1107 feet of raising. The results of the development work has been gratifying in that two entirely new ore shoots have been exposed, one west of the shaft and the other to the east. The new west ore block now exhibits a shoot 830 feet in length upon which drifting is still being continued.

Development of the east block was undertaken upon the 1300 level and ore was encountered at 80 feet from the shaft. Drifting was continued for a distance of 200 feet in a satisfactory grade of ore and the work then developed a heavy flow of water which made imperative the installation of pumps of increased capacity. Drifting in the east block upon the 1150 level has developed this ore shoot and also the water fissure which renders it inadvisable to continue drifting until the block is drained. Preparations are completed for resuming drifting upon the 1000 level for the further development of this new east ore body.

Pumping equipment consists of four 3 X15 horizontal, four-stage, multiplex Byron-Jackson pumps, each equipped with a 100 H. P. motor, This installation is capable of raising 1000 gallons per minute from the 1300 sump to the drain tunnel level. A new 6-inch pump column and an armored electric cable were put

in to serve this pumping installation.

A number of other additions and changes have been made during the past year. The hoist drums have been renewed and a new steel main gear will shortly replace the one now in use. A new Chicago Pneumatic two-stage air compressor has, during the past week, been added to the two machines formerly in service. The new compressor is driven by a 150 H. P. synchronous motor and is capable of operating twelve additional drills. The 1080-pound stamps in the mill have been replaced by 1600-pound stamps and preparation is being made for the installation of a larger primary crushing unit and a sorting plant. Provision has been made for impounding mill tailings more effectively. A modern change house is in the process of construction as the old structure is inadequate for the accomodation of the crew, which now number 150 men|

The operation is being conducted under the supervision of O. McCraney, Resident Manager. Ernest A. Cole is Mine Superintendent, and F. A. Elliott is Mill Superintendent.

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SIERRA COUNTY

(Continued from page 13)

owner of a prospective mine who has confidence in his property but not the money to develop and put it on a productive basis, must give the people who furnish the money at least an even break. The day of large cash payments is past never to return, and the quicker the mine owner realizes this fact the sooner his mine will be opened. It takes plenty of money and men with what the street calls "guts" to open a mine, but in addition common sense and practical methods are very necessary—in fact as much so as money, otherwise mis-management will cause a failure of the mine and the property, the district, and the entire county is in many

cases condemned, and the mining game generally suffers for the foolishness or dishonesty of the incompetent manager.

In conclusion, Sierra County offers the most attractive virgin fields for development of quartz ledge in the entire state today, only lacking capital and management to take its proper place as the banner gold producing County of California.

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BIG PRODUCERS IN

(Continued from page 17)

tems south of the long Baltic-Alta California-Sazerac lava capping and buried gravel channel systems, and the Randolph, Aurora, Midas, and Mystery veins north-erly to Deer Creek.

Westerly along the Deer Creek basin the Black Bear property embracing the Black Bear and Forlorn Hope vein systems, offers interesting veins of material strength prospected or worked only to superficial depth, with fair indications of reasonably good ore possibilities.

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Adolph Claims— Julius Adolph, Agent 1282 23d Ave., San Francisco, Cal. Lot 41 Secs 9 10; Lot 43 Sec 9, Washington Twp.

Aetna Ledge— Valeria Garesia, Agent Nevada City, Cal. Min. Lot 69 4Sec Twp.

Allison Ranch Franklin Quartz Mine— C. P. Chamberlain, Agent 311 California St., San Francisco Calif, Lot 55, Sec 2, Grass Valley Twp.

Alls Well Mining Company — John Hodge Agent, Lot 78, Secs 15-16-21, Grass Valley Twp

Alpha Quartz Mine— A. G. George et al, Grass Valley, Lot 66, Secs 25 26, Grass Valley Twp

Alta California Placer Mine— S. L. Haas Agent 579 11th Ave San Francisco, S $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 19; NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ N $\frac{1}{2}$ N $\frac{1}{2}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 30, Rough and Ready Twp.

Alta Placer Claim— Louise A. Larsen, Agent, Washington, Cal Moores Flat Mining District, Eureka Twp

Amador and Amanda Quartz Claims— E. F. Johnson 415 E. 3d St Stockton Cal Min. Agent 5577, Sec 11; W $\frac{1}{2}$ NW $\frac{1}{4}$ Sec 13 Grass Valley Twp

Any Port in A Storm Mine— Mrs. W E Hughes, Agent 30 Lenix Road, Berkeley, Cal. MS5931, Sec 9 Nevada Twp.

Arctic Mining and Power Company— Martin Vanberg, Agent Nevada City. Arctic claim, Arctic North Ext. claim, Arctic South Ext. claim, Mascot claim; Golden Rule No Ext; Good Luck claim; West Arctic claim; West Arctic W. Ext, Washington Chief Cons. claim; Nevada quartz; Sec 36, Washington Twp Improvements—stamp mill, power plant compressor.

AETNA Ledge— Valeria Garesia, Agent Nevada City. Min. Lot 69, 69, Sec 4 Nevada Twp.

Allison Ranch Ford Mining Company— Gertrude M. Ford 323 S. Corando St., Los Angeles, Cal Lot 60, Sec 2, Grass Valley Twp.

Backbone Mining Claim— Gregory D. Long, Agent 229 Clara St. San Francisco, Lot 45 Secs. 29 30, Eureka Twp

Badger Hill Claim— R. J. Moran Agent 1736 21st Ave, San Francisco 1 mile north Cherokee, Bridgeport Twp.

Baltic Mine— Mrs. Marian C Skewky, Mill Valley, Calif Crown Point, Crown Ext. and Shirley claims in Secs 26 27 34 35, Eureka Twp

Bear Gold and Silver Mining Company —P. Andriotti, Grass Valley, Agent Bear Placer mine W $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ E $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ W $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 21, Nevada Twp.

Belle Union Gold Mining Company— E. A. Dunkley, Agent Grass Valley, S $\frac{1}{2}$ NE $\frac{1}{4}$ Sec 11, Grass Valley Twp.

Ben Franklin Cons. Mining Company— M. S. White, Agent Grass Valley RFD, Calif. Wilcox claim Avondale claim; "X" location desig. as MS 4183, Sec 1; Original Ben Franklin claim desig. as Lot 108, Sec. 1; Grass Valley Twp. Improvements—10 stamp mill, concentrators.

Ben Hur Divide Mining Company— Campbell & Kelly, Agent, Box 537, Tonopah, Nevada. Alaska quartz claim, Lot 49 Sec 1, Grass Valley Twp

Bennett Claims— John B. Bennett, 328 Marshall St. Grass Valley, MS 5809, Sec 17, Nevada Twp.

Berryhill Copped Claims — James G. Berryhill Agent 304 New Call Bldg San Francisco, Lots 39 42A 42B 43 Secs 25 26 35; Lots 1 3 SE $\frac{1}{4}$ Sec 26; Lot 2 Sec 26, Rough and Ready Twp Improvements—Machinery and buildings.

Bingham Cons. Quartz Mine— A. E. Murphy, Agent 1104 Main St. Los Angeles Santa Rita Hotel. Alta claim... Bingham claim Lot 4102, Sec. 16, Washington Twp.

Black Bear Mining Company— Estate Wm. Buchholz, Agents Marysville, Cal SW $\frac{1}{4}$ S $\frac{1}{2}$ NW $\frac{1}{4}$ Sec 13; S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 13; E $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 4; Rough and Ready Twp Improvements—10 stamp mill, hoist, compressor. Optioned by Cooley Butler, Los Angeles.

Blakey Placer Mine— Mrs A. G. Hill, Agent, 1215 Grand St., Alameda Cal. Lot 41, Secs 21, 22, 23, 27, 28 Blue Tent Dist Nevada Twp.

Belcher Quartz Mine— Theo D. Robinson 7 Fair Oaks Road, Madison, N. J. Lot 39 Secs 9 and— 10, Meadow Lake Dist. Washington Twp

Blue Bank Mining Company— L. B. Howe, Tres. 235 Pleasant St. Marlboro, Mass. Lot 41, Secs 16 21, Woolsey Flat, Eureka Twp.

Blue Cloud Cons. Quartz Mine— Samuel Colt Inspiration Copper Miami, Ariz. Admiral Schley, Blue Cloud, General Grant Lodes MS 5186, Secs 15 16 Eureka Twp.

Blue Bird Cons. Quartz Mining Claim— Hugh C. McCabe Agent 447 So Auburn St Grass Valley. Oro Fine, Terminus, Nesquehoning Blue Bird, Black Bird, desig. as MS4931 Sec 1, Grass Valley Twp.

Blue Rock Gold Quartz Claim— C. L. Salmon, Agent Nev Twp Sec 36, Bridgeport Twp. Improvements—4 stamp mill, hoist.

Blue Coat Place Mine— Mrs. Lucille Blakey 1215 Grand St. Berkeley, Calif. Lot 43 Secs 20 21 29 Eureka Twp.

Blue Gravel Placer Mine— John Connolly, Agent Grass Valley Lot 4 SW $\frac{1}{4}$ Sec 19, Rough and Ready Twp.

Blue Jay Quartz Ledge— T. A. Kohler, Agent Grass Valley. Min. Lot 58, Sec 2 Washington Twp.

Blue Tent Mining Claim— Thomas Marshall, Agent Grass Valley Lots 40 42, Secs. 15 16 21 28; Lots 1 2, Sec 22.

Blue Tent Placer Claim— T. L. Larsen Agent, Nevada City SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 16 Washington Twp.

Bonanza Mining Company — W. L. Mobley, Agent Nevada City. Bonanza placer, Sec 33; Bonanza Ext Nos 1 2 Sec 33; Bonanza Ext No. 3 Sec 4 5 Eureka Twp.

Boyle and Roach Placer Mine— C. P. Jones, Agent Grass Valley NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 29 Rough and Ready Twp.

Brock Placer Mine— Mrs. Annie James, Agent 2530 M. St Sacramento Cal Lot 81, Sec 18 Nevada Twp.

Broderick Placer Mine— Jerome C. Coughlan, Agent North Columbia, Cal Frac SW $\frac{1}{4}$ Sec 32 Eureka Twp

Brunswick Cons Gold Mining Company— Errol MarBoyle, Pres. Grass Valley. J. M. English quartz mine; 6 acres in Lot 5 NE $\frac{1}{4}$ Sec 36 Lot 1 NW $\frac{1}{4}$ Sec 31; Lots 1 2 3 frac. Lot 5. Lot 6 less 44A and SW $\frac{1}{4}$ Sec 31; MS 5628 Sec 25 Grass Valley Twp Improvements—Hoisting works, two 20 stamp mills, compressors, motors.

Buena Vista Quartz Mine— T. C. Dorsey, Agent 2241 Rose St. Berkeley Calif. Min. Lot 102, Secs 2 and 11, Grass Valley Twp

Bull Run Copper Lode— W. L. Mobley Agent, Nevada City Lot 46 Secs 6 31 32 Eureka Twp.

Bullion Cons Mining Company— John Mulroy, Agent, Grass Valley Calif Bullion and La Burja locations, MS 4003, Sec 1; Union Jack and Smuggler quartz, Lots 57 and 58 Sec 1; Lot 1, E $\frac{1}{2}$ Lot 6, Sec 2; Galena claim, Lot 6 Sec 2, Grass Valley Township.

Bunker Hill Claim — Brady Bros, Agents in Red Dog Min Dist on Little Greehorn creek; Hidden Treasure mine Sec 29 Little York Twp.

Bunker Hill Quartz Mine— Mrs. R. L. Capps, Agent Rough and Ready Cal Lot 39 Sec 24; Sugar Loaf Gravel Sec 24 Rough and Ready Twp.

Butte Bros. Claims— 956 Folsom St. San Francisco. Lot 39 Secs 4 and 5, Little York Twp.

Cooley Butler Claims— 644 Title Ins. Bldg, Los Angeles Calif Mineral rights in Deacon Lot, and Woods tract Grass Valley Township.

California Quartz Claim— Albert G. Allan, Agent 632 D. St. Marysville Cal. Lot 105, Sec. 12 Nevada Twp, With Gold Tunnel has reported past production million dollars.

California Cons. Claims— D. L. Evans, Agent Malad City, Idaho. Lot 4384, Sec 13, Rough and Ready Twp.

California Erie Company— H. F. Behrens, Agent R902 104 19th Wheeling, W. Va. Dublin Bay Cons quartz; Erie quartz and mill site; Wheeling lode and mill site; Canton claim; Cascaret claim; Danderine claim; Erie Holland No. 2 claim; Lane and Neuralgia claims Secs 16 20 21, Eureka Twp Under bond to Yellow Tiger Consolidated.

California Mining Company John Mulroy, Agent Grass Valley, Lots 204 205, Sec 31, Rough and Ready Twp.

California Mining Claim— George H. Calanan, Agent Nevada City In French Corral Ravine; Caledonia claim same location Bridgeport Twp.

Camborne Hayle Mining Company— 1113 Calif. State Life Bldg, Sacramento, Cal former Sneath and Clay claim, Lot 73 Sec 18 Nevada Twp Improvements—hoisting works, pumps.

Campbell Claims— George Campbell, Agent 870 Ashbury St. San Francisco, W ½ Lots 5 7, Lot 6 NW ¼ W ½ Lot 9 NE ¼ Sec 3; Por. Lot 8, E ½ Lots 9 10 NE ¼ Sec 4, Rough and Ready Twp.

Cedar Quartz Mine— F. W. Harnden, Agent Wolf Route, Auburn Calif. Lot 38 Secs 20 and 29, Grass Valley Twp.

Celina and Bates Quartz Mine— A. H. Tickell, Agent Nevada City MS 4967 Secs 23 26, Eureka Twp.

Chapman Claims— C. W. Chapman, owner, Nevada City S ½ SW ¼ Sec 2; N part N ½ NW ¼ Sec 11, Nevada Twp.

Chicago Quartz Mining Company— George A. Legg, Agent Nevada City Lot 67 Secs 18 19 Nevada Twp.

Christopher Columbus Cons. Quartz Mine— Marie Haub Kaehler Agent 1476 19th Ave. San Francisco Calif. Christopher Columbus, Treasury, Dana quartz claims Lots 224 225 Secs 25 and 26, Grass Valley Township.

Coan Mine— Thomas N. Coan, owner Nevada City, Debernardi quartz claim in S ½ SW ¼, Sec 3; por. S ½ NE ¼ SE ¼ Sec 3 Nevada Twp Improvements— 10 stamp mill, compressor, hoist pumps.

Columbia Hill Gold Mining Company— W. G. Morrow Agent 342 Mills Bldg. San Francisco, Calif McMurray Creek placer mine Lots 47A 47B Secs 9 16 17, Eureka Township.

Comet Quartz Mine— John Mulroy, Agent Grass Valley Calif. Lot 73 Sec 1, Grass Valley Twp.

Consolidated St Gothard Gold Mining Company— 410 Front St. San Francisco, St. Gothard Cons. quartz Lots 54 55, Secs

21 28; Delhi and Ext quartz; Last Chance quartz; Columbia Hill quartz; Oak quartz, Meridian quartz, Sec 21, Columbia Mining Dist. Eureka Twp. Improvements—stamp mill, compressors, pumps hoist

Consolidated Junction Claim— William Maguire, Agent Nevada City, MS 3611 Secs 26 27 34; por Halsey placer Secs 27 34, Little York Twp.

Consolidated Mining Claim— S. W. Richardson, Agent, Woodstock, Vermont Por Lot 45 Secs 4 5 9 Eureka Twp.

Constitution Mine— Jessie R. Teutphaus, Agent 417 Montgomery St. San Francisco, Calif Min. Lot 54, Sec 10; Jewell Cons. quartz MS 3633 Secs 9 10, Nevada Twp.

Corinth Cons Quartz Claim— Iola Gillespie, Agent, RFD2 Grass Valley in Sec 13, Nevada Twp.

Cracker Jack Quartz Claim— Buck Bros owners North Bloomfield MS 5506 Sec 14, Eureka Twp

Dannals Placer Mine— S. M. Katzer, agent Nevada City por. Lot 51, Sec 9, Eureka Twp.

Davidson Claims— H. J. Wright agent Nevada City MS5435, Sec 6 Eureka Twp.

Dawson City Placer Claim— B. F. Waite agent Nevada City in NE ¼ NW ¼ Sec 14 Nevada Twp.

Daybreak Quartz Claim— W. H. Norton agent Nevada City. Daybreak claim; Freedom quartz Sec 9 Nevada Twp.

Deadwood Gold Mining Company— Charles Baxter agent Brownsville, Calif. Min Lot 58, Min Lot 61, Sec 9; Oriental placer Lot 10 SW ¼ NW ¼ N ½ NW ¼ SW ¼ Sec 9 Nevada Twp.

Defiance Mine— Mrs. Philip Curnow, agent North Columbia Cal On Grizzly Ridge, Columbia Hill Mg. Dist.

Defiance Mine— Mrs. L. E. Ellenwood, Agent 2424 Devisadera St. San Francisco Min. Lot 200, Sec 24, Nevada Twp.

Democrat Baryte Claim— The Glidden Co. of Cal. C. M. Kolb, Asst. Secy Cleveland, Ohio. Claims in Sec 23, Little York Twp. Improvements—compressor, engine, tramway.

Democrat Placer Mine— Mrs. Kate Broyles, Agent 1111 7th Ave Sacramento Cal Lot 42 Sec 6, Sec 31, Little York Twp

Donovan Claims— Donovan, Agent No. San Juan, Calif. Claims Cherokee Mining District Bridgeport Twp.

Duryea Claim— Poore and Company, Agent Nevada City, Cal. Claim on Buckeye Hill, Little York Twp.

Eastern Star Quartz Mine— Mrs. Lillie M. Williams, Agent RFD 2 Grass Valley MS 5222, Sec 32, Rough and Ready Twp.

East New York Placer Claim— Daniel G. Levee, agent, Towle Calif. Lot 99 Secs 12 13, Little York Twp

Empire-Star Mines Company— Wm. Simpkins agent Nevada City, Cal. Lot 77, Sec 34; WYOD quartz claim; Parr quartz;

General Grant quartz; Nuttall claims New York Cons.; Oregon; por. Oliver placer mine; New Dorn Hill quartz; Lot 15, NW ¼ NW ¼ Sec 35; SW ¼ SW ¼ Sec 26; Richards Lot in E ½ SW ¼ Sec 26. Liberty Hill; Noon Summer; Crown Point mine; Mother Neal claim; Nevada quartz; Badger quartz; Globe quartz; Manion Ranch; Lots 142 143 Secs 26 and 271. Lot 83 Sec 26; Lots 3 and 4, NW ¼ Sec 35; Cassidy Cons. quartz claim; Linden quartz; half interest in Happy Jack claim; Tunnel Discovery quartz; Empire quartz; McKay quartz; Nevada quartz; Okeefe quartz; Jefferson Cons quartz; Winding Ledge quartz; ½ int. Comet quartz; Chesapeake quartz; Lots 10 11, SE ¼ SW ¼ Sec 35; Lots 12 13, W ½ SW ¼, Sec 35; Osborne Hill quartz; OK quartz; W ½ NW ¼ NW ¼ SW ¼ Sec 17; Lot 12 NW ¼ E ½ NW ½ Sec 36; Lot 2, SW ¼ NE ¼ Sec 35; Town Talk Cons. placer; LaFayette quartz Omaha quartz; Lone Jack quartz; Homeward Bound quartz; Wisconsin quartz; Illinois quartz; Hopkins quartz; Thompson and Berry quartz; Location quartz; Home Ticket quartz; MS 5156, all in Sec 3, Grass Valley Twp Improvements include hoisting works, 60 stamp mill, dynamos, concentrators, cyanide plant.

El Oro Gravel Mining Company— H. P. Goodman, agent 1st National Bnk Bldg, Napa, Calif. N ½ SW ¼ S ½ NW ½ Sec 3, Eureka Twp.

Enterprise Mining Company— M. M. Mallen, agent 215 San Jose Ave, San Francisco, Calif. Lot 52, Secs 20 21; Excelsior quartz, Lot 53 Sec 21, Eureka Twp

Esperance Mining Company— C. H. Munro, agent, Hobart Bldg, San Francisco Calif. Empire placer, Lot 45 Secs 25 36; Fraser Alexander & Co. placer, Lot 38 Secs 23 24; Esperance placer Lot 42 Secs 24 25 Side Slip claim; Corsair claim Bridgeport Twp.

Ethel Group— French American Corporation, agents San Francisco, Calif. Ethel and South Ethel mining claims, W ½ Sec 35, Eureka Twp.

Eureka Cons Mining Company— Mary Mooney, Agent Smartville, Calif. Copper claim Lot 41, Secs 1 and 12, Rough and Ready Twp.

Fair Play Claim— D. Fricot, agent Angels, Calif., Lot 2, NE ¼ Sec 2, Grass Valley Twp.

Farrell Claims— James W. Farrell, agent, Nevada City, Cal. Claim on Goshen Ravine, Cherokee Mg. Dist.

Federal Loan Mining Claim— Jacob Weissbein, agent Hobart Bldg., San Francisco, Cal Lot 75, Secs 9 10; Consuls claim MS 4769 SW ¼ NW ¼ Sec 10, Nevada Twp.

Fellow Claims— E. L. Fellows, agent Box 464 Santa Clara, Cal. MS 5507 Sec 13; MS 5508 Sec 14 Sureka Twp.

Flat Ledge Quartz Mine— R. N. McCormack, owner, Nevada City, in E $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 18 Nevada Twp.

Forest Quartz Mine— Willis Green, agent, Nevada City, Cal, in NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 3, Nevada Twp.

Frank Claim— Mrs. Mary Frank, 2119 Eye St., Sacramento, Cal. Quartz claim desig. as Lot 4341, Secs 2 and 11, Grass Valley Twp.

Frankford Cons. Quartz Claim— Marie Haub Kaehler, agent 1476 19th Ave San Francisco, Cal MS 4264 Secs 5 6, Rough and Ready Twp.

Gaston Ridge Cons. Quartz Mine— Nevada City, Cal MS 4213. Secs 21 27 28; Solace quartz MS 3849 Secs 27, 28; MS 4311, Secs 21 22 27 28; Gambrinus quartz. Lots 57A 57B, Sec 27; N $\frac{1}{2}$ Sec 33 W $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ S $\frac{1}{2}$ NW $\frac{1}{4}$ SE Sec 28; frac. W $\frac{1}{2}$ NW $\frac{1}{4}$ Sec 27; SW $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$; SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE1-4NW1-4 N $\frac{1}{2}$ SW1-4 SW1-4SW1-4 W $\frac{1}{2}$ SE1-4 SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 27; Gamast, Wonder Noel Newtown, Bloomfield Tunnels 1 2 3, Tunnels 2 3 N Ext. Sunrise, sunset, U. S Lost Horse quartz claims; Goodyear quartz. Improvements — water power plant, stamp mill, dynamos, saw mill, compressors, pipe line, ditches.

George St. Johns of Berkeley bought the Gaston mine from Fred Cassidy about 18 months ago. A flotation mill will be installed and work will start soon.

General Grant Mining Company— Mrs. Sarah Perrin, agent, Grass Valley, Calif. Lot 56, Sec 14, Grass Valley Twp.

General Mines Quartz Claim— P. S. Waldron, Agent, Alleghany MS 3819, Secs 16 21; E $\frac{1}{2}$ Sec 21, Eureka Twp.

Georgia Cons. Placer Mine— T. H. Palochi, agent 100 Sansome St., San Francisco, Cal. E $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 10; NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{2}$ Sec 15, Eureka Twp.

German Cons. Quartz Mine— Thomas E. Stephens, agent North Bloomfield, Cal German Bar and German Bar Ext. MS 4365 Secs 11 12, Eureka Twp. Under bond to Sunnyside Cons.

Gilsto Land Company— A. L. Gill, agent, Grass Valley. Min. rights in and to fol.: W $\frac{1}{2}$ NE $\frac{1}{4}$ E $\frac{1}{2}$ NW $\frac{1}{4}$ Sec 28, Min. rights in Kress Ranch, Secs 5 and 5 Grass Valley Twp.

Gladstone Quartz Mining Claim— J. D. Coughlin, Nevada City, Cal Agent in SW $\frac{1}{4}$ Sec 25, Grass Valley Twp.

Glasiter Claim— W. E. Moulton, French Corral in French Corral Mg. Dist

Glencoe Quartz Mine— R. N. McCormack, Agent, Nevada City, Cal MS 4099 Secs 17 18 20 Nevada Twp.

Gold Blossom Quartz Mining Claim— Philip T. Bennett, 978 Market St. San Francisco, Cal. Part owner. Lot 3697 NE $\frac{1}{4}$ Sec 36, Grass Valley Twp.

Golden Center of Grass Valley G. M. Co.— Leland Wincapaw, agent, Grass

Valley, Cal. Lot 196, Sec 27; Roche Rock Dromedary claim; and Ext. Many easements under city lots. Improvements 20 stamp mill, hoist, compressor, upmps.

Preparations are being made to open this property at once by Cooley Butler Interests of Los Angeles.

Golden Gate Cons. Mining Company— C. W. Kitts, agent, 1248 25th Ave, San Francisco, Cal, Golden Gate West Lode and Golden Gate East Lode Mining claims MS 5499 Secs 25, 26, Grass Valley Twp.

Golden Gate Cons Quartz Mine— Ira J. Coe, agent, 67 Santa Clara Ave. Oakland, Cal SE $\frac{1}{4}$ Sec 12; Min. Lots 41 42 43 Sec 12, Rough and Ready Twp.

Golden Gate East Extension Quartz Claim— Cuneo, Biggio et al, Jackson, Cal East Ext Golden Gate extending across Wolf Creek in easterly direction, 1000 ft. long. Grass Valley Twp.

Golden Star Lode Mining Claim— J. T. Hennessy, agent, Grass Valley, Cal. North Ext Norambagua claim desig. as MS 5607 Sec 11; MS 5579 in W $\frac{1}{2}$ Sec 11, Grass Valley Twp.

Gold Lead Placer Mines— North Bloomfield, Hawkeye Bldg Berkeley Cal. N $\frac{1}{2}$ Sec 19; S $\frac{1}{2}$ Sec 19; N $\frac{1}{4}$ Sec 23; SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 22, Washington Twp.

Gold Spring Mining Company— Min. rights in S $\frac{1}{2}$ NE $\frac{1}{4}$ Sec 5, Nevada Twp.

Goodall Cons. Quartz. Mine Mrs. Helena P. Devore, Agent 408 60th St. Oakland Calif. Lots 80 81 82 83 Sec 1, Grass Valley Twp.

Governor Johnson Claim— Henry Deiner, agent, Washington, Cal, in Washington Twp.

Gracie Mine— R. N. McCormack, Agent Nevada City, Cal. in S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 16, Nevada Twp. Improvements—10 stamp mill, hoist, compressor.

Graham Claims— C. A. Graham, agent Nevada City, Cal, Blake Claim, SE $\frac{1}{4}$ Sec 1; in SW $\frac{1}{4}$ Sec 6; Howe claim; Merrimac gravel claim, Sec 19, Nevada Twp.

Grass Valley Cons. Gold Mining Company— Grass Valley South Star Mg. Co., agents, 928 Com. Savings Bldg, Stockton, Cal. Mary Ann claim; Minnesota quartz Lot 94, Sec 2; Croesus quartz, Lot 95 in Secs 2 and 3; Aalison Ranch quartz Allison Ranch Stanton; Croesus North Ext. quartz; Hill Lode quartz; Keystone quartz all in Secs 2 and 3, Grass Valley Twp. Improvements—20 stamp mill, compressor, hoist.

Grass Valley Gold Mines Company— E. H. Armstrong, agent, Grass Valley, Cal St John quartz mine; 10 acres lot 5 SE $\frac{1}{4}$ Sec 22; 30 acres Hope Placer Miner; Min rights in Mitchell Mounday, Morgan, Harris, Ford, Jones, Green properties. Improvements—office, shop, hoist, buildings, compressor, motors, hoist, electric transmission line

Grass Valley Boundary Mines Company—M. J. Brock, Secy. Grass Valley, Cal. Lots adjoining west line Grass Valley and Lot 5, Block 21 of townsite. Improvements 10 stamp mill, compressor, concentrator and buildings; Cabin Flat quartz. Lot 84 in SW $\frac{1}{4}$ Sec 27, New Idea quartz, Lot 19, Secs 27 28, Grass Valley Twp.

This property is being reopened with a small crew of men to prepare mine for steady operation as soon as possible.

Great Bear Claims—Joseph E. Merriam owner, Mt. Kisco, N Y., P. M. Toleman, agent, North Columbia, Cal. Great Bear, Grey Eagle and Springer claims, Secs 22 23 24, Eureka Twp.

Greenback Quartz Claim— J. W. Thomason, Agent, 108 Grass Valley, Cal, in Sec 32, Rough and Ready Twp. Improvements—4 stamp mill.

Green Horn Creek and Mammoth Mining Company— E T R Powell, Agent Nevada City, Cal, Claims in Sec 19, Little York Twp.

Grey Eagle Quartz Mine— Mrs. Ruth Campbell, Agent 837 Paloma Ave, Oakland, Calif. MS 4647, Secs 27 34, Eureka Twp.

Greystone Group— Charles Hegarty, Agent, Nevada City, Cal. Greystone and N Ext Snow Point Mg. Dist. This property has a crew of 4 men working.

Grover Cleveland Quartz Mine— Margaret Sullivan, Agent, 3832 23d St San Francisco, Cal., Min. Lot 100, Sec 2, Grass Valley Twp.

Grover Murphy Development Company—Wells Fargo Bank and Union Trust Co. Agents, San Francisco, Cal, American Hill quartz, Secs 1 and 12, Nevada Twp.

Gruenewald Quartz Claim— Otto Gruenewald, owner, Nevada City, Cal in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 3, Nevada Twp.

Guild Mining Claim— D. N. Morgan, agent, Monadnock Bldg. San Francisco, Cal por. W $\frac{1}{2}$ NW $\frac{1}{4}$ Sec 8 Nevada Twp.

Haiselton Quartz Mine— Hugh C. McCabe, agent, Grass Valley, Cal, MS 4930 Sec 1, Grass Valley Twp.

Hardt Claims— Louis Hardt, Grass Valley, Cal. Min. rights in and to 40 acres in Lot 1, NW $\frac{1}{4}$ Sec 22, Grass Valley Twp.

Harmony Gravel Mining Company— Geo. Hothersall, agent, Nevada City, Cal. Placer claim Lot 39, Sec 32; Lot 41 Sec 15; S $\frac{1}{2}$ NE $\frac{1}{4}$ Sec 5, Nevada Twp.

Harmony Quartz Mine— Mrs. M. B. Janes, Agent, Nevada City, Cal. Lot 83 Nevada Twp.

Hartery Cons Mining Company— W. G. Grenfell, Agent, Grass Valley, Cal. Lots 112 113, Sec 2, Grass Valley Twp.

Hartery Quartz Mine— Mrs. C. M. Loutzenheiser, Agent, Grass Valley, Cal. Lot 86, Secs 2 and 3, Grass Valley Twp.

Hartford Placer Mine— Albert G. Allen Agent, 632 G. St. Marysville, Cal. Min. Lot 87 Sec 12, Nevada Twp.

Hazel Green Placer Mine— S. L. Campbell, agent 1604 Grove St., Berkeley, Cal. S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 6; NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 7, Little York Twp.

Hilda Quartz Claim — Robert Nye, agent McGill, Nevada. Also Ragon quartz claim, MS 5284, S $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$. Under bond to Neocene Gold Incorporated.

Hirschman and Grover Claim— N. F. Grover, Agent, Nevada City, Cal. Gravel claim on Oustomah Hill, as MS 3851, Nevada Twp

Holbrook Gravel Claim— Mrs. Helena P. Devore, Agent 408 60th St. Oakland, Cal. In W $\frac{1}{2}$ SW $\frac{1}{4}$ Sec 20; Webster Co. placer Rough and Ready Twp.

Home Mining Company— Mrs. Josie M. Spargo Agent Grass Valley, Cal. Min Claim Lot 62 in Sec 3; Lot 86 in Sec 33, Grass Valley Twp.

Homestake Quartz Mine— R.H. Turner Agent 1206 S. Hayworth Ave, Los Angeles Cal. Lot 42 Sec 35. Nevada Twp.

Hooper Claims— F. W. Hooper, Agent 208 Colfax Ave Grass Valley, Calif. Gold Lead claim; Golden Lily claim; Golden Lily frac.; Silver Pick Frac. claim; Bucks-kink claim; Gold Rock quartz, all as MS 5190 Sec 1; NW $\frac{1}{4}$ NE $\frac{1}{4}$ Lot 1, Sec 12 Grass Valley Twp.

Housel Claims— Charles Housel owner, Nevada City Cal. W $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ N $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 34. Nevada Twp

Howlett Placer Claim— C. F. Howlett, Agent, North Bloomfield, Cal. In Kennebec Dist, Eureka Twp.

Hoxie or Underwood Placer Mine— Theo. C. Dorsey, 2241 Rose St., Berkeley, Cal. Lots 5 and 6, SE $\frac{1}{4}$ Sec 25; Min. rights to 16 acres in Lot 3, SW $\frac{1}{4}$ Sec 25, Grass Valley Twp.

Hudson River Mining Company— C. Hegarty, Agent, Nevada City Cal. Hudson River claims 1 and 2, Snow Point Mining District Eureka Twp.

Hughes Claims— Mrs. Virginia Hughes, Agent Spenceville, Cal. Iowa. Nob Hill and Contact quartz claims. MS 4996, Sec 13, Rough and Ready Twp

Hulseman Claims— J. H. Hulseman, Bx. 219 Grass Valley, Cal. Min. rights 20 acres Lot 4, SE $\frac{1}{4}$ Sec 22; 7 acres land Alta Hill in Lot 4; in NE $\frac{1}{4}$ SE $\frac{1}{4}$; 5 acres in E part Lot 4, Grass Valley Twp.

Hussey Ledge Claim— Henry H. Hussey, Agent 40 De Soto St., San Francisco Cal. In Willow Valley Min. Dist. in NW $\frac{1}{4}$ Sec 4, Nevada Twp.

Hussey Place Claims— John C. Hussey Agent RFD, Colfax Cal. Lots 72 92 93 Secs 29 30, Little York Twp.

Ideal Gold Mining and Milling Company—T. J. Cooper, Agent, 567 7th St. San

Francisco, Cal. Lincoln Cons quartz mine inc. Golden Gate, Golden Eagle, Lincoln, Mehegan and St. Anthony claims in Sec 17, Nevada Twp.

Illinois Cons. Placer Mine— D. C. Heger, Agent, 444 Post St. San Francisco Cal, Lot 90, Secs 15 16, Eureka Twp.

Indiana Quartz Claim— Michael White, Agent RFD², Grass Valley Twp.

Iowa Cons. Quartz Mine— John Mulroy Agent, Grass Valley, Cal. Birchville, Iowa, Commercial, So. Commercial, No. Commercial claims, Lots 65 66 67 68 69, Secs 14 15 22 23; Wisconsin claim Lot 37, Secs 10 15, Eureka Twp. Improvements—hoist-

Interstate Claims — Interstate Land Holding Company, Owners, Smartville, Cal. Residue placer; Hartung placer; Marguerite placer; New Year placer; Lot 5 NW $\frac{1}{4}$, Lot 6 SW $\frac{1}{4}$ 1 2 12, Nevada Twp.

Idaho Maryland Cons Mines Company— Errol MacBoyle Agent Grass Valley, Cal. Morehouse quartz mine. Lot 53, Sec 26, Grass Valley Twp.

Idaho Mines Company—Errol MacBoyle Secy. Grass Valley Cal. Idaho mill site; Schofield quartz mine. Lot 37, Sec 25; Lots 2 3 SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ N E $\frac{1}{4}$ Sec 25; Reservoir and dam Bryans Ranch; SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 25; Frac. Lot 9, SW $\frac{1}{4}$ Por. NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 26; 10 acres Lot 7, SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 26; Min right SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 26 East Eureka Min location; Lot 3, NE $\frac{1}{4}$ Sec 26; Lot 5 frac. Lot 7, NE $\frac{1}{4}$ Sec 26; Lot 62, Sec 26; Eureka quartz mine, Roannaise quartz mine; MS 5514; Idaho Nos. 1 2 3 5 6 7 11 12; Maryland Nos 22 23 24; Maryland Frac; Maryland Ext Frac Gold Point Frac; Gold Point Ext.; MS 5515; East Eureka Lode in NE $\frac{1}{4}$ Sec 26; 20 stamp mill, concentrators, hoist. Union Hill quartz; Cambridge mine; Lucky quartz; Morning Dew quartz; Howard Hill quartz; So. Idaho Cons quartz; Gold Point quartz; Centennial quartz; Black Hawke quartz; Rip Van Winkle quartz; The Gambler quartz; Baby Cons. quartz; Black Hawke Ext. quartz.

This property has a crew of 130 men employed. It is one of the promising properties of the Grass Valley District.

Independence Quartz Mine— D. Fricot Agent, Angels Camp, Cal. Lot 120 Sec 25 Grass Valley Twp.

Iron-Copper Mine— J. E., E. F and C H. Taylor, Grass Valley, Cal. W $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 31, Grass Valley Twp

IXL Quartz Claim— H. R. Noble, agent Bx 435, Stockton, Cal. Lot 50 Sec 28, Eureka Twp.

Jennings and White Claim— L. W. Jennings, Agent, Nevada City, Cal. Min. rights in and to E $\frac{1}{4}$ SE $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 30 Grass Valley Twp.

Jenny Lind Cons. Mining Company—

C. B. Grenfell, Agent Grass Valley, Cal. Jenny Lind mine, Lot 4022, Sec 21; Min. right E $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 21, Grass Valley Twp Under bond to Cooley Butler.

Jenny Lind Placer Mine—Golden F. S. Sherwood, Agent, North Bloomfield, Cal. 50 acres in Sec. 6, Eureka Twp.

Jenny Lind Mine— E. N. Williams, agent, Nevada City, Cal. Min Lot 50 Sec 24, Little York Twp.

Jepson Gravel Claim — Mrs. Anna M. Wilson, Agent 1218 Campbell St., Oakland Cal, North Part of Foundation Head and Eureka Tunnel placer mine in Secs 10 and 15, 97 acres, Eureka Twp

Jeremiah Lode Claim — Carabino Orzalli, Agent Nevada City, Cal. MS 5241, Secs 4 9, Nevada Twp.

Jones Bar Placer Claim— Eric Lyders, Agent 200 Bush St. San Francisco, Cal NE $\frac{1}{4}$ SW $\frac{1}{4}$ E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 32, Rough and Ready Twp.

Josphine Lode Quartz Mining Claim— Mrs. R. McGrath, Room 306 St. Francis Hospital, San Francisco, Cal. MS 4638, Secs 1 and 36, Grass Valley Twp.

Julia Quartz Claim— Mrs. A. Chiorini Agent, 1144 Larkin St., San Francisco, Cal in W $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 12 Nevada Twp.

Jupiter Cons. Gold Mining Company— W.W. Byrne, Agent 307 Board of Trade Bldg., Portland Oregon. Min. rights Lot 8 NW $\frac{1}{4}$ Sec 3; W $\frac{1}{2}$ Sec 3; E $\frac{1}{2}$ Lots 7 10 11 Sec 4, Grass Valley Twp.

J. W. Ledge Claim— Fred Cota, Agent Grass Valley, Cal. quartz claim on Wolf Creek, north Allison Ranch, Franklin claim, Grass Valley Twp.

Kanaka Mining Company— T. W. Carson, Agent, Grass Valley, Cal. Frac. SE $\frac{1}{4}$ E $\frac{1}{2}$ SW $\frac{1}{4}$ E $\frac{1}{2}$ W $\frac{1}{2}$ SW $\frac{1}{4}$ Sec 28, Grass Valley, Twp.

Kenny Claims— Mary Kenny, Agent 235 Moss Ave. Oakland, Cal. Placer claim in N $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 21 Rough and Ready Twp

Kentucky Mining Company— J. W. Pauson, Agent, 544 Market St., San Francisco, Cal. Lot 38, Meadow Lake Dist. Sec 4, Washington Twp.

Kentucky Mining Claim— L. E. Thomas Agent 3306 Claremont Ave. Berkeley, Cal Lot 133, Sec 25, Grass Valley Twp.

Kentucky Ridge Gold Mining Company — Albert B. Adams, Agent Grass Valley, Cal., Kentucky Ridge claims 120 acres patented, Sec 13, Rough and Ready Twp.

Keystone Mining Company — F. S. Wood Agent, French Corral, Cal. Claim on Montezuma Hill, Lot 37 Sec 22. Bridgeport Twp.

Knox Claims— R. B. Knox, Agent, Hollister, Cal. Lot 56 Secs 20 21 28 29; Lot 55 Secs 1 2 3 4 10 11 12; Lot 38 Secs 33 34 35; N $\frac{1}{2}$ NW $\frac{1}{4}$ Lots 3 4 NW $\frac{1}{4}$ Sec 6, Little York Twp.

La Belle Mining Claim— J. E. McGovern, Agent, Bx 55, Granite Spring, N. Y. LaBelle claim; McKinley claim; MS 5233 Secs 9 10, Nevada Twp.

Lakenan Investment Company— Estelle M. Lakenan, Magill, Nevada Quartz mine Lots 61-155A, 155B, Sec 23; Part Lot 4, Sec 32; 2 acres in NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 23; 34 acres in W $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 23; Lot 2, SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 23, Grass Valley Twp.

Las Chance Copper Claim— Eugene Aram, Agent Nicolaus Bldg, Sacramento, Cal. Lot 38 Secs 12 13, Rough and Ready Twp.

LeCompton Mine— E. J. N. Ott, Agent, Nevada City Cal. Min. Lot 55, Sec 9, Nevada Twp. Improvements— 10 stamp mill hoist, pumps, compressor.

This is one of the J. M. Hoff properties in the Willow Valley Mg. Dist.

LeDuc Gold Mining Company— B. A. Penhall, President, Grass Valley, Cal. LeDuc property 130 acres, Sec 6, Grass Valley Twp. Has 5000 foot underground development.

Lew Claims— John C. Lew, Agent, No. Bloomfield, Cal. W $\frac{1}{2}$ Metropolitan Ext quartz. Lot 97, Sec 15, Eureka Twp. Improvements— 3 stamp mill pipe line.

Little Sisters of the Poor Claim— Little Sisters of the Poor, Oakland, Cal. Claim at Cherokee. Bridgeport Twp.

Live Oak Cons. Quartz Mine— Theo. A. Kohler, Agent, Grass Valley, Cal. Lots 39 40 NE $\frac{1}{4}$ Sec 26, Rough and Ready Twp.

Local Option Placer Claim— H. J. White, Bx 341, Santa Ana, Cal, Agent. Claim in SW $\frac{1}{4}$ and NW $\frac{1}{4}$ Sec 14 Washington Twp.

Logan Claims— P. H. Brophy, agent, 57 Richmond Ave San Jose, Cal. Lot 49 Sec 1; Por Lot 39 Sec 36, Bridgeport Twp

Lucky Al Cons. Quartz Mine— Charles S. Brooks, agent, Bx 496, Sacramento, Cal Lot 3862; Secs 27 34, Eureka Twp.

Lupin Placer Mine— George Mainhart, Agent, Grass Valley Cal. S $\frac{1}{2}$ N $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ E $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 21, Nevada T

Magenta Placer Claim— H. C. Lewis, Agent, North Bloomfield, Cal. E $\frac{1}{2}$ NE $\frac{1}{4}$ N E $\frac{1}{4}$ Sec 18 Eureka Twp address unknown, Lots 45 46 47, Sec 13, Rough and Ready Twp.

Minerals Exploration Trust— F. C. Whitwell, Agent Washington, Cal. Last Chance quartz claim. Lot 45, Sec 14 23, Washington Twp.

Mistletoe Mining Company— Mrs. C. J. Graham, Agent, Nevada City, Cal. Lot 3875 NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 23, Rough and Ready Twp.

Modoc Lode Quartz Claim— Joseph and Middy Benoit. Agents, Grass Valley, Cal. MS 5345 Sec 2. Grass Valley Twp.

Mohigan Gold and Silver Mining Company— Benj. J. Hall, Agent, Nevada City Cal. Lot 117, SE $\frac{1}{4}$ Sec 13; Gold Flat

quartz. Lot 134. Sec. 13; Min. Lot 79 Sec 18, Nevada Twp.

Monte Rie River Mine— Bear River Water and Power Company. R. L. Rollins Agent, Colfax, Cal. Lot 3711, Sec 22 Grass Valley Twp.

Morandi Claims— A. Verlod, Agent RFD Grass Valley, Cal. Min. rights in SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 1, SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 2; N W $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 12; N $\frac{1}{2}$ NE $\frac{1}{4}$ Sec 11, Grass Valley Twp.

Morning Star Quartz Claim— John Curnow, Agent, North Columbia Cal. in Badger Hill Mg. Dist Sec 36, Bridgeport Twp.

Mount Blanc Blue Gravel Mining Company— E. H. Bush, Agent, 4226 23d St. San Francisco, Cal. Lot 76 77 Secs 31 32, Eureka Twp.

Mount Hope Quartz Mine— A. A. Connolly, Agent 300 10th St. Santa Rosa, Cal. Lots 53 54 Secs 15 22, Eureka Twp

Mountaineer Gravel Mine— Alfredo Bertoncini, Agent, 214 Rhode, Grass Valley Cal SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 31, Nevada Twp.

Mountaineer Quartz Mine— Searles and Searles, Agents, Nevada City, Cal. Black Prince Ext. quartz; Rogers Patent; both in Sec 12; Layton placer; Reward Cons. claim; Arbogast placer; SW $\frac{1}{4}$ Sec. 12; SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 12; por. Lot 46, Sec 12, Nevada Twp.

Mt. Auburn Mining Company— Mrs. Theresa White, Agent So. Auburn St. Grass Valley, Cal. in W $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 2 Nevada Twp.

Mt. Zion Gravel Mining Company— John A. Medell, Agent 2360 Steiner St. San Francisco, Cal. Lot 68 69, Secs 23 25 26, Eureka Twp.

Murchie Mine— American Foundation Company— Nevada City, Cal. M. C. C Von Loben Sels, Agent S $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 8; Por. NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 16; N $\frac{1}{2}$ N E $\frac{1}{4}$ Sec 17; E $\frac{1}{2}$ SW $\frac{1}{4}$ Sec 8. Nevada Twp. Improvements— 30 stamp mill, flotation mill, concentrators, compressors, hoist, water power plant. 4 Byron Jackson centrifugal pumps, 140 tons of rock are being crushed daily, and as new equipment it ready the amount will be increased. 150 men are employed at the property.

Mystery Quartz Mine— L. S. Wincapaw Agent, Grass Valley, Cal. MS 5444, Sec 19 Rough and Ready Twp. Improvements— 4 stamp mill, engine, boiler. Under option to Cooley Butler, Los Angeles.

National Quartz Group— W. L. Mobley Agent, Nevada City. Cal. National claim Lot 39; Sec 17; Hearne and Coats claims; Live Oak claim; Sec 16; National Ext. Secs 8 17; Triaenta gravel. Lot 75, Secs 26 27 34 35, Eureka Twp.

Native Son Lode Mine— Estate George P. Reynolds, owners, MS 5182 Sec 18, Rough and Ready Twp.

Nevada County Midas Mining Company— W. J. James, Agent Grass Valley, Cal Por. SE $\frac{1}{2}$ NW $\frac{1}{4}$ Sec 20, Rough and Twp.

New Constitution Mining Company— H. C. Schroeder, Agent, Nevada City, Cal New Constitution, R. F. Grant, Hy and Success claims, S $\frac{1}{2}$ NE $\frac{1}{4}$ Sec 19, Rough and Ready Twp.

New England Mine Association— A. R. Archibald, Trustee, Grass Valley, Cal. Min Lot 91 92 Sec 13; Lots 7 19 Sec 13, Nevada Twp. Improvements— Marcy ball mill, cyanide plant, hoist, pumps.

New Mohawk Cons. Mining Claim— Ben A. Bost, Agent, Nevada City, Cal. Nevada Twp.

New Monte Christo Mining Company— 57 Post St. San Francisco, Cal. W $\frac{1}{2}$ Lots 6 and 7, Sec. 5; W $\frac{1}{2}$ Lots 10 and 11, NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ Lots 6 and 7, Sec 5, Grass Valley Twp. Eclipse quartz Sec 5; Hidden Treasure quartz Secs 5 32, Rough and Ready Twp. Improvements— Hoist, pumping plant.

Newtown Mining Company— Ed C. Jacobs, agent, Grass Valley, Cal, N $\frac{1}{2}$ N $\frac{1}{2}$ frac. NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 17; SE $\frac{1}{4}$ Sec 8; Rough and Ready Twp. Improvements— 10 stamp mill, hoist, pumping plant. This property was bonded recently and it is expected operation will start at once.

New York Canyon Cons. Blue Gravel Mine— M. L. and D. Marsh Co., agents Nevada City, Cal. Lots 1 2 3 NE $\frac{1}{4}$ and SE $\frac{1}{4}$ Sec 25; Min. Lots 52 53 54 55 56 57 58, Secs 23 24 and 26; SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 34, Nevada Twp.

New York Placer Mine— R. W. Gaylord agent, 2626 5th Ave, Sacramento, Cal. Lots 3 4 5 6, E $\frac{1}{2}$ E $\frac{1}{2}$ Sec 24, Nevada Twp.

Niagara Mining Company— Frank A. Conant, Agent 14 E Valerio St., Santa Barbara, Cal. Manila, J. Hamilton Smith, Niagara, Whitelaw Reid quartz claims, Lot 4854, Rough and Ready Twp.

Nolan Claims— Margaret V. Nolan, Agent, Grass Valley, Cal. MS 5351, Sec 29,

Maguire Claims— William Maguire, owner, Nevada City, Cal. Baltimore Lot 76 Sec 33; por. Morgan claim known as Enterprise Lots 37 38 Sec 5; Lots 39 40 41, Secs 22 23 26 33; Oscar Forr Estate Mine; Bear River mine; Secs 7 8; Lot 66 Secs 23 26 27; Mammoth Spring gravel SW $\frac{1}{4}$ Sec 8, Little York Twp.

Major Mining Company— E. Delos Mageen, Agent, Mills Bldg. San Francisco, Cal. 40 acres and Min. rights gravel prop. Secs 2 34, Nevada Twp. Under option to Neocene Gold Incorporated.

Malone Cons Mining Company— J. F. Murphy, Agent, Nevada City, Cal. Malone claim on Montezuma Hill Lots 37 38 Sec 22 Bridgeport Twp.

Manhattan Quartz Mine— D. W. Baldwin, agent, Grass Valley, Cal in SW $\frac{1}{2}$ SE

Mann Quartz Claim— W. A. Mann, agent, Grass Valley, Cal. Lot 57, Secs 19 20, Eureka Twp.

Manzanita Placer Mine — Interstate Land Holding Co., owners, Smartville, Cal. In Sec 6, Nevada Twp.

English Mountain Mines — H. C. Schroeder, agent, Nevada City Cal. Lot 41, Sec. 6; Helen D. Quartz, Lot 42; Mill Site Lot 43, Sec. 6; SE $\frac{1}{4}$ SW $\frac{1}{4}$ Lot 4 Sec 31; MS 5586, Sec 6, Eureka Twp. Improvements—10 stamp mill, office building.

Marsh Claims — Luther W. Marsh agent Nevada City, NE $\frac{1}{4}$ Sec 3, Nevada Twp.

Mary Jane Mining Company— J. W. Hyatt, agent, Emigrant Gap, Cal. Gravel claim SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ W $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 28; N $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 32; NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 33; Washington Twp.

Mathew Kilroy Claims— D. N Morgan, Agent Monadnock Bldg. San Francisco Cal Por Lot 49 Sec 1; other claims at Cherokee, Bridgeport Twp.

The Mayflower Mines Consolidated— M. Ivan Dow, Agent, Nevada City, Cal. Butterfly claim; Big Blue claim; MS 4920, Sec 17; Greenman quartz; Kellogg quartz; Enterprise claim; Hickman quartz; Red Rose quartz; Sharp placer ground, all in Secs 17 28 20; Alaska quartz; Mayflower quartz; Mayflower quartz Lot 82 Sec 20 Nevada Twp Improvements—stamp mill, hoisting works, pumps.

McCarthy Mine— Coughlan Bros. North Columbia, Cal. Lot 78 Secs 16 17; Spring Creek placer, Lot 79 Sec 17; Transir placer S $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 17; N $\frac{1}{2}$ N $\frac{1}{2}$ NW $\frac{1}{4}$ Sec 20; E $\frac{1}{2}$ SW $\frac{1}{4}$ W SE $\frac{1}{4}$ Sec 8, Eureka Twp.

McGuire River Mining Claims— Lewis A Gould, Agent, Rt. 1 Mountain View Cal., Claims in Secs 4 7 33, Little York Twp.

McCormack Placer Claim— M. C. Keleher, Agent Colfax Cal On South Yuba river at Scotchmans creek, Washington Twp.

McDonald Placer Mine— S. W. Richardson, agent, Woodstock Vt. Kennebec Hill, por. Lot 62 Secs 3 10, Eureka Twp

McGuire Claims— T. H. McGuire, Agent, Grass Valley, Cal. Min. right in 4 7. int. in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ $\frac{1}{2}$ int. NW1-4SW1-4 Sec 36; $\frac{1}{2}$ int. NE $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 35; Grass Valley Twp.

McKay Claims— H. H. Look, Agent 401 K St. Sacramento Cal, N $\frac{1}{2}$ SW $\frac{1}{4}$ Sec 29; MS 5749, Rough and Ready Twp

McKenzie Mines W. A. McKenzie, Agent, Nevada City, Cal. S $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 1; Lot 7 SE $\frac{1}{4}$ SW1-4 Sec 1; Lot 6 and NE1-4SE1-4 Sec 2; Lot 17

Sec 12, Nevada Twp.

McKinney Claim— Andrew Fitzgerald 2034 Mitchell St Oakland, Cal. Moores Flat Mg Dist.

Metropolitan Quartz Mine— Mrs. Jennie Reynolds, Agent, Grass Valley, Cal Lots 96 97, Sec 15 Twp

Middle Yuba Mining Company— D E. Hayden, Secy 103 Sanchez St. San Francisco, Cal. Gold Ridge placer claims 1 2 3 4, Eureka Twp.

Middle Yuba Placer Mine— Edward Poorman, Agent, San Jacinto, Cal. Lot 37 Secs 15 16 20 21 22, Eureka Twp.

Crew of men working. Reports struck rich gold bearing gravel.

Midnights Quartz Claim— John Vivian Agent, Nevada City, Cal. Min. rights Lot 18 Block 43; Lots 9 10 Block 43; W $\frac{1}{2}$ Lot 4 Block 46.

Midway Quartz Claim— Mrs. H. C. Cooper, Agent, Nevada City, Cal. Midway claim; Fort Washington claim; Mountain Side gravel; Golden Poppy gravel, Sec 30 Nevada Twp.

Milton Placer Mine— Thomas Hall, Agent, French Corral, Cal. Por in Sec 26 Bridgeport Twp.

Mineral Hill Mine— Phil Salterbach, Nevada Twp.

Nicholls Claims—Wm. Nicholls, Jr., agent, 846 Mendocino Ave, Berkeley Cal, North Fork and Bear River placer Lot 72 Secs 5 6 7, Little York Twp.

Nicholls Placer and Quartz Mine— Caroline Preble, Gen. Del., Seattle, Wash. Lot 135 Sec. 28; por W $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$; Lot 5, NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 28, Grass Valley Twp.

Normandie Gold Mining Company— A B. Greenwald, Agent 209 Van Nuys Blvd Los Angeles, Cal. Claims in Secs 5, 32 33, Rough and Ready Twp. Improvements —stamp mill, dynamos, compressor, hoist, pipe line.

Northern Bell Quartz Mine — Carroll McA. Thomas, Agent Grass Valley, Cal. Lot 4542 embracing Thomas and Nor. Bell in Secs 1 and 2, Grass Valley Twp.

North Grant Cons. Quartz Mine— R. W Gaylord, 2626, 5th Ave., Sacramento, Cal. Lots 95 96, Sec 17; Canada Hill Ext quartz, Bennetts placer, Nevada Twp.

Empire-Star Mines Company — Wm. Simpkins, supt, Nevada City, Cal. Great Bear quartz; North Star quartz; Lode Star quartz; Bowery quartz; Central North Star; San Francisco quartz; Fahey quartz; Dipper quartz; Irish American quartz; Lot 68 Sec. 33; New York quartz; Lot 50, Sec. 34; Victory quartz; New Rocky Bar quartz; Lot 115, Secs 33 and 34; Emmett quartz; Hudson Bay quartz; Stratton quartz; Tribute quartz; Twilight quartz; Southern quartz; Granite Hill quartz; Root Ext. quartz; Massachusetts

Hill quartz; Great Britian quartz; White Ledge quartz; Shanghai quartz; Jersey Blue quartz; Loutzenheiser Tract; Wickes tract; Kitts tract; Fahey tract; Star placer; Lot 4, Sec 2; Lots 2 4 21, Sec 34; Hermosa quartz; Wild Cat Cons. quartz; Gladstone quartz; Tule Belle claim; Howard quartz; Connecticut Hill quartz; Wild-west claim; Pratt and Donohue claim; Wedge quartz; Gad quartz; Pleiades quartz; Half Moon quartz; Full Moon quartz; White Oak quartz; Inkham claim; Lamarque Cons. quartz; Dakota quartz; New Ophir quartz; Daisy Hill MS 4772, Sec 28; MS 4832, Sec 33; Gold Run Cons. quartz; Keyflower location; Mars Lode; Saturn Lode; Capeus Lode. Lucky Boy Lode; White Oak Lode; Sunny-side Lode; Milk Way Lode; MS 5273 Sec 34; White Oak Ease Ext mine; Dog Star Lode; Jones Lode; Juniper Lode; Morning Star Lode; MS 4334; Bowser quartz; Improvements —hoisting and pumping works, 60 stamp mill, concentraors, cyanide plant, electric railroad. North Ext. Lode MS 5268, Walling Ext. MS 5276, Secs 2 and 11; Tipperary MS 5269; Min. Lot 40, Secs 11 12 13; Williams placer, Sec 13; Lots 131A and B Sec 14; Lot 132 Sec. 14; Lot 96 Sec 14; por. SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 12; por. NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 13; Lots 185 186 197, Sec 11; Champion miltite Sec 12; Champion mine; Ural quartz; Wyoming quartz; Merrifield quartz; Leutje and Schwartz placer; Bayard Taylor quartz; Min. Lots 214 215 216; MS 5124, MS 5122; MS 5121; MS 5119; MS 5120; MS 5167; MS 5118; MS 5123, Secs 2 11 12 13 14, Nevada Twp, Nevada City Ext. claim; Lots 103 104 Secs 2 and 11; Lot 1 20 Sec 2; Home quartz; Lots 7 9 17 20, Sec 11; East Home quartz, Sec 11 Nevada Twp. \$100,000 profit last year.

About 500 men employed at this property.

Numitor Gold Mining Company— Wm. Ullrich, Chicago Park, Cal agent, Mountain Maid Placer Lots 46 47 Sec 14; Lots 11 12 NW $\frac{1}{4}$ Sec 14; NW $\frac{1}{4}$ NE $\frac{1}{4}$ Lot 6 NE $\frac{1}{4}$ Sec 14; Lot 9 Sec 14; Little York Twp. Improvements—15 stamp mill, water rights.

Oak Flat Claim— C. E. Landsburg, Agent, North Bloomfield; Oak Flat claim. Oak Flat Ext. claim, Purcell claim, Muller claim, Secs 15 22, Eureka Twp.

Oakland Quartz Mine— John G. Bennetts, Agent, Berkeley, Cal. MS 4955 Sec 1, Grass Valley Twp.

Oakman Cons. Mining Company — Pierre Hughes Co., Agents, So. Dakota. Lady Oakman, Old Sol, Bull Dog quartz claims Sec 31 Eureka Twp. Improvements —5 stamp mill, concentrators.

Omega Quartz Mine — Mrs. J. H. Fogarty, Agent, 6127 California St., San Francisco, Cal. Lot 57 NE $\frac{1}{4}$ Sec 9, Nevada Twp.

Ophir Mining Company— E. C. Uren, Agent, Nevada City, Cal. W $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ W $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 13; SW $\frac{1}{4}$ Lots 6 7; S $\frac{1}{2}$ SW $\frac{1}{4}$ Sec 24, Eureka Twp.

Ophir River Placer Mine— Pacific Gas and Electric Co. 245 Market St, San Francisco, Cal. Lot 52, Sec 22, Grass Valley Twp.

Orion Cons. Quartz Mine— John Pedemont, Agent Bx 567 Santa Cruz, Cal. Sec 10 Eureka Twp Improvements—2 stamp mill.

Orleans Cons. Quartz Mine— Peter Bender, Agent Hamilton, Ohio. Lot 118 Sec 13; Orleans Ext. Lot 119, Sec 1 13, Lot 18; Perserverance and Live Yankee quartz claims; Dodo quartz; Orleans quartz; Gen. Gomez quartz; por. East Orleans quartz; por. Lot 5 NW $\frac{1}{4}$ Sec 13, Nevada Twp.

Orleans No. 3 Lode — Mrs. George B. Campbell, Agent, Nevada City, Cal. MS 5350 Sec 18; Lot 2 Sec 18, Nevada Twp.

Oseola Quartz Mining Company— H C Schroeder, Agent, Nevada City Cal. SE $\frac{1}{4}$ Sec 25; SW $\frac{1}{4}$ Sec 30, Rough and Ready Twp.

Oseola Consolidated Mines— A. R. Archibald, Mgr. Grass Valley, Cal. Improvements—hoist, pipe line.

Palmyra Placer Claim— Mrs. Marie Clark, Agent, Iowa Hill, Cal. Lot 39, Sec 2 10 11 14 15 22; por Lots 40 53, Secs 35 36.

Patterson Placer Mine — Albert Benson, Agent, San Leandro, Cal. Min. Lot 39 Sec 36, Bridgeport Twp.

Penn California Mining Company— A W Hoge, Agent, Nevada City Cal. Lone Star Cons. claim; Buckeye S. Ext. claim; Buckeye quartz; West Buckeye claim; por Willow Valley quartz; North Montana quartz; Min. Lot 76, Sec 4; NW $\frac{1}{4}$ Sec 3; Lot 1, NE $\frac{1}{4}$ E $\frac{1}{2}$ E $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 4; S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 33; SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 34; SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 34;SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 33; E $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 5; N $\frac{1}{2}$ NW $\frac{1}{4}$ N $\frac{1}{2}$ NW $\frac{1}{4}$ N $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ N $\frac{1}{2}$ S $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ W $\frac{1}{2}$ W $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 4 Nevada Twp Improvements—10 stamp mill, compressor, hoist.

This property has about 20 men employed at present. Plans are for an oil flotation mill, an increase in crew of men and larger production.

Pennsylvania Mine— D. N. Morgan, agent, Monadnock Bldg, San Francisco, Cal. Quartz and placer desig. as Lots 57 and 58 in Secs 1 and 12; por So. Yuba placer in N $\frac{1}{2}$ NE $\frac{1}{4}$ Sec 12; Eddy claim Lot 43 Sec 12; Nevada Twp. Improvements—10 stamp mill.

Phoenix Park Mine— P. J. Riley, Agent Grass Valley, Cal. Lot 111 Sec 3, Grass Valley Twp.

Pittsburg Quartz Mine — Angle and London Paris National Bank, Agents, San Francisco, Cal. Lot 39, Secs 13 24; Lot

38 Secs 18 19; Pittsburg N Ext claim Lot 76 Sec 13; Lot 52 Sec 18; Gold Flat quartz, Lot 149; Potosi quartz Lot 151 Sec 13 Nevada Twp.

Plumas Lode Mining Claim — Sam Richards, Agent, Grass Valley, Cal.. MS 5308 Sec 14, Nevada Twp.

Poates Cons. Placer Mine— L. L. Poates, Agent 622 San Fernando Bldg. Los Angeles, Cal. Poates Cons claim, Jumbo quartz. MS 4794 Secs 14 23 Eureka Twp.

Polaris Ledge— George E. Chappell, 211 Physicians Bldg. Sacramento, Cal. Lot 87 Sec 11, Grass Valley Twp.

Porter Placer Company— John J. Kirchen, Agent, Tonopah, Nev. Contention placer in Secs 16 17 20 21, Nevada Twp.

Posey Canon Gravel Mining Company— Bank of America, Agents, Grass Valley, Cal. Min. rights in Sec 20, Rough and Ready Twp.

Posey Quartz Mine— Mrs. E. W. Donnelly, Agent, Grass Valley, Cal. Adjoining LeCompton mine in Sec 9 Nevada Twp.

Powning Gold and Silver Mining Company— A. F. Brady, Agent, 1243 Sutter St. San Francisco, Cal. Quartz Min. claim Lot 121 Sec 26 Grass Valley Twp.

Provident Securities Company— 618 Crocker Bldg San Francisco, Cal. Bigg and Sims quartz Lot 52 Sec 1; MS 4302 inc. Dewey, Electrum and Pinnacle; Sanders Ledge mine; Sebastopol quartz; Centennial quartz; Mills Nos. 1 and 2 quartz Houston Hill Ext. quartz; King Hill quartz; Houston Hill quartz; Prescott quartz; Lot 127 Sec 35; Fillmore quartz; Madison Hill quartz; Betsy quartz; Old Houston Hill quartz; MS 3970 Sec 35; Basin and Pointer loca.; MS 5720; MS 5721 Bunker Hill Cons. quartz; MS 5724 MS 5720; MS 5721; MS 5722; Oro Fino quartz; Congo quartz, Lots 78 84 Sec 1, Grass Valley Twp.

Quaker Hill Blue Gravel Mining Company— Mrs. E. E. Tarr, Agent, Grass Valley, Cal W $\frac{1}{2}$ W $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ W $\frac{1}{2}$ W $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ S $\frac{1}{2}$ SW $\frac{1}{4}$ Sec 12, Little York Twp.

Quaker Hill Gold Mining Corporation— Thomas Botting, Agent, Nevada City, Cal Lot 39 Secs 1 2 12 13; Lot 43 Secs 7 18 19; Aurora claim; Hunts Hill claim; Hazel Green, Lou Packer and Nebraska claims in SW $\frac{1}{4}$ Sec 4; E $\frac{1}{2}$ SE $\frac{1}{4}$ E $\frac{1}{2}$ W $\frac{1}{2}$ SE $\frac{1}{4}$ N $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ Lot 2, SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 7; placer Lots 3 4, W $\frac{1}{2}$ SW $\frac{1}{4}$ Sec 18; Lot 1 NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 19; Camden placer Sec 24, Little York Twp. Improvements—Gravel mill, compressors, pipe line.

Mr. Botting and one or two men have been working this property for a number of years.

Red Cross Cons. Quartz Mine— Miners Foundry & Supply Co. Agents, Nevada

City Cal. Eli and Free Trade claims, Lots 53 54 Secs 9 16; Red Cross claim; Merchando claim, Omaha claim; Forest claim; MS 4093 Sec 16 Washington Twp.

Red Ledge Group— Williamson & Cole Agents, Washington, Cal. Situated about 1 $\frac{1}{2}$ miles south of Washington. Washington Twp. Improvements—Small mill, compressor.

Relief Hill Cons. Mining Company— C E. Landsburg, Agent, North Bloomfield, Cal. Blue Lead placer Lot, 67, Sec 34; Morning Star, Lot 66, Sec 34; Lot 48 Sec 4, Eureka Twp.

Examinations Drawer 919

GERALD B. HARTLEY

Consulting Mining Engineer
Mining Properties Bought and Sold
Reno Nevada

GORDON M. BETTLES

Mining Engineer
Nevada City California

GEO. F. and R. F. TAYLOR

Consulting Mining Engineers
Mining Reports and Maps
Downieville Calif.

FRED M. MILLER

Consulting Mining Engineer
Maps and Reports
Grass Valley Calif.

EDWARD C. UREN

Mining and Civil Engineer
Mining Reports and Maps
Nevada City Calif

JERROLD L. SEAWELL

Insurance of All Knds
203 Lincoln Street, Roseville, Calif.

LETSON BALLIET

Consulting Engineer
Box 997 Tonopah, Nevada

San Jose Mining Claim— Mrs. Nellie Etzel, Agent, Bx 443, Sacramento, Cal. NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 6, Nevada Twp.

Sazarac Placer Mine— E. W. Roberts, Roberts, Agent 1917 17th St. Sacramento Cal. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 19; Lot 3, SW $\frac{1}{4}$ MS 4081 NW $\frac{1}{4}$ Lot 4 Sec 19 Roug and Ready Twp.

Scotia Mining Company— Percy S. Mallet, Trustee, 108 9th St. Garden City, N. Y., Good Hope claim, Lot 64 SW $\frac{1}{4}$ Sec 27, Grass Valley Twp.

Schallenberger Claim— D. N. Morgan, Agent, Monadnock Bldg., San Francisco, Cal. Part Lot 42, Sec 21 Nevada Twp.

Shamrock Quartz Mine— James L. Hanscomb Hotel St. Regis, 85 4th St. San Francisco, Cal. Lot 67 NW $\frac{1}{4}$ Sec 14, Grass Valley Twp

Sierra Asbestos Company— 710 Easton Bldg, Oakland, Cal. Fairview claims, Nos 1 2 3 4 5 6 7, Sec 2; Asbestos claims Nos. 1 and 2; January claim; Lent claim; Cotton King claim; Cotton King Ext claim, Washington Twp. Improvements—20 stamp mill, hoist tramway.

Sierra Queen Mining Company— E T R Powell, Agent, Nevada City, Cal. Stiles quartz ledge, Min. rights under certain lots in Nevada City. Improvements—10 stamp mill.

Signal Hill Gold Quartz Mining Company— E. M. Taylor, Agent, 140 Occidental Ave, Burlingame, Cal. Signal and Signal Ext. MS 5236 Sec 21, Nevada Twp.

Skion Kop Lode Claim— T J. Hennessey, Agent, Grass Valley, Cal. MS 5578 inc. Daisy King and Golden Shore mining claims, Grass Valley Twp.

Sleeping Beauty Mining Company— W Muller, Agent, 731 Market St, San Francisco, Cal. Lot 4153 Sec 10 Eureka Twp.

Sniktaw Placer Claim— M. D. Coughlan, Agent 245 Market St., San Francisco, Cal. Lot 38, Sec 1, Little York Twp.

Snyder Claims— H. J. Snyder, Agent Grass Valley, Cal. Por. N $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ Lot 1 Sec 16; S Part SE $\frac{1}{4}$ Sec 16 Nevada Twp.

Somerset Quartz Claim— C. P. Jones Agent, Grass Valley, Cal. SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 23 Grass Valley Twp.

South Banner Quartz Claim— F. T. Nilon, Agent, Nevada City, Cal. Situate in Secs 16 21 Nevada Twp.

South Star Gold Mines Company— 57 Post St. San Francisco Cal. South Star quartz mine and mill site, Lots 159A 159B Secs 30 31, Rough and Ready Twp

South Yuba Mining & Development Co.—200 Davis St. San Francisco, Cal N $\frac{1}{2}$ Sec 14; E $\frac{1}{4}$ in Secs 10 14 15 17 18 20 22 23; El Monte placer; Arctic placer; Arctic placer; Prescott and Teples placer Hathaway claim; Scotchmans Creek claim Omega placer; Rattlesnake placer, Washington Twp Improvements—pipe lines,

motors dynmos, surface works.

South Yuba Mining & Smelting Company— A. A. Elliger, Agent 3576A 17th St. San Francisco, Cal. Red Ledge Cons. mine. MS4943 Secs 35 36, Bridgeport Twp.

Spanish Group— San Francisco Commercial Co. F. W. Bradley, Agent, Crocker Bldg, San Francisco, Cal. Spanish Mine, Lot 48, Lot 49; Santa Anita quartz, Lot 47, Sec 30; Min. Lot 3803 Secs 19 30 Eureka Twp.

Spencer Claims— D. E. Matteson, Agent, Grass Valley, Cal. 12 acres in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 32 Rough and Ready Twp.

Stacey Quartz Mine— Alma Eastin, Agent 536 Leavenworth St, San Francisco Cal. Min. Lot 52 Secs 15 16; Annie and Russel Ravine Lodes, MS 5278 Illinois quartz.

Star Mill and Mining Company— H. Bennett, Agent, 6107 Laird Ave. Oakland, Cal. Star Quartz, Lot 41; Orleans quartz Lot 42; Majara quartz; Lot 43, Secs 34 35 Eureka Twp.

Star Mining Company— George W. Starr, Agent Grass Valley, Cal. North Star Mine Lot 64 Sec 9; Golden Gate quartz, Lot 63 Sec 9 Washington Twp.

Stem Winder Claim— Henry W. Hughes, Agent 680 I. W. Hellman Bldg Los Angeles, Cal. Lots 51 52 Secs 12 13 14; So. Ext Eagle Bird claim; Stem Winder claim; Etna claim; Alta claim, Washington Twp.

Stockton Quartz Mine— W. F. Hayes, RFD 1 Grass Valley, Cal. Lot 39A Sec 9, Grass Valley Twp.

St John Quartz Ledge— L. A. Curry Agent, Nevada City, Cal. in S $\frac{1}{2}$ NW $\frac{1}{4}$ Sec 10; SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 9, Nevada Twp.

St. John Quartz Mining Company— D. E. Matteson, Agent, Grass Valey, Cal. Stanford claim, Lot 4, NW $\frac{1}{4}$ Sec 3, Nevada Twp.

St. Louis Mine— D. N. Morgan, Agent Monadnock Bldg, San Francisco, Cal. Little Dove Quartz, Lot 94 Sec 17; Alpine mine

St. Louis Cons Gold Mines Company— J. T. Hennessey, Agent, Grass Valley, Cal. St. Louis Cons quartz MS 3761 Sec 9; Jackson quartz; Rams Horn quartz, Sec 9 Nevada Twp. Improvements— 10 stamp mill, compressor, concentrators.

St. Patrick Cons Quartz Mine— Mrs. Helen A. Cross, Agent 1523 Walnut Ave Alameda, Cal. St. Patrick claim, Paris claim, San Francisco, claim, Lot 4792 Sec 1, Washington Twp.

St. Stephens Quartz Mine— M. S. White, Agent, Grass Valley, Cal. Lot 109 Sec 1 Grass Valley Twp.

Success Mining Claim— C. H. Taylor Agent, Grass Valley, Cal. S $\frac{1}{2}$ NE $\frac{1}{4}$; Lot 5 NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 19; Success claim;

New Defiance claim; C and D claim Sec 19; Lot 2 NW $\frac{1}{4}$ Lot 3 SW $\frac{1}{4}$ Sec 19; Nevada Twp.

Sunnyside Claims— J. E. Anderson, RFD Auburn, Cal. Lot 4468; Red Top, Goo Goo and Sunrise quartz claims in Secs 26 27 34 35 Eureka Twp.

Sunrise Quartz Mining Claim— John and James Cadden, Grass Valley, Cal. MS 5011 Sec 1, Grass Valley Twp.

Swamp Angel Mining Company— C. S. Noble, Secy, Arroyo Grande, San Luis Obispo, Cal. Lot 68 Secs 12 13; Lot 37 Secs 7 18; Golden Bull placer, Lot 91 Sec 12, Lot 40 Sec 7, Little York Twp.

Syndicate Consolidated Quartz Mine— L. Wheeler, Agent, RFD, Grass Valley, Cal. Golden Chain, Lot 75; New Idea, Lot 77; Great Eastern Lot 76, Sec 2, Grass Valley Twp.

Taylor Claim— J. E. Taylor, Agent, Grass Valley, Cal. E $\frac{1}{2}$ NE $\frac{1}{4}$ Sec 8 Grass Valley Twp.

Teaff Claims— B. V. Collins, Agent 1431 E. 16th St. Los Angeles, Cal. Preston and McManux placer, por Bear River Tunnel Claim, Lot 72 Secs 5 6 7, Little York Twp.

Tip Top Gravel Claim— Mallen and Delgrosse, Agents, Nevada City, Cal. Lot 4 NW $\frac{1}{4}$ Sec 5; Lot 37 Sec 32; Lot 3, Sec 5; SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 5, Nevada Twp.

Turner Claims— A. H. Turner, Agent Colfax, Cal. Eastern and Main placer Lot 86, Sec 19; Lot 49 Sec 24; por. Garney and Goodspeed placer Secs 19 24 Little York Twp.

Twin Sister Quartz Mining Company— R. O. Foster, Pres. Reno, Nevada. Twin Sisters claims near Snow Point, Eureka Twp. Imprvements—stamp mill, compressor, pipe line.

Union Blue Gravel Mining Company— Fred T. Elsey, 485 California St., San Francisco, Cal. Min. Lots 47 to 56, Secs 20 21 28 29 30; S $\frac{1}{2}$ Sec 28 frac. 59 60 61 mill site; De Noon placer. Min. Lot 88, Sec 29, Eureka Twp.

Union Mining Company— Mrs. H. C. Jepson, Agent, Nevada City, Cal. Min. Lot 39 Secs 4 9, Relief Hill Eureka Twp.

United Grizzly Ridge Mining Company—Bx 140 Pike, Calif. Grizzly Ridge claim, Columbia Hill Mg. Dist; Live Oak mine near Delhi mine; Minuet claim in Columbia Hill Dist, Eureka Twp.

United States Smelting and Refining Company— E. A. Hamilton Mgr. Mines, Bx. 1785, Salt Lake City, Utah. Min. rights on Robinson Ranch and Stanford Ranch in Sec 4, Rough and Ready Twp.

Uranus Quartz Mine— Marie Haub Kaehler, Agent 1476 19th Ave, San Francisco, Cal. In Secs 16 17 20 21, Rough and Ready Twp.

DIRECTORY OF SIERRA COUNTY MINES

Adelaide Gd. Mg & Mlg. Co.— Sierra City, Cal. Sec 24 T21 R12.

Albany Cons. Group— Martin White agt. Table Rock. 2 pat. claims. Secs 5 6 T18 R10

Alhambra Group — James S. Freeborough, owner, Hartington-Buston, Derbyshire, Eng. 11 claims. Sec 10 T21 R10 Improvements—Roller mill, sawmill, compressor, dynamo.

American Exchange and Buffalo Group —J. E. Little, supt. Sierra City, Cal. 3 claims under bond to J. F. Burkhard. 12-13 20 12.

American Flag— James Grimes, mgr. 858 Walker Ave, Oakland Cal. Long tunnel being run to intersect main ledge. Sec 32 T19 R9.

American Hill Placer—Sharon Est. operators San Francisco, Cal. 263 acres patented Sec 28 T19 R11.

Andy Fitz Mg. & Mlg. Co.— 512 American Bank Bldg., Oakland, Cal. Sec 17 T19 R10.

Ariel Placer— Mrs. J. E. Westall owner, Sierra City, Cal. T20 R9.

Arizona Placer — Hugh McCormick, owner, Downieville, Cal. Channel reported struck recently. North of Downieville.

Associated Placer— F. P. Morrill, owner, 1538 Henry St., Berkeley, Cal. Sec 17 T20 R10.

Atom Group— C. W. and Charles Turner, owners, Camptonville. Cal. H. Rabe and C. W. Turner lessees. 2 claims. Sec 39 19 9.

Australia— Marie Phelan, owner, 2303 24th Ave. Oakland, Cal. Secs 34 35 T20 R10.

Badger Hill Placer— Jensen, owner, Downieville, Cal. Sec 35 T20 R10.

Bald Mountain Mg. Co.— O. Gregory owner, Downieville, Cal. 441 acres. Prod. to 1887, \$3,100,00 with \$1,300,000 profits to stockholders. Under bond to J. Y. Owenby et al. Secs 22 28 19 10.

Bald Mountain Ext. Gd. Mg. Co.— John Costa agent, Downieville, Cal. Secs 22 23 T19 R10.

Bald Top Placer—J. M. McMahon part owner, Downieville, Cal. Reported bonded Sec. 27 T20 R9.

Balsam Flat Placer— Capt. Morrill, owner, Alleghany, Cal. 2 18 10.

Bank Mg. Co.— 843 Prudential Bldg, Buffalo, N. Y. 1 18 9.

Bella Union Cons. Placer— Mrs. J. E. Westall, owner, Sierra City, Cal. Sec 34 T21; Sec 3 T20 R9.

Bellevue Mg. Co. (placer)— R. H. Kingdon, supt. La Porte, Cal. 353 acres patented. Secs 19 25 26 30 36 T22 R9.

Belmont Mine— Peter Flowers, owner Alleghany, Cal. 35 19 10.

Bessler Mine — L. and T. Bessler, owners, Downieville, Cal. Sec 26 T20R10 Imps— 5 stamp mill, compressor, hoist.

Big Avalanche Mg. Co.— S. A. Snell secy. 170 6th St, San Francisco, Cal. Roman claim. Secs 5 6 T19 R12.

Bigelow Mine— Mrs. R. R. Goyne, Nevada City, Cal. Sec 28 T20 R12. Imps— 10 stamp mill. Has past production record

Big Flat Placer— W. W. Casserly, owner, Downieville, Cal. 29 29 10.

Black Bear Placer— H. S. Tibbey, part owner, Downieville Cal. Secs 4 9 T20 R10.

Black Jack Mine — DeForest Bros. owners, 30Broad St., New York City. pat. claim. Sec 16 T19 R11.

Black Warrior Mine — H. J. Gould owner, Downieville, Cal. 22 20 10.

Blue Bird Mine— H. H. Bates and B. F. Marsh, Sierra City, Cal.

Blue Gravel Placer— Mr. and Mrs. C. A. Edgar and O. C. Ermatinger, owners Scales, Cal. Sec 4 T20; Sec 33 T21 R9

Blue Gravel Mines— W. W. Charles, pres. 1200 S. Hill St. Los Angeles, Cal. Large acreage. Secs. 3 4 T20; Secs 33 34 T21 R9.

Bradley Cons Placer — R S Vandervoort, supt. Sierra City, Cal. Mine operating during water season. Sec 28 T20 R12

Bolivia Mine— John Avignoni, owner Sierra City, Cal. 31 20 12.

Brandy City Mg. Co.— Rm. 414 216 Pine St., San Francisco, Cal. 1000 acres placer ground. Secs 6 7 T19 R9.

Brown Bear Placer— H. S. Tibbey, part owner, Downieville, Cal. Secs 13 18 19 24 T20 R9 10.

Bruckermann Placer— F. W. and G A Bruckermann, owners, 1358 15th Ave, San Francisco, Cal. Sec 3 T21 R10.

Brush Creek Mine— Kate Hardy Mg. Co bonders, Ben F. Ballard, pres., 411 B. St., Santa Rosa, Cal. Company showing steady prod. Imps.—10 stamp mill, comp. hoist. Secs 17 18 19 20 T19 R10. Recently bonded to Hoff Interests, Nevada City, Calif.

Buckeye Cons. Mine— R. B. Young Portola, Cal

Buckeye Mg Co. — E. L. Crafts, agt Forest, Cal. 320 acres placer ground. Sec 31 T19 R10.

Bullion (Colombo) Mine— F. J. Cook owner, Sierra City, Cal. Under lease to San Francisco capitalists. Prod. to 1918 report \$365,000. Sec 30 T20 R12

Bunker Hill— Lloyd & Andrews owners La Porte, Cal. 27 21 9.

Burlington Placer— John Freeman, owner, Sierra City, Cal. 2 19 11.

Butcher Ranch Mine — M. H. Miller, owner, 2313½ Q St. Sacramento, Cal. 6 claims Secs 1 11 T20 R11.

Caledonia Placer— A P Block agt, 11½ Sansome St., San Francisco, Cal. Sec 12 T21 R9.

Campbell Placer— Ada L. Jones, owner, 2220 Ward St. Berkeley, Cal. Property at Poverty Point.

Canada Mg. Co.—La Porte, Cal. Sec 13 T21 R9. Placer.

Carleton Placer— Albert Hough owner 3723 Wodruff Ave., Oakland, Cal. Sec 15 T21 R10.

Cedar and Baltimore Mines— F. W. Nicholls, lessee, Alleghany Cal. 2 pat. claims. Sec 35 T19 R10.

Challenge Placer— J. J. Johnson owner, San Jose Cal. 13-14 21 9.

Charcoal Ranch placer— L. F. Fournier, owner, Sierra City, Cal. Sec 36 T20 R11.

City of Six Mg. Co.— A. E. Hodgkinson, secy 3,02 Lane Mortgage Bldg, Los Angeles, Cal. 12claims. Miling projected. Specimen ore found. Sec 2 T19 R10.

Cleveland Mine— A L. House, owner 304 Kohl Bldg, San Francisco, Cal. Sec. 4 T18 R10.

Cleveland Quartz Mine— C. E. Patterson, owner, 638 21st St. Oakland, Cal. Mine has good past production. Sec 35 T20 R11.

Clipper Ship Mg. Co. (placer)— E. H. Wemple, agt, Cf C A O Dell, Richmond, Cal. 56 acres. Prod. \$40,000. Sec 7 T21 R10.

Cold Spring Group Placer— W. W. Wilson, owner, Downieville, Cal. 2 claims. Sec. 12 T19 R10.

Columbia Channel G...M.Co. p(acer)— J. C Newlands, Secy, Sharon Bldg, San Francisco, Cal. 1000 to 1600 acres patented Secs 12 13 14 15 22 28 29 T19 R11

Conglomerate Placer — T C Corlett owner, Table Rock, Cal 13 21 10

Comet Mine— Sovereign Comet Mg Co. F. O Richardson mgr, Downieville, Ca. Sec 17 T19 R11; Sec 24 T20 R11.

Contact Group — Serra G. M. Co. Geo Wood, secy, Rm. 7 Grant Bldg, Richmond, Cal.

Continental Mg. Co— B.B. Lewis mgr. Alleghany, Cal. 26 19 10.

Crotoman Placer— Jessie A. Rea, owner Growers Bank Bldg, San Jose, Cal. Secs 28 29 32 33 T19 R10.

Craycroft Placer — W. H. Spaulding, owner, 114 Sansome St., San Francisco, Cal. 120 acres Sec 12 T20 R10.

Crown Point Placer— Sinnott & Carmichael, owners, Gibsonville, Cal 115 ac. 11 miles east of Gibsonville.

Dayton Cons Group— S Stephenson, owner, Sierra City, Cal. 36 20 11.

Dead River Group (placer)—Stanley Weiland, owner, Scranton, Pa. 3 claims Secs 33 34 T19 R10.

Deer Group placer— E. A. and J O Hayes, owners, San Jase, Cal. 160 acres Sec 31 T21 R12.

Deer Lake Mines — Mary W. Peck, owner, 1461 Carroll Ave, Los Angeles Cal

Del Norte and Scotia Mines— E L. Crafts, owner, Forest. Cal. Sec 4 T18 R10. Imps—2 stamp mill.

De Luxa and Granger Mines— Jesse Darnell, agt. 132 Cooper Ave. Yuba City.

Depot Hill Placer— F. J. Joubert, owner Camptonville, Cal. Active hydraulic property with good production record, Sec 19 T19 R9.

Diadem Mine — R. B. Harper, agt, 74 New Montgomery St. San Francisco, Cal. Sec 28 T19 R10.

Diana Claims Placer— C. B. Wingate, owner, 321 El Cerrito Ave Piedmont, Cal 160 acres.

Diana Mg. Co. (placer)— Merchants Exchange Bldg, San Francisco, Cal. Sec 29 T22 R10.

Dixie et.al Mines— H. E Nieman, owner, Vader, Wash.

Docile Mine—Edwin E. Smith, owner, 71 1st St. San Francisco, Cal. 2 claims. Reported Prod. \$100,000 Sec 35 T19 R10

Dorris Group— R. D. Dorris, owner, Forest, Cal. Property being developu. Secs 29 31 T19 R10.

Dragon Fly placer— N. H Squire and C J Simmons, owners, Downieville, Cal 3 claims. \$3000 prod. to 1914. Sec 23 T21 R1.

Dreadnaught Mine— E. R. Jones and O T. Owen, owners, Forest, Cal. 2 claims. Reported prod. \$100,000 Sec 35 T19 R10 Imp—1 stamp mill.

Dudley Mine — Christine H. Kenyon, agent, Springville, Secs 21 22 T20 R12.

Durston Gd. Mg. Co.— 903 Mer. Ntl. Bank Bldg. San Francisco, Cal. Good grass root production. Secs 3 4 T18 R10.

Eagle Bird Mine— M. H. Miller, owner 2313 1/2 Q St. Sacramento, Cal. Sec 9 T19 R11. This property has a crew of men working at the present time.

Edwards Group— W. Edwards, owner Alleghany, Cal. 3 claims. Last Work done by H. C. Cutting, Piedmont, Cal. Secs 2 3 T18 R13

Eighty Nine Claim— Geo W Cox, owner, 2955 Claremont Ave, Berkeley, Gibsonville Mining District.

Eley Mine— M. S. Hamilton, Plaza Bldg Oakland, Cal. 2 claims. Reported prod. \$5000. Sec 8 T19 R11. Imps—5 stamp mill.

El Dorado Mine— G. Fessler, mgr, Alleghany, Cal Reported prod. to 1914, \$150,000. Last operated by Alleghany El

Dorado Co. Secs 34 35 T18 R10 Imps— 10 stamp mill, conc., comp.

Elkton Claims— J. E. Middagh, mgr, Downieville, Cal.

Emerald Quartz Group— D. W. Smith, agt, Downieville Cal. Sec 9 T19 R11. Imps—5 stamp mill.

Empire Placer— E. G Squire, owner, Willows, Cal. Sec 19 T22 R9.

Empire Group— Andrew Bachels, owner, Goodyear Bar, Cal. Secs 25 26 T21 R11 Imps— mill, electric plant.

Eric Placer— Mrs. M. F. France, owner, Rte. A Marysville, Cal. Sec 23 T21 R9

Erwin Placer— Wm. Erwin, part owner Downieville, Cal. C. E. Herron lessee Downieville, Cal. Sec 17 T20 R10.

Euclid Group— Margaret H. Dudley owner, 2655 Wakefield Ave, Oakland, Cal. 5 claims and mill site. Secs 21 22 T20 R12.

Excelsior Drift G...Mg. Co.— Grace L Tribe, 3342 4th Ave., Sacramento, Cal Secs 12 13 T21 R9.

Excelsior Placer— John and M. A. Costa owners, Downieville, Cal. 2 claims inc. 860 acres. Sec 15 T20 R10.

Faith Mine— Frank T. Wehrle, owner 795 Gray St., Oroville, Cal.

F & F Group — O H Fuller, owner Lomis, Cal. Secs 28 29 T19 R10.

Feather Fork Placer— W. C. Wingate owner, Downieville, Cal. Secs 25 36 T22 R10.

Federal Mg. Co.— J. W. O'Neill, secy. Nevada City, Cal. 27 19 10.

Finney Mg. Co.— Gruss Mining Co. 333 Kearney St., San Francisco Cal. Sec 35 T20 R10.

Flanagan Placer— Anne E. Flanagan, owner, La Porte, Cal. 260 acres, Secs 22 30 T20 R10.

Forest Queen Mine— L. B. Chenoweth, owner, Quincy, Cal 21 21 12

Forest Queen Mg Co (placer)— Table Rock, 320 acres 23 21 10

Fordham Group Placer— L H Fordham Cf Murphy & Wood, Arkansas Trust Bldg Hot Springs, Ark.

Four Hills Mine—W. A Hood, owner, Sequoia Apts., Berkeley, Cal. 887 acres pat.. One pocket 15 ft below surface yielded \$250,000 to \$500,000. Imps— 20 stamps mill, 300 h. p. Pelton wheels and generator, compressor. Secs 2 9 T21 R11

Gabland Mine—Mitchner Mg. Co. Harry Mitchner, San Francisco, Cal. Sec 7 T19 R12 Imps— roller mill.

Garnet Placer— H. Skinner, owner, Gibsonville, Cal. Secs 21 T22 R10.

General Grant Group— Harold Biggs owner, Grass Valley, Cal. Sec 19 T18 R9 Two patented claims.

Gentile Flat Placer — A. Humphreys agt, 1411 Oak St., South Pasadena, Cal. Sec 32 T20 R12.

Gibraltar Placer— Gibraltar-Sierra Mg

Co. lessees, 928 Com. Svgs, Bank Bldg. Stockton. Cal. 1120 acres. Sec 7 T21 R10

Gibsonville Cons. Placer Mines— Marsh Srong Bldg, Los Angeles, Cal. Secs 16 17 19 20 30 T22 R10.

Gold Bluff Mine— John Rosenfeld Sons owners, 1024 Merch. Exchange Bldg., San Francisco, Cal. Secs 23 26 T20 R10; Secs 2 3 T19 R10. Imps—2 stamp mill, conc. assay affice, comp.

Gold Canyon Mine— Mrs. C. Hill, owner, 1950 Jones St., San Francisco, Cal. 72 acres. Reported prod. \$730,000. Sec 11 T18R10.

Golden Fraction Mine— Has prod. some rich ore. 4 18 10.

Golden Hope Placer — C. E. Mott. owner, Forest, Cal. 35 19 10

Golden King Mg...Co.— 118 California St., San Francisco, Cal. Reported prod. \$250,000. Imps— 10 stamp mill, vanners 35 19 10.

Golden Link Mine — J. H. Beckman, owner, 916 1/2 J St. Sacramento, Cal. On Sawmill Ridge.

Golden Scepter Placer— A. A. Maxwell owner, Continental Bldg, San Francisco, Cal. 2 placer, 2 quartz claims. Sec 22 T21 R10.

Golden Star Mg. Co. (placer)— Box 1102 Sacramento, Cal. 700 acres. Reported prod. \$1,000,000. Fine conditions for larg production. Secs 32 33 T19 R10.

Golden King Claim— Marie H. Weldon owner, 620 Shattuck Ave., Taft, Cal. Sec 5 T18 R10.

Gold Lake Group — Arthur Edwards owner, Prescott, Arizona. Quartz and placer, Secs 10 15, T21 R12.

Goodyear Bar Placer — M. F. Lusk, owner, Downieville, Cal.

Goodyear Bar Placer— Mark Averill 1608 Webster St., Oakland, Cal. 47 acres Sec 5 T19 R10.

Gourley Mine— Anna B. Gourley, owner, 3335 Deakin St., Berkeley, Cal. T22 R10.

Gray Eagle Mine— D. F. Sullivan, owner, Downieville, Cal. Opera. 1929 by Yellow Tiger Cons. Imps—10 stamp mill, 28 20 R11.

Graphic Claim—Thomas Rose, owner, Camptonville, Cal.

Greenwood Mg. & Dev. Co— Port Wine Cal. Placer. Sec 12 T21 R9.

Grizzly Hill Placer— C. M. Turner, and W. A. Hoff, Dobbins.

Hain Group — S. C. Hain, owner, Bx 426, Tres Pinos.

Halkyard Placer— Jos. Halkyard and M. G. Calvin, owners, Camptonville, Cal. B. F. McNaught, lessee, 306 E Colorado St, Glendale, Cal 280 acres Being developed Sec 29 T19 R9

Halsey Group Placer— W D O'Brien owner, 718 Monadnock Bldg, San Francisco, Cal

Hal Taber Placer— W H Spencer and Hal P Taber, owners, La Porte, Cal 3 claims Sec 19 T22 R9

Hanley & Co, Placer— Mrs Hanley & Son, owners, Alleghany, Cal

Hansen Bros Claims — Hansen Bros Sierra City, Cal Howard Creek

Happy Camp Placer— John Nipp, owner Goodyear Bar, Cal 15 19 10

Happy Go Lucky Placer— W S Chestain owner Table Rock Sec 11 T21 R10

Happy Hollow Group Placer— Catherine M. F. Judge owner, 935 Jones St. Reno, Nevada. 3 claims. Prod. \$600,000. 29 22 10.

Hardscrabble Placer — Mrs. Alice Brown 2416 McKinley Ave, Berkeley, Cal. Optioned to Blue Grave Mines Cons. 3 20; 34 21 9.

Hartman Claim— Pike District. Much rich float.

Herkimer Placer— C. W. Kitts, owner 1248 25th Ave, San Francisco. 38 acres Secs 22 27 T21 R10.

Hidden Nugget Placer Mg. Co.—810 Electric Bldg. San Francisco. 11 acres T21 R10.

Hidden Treasure Placer— Charles F. Bettinger, owner Table Rock. Cal via La Porte, Sec 10 T21 R10.

High Commission Mine— John and Annie Reid, owners, Downieville, Cal. One bunch arsenopyrite yielded \$18,000. 25-26 T20 R10.

Highland Mary Mg. Co. (placer)— La Porte, Cal. Sec 24 T21 R9.

Highland Mine— Sierra Highland Mg. Co. 401 Claus Spreckles Bldg, San Francisco, Cal.

Hilda Gd. Mg. Co. (placer)— 948 Market St. San Francisco, Cal. Secs 2 3 T19; Sec 35 T20 R12.

Hilo Placer— Bernhardt Bros. owners, Downieville, Cal. 17 20 10.

Hobby Placer — M. W. Hobby, owner Camptonville, Cal. 17 19 9.

Homestake Mine— Mrs. B. Haskell, Gen. Del. Oakland, Cal. 9 19 10.

Homestake Placer — Atkinson Bros, Camptonville Cal. 24 21 12.

Homestake Placer— H. Forbes, Gibsonville, Cal. 21 22 10.

Humming Bird Mine — W. A Derrer 2540 Downing, Glendale, Cal.

Hustler Placer— C. A. Reid, Bangor Port Wine District.

Indian Hill Placer— F. W. Camp lessee Camptonville, Cal. Good showing. Prop. being developed. Secs 16 18 19 20 T19 R9.

Iowa Placer— Oakland Bank of Savings, Oakland, Cal. Under option to Blue Gravel Mines Cons. 400 acres. Sec 5 T20 R9.

Irelan Mines Co.— Maude H. Waldron 2519 9th Ave. San Francisco, Cal. Reported rich production. Sec 11 T18 R10.

Ironsides Mine— H. B. McCormick, agt

Downieville, Cal. Sec 20 T19 R11. Imps— 1 stamp mill.

I X L Group Placer—Louisa Hayes 803 Lincoln St., Oroville, Cal. Sec 33 T22 R10.

Jim Crow Mine— L. and T. Buckingham, Yuba City, Cal. 9 19 11.

Jumper and Tippecanoe Group— John Reid, Downieville, Cal. 1 19 10.

Kanaka Group—Ambrose Madden, Alleghany, Cal. Company reported formed to develop property. Secs 8 9 T18 R10.

Kanaka Placer — M. N Alling, Southern Hotel, Bakersfield, Cal. 600 acres unpatented. S1 T18 R9; S36 T19 R8; S31 T18 R10.

Kate Hardy Mg.Co — 411 St, Santa Rosa, Cal. Company giving entire attention to Brush creek mine to north. Ss 29 32 T19 R10. Recently sold to Hoff Interests, Nevada City, Cal.

Kenton Mine— Dr Royal, owner, Pasadena, Cal. Large early prod. Imps—18 stamp mill, vanners Sec 4 T18 R10.

Kentucky Mine— E. A. Loeffler, owner, Sierra City, Cal. 2 claims Sec 27 T20 R13.

Keystone Mine.— E. M. Innes, owner, Sierra City Cal, 3 claims Operations expected. Prod. \$1,500,000. Ss 5 6 T19; S32 T20 R12.

Keystone G.M Co— J. R. Powell, Plymouth, 4 locations. Sec 24 T19 R10.

King Cons Group— John Hayes, owner Sierra City, Cal. 36 19 10.

Kinselbach Mine — Langdon Smith, Forest, Cal. 3 claims 36 19 10.

Kirkpatrick Placer— Charles G. Johnson prin. owner, State Capitol, Sacramento Cal. Former large producer. Development under way. Sec 15 T19 R10.

Kosmos and Keystone Ext. Placer— Henry Hollweg owner, La Porte, Cal. Ss3 4 T21 R10.

Ladies Canyon Placer— J. Laveroni, J. and T. Costa, owners, Downieville, Cal. Prod. \$500,000. Sec 13 T20 R11.

Last Chance Placer— W. B and D. E Ownes, owners, Goodyear Bar. Sec 9 T19 R10.

Little Grizzly Placer— Charles Kelles, Downieville, 23 21 10.

Lincoln Placers Inc.— Chas. L. Nichols 1408 Chapman Bldg, Los Angeles, Cal. S31 T20 R11; Ss 35 36 T20 R10.

Lone Star Cons. G. M. Co.— Grass Valley, Cal. 3 pats. 25 21 11.

Lorenzo Claim — P. Lorenzo, owner Johnsonville. 26 21 R11.

Lost River Placer— Mark N. Alling, Southern Hotel, Bakersfield, Cal. 700 ac. Sec 4 T19; Secs 28 33 T20 R9.

Lost Treasure Mine — Fred Phippin, owner, Forest, Cal. 20 19 10.

Lucky Dog Placer— Frank and Wm. Davies, owners, Alleghany, Cal. 150 acres Sec 29 T19 R10.

Lucky Gold Hill Placer— John Lassiat,

owner, 6437 Harrison Court, Oakland, Cal 320 acres. Sec 34 T21 R9.

Luella Claim— J. D. Alexander, Downieville, Cal. S22 T21 R10.

Mabel Mertz Placer— Forest City Mg. Co. H. B. McCormick, secy, Downieville, Cal. 495 acres. Some prod. Secs 29 30 T19 R11.

Mammoth Springs Mg. Co— J. W. McGuire, 2506 Folsom St. San Francisco, Cal 3 claims. Imps.—5 samp mill, Sec 26 T19 R10.

Mammoth Springs Placer—Milton Davis, owner, Forest, Cal. 510 acres. Secs 23 26 T19 R10.

Manchester Placer— Belle C and Wm. S. Brown, 2103 Van Ness Ave, San Francisco, Cal. Sec 21 T22 R10.

Marguerite Placer— Stefano Vereno owner, 935 Jones St., Reno, Nev. Gibsonville District.

Marguerite Claim— Westall Bros, Sierra City, Cal Sec 3 T20 R12.

Mariposa Mines Association— H. Feilenz, secy, Theresa, Wis. Prod. \$118,000 Imps—5 stamp mill. Sec 34 T19 ; Secs 2 3 T18 R10.

Mayday and Undine Placer— H. H. Meyer, agt, Downieville, Cal. Secs 13 14 T21 R12.

Mexican Group — C. J. York, owner Downieville, Cal. 5 locs. Imps— 5 stamp mill, conc. Secs 25 26 T20 R10.

Michigan Placer— L. L. Clough, agt. Quincy, Cal. S20 T22 R10.

Midas Placer— C. W. Cox, owner Table Rock. Sec 5 T21 R10.

Middle Yuba Placer— Edward Poorman owner, San Jacinto, Cal. 3 miles virgin ground in bed Middle Yuba river. Leased to River Placers, Ld. Secs 15 16 20 21 22 T18 R9.

Mineral Mountain Claim— M. C. Mitchell, owner, Cf Calif Cotton Mills Oakland, Cal. Secs 10 11 14 15 T19 R10.

Miners Home Placer— Howland Flat Mines Co., Cf C. F. Faulck, Woodleaf, via Oroville. 155 acres. 66,506 sq ft. bedrock yielded \$77,000 by drifting. Section prod. \$14,000,000. Sec 5 T21 R10.

Mines Operating Corporation— R. L. Hanley, vice pres. and treas. La Porte, Cal 1200 acres hydraulic ground at Howland Flat. Large operations contemp. Secs 5 6 T21 22 R9 10.

Minnesota Development Co. — J. O. Jones, supt. Forest, Cal. 2 18 10.

Minnie D. Mine— Albert Holm, Alleghany, Cal. S24 T19 R10.

Monte Carlo Placer— A. Lavezzola, agt Downieville, Cal. Large nuggets found in gravel. Sec 26 T21 R10.

Montrose Mg. & Dev Co.— C. L. Davison, supt. Downieville, Cal. Has been developing hydraulic ground 3 miles east of Downieville.

Moonshine Mine— Geo. W. Hallock, Alleghany, Cal. Am. Hill Dist..

Monarch Mine— Jack Lee, owner, Sierra City Cal. 20 claims, 520 acres locs. Imps— 20 stamp mill, hoist, 150 kw Pelton generator unit, sawmill, comp. Secs 18 19 T20 R12.

Montpelier Mine— J. R. Stark, lessee Downieville, Cal. 25 20 10.

Morning Glory Mine— Alleghany Morning Glory Mg. Co. H. B. Skewes, supt, Grass Valley, Cal. Imps—5 stamp mill, comp. 34 19 10.

Morning Sun Mine— F. W. Nicholls, Alleghany, Cal. S35 T19 R10.

Morrisown and Angora Group Placer— A. Harris, La Porte, Cal. 400 acres. Prod \$7000 one season. Sec 24 T21 R9.

Mott Placer— Mott & Morrison, owners Forest, S12 T19 R10.

Mott & Brady Group Placers— C. E. Mott, Forest, 11 19 10.

Mounain (Bonanza) Mine — F. R. Wehe, owner, 74 New Montgomery St. San Francisco, Cal. Worked last 1915. S16 T20 R12.

Mountaineer Claim — Harry Norris, Sierra City, Cal. S24 T21 R12.

Mount Alta Placer — C. N. Chatfield agt, Pike. 330 acres. Sec 33 T19 R9.

Mt. Fillmore Cons Group— A. D. Post agt, La Porte, Cal. 4 claims. Ore taken out said to average up to \$20 ton. Sec 34 T22 R10.

Mount Pleasant Placer— Kate Donahue, 396 Hayes St. San Francisco, Cal. Virgin ground with 30,000,000 yds. Secs 5 8 9 T20 R9

Mountain Boy Placer— Frank Prosser, Martinez, Bunker Hill.

Mountain House Placer— W. W. Casserly agt, Sierra City, Cal. 8 claims. Secs 18 19 30 T19 R10; Sec 25 T19 R9.

Mountain View Cons. Group Placer— Messery & Shields owners, La Porte, Cal. Sec 30 T21 R10.

Mount Ranier Placer— J. J. McCullough, owner, North San Juan. Secs 8 9 T18 R10.

Mount Vernon and Mott Tunnel Group Placer— Harkins & Maloney, lessees, Downieville, Cal. Sec 12 T19 R10.

Mugginsville Placer — W. A. Morse owner, Downieville Cal. Under bond to C. E. Herron et al. Sec 18 T20 R10.

Mugwump Placer— Diamond Peak Dev. Co., Wade Armstrong, mgr, Nevada City. has property under option. Secs 28 33 T19 R10.

Neocene Placer Mg. Co.— 5630 Tryon Road Los Angeles, Cal. Lots 62 63 T20 R9.

New Council Hill Group Placer— A. C. Stiles, agt. 204 Mills Bldg, El Paso, Texas Los 48 to 56 T20 R9.

New Jersey Placer — A. Eckhardt, owner, 531 Dolores St, San Francisco, Cal Sec 31 T19 R10.

New York Mine — Wm. Schuld, La Porte, Cal. Sec 3 T21 R10.

New York Placer— Hugh & Westall Est., owners, Sierra City Cal. Secs 13 24 T21 R12.

North American Cons. Mg. Co.— Garden City Bank, San Jose, Cal. Secs 30 T22 R12.

Northern Bell Mg. Co.— L. Rosenfeld owner, San Francisco, Cal. 4 claims Sec 31 T20 R12.

North Fork Mg. Co.— 1024 Mills Bldg, San Francisco, Cal. Geo. B. Stone, sup. Forest, Cal. Sec 21 T19 R10.

Nugget Bell Placer— Estate of J. McGregor, owners, Downieville, Cal 400 acres. Sec 4 T20 R10.

Oasis M. & R. Co.— Thos. H. Allen, Jr. 433 S. Spring St., Los Angeles, Cal. T18 R10.

Old Mexican Group— Andrew Bachel's owner, Goodyear Bar, Cal. Secs 9 10 T19 R10.

Omega Placer— E. T. O. Cons. Mg. Co Cf C. H. Spengler, Forest, Cal. 2 claims Sec 29 T19 R10.

Oriental G. Mg. Co. — Bx 1102 Sacramento, Cal. 9 pat. claims. One shoot prod. \$3,000,000. Single area 14 by 22 ft. prod. \$734,000. Imps—10 stamp mill, vanners, S33 T19; S4 T18 R10.

Oriflame Mine— L. D. Nihell and Jack Langman, Alleghany, Cal. Sec. 3 T18 R10

Original 16. to 1. Mg. Co. — H. U. Maxfield, pres. 607 Monadnock Bldg, San Francisco, Cal. Reputed world's greatest high grade producer. One mass quartz yielded over \$16,000 in 1929. Imps—Hendy ball mill, Hungarian riffles, classifier, comp. hoiss. Secs 3 4 T18; Sec 34 T19 R10.

Oro Group— Downieville Mg. Co. C. E. Herron, Mgr, Downieville. 3 pat. claims. Development work. S35 T20; S2 T19. R10.

Oxford Group— H. H. Meyer, owner, Downieville, Cal. 5 pat. claims. Secs 22 23 26 27 T20 R10.

Pacific Group Placer— Will F. Schwerling, agt, 1613 Grove S., Berkeley, Cal. Lonk tunnel being driven. Sec 18 T21 R10.

Pacific Alta Group— D. Conlan, St. Louis, Sec 12 T21 R9.

Pennsylvania Placer — L. H. Molter, Table Rock. Sec 2 T21 R10.

Peterson Placer— H. Green and I J Farr, owners, Sierra City, Cal. 20 acres. Sec 33 T20 R12.

Phoenix Mine— 10 pat. claims, 5 miles. Prod. \$160,000. Imps—20 stamp mill on Young America..

Big Canyon Placer— Thompson Bros. Sierra City, Cal. S10 T20 R11.

Pilgrim Mine — Dos Pesos Estate 20 Broadway New York City. 3 pat. claims. Sec 29 T19 R11.

Pilot Peak Placer— Frank and Walter Delahunty, owners, La Porte, Cal. Sec 20 T22 R10.

Pioneer Placer— Mrs. Elizabeth A Rodgers, Palace Hotel, San Francisco, Cal. 10 acres prod. \$400,000. Secs 13 14 23 24 T 21 R9.

Pleasant View Placer— E. L. Cleveland agt, 520 Ochsner Bldg, Sacramento, Cal. Prod. \$100,000. 220 acres. Near Camptownville. Cal.

Plumbago Mine— Croesus G. M. & M Co. 734 5th Ave. New York City. P. S. Waldron, supt., Alleghany, Cal. 8 pat. claims Prod. \$3,000,000. Last worked No. Star Interests to 1928. Imps—15 stamp mill, hydro electric power plant, conc. S2 T18 R10

Poker Flat Gold Gravel Mg. Co.— 110 Market St. San Francisco, Cal. Sec 10 T21 R10.

Poor Boy Placer— W. W. Casserly, owner, Sierra City, Cal. 32 20 10.

Port Wine Cons Placer— Big Channel Mg. Co., Sacramento, Cal. Secs 13 14 T21 R9; Sec 18 T21 R10.

Poverty Hill Placer— Seth Mann, agt, 202 Merch. Exc. Bldg., San Francisco, Cal. Sec 32 T21 ; Sec 5 T20 R9.

Pride Placer— Bradley-Haley Co. lessee 618 Crocker Bldg, San Francisco, Cal. R. S Vandervoort, supt. Sierra City, Cal. Operating. Secs. 11 13 14 T20 R12.

Primrose Mine— J. F. Burkhard, operating. Los Angeles, J. E. Little, supt. Sierra City, Cal. Considerable development work, 15 men. Imps— 20 stamps mill comps. Secs 13 14 T20 R11.

Rainbow G. M. Co.— E. L. Gould, secy. 1007 Sutter St., San Francisco, Cal. 3 pat claims Prod. \$1,500,000. Secs 2 3 T19 R10.

Rainbow Extension Mine— San Jose Mg. & Inv. Co. O. A. Harlan, San Jose, Cal. Sec 3 T18 R10.

RaO Claim— R. T. Garnier, 1735 Mission St., South Pasadena, Cal. Sec 34 T19 R10. In famous Alleghany District.

Rattlesnake Placer— J. E. Deal, owner Downieville. Under bond to National Merger G. M. Co. 210 acres Company developing property. Secs 7 18 T20 R11.

Red Jacket claims— Thomas Rose, owner, Pike, Cal. T18 R9.

Red Ledge Group— Bank Mg. & Prom. Co., Prudential Bldg, Buffalo, N. Y. H. Barnhart, pres. 4 claims. Imps—10 stamp mill. Sec 12 T18 R9.

Red Star Claims— Tightner Mines Co. 709 Balboa Bldg., San Francisco, Cal. Reported to be opened this year. Secs 27 34 T19 R10.

Reese Ravine Mg. Co— 655 Congress St Portland, Me., 22 21 10.

Renaissance Placer— Fred Bruckerman Table Rock. 3 21 10.

Republic Group— A. B. Jenkins, owner Tuolumne, Cal. 17 19 11.

Riffle Gd. Mg. Co.— T. F. Giblin Box 55 Yuba City, Cal. Placer.

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1—Dorr, complete with 33' x 20' Redwood Tank.

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1—30" National Blower.
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1—No. 3 Roots, 10" discharge.
2—No. 2 Roots, 8" discharge.

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COMPRESSORS—PORTABLE—For Sale or Rent

1—265 cu. ft. Rix. 1—210 cu. ft. Ingersoll-Rand.
1—220 cu. ft. Sullivan. 3—210 cu. ft. Chicago Pneu.
1—210 cu. ft. Rix. 1—118 cu. ft. Gardner-Denver.
1—96 cu. ft. Rix.

COMPRESSORS—STATIONARY

1—1302 cu. ft. I.R. "XB-2" belted.
1—869 cu. ft. Sullivan, angle comp.
1—445 cu. ft. Sullivan, angle comp.
2—385 cu. ft. I.R. "XB-2" belted
2—220 cu. ft. Sullivan "WG-3" belted.
1—173 cu. ft. Chicago Pneumatic, "NSB" belted

CRUSHERS—GYRATORY

1—No. 6 McCully. 1—No. 4 Gates, Style K.
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CRUSHERS—JAW

1—10" x 20" Blake type.
1—12" x 16" Blake type.
1—10" x 12" Llewellyn Blake type.
1—8" x 12" Hendy, Blake type.
1—7" x 10" El Paso Foundry, Dodge type.
1—7" x 9" Hendy, Hercules, Blake type.
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1—6 1/4 x 8 Double Cylinder, Single Drum Steam Hoist, 15 HP.
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NEVADA COUNTY MINES ARE GOOD INVESTMENT

Nevada County with more than 80 years of continuous gold production, with the proud record of never having produced less than a million and a quarter dollars annually of the precious yellow metal, is today one of the leading mining counties in California with abundant opportunities for profitable investment. Two large producers have been brought in the past year, many more are in the development stage with bright promise of future production. Nearly half a billion dollars of gold produced since 1849 is well worth considering when looking over the various gold regions for investment.

With cheap transportation, ample water, timber and power close at hand, paved highways through the heart of the county, railroad facilities out of Nevada City and Grass Valley, the securing of mining materials is a simple problem. Ample supplies are carried in the local stores for mining needs at jobbers' prices. Living conditions are ideal, fine mountain water, bracing climate, hunting and fishing the year around.

Ore values are exceptionally high and in most cases no sorting of rock is done. Values averaging from \$10 to \$50 per ton are common mill runs while specimen values run to many thousands of dollars per ton and are frequently found. One piece of gold quartz showed over \$26,000 mint returns and many strikes of specimen ore were made the past year. Quartz mining in this county has gone to the 8650 foot level and still showing values.

The Nevada County Development Association sponsors all worth while movements in the county and will gladly assist prospective investors.

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