THE MINES OF ARIZONA

This department is under the direction of Mr. W. E. Defty, the well known mining engineer, who will carefully scrutinize all matters relating to mining in order that only reliable information regarding legitimate enterprises shall find a place here.

The Republican would be pleased to receive information from any part of the state regarding the development of the mining industry. All communications should be addressed: Mining Department, Arizona Republican.

Wonderful Mining Developments in Arizona

Anyone observing mining developments in Arizona for the last five years cannot help but be observant of the fact that all the large and recently active properties and those that are coming into active operation in the near future are all old properties that were known or worked years ago, or those that were not actively worked, there was some reason. Take, for instance, the Ray, Miami, Inspiration and Bagdad and Ajo. These were all known, but they were of little importance until the established possibilities and methods of treating low-grade or disseminated copper ores. Today they are immense properties, some of them in active operation and producing very large tonnages daily, the Ray, for example, removing 8000 tons of ore per day from its mine to the reduction plant. Some of the others will take a few years before becoming producers. The going and active big companies are continuously acquiring additional properties, all of them old ones which were worked years ago. For instance, the C. & A. acquired holdings in Pioneer district and the Ajo; the Copper Queen at Tombstone, and has several other well known old properties under consideration. That rich mine, the Magma, was an old one, and laid idle for years. Wherever we look, old mines are being opened up and are becoming new producers. In every district we find this an actual fact, in the east and west of Arizona, Bisbee district, Globe, Gleeson, Pima and Pinal counties, Yuma and Yavapai. In the latter county probably those properties most in evidence is the Commercial company, in Copper Basin. The old cash vein has been penetrated from the Senator tunnel. The old Hillside is under option to a big active mining company. There are several others that could be specifically mentioned.

There is an old mine near Safford being started up again. In Mohave county several old properties are again producers, several others under option and development and some of them are sure to be added to the producing list.

In Yuma county, the old Fortuna mine, in the southern part of the county, is again producing gold bullion. The Planet mine on Bill Williams Fork, in the northern part of the county, is again stoping and shipping copper ores. This old property was worked in the early sixties. In Maricopa county, the most notable incident of rejuvenation is the old Vulture mine that produced many millions over thirty years ago and was idle for years. Such instances as these can be numerously enumerated all over Arizona. Of course, there are several reasons for the success of these old properties, probably the foremost being the advanced knowledge and technical skill exercised in mining. But in addition to these are many other factors. For instance, the improved transportation conditions. There is no part of Arizona today very far from railroad facilities, and these are being extended yearly. There is also the improved processes for the reduction of ores and the extraction of their contents. However, the important fact remains, as previously stated, that all of them are old properties. There are many others dotted all over the state of Arizona that are under option, or development (many of them could be specifically named), or are about to become producers. Now, if the importance of these properties is any criterion for comparison, or a standard for what can be expected of them, then it portends a great future for Arizona; in fact, a future of such permanent possibilities that it is difficult to estimate, and there is not a single reason why as much, if not more, cannot be expected of them. This does not apply to copper production alone, but that of gold and silver, zinc, and the rarer metals of vanadium and tungsten. Not only will there be this increase from the new producers, but the old mines are perfecting their methods in every way, that it will add substantially to the sum total.

Now, it might be intimated, in reverse to this, that some of the old mines are playing out; but there are only one or two instances where this factor can apply. All the properties have long life, big and continued production ahead of them, and unless some extraordinary crisis arises to retard or prevent this active and prolonged activity, Arizona will be a wonder and an eye-opener to the whole world. The majority of the people in our own state today fail to comprehend or realize the tremendous pretentions of our state as a mineral producer. We lead the United States in copper production, and before long we will be somewhere near leading the world in metal production.

Exhibit of Arizona's Copper Ores

At the time of our annual fair we voiced our strongest praise at the exhibition of Arizona's copper ores, and remarking that no other state in the union could produce such an interesting and varied class of these ores.

We also gave due praise to Mr. J. C. Goodwin for the labor and painstaking effort he had exercised in assembling them into such an interesting aggregation. We also noted at that time and on several occasions since the fact that this valuable and interesting exhibition could only be viewed one week in the year out of the fifty-two weeks, and suggested that a permanent building be erected somewhere in the city, where the exhibit could be seen by visitors for the other fifty-one weeks. Of course, to do this takes time, initiative and money. The job of removing the ores would not be a very hazardous or expensive one, and it would certainly be a most instructive exhibit for visitors to look at. Such an exhibit could not help but be beneficial to the whole of the state. But up to the present Phoenix is unprepared to devote any place for the exhibit of her greatest of all resources, the mineral wealth of the state. Strangers visiting our city, and wishing to see a representative exhibit of our great variety of ores, must go away disappointed, unless they visit here that week the fair grounds are open. No pretense whatever is made to show what we have at any place in town. Seeing and feeling this want, Mr. J. S. Neall, at his assay office, 307 North First street, is making an excellent effort to comply with this long-felt want. He has had made a special cabinet for the exhibition of Arizona's copper ores, and has already assembled an exhibit which is exceedingly representative and creditable. This exhibit can be seen and is open to the public every day. The attention of mine owners is called to this very meritorious endeavor of Mr. Neall to show what we produce in ores from every county in the state, and it is earnestly hoped that his efforts will meet with the assistance they deserve. And the good work can be especially helped by owners of properties furnishing him with specimens of ores for display. Such specimens need not be larger than 6 to 8 inches, and a piece of this size will only cost a trifle to forward by parcel post. It is to be hoped that this suggestion will meet with a ready response from those owning properties and desiring to let others see what we produce in our state.

Another Property to Commence Reduction of Ores in Close Proximity to Phoenix.

Three claims of the Harris Copper company and another three owned by S. J. Tribolet of this city have been bonded to a company which has already made substantial payments on the properties and commenced work for the installation of machinery, part of the plant having arrived in Phoenix and is at present being hauled out to the property.

Yavapai county, being more alive to its mining interests than ever before, has collected $5000 and is expending that sum on construction of a wagon road from the property to Turkey Creek, twenty miles distant. At present, fifteen men are employed and are busy reducing the grade of old Arrastra Hill. This particular point of the road was always the bane to stage drivers and teamsters when it was the main stage and supply communication between Phoenix and Prescott, before the incoming of the railroad. The grade of this hill will be entirely altered and lessened, making the hauling of the mines' production to Turkey much easier.

The cement foundations for the 75-horse power engine and the 100-horse power boiler have already been laid.

The ores from the properties are all chalcopyrites, carrying a small value in gold and silver, but generally high in copper contents. Some of the ore is very solid and heavy and is direct smelting. The fines created by mining this and the stringers and disseminated ground will be concentrated over Deister concentrating tables. Sufficient of these tables will be installed to treat fifty tons per day. If rightly managed, there is no question of a successful future for this property. The principals interested in this undertaking are at present upon the ground.

More Good News for Yavapai

The Commercial company in Copper Basin is reported to have encountered in its development work a body of carbonate ore fifty feet in width. The ore is in the nature of carbonate, red oxide and azurite, and for twelve feet is said to carry 10 per cent. in copper content. This is, indeed, a very important and satisfactory discovery, and gives every evidence that the great mineral-bearing vein of the district has been uncovered.

Some time ago we said that old Yavapai would some day be known and classed as a great copper producer, and, according to recent developments within her borders, this prophesy is being rapidly fulfilled.

Ray Consolidated

The Ray Consolidated Copper company established new records in all departments during the first half of 1914. Its average cost was lowered to approximately 8.90 cents a pound, against 9½ cents, for the first six months of 1913. Current costs have been reduced to the lowest level in the company's history, or to 8.6 cents a pound.

The Ray mill handled slightly more than an average of 8000 tons of ore daily up to June 30. The total tonnage milled in the half year was 1,475,000 tons, comparing with 1,125,000 tons in the corresponding half of 1913.

Production from two shafts approximated 36,780,000 pounds of copper, against 25,772,000 pounds from the smaller tonnage of last year.

Headings averaged about 1.80 per cent. in the first half of the year against a six months' average of 1.72 per cent. to June 30, 1913. Extraction also ran better as shown by a recovery of 68 per cent., comparing with 66.50 per cent. in the first half of last year. The recovery in May and June was higher than the average for the entire period, having improved to 69 per cent.

Inspiration

Inspiration Consolidated stockholders took only $1,697,600, or 35 per cent., of the offering of $4,500,000 6 per cent. convertible bonds, leaving $2,802,400 in the hands of the underwriting syndicate.

The funds raised by the new bonds are to be used to increase the size of the mill from 7500 tons daily capacity to 10,000 tons, to construct a power plant costing $1,500,000 and for working capital. The company plans to start production late this year.

Coinage of the Precious Metals

Coinage minted at the United States mints during the month of June was as follows: Gold, $3,000,000; silver, $712,395; minor coins, $113,770.

What Will the Prohibitionists Do About This?

We learn from the columns of an Arizona exchange that a certain party was a business visitor in the town where the paper is published, and particularly noted the fact that he was from "Highball." Fancy a place with such a name in Arizona! If it had been "Toddyville," or "Beercrest," it wouldn't have been so bad; but fancy the high-sounding name of Highball! Some good prohibitionist will surely create an initiative against this. But here, I had better cease. It makes me thirsty to think about it, and even creates a thirst and a desire for a drink of—water.

Reymert Mine to Resume Operations

Word comes from Superior to the effect that the Gunn-Thompson people have decided to resume work at the Reymert mine, nine miles south of Superior. A small force has been kept on the works during the short time that operations were suspended, engaged in running the pump. The news, which came to Superior Monday, was hailed with a great deal of enthusiasm, for it means a great deal to the prosperity of that little camp. At the time operations were suspended the main shaft at the Reymert had been sunk to a depth of 260 feet, and the new order instructs those in charge to go on down indefinitely.

The original intention was to sink to the 1200-foot level and to expend $150,000 or $200,000 in development work on the Reymert, and it is altogether probable that this scheme is to be carried out under the new order.

The Reymert was originally located as a silver property and showed very high values, the ledge being from 60 to 100 feet wide. However, the Gunn-Thompson people are going down with the hope of encountering rich copper deposits, which are indicated by the character of the surrounding formation—Arizona Blade-Tribune.

More Quicksilver

H. H. Bowman, the original locator of the Sunflower Cinnabar company's claims in the Mazatzal range, has now located eleven claims in the northwest part of Gila county, on the headwaters of Gold Gulch, about seventy miles from Globe. The dyke carrying the cinnabar is said to be thirty-five feet wide, with a trend northeast, southwest. This new find is about ten miles from the first discovery.

New Gold Strike

Truax & Zane have made a rich discovery of gold ore in the Jupiter Flats country near Bisbee. The ore encountered is of very high grade and is creating a great deal of excitement in the district. The owners, of course, anticipate a great future for their holdings. Zane has already bonded his interests to other parties.

Tom Reed

The clean-up for this property in Mohave county for the month of June from the 20-stamp mill and cyanide plant, was a gold bar valued at $196,000.

Manganese

India, Russia and Brazil produce 90 per cent. of the world's supply of manganese ores.

Gypsum

The production of gypsum in the United States for 1913 was 2,599,508 short tons, worth $6,774,822, compared with 2,500,757 tons and $6,563,908 in 1912. Gypsum sold crude amounted to 463,136 tons, of which 85 per cent. was used for Portland cement.

Gleeson

There is reported a rich strike of copper ore on the 400-foot level of the Leonard copper mine at this place. The property is operated by the Shannon Copper company.

Geological Survey Appropriations

The government appropriation for the geological survey, covering the coming fiscal year, has been enacted into law. The total is $1,355,520. This disbursement covers a great many objects under different headings and purposes.

American Institute of Mining Engineers

The next meeting of this society will take place at Salt Lake, Utah, from August 10 to 14, inclusive. The program and entertainment is a full one. Several trips are arranged to smelters and other reduction plants. The papers to be read cover a wide number of subjects, and the social part, everything in that line, even to a dip in the briny Salt Lake. It is anticipated that the meeting will be largely attended.

Two Miners Killed by Missed Holes

On the 17th of this month two miners were killed in the Reid mine near Redding, California. Other miners working in the same shaft escaped injury. The explosion was due to a charge of dynamite being forgotten and left in the face of the workings. Isn't this a sad commentary on the intelligence of men who are supposed to be occupied in a hazardous calling? Fancy men forgetting the placing of a charge of dynamite or a missed hole! You would think such a thing could never be forgotten, and it decidedly should not be, until its danger is removed. No man employed under ground can afford to neglect a dangerous problem of this kind, not only for safety's sake to himself, but also to his fellow-workmen whom he is bound equally with himself to protect. It's a frightful negligence that cannot be too severely cesured.

(Continued on Page Four.)

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