

# IN THE MINING FIELD

Operations of Interest Throughout the County of Cochise, Arizona and Sonora

## COPPER PRODUCTION LAST YEAR 141,600,000 Pounds

The midwinter edition of the Los Angeles Times contains the following about the mining industry in Arizona:

It is probable that the metal production of Arizona during 1902 will more than equal that of the previous year, though copper has dropped in value, and labor troubles have somewhat cut down the output. The great smelter of the United Verde, at Jerome, has just resumed work, after a shutdown of a couple of months due to fire in the mine, and to trouble with the workmen. The Old Dominion works, at Globe, also tried conclusions with its hands and won, though its furnaces were left cold for four months, or more. The Black Warrior company, near Globe, ran its leaching plant for a couple of months only this year. The output of the Congress mine was lessened by a strike of 300 miners. The Bisbee copper smelter soon to be moved to Douglas, has been going even better than in the previous year, and the product of copper at Clifton and Morenci has been heavier, as well. The new Shannon smelter, near Clifton ran only four months, and closed down, after producing 2,000,000 pounds of bullion, to await the completion of a concentrator. The Troy smelter, in the Pinal mountains, had only a short run, as had also the new smelter at Gleason, Cochise county. The new Val Verde smelter, in Big Bug district, south of Prescott, has been successfully operated on custom ores, largely copper, the better part of the year. A custom smelter has also been blown in at Chloride, mainly for silver ores. The Calumet and Arizona smelter, at Douglas, of 600 tons' daily capacity, was blown in about November 1, and is now in successful operation, running through 500 tons of ore a day. This ore is secured from the properties of the company near Bisbee, twenty-eight miles distant. At Douglas, also, is being erected the new 1,500-ton smelter of the Copper Queen company, a plant designated to be the finest and most convenient in the west.

The suspension of operations at the United Verde mine gave opportunity for the overhauling of the smelter. The old 250-ton water jackets are being replaced with 500-ton furnaces, and it is believed that the bullion production of 1903 will exceed that for the present year. The works of the Arizona Copper company at Clifton are new. Five 350-ton jackets having replaced seven eighty-ton furnaces. Production is aided by concentrators, with a united capacity for 1,100 tons a day. The works of the Detroit Copper company at Morenci are also new, and of remarkable efficiency. The Silver Bell company, operating in Pima county, reports a production for the year of 2,600,000 pounds of copper bullion. Two furnaces, one of them for pyritic ores, have been running for part of the year at the Val Verde smelter, south of Prescott. A concentrating mill is attached to this plant. A new oil-burning smelter has been erected in the same locality for the Treadwell company. New custom smelters are projected for Wickenburg, Yuma, Benson and Wilcox.

According to the best information to be had, the copper product of the year approximates the following figures, in pounds:

Copper Queen, Bisbee	35,000,000
United Verde, Jerome	35,000,000
Arizona Copper, Clifton	32,000,000
Detroit, Morenci	17,000,000
Old Dominion, Globe	12,000,000
Calumet & Arizona, Bisbee	3,000,000
Silver Bell, Pima	2,600,000
Shannon, Clifton	2,000,000
Val Verde, Big Bug	2,000,000
<b>Total copper production</b>	<b>141,600,000</b>

## DOS CABEZAS G. M. CO. ERECTING REDUCTION PLANT

The Dos Cabezas Gold Mines company, operating at Dos Cabezas mountains, Arizona, is pushing work on its reduction plant. The machinery is about in place and the buildings for it about finished. The plant will be running this month.

## COPPER CROWN COMPANY STRIKES GOOD ORE

The Copper Crown company has recently struck a large deposit of sulphide ore on its property in the development work. The property consists of fourteen claims near the Black Diamond mines in the Dragoon range, Cochise county, Arizona.

## DESCUBRIDORA M. & S. CO. TO PUT IN NEW PUMPS

The Descubridora Mining & Smelting company has placed a big order in the United States for its mines at Descubridora, Mexico. The pumps will have a capacity of 200 gallons per minute against a lift of 600 feet.

## MACHINERY FOR SMELTER AT BENSON SHIPPED

The machinery for the smelter at

Benson, Arizona, has been shipped from San Francisco. This plant is being put up by the Empire Reduction company of which Mr. Uidgeon is manager.

## WORK IS SUSPENDED ON THE DEMING OIL WELL

Work on the Deming oil well has been stopped by Contractor Hale. The reason for the suspension is not given, but it is stated that the work will probably be continued when the company is ready to act.

## HEAVY MINING MACHINERY FOR MINES NEAR JEROME

Reports from Jerome state that a great deal of heavy machinery is being put up on the mines south of that place. Among the Black Hills company is putting up twenty tons of new machinery.

## COLORADO RIVER DREDGER SCHEME WAS A FAILURE

A few months ago there was considerable talk of the second trial of the dredger scheme at the Pot Holes on the Colorado river above Yuma. Nothing has been said of it for some time. The result was, that Senator Ives of Yuma county, A. H. Smalley, now superintendent of the Las Vegas mine at Coyame, Chihuahua, and their associates, found that it was too difficult a proposition and abandoned it. They ran into a clay bank about twenty feet thick and proved to expensive an operation to reach the gold on the bed rock. The dredger is now awaiting other victims, but it is not likely that the scheme will be revived.

H. G. Rice, who recently disposed of his property in the Greenlee district, to the Clifton Consolidated company, is in Durango, Mexico, where he will reside.

C. P. Creasinger, the promoter of the Red Cloud Mining company, in the Chucawalla mountains, Riverside county, California, was seen in El Paso a few days ago.

T. C. Paxton, manager of the Loma Verde mine, Arizona, recently brought into Tucson from near Valls station some fine samples of oil rock, which may lead to the putting down of a well.

## NOTES FROM PACIFIC MINER.

Messrs John Wigmore & Co., of Los Angeles, who recently began building the new system of water jacket furnaces, are filling an order for a 500-ton furnace to be shipped to an extensive Arizona mining property.

The Colorado Iron Works Co., of Denver, Colo., has contracted to supply a 30 stamp mill and a concentrating plant to the El Carmen Copper Co., of Durango, Mex., and 24 impact screens, crushers and rolls for the Gold Road Mining and Exploration Co., of Acme, Ariz.

A contract has been let to the Risdon Iron Works of San Francisco to install a complete plant at the Quarteite mill of 1,000-pound stamps, a Fairbanks-Morse gasoline engine, a gratory crusher and modern machinery throughout.

## POINTERS FROM THE MINING AND SCIENTIFIC PRESS

Ore bins at stations of shafts having a low angle of dip may be provided by cutting out for them in the hanging wall side of the shaft. When the shaft is very flat it may require considerable excavation for the bin and a, proaches, but if there is much rock to be handled on the level it will not, the cost.

Most of the ores containing nickel also contain cobalt. Nickeliferous pyrrhotite, which is the most abundant and widespread nickel ore, contains from one-twentieth to one-thirtieth as much cobalt as nickel. Millerite is a brass yellow or bronze yellow nickel sulphide often associated in small amount with pyrrhotite.

In ordinary coal gas are contained various heavy hydrocarbons, mainly ethylene, but also propylene, acetylene butylene, various members of the paraffine series, etc., hydrogen and carbon monoxide, also smaller amounts of carbon disulphide and allied bodies.

Where a vein having a gouge accompanying it in hard rock dips out of a shaft being sunk on it, but which does not depart a great distance from the line of the shaft, it will usually be found to be economy to remove all the rock between the vein and the shaft, as the speed made in sinking will more than pay for increased expense of timbering and removing ground.

The introduction of crude petroleum as fuel in a reverberatory furnace at the Sutter creek, Cal. reduction works has been found to be advantageous, as it permits a largely increased capacity of furnace, and the flame is so completely under control that a more thorough roasting is accomplished than when wood was used. The tallings are also of lower grade than formerly.

## A REMINISCENT STRIKE IN THE 'CHUCAS

Speaking of silver, said Alph Bond, of Miller canyon, "a way back yonder in the 80s old man Heslep was rooting on a claim over on the west slope of the Chucas opposite the head of Miller. He was looking for something he could carry off on a burro, and he found it twice. He struck just three tons of silver ore which ran \$3,750 ounces, and silver was \$1.29. He sorted it out and sent it to the Benson smelter and never got back his sacks. After that old Heslep stuck to such sure things as raising spuds and splitting cord wood. The chlorides of disappointment ran to high for him.

## JUDGE MERRITT ON ARIZONA MINING LAWS

Judge Merritt has kindly volunteered to contribute an occasional article to the Review on the most recent mining laws, rulings and decisions. The judge prepares these contributions with the utmost care and precision, and they should be of eminent value to all persons interested in locating and operating mines in Arizona.

## THE MODERN.

So far as we have been able to ascertain, the present shut down in the Modern is in no way due to falling prospects in the property. On the contrary, every miner who has worked there is of the opinion that the property is a meritorious proposition. It is probably a matter of a temporary lack of means due to a failure to realize on business calculations, and it is confidently expected that the company will resume active operations in the near future.

## A NICE PRIVATE PROPOSITION.

Alex Erickson is the proud possessor of five claims about three miles southeast of the Modera on the old Tombstone road. They carry copper, gold and silver. The values according to repeated assays ran about \$5 gold, five per cent copper and 20 ounces in silver. Alexander has not been able to develop the property to any considerable depth as yet, but will hereafter devote his entire resources to that end.

The ore body seems to be a deposit of considerable width, approximating 40 feet or more, and being in that interesting section of our mining district is naturally of considerable consequence on the surface.

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