

MINES, MINING, LOCAL STOCKS AND COPPER

Progress Reported at Town of Ajo and Mines of Company

With 750 Men on Payroll, New Cornelia Copper Company is Fast Getting Into a Position Where it will be Able to Produce Electrolytic Copper at the Rate of 100,444 Pounds Every Month. Ajo has Unique Distinction as Camp.

Conditions in Ajo are Excellent. Model Town in Process of Construction. Mexican Mining Conditions on the Upgrade. Cananea Fast Getting Back Into Swing. Oil is of Interest to Many People in the Warren District.

With 750 men on the payroll, and the larger part of the plant about 70 percent complete, from top to bottom, and with the conveniences which make for the best kind of living keeping pace with the other improvements, the newest Arizona wonder camp is fast coming to a position where it will be producing its full quota of 100,000 pounds of electrolytic copper a day.

This camp is the handiwork of the New Cornelia Copper Company, adopted child of the Calumet and Arizona Company, one of the most progressive and aggressive copper producers in the United States. Ajo, the town of the company, is different from any copper camp that we know of.

There is practically no copper producing camp in the United States which has had the same or like history as that in the desert south of Gila Bend. It was first determined whether or not there was a mine. Under the direction of Captain John C. Greenway, general manager of the C. & A., drilling was started and a few months proved that approximately 50,000,000 tons of 11-2 percent ore were to be had. A leaching process was worked out and a test mill built to prove it. Everything was then ready for the actual demonstration of making a mine and a community to order.

Knowing that living conditions in most of the mining camps in Arizona, and in other parts of the country, were bad for many years after their start, Captain Greenway decided that Ajo should be a model town of its kind. Accordingly he employed experts to lay out the community and to make a model of its kind. As a result a wonderful little community is growing out of the desert, and already has a population of about 2500 people.

Two companies of Arizona militia are now on the ground and the state of mind of the people is excellent. There are no labor disturbances of any kind and none in prospect.

The railroad, which runs from Gila Bend and is forty-three miles in length, is continuing to run with regularity and efficiency. The company expects, very shortly, to put on an automobile, carrying fifteen passengers, to meet all of the trains at Ajo. This will make for the convenience of the traveling public.

All of the streets of Ajo are graded. The water and sewer systems of the town are 70 percent completed and work on them is being rushed to completion. The plaza is finished and it has an elaborate bandstand, a big dancing pavilion, all of which is electrically illuminated.

Actual construction of the new depot and business blocks, which include the co-operative store building, the bank, restaurant, pool hall, moving picture theatre and other buildings, have been started.

Foundations and the steel have both been placed for the power house. All of the foundations for the coarse crushing plant, and the foundations and wall support are also erected for one tank.

Excavations and forms are in and 50 percent of the concrete is completed for the fine crushing plant. The same applies to the storage bins. The tracks from the mines to the coarse crushing plant are 75 per cent complete and the oil and acid tanks are finished.

Work of removing the small amount of overburden from the ore body is progressing very favorably and within a comparatively short time New Cornelia is expected to go into the producing list of mines. It will have been a community and a mine built according to plans; the plans haven't followed the mine in any sense except that the big company has been built around the spot located in the desert of Pima county.

OIL INTEREST INCREASES

Though the oil business is rather a large jump from the mining of copper, yet that is what a considerable number of Warren District people have taken. They are interested in the Oklahoma Oil fields and appear to be on a winning bet.

The name of the company, largely composed of capital from Bisbee and this section, is the Arizona-Oklahoma Oil and Gas Company. It has a lease on 630 acres of land in one of the likeliest looking parts of eastern Oklahoma. A well has been brought in adjoining the property of the company and the indications are good that another will be brought in on the other side. In fact, oil wells are being drilled and made on every side.

The exact plans of the directorate of the organization are not known. H. B. Hunter, secretary of the company, has returned to Tulsa and will make some further investigations. The drilling operations have not been started but it is thought they will be in a very short time.

Should oil be found on every side or upon the property itself, the original owners of the company's stock and those who have bought since can be called extremely fortunate.

MINING IN MEXICO

Mining in Sonora appears to be on the increase. Yesterday was pay day at the mines of the Cananea Consolidated Copper Company and a large shipment of silver coins was sent to the mining town Friday to meet it.

Every indication points to an early and complete resumption of the mining business throughout the state. Confidence is on the increase and more Americans are going in to the interior of the country than for many months. Production at the mines of the Four C company and the Democrat is increasing and the regular monthly average will be made in short time.

The consensus of opinion among the leading copper interests is that the price of the metal has seen bottom for the time being, and that an improvement in the price will follow.

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EXPLANATION OF THE SMELTER ATTITUDE MADE

Smelter Expert of Douglas Tells Why Company Plants are Not Overly Anxious to Buy Custom Ores

PROFIT IS LESS ON ORE OF THIS KIND

More Money Can be Made by Companies Owning Their Own Mines and Smelters by Handling Own Ores

DOUGLAS, July 29.—If you had mines, concentrators, etc., in all of which systematic savings could be effected, would you rather smelt your own ore in your smelter and take a clear profit on the transaction, or pay some miner working an independent property a higher rate than your own cost you because you had been accustomed to 65.50 at times in the past?

That in brief is the way a well-known smelter official here put the present ore situation in an interview a few days ago.

"We will say, for example," stated the official, "that our cost of mining, milling and smelting was around 12 cents per pound. Each pound sold on a 25-cent market would then net us 13 cents clear profit.

"On the other hand the customs ore producer comes to us and insists that we buy his ore because we have done so in the past. If we offered him the same sum we were paying for our own ores he would think we were robbers. So would the general public. But I can see no more reason why a smelter which can run continually on its own ores should buy customs ores at a higher price than it is paying for its own, than why I should go out in the street and buy a burro I did not want. We make more out of our own ores and had therefore rather handle them.

"High wages in the mines and smelters have reduced profits somewhat, making the costs run higher than on an ordinary market, but this is of course offset by the high metal price just at this juncture.

"I am fairly familiar with smelting conditions in this state and I do not know of any company operating both mines and smelters which is not in the position I have mentioned. They are buying some customs ore, but not a great deal, because they can handle their own mine output more cheaply and make more money out of it. That is the thing they are after, just as well as the man who runs a store."

As there has been much complaint recently among producers of customs ores because of smelter penalties, etc., the explanation is timely and apt.

UNWATERING SHAFT OF ARKANSAS MINE

Progress in Mining Circles in Centennial State Indicates Healthy Condition of State Regarding Earth's Wealth

JEROME, July 29.—The unwatering of the shaft at the Arkansas & Arizona is progressing rapidly with a minimum of trouble in spite of the fact that the machinery and equipment in use has lain on the ground during the period of idleness since the mine closed down. The force of 15 men is approaching the 900 level, and losing no time in bailing out the watery element which prevents any possibility of real mining or development work until the workings are drained.

Superintendent Galligan is on the ground. Hammon, Madethews, who has remained with the A. & A. during the recent interval of inactivity has been engaged as master mechanic and Alex Peterson as mine foreman.

HOLLAND INDIGNANT AT SEAMAN'S EXECUTION.

(By Review Leased Wire.) LONDON, July 28.—The execution of Captain Fryatt has caused great indignation through the whole of Holland, says a Reuter despatch from Amsterdam and it is generally compared with the execution of Miss Edith Cavell.

The Amsterdam Telegraph says: "The execution caused no surprise but excites horror and indignation at a crime which is as mean as the shooting of the brave English nurse. It is burning shame which calls for vengeance."

"IN THE TRENCHES" AT THE COLONIA DUBLAN CAMP, MEXICO



Companies G and H of the 21th infantry, in trenches at Colonia Dublan, Mexico.

Camp life does not pall on the American troops in camp at Colonia Dublan, Mexico. Their minds and bodies are kept engaged with drills and military maneuvers. Trench work covers a large share of the day's program of the men. They take turns in the pits and practice handling their guns, repulsing attacks and accustoming themselves to working in close quarters.

OATMAN MAN PATENTS SMELTING PROCESS TO ELIMINATE WET FLUX

Francis E. Agnew, of Mohave County, Claims to Have System That Will Present Methods of Reduction

Francis E. Agnew of Oatman is the inventor of a new smelting process that holds out great possibilities toward reviving the mining industry throughout immense areas now idle, revolutionizing the industry of the West and the whole world. It is a process to smelt-dry ores without fluxing, doing away with searching for wet ores, the expense of paying the freight on them and the various big items of cost that have kept many millions of tons of dry ores off the market in the past.

Having it patented he is now ready for business, but he is not offering stock for sale, has no company and in no sense is he trying to finance or float the patent. He has determined to merely let the building and use of the smelters out on a license basis, he acting as supervisor of their building and as consulting engineer.

In the latter capacity problems that may come up from time to time, with ores refusing to yield to the treatment, his part of the work will be to point out the difficulty and get the values out of the ores.

For a starter one of the smelters is soon to be built at Parker, which is 65 miles down the Colorado river from Needles. Parker is in the heart of an immense mineral belt where the ores are dry. It has both copper and lead carbonates in abundance and dry ore of gold and silver also are present. It is a typical district that has been tied up for a generation because of there being no fluxes in reasonable distance.

Parker is only one out of hundreds of such districts from British Columbia into Mexico. In fact, all that ever made the mining camp of Rosland, British Columbia, was the fact that it had fluxing ores and the mine and smelter owners of Montana were willing to pay the freight on them and treat them free to get the values out of their own ores. Eventually smelters were built close to Rosland, and the Montana dry ores were shipped to them in order to get in touch with the Rosland wet ores. The same applied to the Cour d'Alene, another wet ore camp that was placed on the map in the identical manner.

The cost of smelting as another attractive consideration in favor of Mr. Agnew's invention. He states that owners of the smelter can extract the values at a cost of \$1.50 a ton, but that for custom work they can easily get \$7 a ton. Either one will appeal personally to those who need smelters to reduce their own ores as well as to those who wish to engage in the business for others for pay.

One point that he makes that is all in his favor, is that the patent is purely basic. Without copying the principle itself that is covered by the patent there can be no adaptation nor infringement.

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GREAT MINES IN COLORADO ON COME-BACK

Progress is Recorded in Work on 900 level at A. & A. Property at Jerome

DENVER, July 29.—Colorado has come back to her mineral wealth this summer in a manner significant of permanency under the spur of increased prices for silver, lead, zinc, copper and tungsten. The hills, peaks, gulches and canyons are filled with prospectors drawn from the limits of the north and southwest and the echo of "shots" and crashing rock makes startling music to drowsing cattle. Even the big mining corporations in Cripple Creek, Leadville, have been compelled to bid with higher wages to operate full shifts while reviving silver mining in the "San Juan" district of southern Colorado was unable to stay this rush that slid on snowshoes over the peaks in the early summer, staking tungsten land.

Properties abandoned because of low prices and necessity for improved machinery now boast re-equipment and dividends have replaced assessments.

Record deposits in banks in all parts of the state indicate the treasure that has been found since last fall. The little town of Boulder alone, shows an increase of \$1,000,000. A bank started in the spring at Nederland, Boulder county, holds over \$100,000 of "tungsten" money.

Prospectors from the hills report the discovery of little towns, lost to memory of the present generation, that one time housed hundreds of inhabitants about the shafts of mines. Such a discovery was that at Holy Cross, in Central Colorado. From the train in the national forest it was discovered a silent, grass-grown, deserted village, clustered about a huge mill filled with rusty machinery. In the houses were furniture. Everywhere was the evidence of hasty departure.

The production of gold and silver this year should amount \$30,000,000," said Frederick Carroll, state commissioner of mines, who is compiling the biennial report. "It exceeded that of last year, which itself made a record. I look for a total production of gold, silver, lead, zinc and tungsten of about \$100,000,000, although silver, lead and zinc ores are still a by-product in Colorado; only

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IRREDUCIBLE LIMIT HAS BEEN REACHED FOR METALLIC LEASE

Engineering and Mining World Writes on Question as to Whether Silver Will Advance After the War

An eastern statistician has figured it out that the fundamental reason why silver must advance is because Europe is today on a paper basis; Germany has commandeered the gold from the people's pockets to the banks' vaults; Russia has done practically the same; France has requested it and England has relied upon patriotism to accomplish its purpose. When the war broke out, this same statistician continues, the great government banks of Europe had roughly \$2,400,000,000 gold in their vaults. Since then, despite all efforts the stock has only been increased another billion, excluding some \$500,000,000 sent to the United States. The significant monetary fact, however, is that the original \$2,400,000,000 was parted only \$4,500,000,000 of paper, whereas the present \$3,400,000,000 had been called upon to maintain \$9,900,000,000. In other words, the gold proportion has dropped from 52 to 54 per cent, says the Mining World.

The irreducible limit for the European metallic lease would seem to have been reached. At the same time, it is impossible to increase the supply of gold. The governments of Europe are, therefore, turning to silver more and more as they inevitably must, since gold will be unable to meet the demands of world business and since paper currency rapidly loses its purchasing power. A strong metallic base is always necessary.

But the production of silver is falling off in the United States, Mexico, and, in fact, throughout the world. The output of the United States last year was roughly only 67,500,000 ounces, as compared with 72,500,000 ounces the year before. Mexico accounts for only 18,000,000, as against 26,000,000 in 1914. In fact, the world production declined last year at least 10 per cent to some 195,000,000 ounces as compared with an annual production of 250,000,000 back in 1911 and 1912.

Not only will there be an unprecedented demand from Europe, already under way, notably in France, but the far east, which has always been a big consumer of the white metal, will be a bigger factor than ever before. China's standardization of coinage is estimated, will take 150,000,000 ounces of silver, or almost twice as much as the United States and Mexico can turn out in a year. Silver is not a war metal in the sense of smelter or copper, perhaps. The demand for it after the war is over is likely to be greater even than at present, for with the adjustment of normal conditions the paper currency will depreciate faster. Washing the factories of declining production and unprecedented demand, it would seem that silver is likely to sell at better than 80 cents for a long time to come.

INCONCEIVABLE CHANGE GIVES C. & H. TO WORLD

Indians, Who Buried Copper Treasure Several Centuries Ago on Calumet Lode, Marked Spot for Mine

SO SAYS HISTORY OF BIG COMPANY

Calumet and Hecla's History Filed With Greatest Romance in Mining. Details Given in Booklet

The founding of the Calumet & Hecla mine, and a brief resume of its performance from 1866 to 1916 is told in a little pamphlet recently issued by the company and sent to their shareholders in connection with the celebration of the semi-centennial of this great copper mining organization. The booklet runs as follows:

"The discovery of the Calumet mine was due to an almost inconceivable chance. After piecing together what we now know, we can look back to the events that led up to it with considerable confidence. Several centuries ago, perhaps before a white man ever set foot on American soil, we see a party of Indians digging out copper on Isle Royale. As the winter approached they prepared to migrate to quarters further south; and loading their canoes deep with the spoils of the summer's work they paddled toward the southeast. Avoiding the hazardous voyage around Keweenaw peninsula, they started to carry across it, and were probably overtaken by an early winter storm. At all events they dug a pit and buried their copper near the place that afterward became Calumet number 1 shaft. By a wonderful accident the spot chosen by the Indians happened to be on the hanging wall of the Calumet conglomerate, close to the lode.

"Relieved of their burden, the primitive miners hurried toward a milder climate, but must have met with some disaster on the voyage, as they never returned for the copper. Generations lived and died, little seedlings on the edge of the pit grew slowly into huge trees, and in the stillness of the primeval forest the buried hoard of the Indians guarded in secret the mighty treasure that lay beneath.

"The early French explorers found copper on the Ontonagon river in the seventeenth century. But Keweenaw peninsula was still a vital forest 73 years ago, when it was ceded to the United States by the Chippewa Indians. After the 'copper fever' of 1845 and 1846 had subsided, it left the country still a wilderness, with a few small mines hidden here and there in the forest. Such were the conditions in 1858 when E. J. Hulbert was surveying a state road from Copper Harbor to what is now the southeast limit of Houghton county. Roaming about in the woods he stumbled across the pit where the copper from Isle Royale lay buried. This he mistook for an old Indian copper mine. Looking about in the vicinity for further country still a wilderness, with a few hundred feet to the southwest, near what was afterward Hecla number 1 shaft, a large block of conglomerate. This rock, weighing many tons, was infiltrated with copper, and was in fact a bit of the Calumet conglomerate. It was evident from its appearance that it was not a boulder transported there by the ice of former ages and he was convinced that it had been lifted out of the ground by the frost and lay close to its original position. Satisfied that he had made an important discovery, he went about his business, keeping his secret to himself. A secret that was valuable only because the pit happened to be where it would have been had it indeed been the mine for which he mistook it. Taking the greatest care to keep his actions quiet, Hulbert tried to gain possession of the land on which the pit was situated. With his tiny capital he was unable to do this, but he eventually bought the land to the north. So that is as not until August, 1864, that he found himself in a position to make an opening. Assuming that the boulder was near the lode, and that the pit was an opening into the lode, he drew a line from the boulder through the pit and extended it to the nearest point on his own land. Here, at what is now Calumet number 4 shaft, he sank a shaft, and by the middle of September he was well into the copper-bearing conglomerate. We must therefore consider 1864 as the date of the actual discovery of the lode.

"Hulbert's next move was to ship a quantity of the rock to Boston, where he soon went himself. Here

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