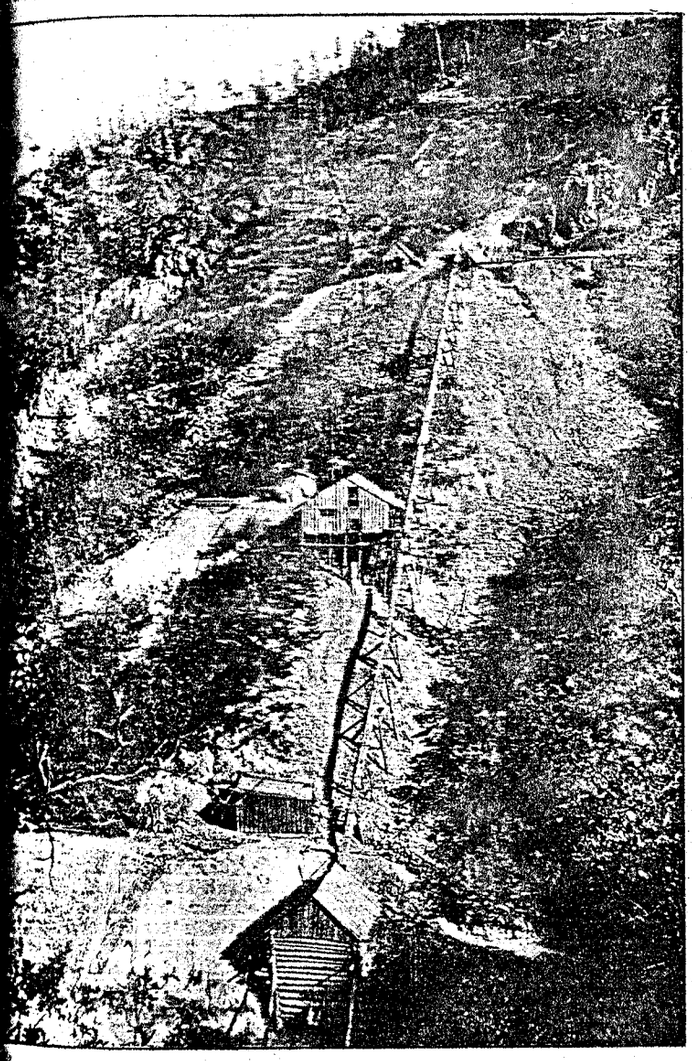
THE ELY MINING DISTRICT, NEVADA.

Written for the Engineering and Mining Journal by Fred. D. Smith.

This district of much promise is located near the town of Ely, which the county seat of White Pine County in the eastern part of Nevada. It is reached by stage from Eureka, 90 miles; from Frisco, Utah, by stage, a distance of 115 miles, and from Wells, Nevada, on the Southern Pacific Railroad, a distance of 150 miles. Since the decline of silver mining and silver-lead smelting in Nevada a steady increase in prospecting for gold ore has been going on, and while the mining world recalls easily the past glory of such camps as Eureka, Ward, Treasure City and Everhardt, the present generation is turning eyes to the new gold camps of De La Mar, Osceola, Cherry Creek and Ely. It is only since the closing down of the silver mines that an active interest has been taken in the development of the gold mines in this part of the State.

At Ely a district is being developed that shows great promise, particularly in wide veins of gold ore of fair value. As far as the development has proceeded, the best veins are found within 5 or 6 miles of the town, though an active interest is being taken in a body of copper ore located 9 miles west. As far as examined the veins seem to be large replacement deposits between limestone and quartzite or between two formations of limestone. The gangue is principally quartz which, being harder than the lime, has withstood erosion the longer until in many places the veins stand out above the surface and resemble large dikes, sometimes 20 to 30 ft. wide and 25 ft. above the surrounding rocks. The dip and strike of the veins suggest the idea of a blanket deposit as they appear to be conformable with the country rock and not cutting it at any marked degree.



Lone Star-Irom King Vein, Cochiti, N. M.

The ore often contains much oxide of iron, and in many places the immense croppings of the veins are decidedly colored by the oxides, thus presenting a distinct feature of the landscape. In some veins all minerals appear to have been leached out leaving a peculiar porous soft and light quartz of a bluish tint, not unlike some varieties of pumice. This ore is highly prized by the prospectors as being the richest in gold and in one mine it constitutes the principal ore bodies.

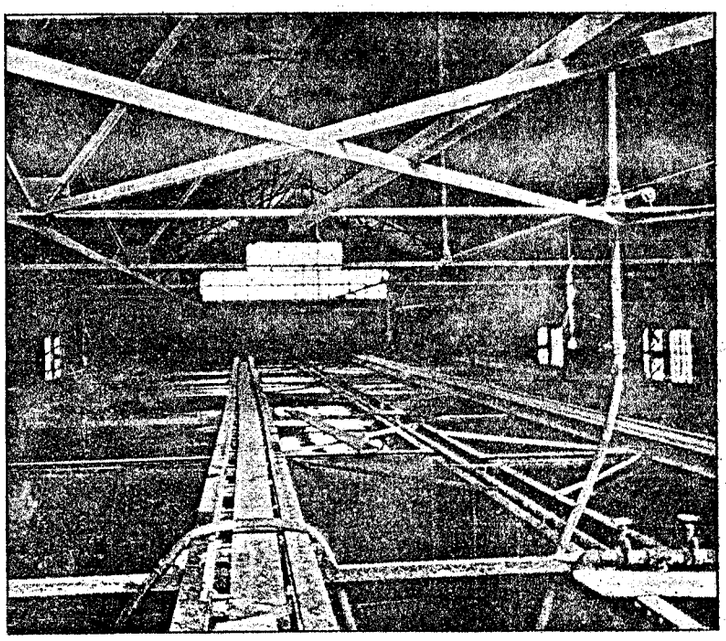
There is much evidence that a chalcopyrite was one of the original minerals in these veins, as in many places bands of copper oxide and carbonate ore are found which, though varying in thickness from 6 in. to 2 ft., are generally continuous. Their irregular courses, however, show them to be secondary deposits from solution, such as might be expected in a zone so thoroughly oxidized.

The best developed mines in this district are the Chainman and the Robust. The former, owned by Messrs. McGill, McOmie & Lyons, of Ely, has just been bonded to a party of Eastern capitalists pending the extended examination of the mine. This property has been worked longer than any other in the camp, and may be taken as indicating the character of other ore bodies. The mine was worked for a short time by California parties and much machinery installed for treatment of the ore. Some difficulty was apparently experienced in milling the ore as the construction of the mill indicates various stages of experimentation rather than a well-defined idea of the treatment.

The ore appears to be so entirely oxidized that it should be free milling, but I am informed that the 10-stamp mill erected by the company was not successful in treating it, neither would concentrating tables save any appreciable percentage of the values. The present owners have added a 25-ton cyaniding plant, by which the ore is reached without any additional treatment. The ore is first dried in a revolving cylindrical furnace, and then crushed in rolls. This is said to be necessary owing to the tendency of the ore to slime if crushed wet. The extraction is claimed to be satisfactory and probably as high as can be made by this method alone. Throughout the entire mill there is ample evidence that the highest grade of milling has not been attained and that the conditions are not exactly conducive to an economical treatment nor high extraction.

In the mine the ore bodies have been explored to a depth of 200 ft., but in such a manner as to preclude an easy examination. The veins are very wide, and in general have a dip of about 65°. The mining has proceeded generally as directed by the assays and, owing to the great variations in character of the ore, the result has been a very irregular system of mine workings.

It appears extremely probable that the present workings have by no means encountered all of the bodies of ore on these two levels and that when a system is employed by which all of the ores assaying $5 and upward are taken out the proper limits of the veins will be apparent. The ore bodies blocked out at present show in many places a width of 15 to 25 ft. but, as already mentioned, marked variations in color and character. It would seem that the whole zone of ore on this claim would probably approach at least 50 ft. in width when fully developed.



Square-pan Room, Cochiti Mill, N. M.

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The Robust Mine, which is a newer property, has been developed until there is 25,000 tons of ore in sight, which is valued at $20 per ton in gold. The owners, Messrs. Salisbury & Thompson of Salt Lake, are now erecting a 50-ton cyanide plant, and are practically assured of good returns, as their entire workings show much practical as well as scientific knowledge of the conditions.

The statement that the district is of much promise is warranted by the fact that nothing about the Chainman and Robust properties precludes an equal chance for good values in at least 40 claims on the adjoining territory. That these two properties are valuable is proven beyond a doubt.

COAL PRODUCTION IN BELGIUM.—In the six months ending June 30th the production of coal amounted to 11,740,060 metric tons, against 10,420,410 tons in the corresponding period last year, showing an increase of 1,319,650 tons. [illegible] stocks at several points in the Liege District are accumulating. Coke is quoted by the syndicate at £1 8s. ($6.78) per ton for new 1901 contracts.

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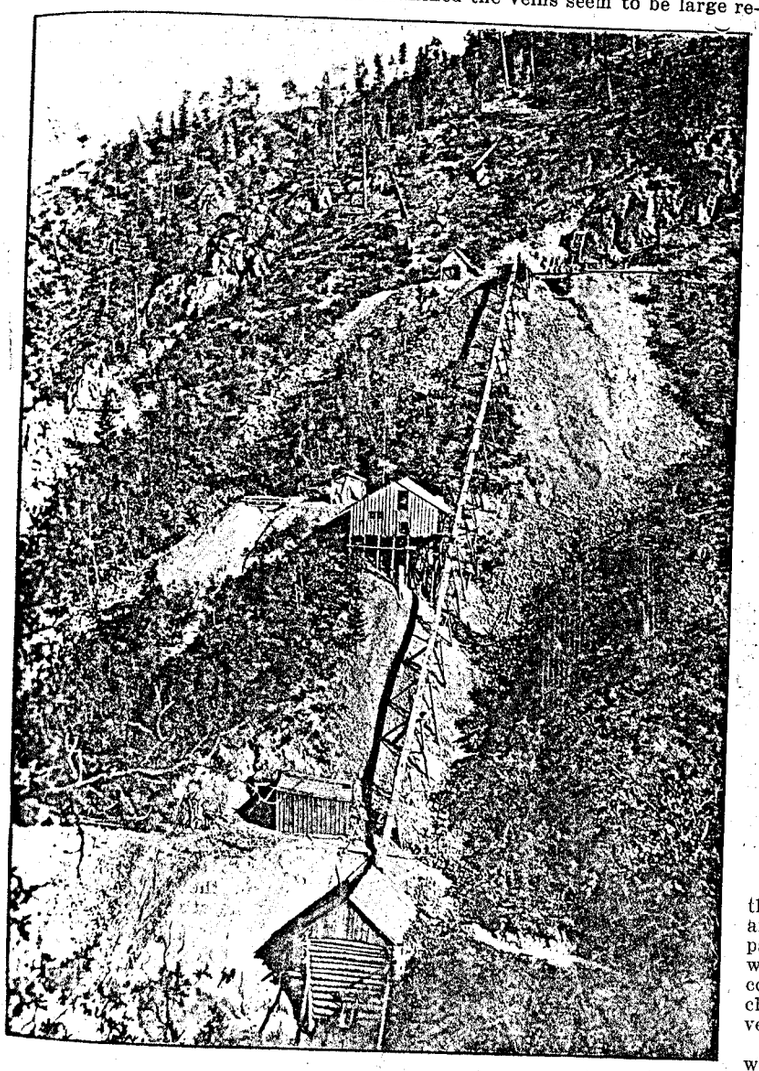

LONE STAR-IRON KING VEIN, COCHITI, N. M.

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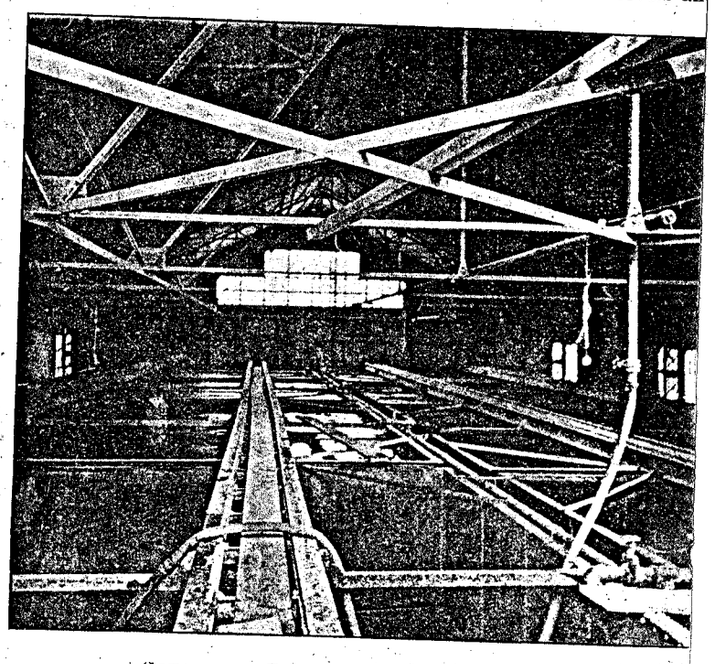

SQUARE-PAN ROOM, COCHITI MILL, N. M.

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