Silver Mining in the Tip Top District

By O. A. ENSIGN. A brief history of the discovery and production of the mining properties in the Tip Top mining district.

During the winter of 1876-77 the Tip Top mine and silver were first discovered in what is now the Tip Top mineral district by Messrs. Corning and Moore. In the fall of 1876 Mr. John Corning came into Prescott, Arizona, from the silver mines of Nevada. Among his acquaintances who had preceded him to Prescott were Col. C. P. Head, then a prominent merchant, and another new acquaintance a southern gentleman, John (Jack) Moore, one time sheriff of Yavapai county. This was a time when approximately one-fifth of all Arizona was Yavapai county. As business was dull in and around Prescott, particularly in the mining game, Corning and Moore decided to put in the winter down in the Humbug mining district, where the winters are ever mild and warm, prospecting and obtaining gold by the arrasting method; the poor man's way of milling "free" gold ore—extracting the gold from quartz. They were grubstaked by D. C. Thorn, who "put up" for Moore, and G. P. Head and E. J. Cook, who backed Corning.

On their way to that haven of gold and game—for then deer were plentiful they traveled the old Black Canyon road to the present site of Canon, Arizona, where Mr. Moore met his friend, Jack Swilling, who directed them over an obscure Indian trail leading from his place to Humbug Creek. It happened that this trail crossed the present Tip Top vein, and they found "fors" ore heavily impregnated with "lorn," or chloride of silver. Mr. Corning's prior experience with silver ore served him well in this instance.

They came down Tip Top Creek to the present site of Tip Top Camp, and camped. Thus they never reached their intended destination. Instead, they "staked" three claims, then known as, now as they are, the Tip Top, Tip Top South and Joker claims. Next they sent out ore samples for assay, and informed their partners in their venture of their find. Their assay returns showed very high-grade ore and they employed a few miners and immediately began the extraction of high-grade ore. The new assay reported a probable tonnage of $10,000 per ton ore, taken from the Tip Top South claim, attracted much attention in San Francisco. Among other things, Gillette and Mr. Charles Hoffman, who were searching for good properties for their respective companies, visited the property, liked what they saw, "threw together" and bought the property for $60,000 cash.

It is said that Corning, Moore et al sold $35,000 of their interest in the claim before the sale. Pretty fair for about a year's work! But, mind you, these sums were not all "velvet." While silver was worth around $20.50 an ounce and the coin in silver content, the freight rates from mines to San Francisco were $300 and down to $225 per ton of ore. Also there were large charges and commissions and it must be remembered that at this time there was not one foot of our present transcontinental railways in the territory of Arizona.

The Gillette and Hoffman Tip Top Company, upon taking over this property, began active operations. They drove the 100-foot adit along the vein for 600 feet through high-grade ore. They opened and drove the 200-foot adit along the vein for 800 feet, connecting the two adits by winzes. They also sank winzes 100 feet apart to the 300 level. Also they opened the 100-foot adit on the Tip Top South, and extended the high-grade ore in that section and started the 200-foot adit on that claim. During this time they added the Foy claims to their holdings.

In the meantime this company decided to install a 10-stamp chlorination mill at the town site of Gillette on the Agua Fria. This plant when completed consisted of two five-stamp batteries of 1,060 pound stamps, a reverberatory roaster, four pans, two settlers, 60-horsepower boiler and engine, etc. This mill was completed in about 18 months from its inception.

During this time the ore was piling up on the dumps of the different claims, so the mill was utilized on the various dumps, reefs were found, ore transported to the mill site, nine and one-half months to get the mill. By the time all the wheels were ready to turn, the mines had justified the judgment of the purchasers.

The Gillette-Hoffman crowd had quite a lively time, with the chocolate plant, turning the silver from many tons of high-grade ore into many bars of bullion of several thousand ounces each that would weigh 600 pounds. The mill was out of a possible 1,000 points fine silver.

After the mill had been running, night and day, for about eight months the control of this property changed hands and a new management took control. In Haggenc-Head and associates acquired control of the Tip Top stock and George E. Webber was put in charge.

By this time it was pretty generally proven that the ore shots, or lenses, of the Tip Top vein inclined easterly, approximately 45 degrees. Mr. Webber ceased milling ore for a short time, and sank what is now termed the "main shaft," which was to connect with the 200-foot adit, then with the high-grade ore shoot at 250 feet in depth. Ultimately Mr. Webber put this shaft down along the vein to a depth of 300 feet, passing out of the rich ore somewhere between the 600 and 700 levels. Under the management of Mr. Webber the Tip Top mines and mill were operated about four years, or until October 16, 1884.

When the mill was running steadily the Tip Top company produced from $80,000 to $125,000 worth of silver bullion a month, depending upon the price of silver, and the price of silver began to decline. When the mill was operating at full capacity the payroll amounted to about $1,000 daily. Thomas Brown, mine superintendent, and Ben M. Belcher, merchant of Tip Top during all these years, estimated and agreed that from first to last the Tip Top company had produced over $4,000,000 worth of bullion.

When the Tip Top company quit, Mr. Brown was left in charge and he appointed a watchman. In time the watchman wanted some money, Mr. Brown had no company money and inquired of the watchman if he did not know of sufficient ore to pay his wages. The watchman did and proceeded to help himself. During his inactivity, about one year, he managed to save from $25,000 to $35,000 of his salary.

On January 1, 1886, the Tip Top holdings were dismembered and the Tip Top mine, rechristened the "Conqueror," fell into the hands of choliiders, who chlorided around in the old workings above the 600 level and went over $25,000 worth of silver ore during their twelve years of occupancy. They did not work regularly and the greater part of what time they did...
work there were from one to four workmen, despite the fact that silver was steadily declining.

During the spring of 1886 the Conquergood brothers sold their claim to the Louis & Yavapai Mining & Milling Company, accepting a ten-year lease in part payment therefor. But wait! Let us turn back a moment. The camp was doing all these years and leave the St. Louis and Yavapai for another chapter.

The Tip Top mines and the Peck mines seem to have been found about the same time and attracted the attention of prospectors and miners from all over the west. The group were being developed about 1,000 men came into the district. About one third of this number took claims, or leases on claims, other than the "Tip Top" group, and the sound of blasting could be heard throughout the silver zone, which was proven to be a territory about four by five and one half miles. Right here I (the present Tip Top district was then a part of Humbug district.

Yes, and the familiar saying of hygiene does make you a "one", Hair another "one", etc., became quite commonplace. The Tip Top camp, for saloon men and merchants, as well as miners and chloriders, came to a great demand for groceries, clothes, general merchandising stores that could furnish supplies at retail or wholesale. From one to five eating places, that compared favorably with the eating houses of today, together with 14 saloons where any wet goods from soda pop to good grade, genuine, red liquor could be had at one time or another. Right here I (wish to remark) the Tip Top camp was a pretty decent lot of saloonmen. They kept places where the liquor would come and rest and seek diversion without being "nagged" because he was not a drinking man. In fact, they had to be decent and fair or their houses would have been boycotted.

At this time Tip Top had a daily mail and stage and at least one big freight outfit came into camp every day and some days twice, through them, besides lesser freight outfits. By big freight outfits, I mean outfits consisting of one wagon and eight mules, up to three wagons and 16 mules. Usually the outfit loaded thousands of dollars to the business of Phoenix, Arizona, for most of the ore was either sold direct, or through the banks of Phoenix, to the smelters. In the district the genuine old chlorider, who produced thousands of tons of ore, was seen and heard for many years, long after the Tip Top company ceased to work.

Silver kept depreciating in price until about 1895, when it had dropped below 50 cents an ounce; then the last of the chloriders went broke. In the meantime, the St. Louis and Yavapai (nicknamed the St. Louis and Apple Pie) Mining and Milling Company had acquired the Ionora and the Thousand dollar claims, or the Keystone claim; also they secured the chlorination mill at Gillette and moved the mill from Gillette to their property at Tip Top. The added outfit was of the (meat) equipment and took about $25,000 worth of metals from their dumps. They melted them into bars, and by the water, they concentrated their dumps.

The water from the mine lasted about eight months, after which they obtained a supply. When the water was at last cut off, and the mine was watered, it took 75 minutes out of 24 hours to empty the shaft sump by bucket.

The company also did between 200 and 300 feet of drifting from the Ionora to the Peck and extracted several tons of ore, before silver got so low in price that they, too, gave up in disgust. Since their time this property has not figured so largely in the mains and feeble attempts were made to exploit it as a silver or tungsten property. Pittsburgh people have finally secured control of and are now developing the Peck vein and three claims on other veins, all in one block.

There is no remains on this property at least 40,000 tons of dumps, 20,000 tons of which should yield 15 ounces of silver per ton, or better. The stope area should yield between 300,000 and 400,000 ounces of silver, some of it in place. Under the expensive process of working ores in those days (before power drills, concentrators, railways, gas, etc.), ores of less than $250 per ton value were not considered worth while. Therefore, much ore of lesser value was left standing. Besides this, there is much high-grade ore in place below the "topper" area.

There are three distinct shoots of ore on the Tip Top vein. Two of these shoots have been worked over and the third is more silver remaining, untouched, in this united group of mines, than was ever taken therefrom, from which, with the present high demands of mining and milling, greater profits should be derived than were had of yore.

Outside of this group of claims there is not a 200-foot shaft, and with one exception (a grass-root adit), not a 200-foot adit within this silver zone. Yet there are at least 100 claims that have produced shipping gold and silver, and they furnished some gold, tungsten, lead, zinc and antimony.

The formation of the district is for the greater part granite with lesser dykes of schist, quartz, and limestone. It is not an exposed general formation. There are several prominent rhyolite dykes that have yet another formation, and as they strike a little more to the north and south, they have the granite schist formation. These dykes seem to interrupt or cut the general formation and Tip Top series of veins.

There is another series of veins whose usual strike is west of north and east of south. Where metal is found in this veins it usually consists of gold, lead and iron. There is yet another vein, or veins, known as the great cross cut fault vein. The general course of this is slightly east of north and it cuts the gold vein that the rhyolite dykes, nor other formations, do not seem to interrupt. This vein cuts them all and is traceable for at least one mile.

This district is well described in the language of a mining engineer who was resident in the district. He said: "I have been in many mining districts, but this one where the veins ran crisscross in all directions, but before this camp I never was in a district where the ore veins were so d---d persistent as they are here."

AMERICAN INSTITUTE URGES TAX REDUCTION MEASURE

The following resolution has been adopted by the board of directors of the American Institute of Mining and Metallurgical Engineers and is of interest, not only to engineers, but to the public in general:

Resolution on Tax Reduction

Whereas, President Coolidge has urged upon Congress the revision of the revenue act affecting the taxation of individual incomes as recommended by Secretary Mellon; and,

Whereas, the Mellon plan is drawn with a view to promoting industrial enterprise by discouraging the diversion of investment into private enterprises;

Whereas, the plan furthermore is intended to relieve the burdens placed upon moderate incomes, comprising the vast majority of those in the engineering profession; and,

Whereas, the proposed legislation taxes more lightly income from wages, salaries and professional services as compared with income from a business or from investment;

Resolved, That the American Institute of Mining and Metallurgical Engineers strongly approves of the unqualified endorsement of the revenue act as urged upon Congress in the president's message; and,

Resolved, That the membership of large of the American Institute of Mining and Metallurgical Engineers be called upon to assist in the creation of an institutional movement to impress upon Congress the beneficial effects that would follow upon the enactment of the proposed legislation; and,

Resolved, That a copy of these resolutions be presented to the president of the institute, and to all national engineering societies.

FIRST UNIT OF CONCENTRATOR STARTED AT NEW CORNELIA

The first unit of the new 5000-ton concentrator of the New Cornelia Copper Company, Ajo, Arizona, has been placed in operation. Work on this plant was begun in October, 1922.

The mill was designed by H. Kenyon Brown, but constructed under the supervision of Michael Curley, general assistant of the Ajo mine. Two additional units will be in operation by the first of May, and the capacity of the leaching plant and the concentrator will run between 7,500,000 and 8,000,000 pounds monthly.

CENTRAL COPPER COMPANY TRANSFERS OFFICES TO ARIZONA

Announcement has been made by the Central Copper Company of Arizona that the general offices of the company have been moved from New York to Dos Cabezas, Arizona. This move followed the completion of the Curley general assistant at the Ajo mine, who closed on December 20, 1922. Six of the company officials who will be located at the mine are: T. N. McCauley, president; D. S. Stevenson, vice-president; George L. Ramsey, treasurer; C. M. Kirby, assistant treasurer; M. C. Morrison, assistant secretary, and S. N. Kemp, editor of the Copper Review.

Officials of the company believe that by bringing together the various departments of the company, greater efficiency, as well as economy, should result. The company is now entering on its 1924 development campaign, which will increase the number of men employed from 150 to approximately 400 and will involve the expenditure of a million and a quarter dollars.