ROMANCE, adventure and quick fortunes, alternating with disappointment, discouragement and bankruptcy, always have and no doubt always will attend the business of mining in greater measure than any other legitimate business, for reasons apparent to all, conditions which are a standing invitation to the speculator and the crook. But as in social life the real romance surpasses in interest the most weird climaxes of the fictional drama, so in mining the work of the speculator and the crook are but the froth that foams above the legitimate drama of the business as real as anything human can be, normally developed from ever changing conditions. More often than otherwise, such incidents of mining attend the rejuvenation of old mines that lived through the froth of early romance to an honorable and glorious fame, then lapsed into coma, sometimes for long periods, pending the shifting of the scenes for a greater development and wider range. Among many such instances in Arizona may be mentioned Ray and the United Verde among the copper, Vulture, Congress, Pearce and Harquahala, in the gold, Tombstone, Magma and Tip Top among the silvers, and others among the old time proved properties could be mentioned where the same transformation will occur when the psychological moment arrives.

This story deals exclusively with the Tip Top which in the early '80s was the state's most famous silver mine and which was in every respect as prospectively its most famous tungsten property. This without prejudice to any other of several famous tungsten deposits, but only because the Tip Top is the most famous hundreds of feet and its ore bodies exposed. The romance, as different from other mines, lies only in the fact that save to the knowledge of only a few people, the enormous tungsten deposits were known only as such or some other still cheaper and baser metal, tungsten if known was worth but half its present price, and to the waste dumps or to a hole filling in abandoned stopes. Silver was the main thing sought while tungsten was not then even a by-product. Now tungsten is king with silver as the by-product, though with the better price of silver and better working conditions, even that metal alone again makes it a valuable property. That the reader may be qualified to appreciate a little statement of which is this story dealing, with the Tip Top mine it will be illuminating to recite briefly, something of its History.

It was discovered in 1876 and was operated by James, Head and Hearst of San Francisco, who worked it until the early '80s, when the low price of silver and terrific expenses of operation, no nearer to a railroad at that time than Yuma, affected its closing. The watchman left in charge, sued the company and acquired title. He worked it by leases for several years then sold it to the St. Louis and Yavapai Company. They moved the mill to Tip Top from the town of Gillett, a few miles distant, on the old Black Canyon stage road between Phoenix and Prescott, and worked the old dumps over for its credit, the period was the most romantic in the history of the then territory. Agriculture in Arizona was little more than a joke. Cattle raising was an infant industry but a profiteering one, to the extent of supplying the mining camps and army posts which were numerous. Merchandising was a get rich quick game for those properly located and with capital enough to operate, but hazardous for anyone else. Rapidly recurring Indian outrages furnished the excitement of the day. Mining was the overshadowing industry, gambling and drinking were the chief amusements and stage robbing though never publicly approved was regarded as more or less of an accomplished profession.

When Tip Top was discovered there was not a mile of railroad in Arizona. Though before its glory waned both transcontinental lines were completed across the state and the old Black Canyon stage line via Gillett was the main artery of travel between them. Next to Indian outbreaks the news item of the day was normally a stage robbery, usually without treachery or anything more serious than the loss of money. That was no particular shock to the populace unless it was an unusual haul, for even in those days, people knew the Arizona hills held plenty more of it. During this period the Black Canyon road for twenty-five miles each way from Gillett and Tip Top received so much attention from the bandits that a wide band of knapsack robbers was formed. Even rank amateurs broke into it. Operating so continuously that the proceeds became disappointing. The greater part of the loot came directly or indirectly from the Tip Top mine and the towns that lived off it, but with the carefulness of the officials in protecting the treasure even that great property could not keep up the robbers' dividends.

Today Turkey station on the Bradshaw railroad is only 35 miles from Tip Top; and Phoenix, 50 miles distant, with a down grade haul, is fast becoming a railroad center. On the surface of the property were two parallel veins which development disclosed came together at the depth of 350 feet. Thus far the foot wall vein had been extremely rich but lower the junction the vein was wider but lower grade and most of the ore had to be concentrated in the mill erected at Gillett on the Agua Fria river. It was then that active operations ceased due to the lowering grade ore, expensive concentration and the fact that every ton of ore sent out or every ton of supplies brought in by Yuma entailed an ex pense of about $300. Only ore that could be handled at a better could be handled at a profit.

The St. Louis & Yavapai Company, which later concerned itself only with working over the old dumps took out some $265,000 worth of silver. The present owners of the property have the accurate record of 49 shipments of ore by lessees during the same period and the values per ton, recovered. The lowest return secured by any of the shipments was a little over 100 ounces per ton. Several shipments varied between that and 300 ounces but a majority of the shipments returned between 300 and 1000 ounces per ton. Two shipments ran a little over 1,000 ounces, one gave 1859 ounces and one shipment returned 2,104 ounces. These operations cover the shipments of five or six different leasing companies. These figures are only to show the sort of a silver deposit the Tip Top is. The next question is whether the mine is worked out. By noting the following, relative to development work, after reading the above figures one does not need even to see the mine, to emphatically answer no. On the contrary there is every reason to believe there is yet more silver in it than has ever been taken out.

Above records of values are from ores above the 200 foot level for the mine when first abandoned, was allowed to fill with water below that depth. Previously however it was opened and explored to the depth of 800 feet where the same inviting conditions prevailed, but was only staked to the depth of 500 feet. In

THE MILL AND THE HOIST

Courtesy of "Yavapai"

MINE

By C. S. Scott

The Rejuvenation of a Historic Silver Mine

THE MILL AND ONE OF THE DUMPS

Courtesy of "Yavapai"
The upper workings many tons of ore that would now be regarded as fine lode but which were of too low grade for profitable working under old conditions, were left in columns containing the roof, over the old stopes. These were filled in large part by the block referee that later years have proved to be tungsten values exceeding the worth of the original silver with which they were associated, so those old stopes and of the big dumps are now storehouses of rich tungsten ore, already fixed, and needing only hoisting to the mill. By drawing some of the 100 feet above the 200 level the present management has uncovered several of the low grade blocks of ore aggregating 1600 tons that will average 60 ounces in silver and 1.9 per cent tungsten acid. These bodies of silver at 400 and a recovery of 30 per cent, and of tungsten at 70 per cent and with 75 per cent recovery could return a value of $65,000. It is far as these disclosures are has been taken from a single shot with 100 feet from good ore has also been taken from two other shots that crop on the surface. A little mining should expose both depths.

The second vein on the property and running parallel is known as the Joker. It was stopped to the depth of 150 feet and produced good values in general character, though in a narrower vein. The original company started a crosscut to the Joker on the 500 level which will double itself when the mine is in unwarted, thus making available still more stopping ground. The larger vein varies from six inches to five feet in width but is well defined so far as can be explored at this time and according to those who having worked in the mine have seen it as deep as the 500 foot level. It is unquestionably a fissure and permanent as indicated by its formation as well as the fact that it is well defined for thousands of feet on the surface. The ore is a banded formation with alternating streaks of black and light colors and with the silver values say nothing of what will be revealed by unwarting or later development work.

The headquarters of the company is at Prescott where E. L. Havoch, secretary, is in charge of the office, and C. W. Davis, the president, lives at the Jefferson hotel, Phoenix, while Mr. W. W. Mason, engineer and Mr. W. W. Silver, superintendent, are in charge of affairs at Tip Top.

"TITANIC" WHEAT

The Department has recently been advised by a correspondent in California that a variety of wheat is being advertised under the name "Ti
tantic." The assurance is made that it is a new variety of wheat discovered in England about four years ago, and that a small quantity of seed was brought to the United States by one of the survivors of the ill-fated Titanic. The wheat is represented as having extremely high yielding power, the returns reaching as high as 7-1000-fold. A photograph sent by this correspondent shows a head identical in appearance with the poorly exploit
ed "Alaska" wheat. Five acres of the wheat are said to be growing in the State of Washington, and the seed, it is believed, will be offered at high prices after harvest. The Department has no further or more definite information concerning this variety, but farmers and dealers are cautioned to be on their guard concerning this new exploitation.—U. S. Department of Ag

The Golden State Mining & Milling Co. has leased its holdings to W. H. Dougherty and E. F. Cline for a period of two years. The mines are situated in the Black Rock and Blue Tank districts and the group comprises the Golden State, San Francisco, Rockhorns and Gilbert House claims. The lessees will mine and treat the ore at their own expense, paying to the company certain stipu
lated royalties.


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