

OPHIR AND ITS SILVER AND LEAD MINES.

FOR a model mining camp one needs to go to Ophir. It should not be inferred from this that other Utah camps are bad, for they are not; the fact is they can all be classed as models, without getting over the border lines of truth. But Ophir is an exceptionally modest little town, snug in on all sides by precipitous mountains with the blue sides above the only long distance view unobstructed.

GOOD CLASS OF CITIZENS.

The citizens of Ophir, as a whole, are refined, and they enjoy life just about as well as the city folks do. They have their own entertainments at the town hall frequently, but of course when they want to see something big in the way of theatricals they must go to Salt Lake City, the distance being less than 40 miles.

SUP. CLARK'S DIPLOMACY.

The greater portion of the population derive their livelihood from the Ophir-Hill mine, one of the most productive in the state, owned by Senator William A. Clark, of Montana. The pleasant social conditions prevailing in the camp are due to the care exercised by Sup. E. W. Clark. In the selection of employees, Mr. Clark is a very good judge of human nature and he consumes little time in "sizing up" an applicant for work. The Hinerline miner is not wanted at all, and when such an individual presents himself, he is usually told in diplomatic style to "go down the canyon," that there are no positions vacant. Mr. Clark has little use for men who cannot be depended upon to do their duty; but he appreciates good service and whenever an employee is worthy of promotion, he is not forgotten at the opportune time. The regulations regarding discipline at the Ophir-Hill mine have had a splendid moral effect in the camp, which might be an object lesson for other districts.

A BIT OF ANCIENT HISTORY.

Ophir was among the first of Utah's mining camps and once contained a population several times that of the present.



THE OPHIR HILL MINE.

present. The camp flourished when silver sold for twice as much as it does now; the surface deposits were rich and many of the early arrivals made money. But the camp presented a different picture then; gambling was permitted and dance halls and other dens of vice were allowed to run in full blast to pollute the moral atmosphere of the community.

CAMP BECAME ABANDONED.

Like nearly every other pioneer camp, Ophir, in due time, abandoned. The richer surface deposits were worked out and owing to the crude methods of treatment in vogue in those days, especially after the price of silver began to fall, nothing could be done with the lower grade ores.

SOME OLD TIMERS.

The Walker Brothers of this city operated in Ophir canyon in those early times; they built a mill there and made money fast. Don Stanton mined up at the old Buckhorn; another familiar character in the camp in those times was Marcus Daly, who drew a salary then from the Walker Brothers, and later made himself a power in Montana by opening up the Anaconda mine.

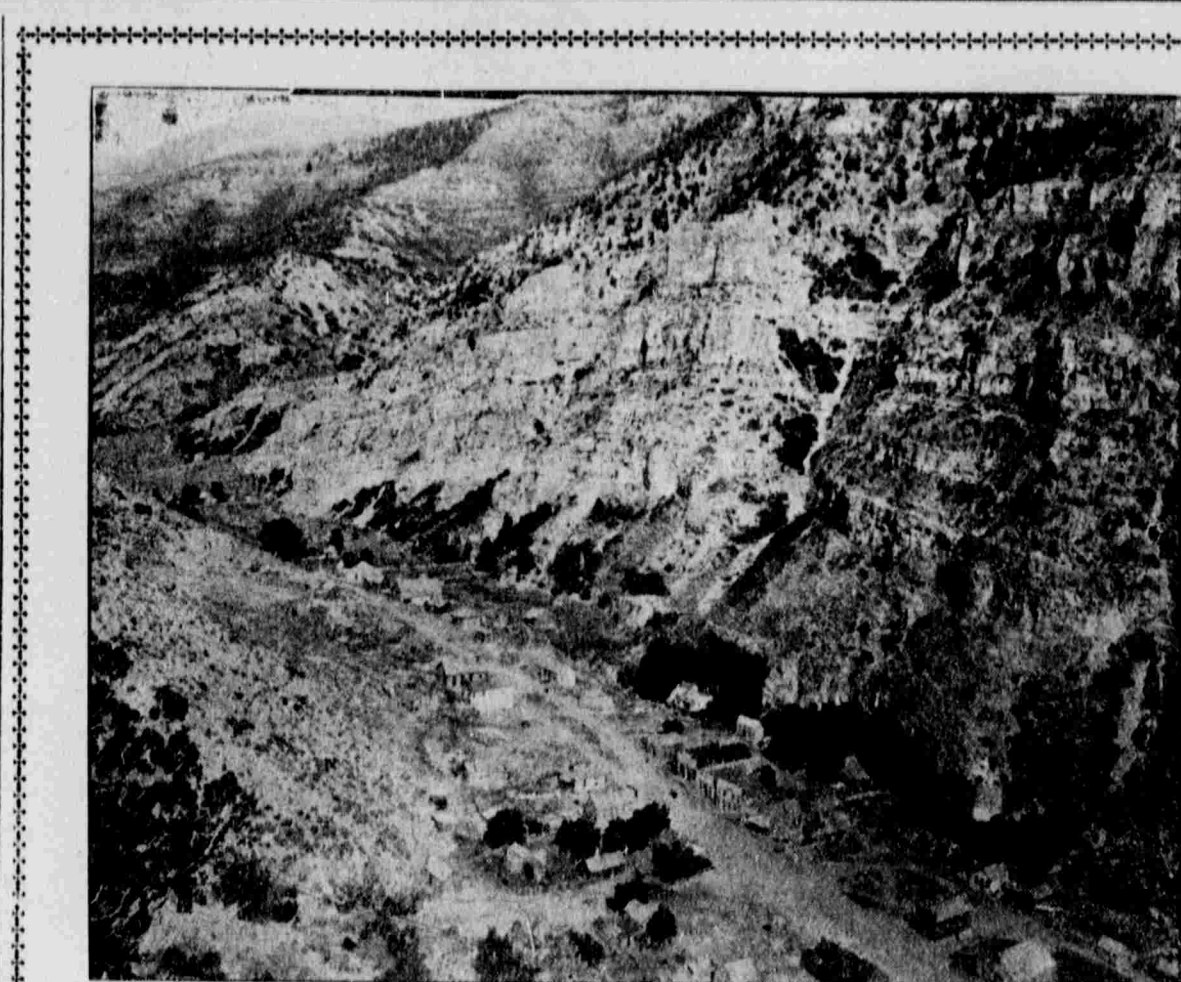
MONTANA SENATOR ATTRACTED.

Senator Clark was attracted to the Ophir-Hill property about five or six years ago and it was upon the recommendation of his present superintendent, E. W. Clark, who by the way, is not related—that he purchased it. The camp was about as dead as any camp could be at that period. No mining of consequence was done anywhere, but occasionally leasers would strike a "fat" streak and follow it up with the shipment of a few tons of pay ore to the local smelters.

GOOD PROFIT DERIVED.

The ore is largely low grade, and must, of necessity, be handled on the basis of heavy tonnage to pay. The plant is now reducing an average of 300 tons of ore per day, the concentrates are shipped to the Salt Lake smelters and yield a profit of from \$10 to \$15 to the ton.

The main mine workings are located some distance above the mill and the ore is conveyed to the latter by means of a gravity train. The mill was constructed with economy in view and was designed and constructed by Sup. E. W. Clark, whose knowledge of metallurgy and mining is most



THE TOWN OF OPHIR.

road will materially lessen the expense at present by train transportation.

OTHER MINES WORKED.

The rejuvenation of the Ophir-Hill mine, has naturally, attracted capital, and other properties, some of them unquestionably meritorious, are being actively developed. Among the number may be mentioned, the Montana,

managed by Pat Ryan, of Salt Lake; the Ophir-Queen, operated by an eastern syndicate, promoted recently by John B. Weiner, of Salt Lake. The Western exploration company, of which Willard F. Snyder of Salt Lake is manager, a few months ago secured a bond on the old Buckhorn mine and has gone to great expense in preparing the property for vigorous development. A

water supply, sufficient for milling and other purposes, has been developed. By means of a four-mile pipe line the product of the springs will be conveyed to the mine.

DRY CANYON SECTION.

Just over the range of mountains to the west is the old Dry Canyon camp, which is said to have been productive

of several million dollars since its discovery back in the '60's. This old district is commanding attention again and is being reclaimed after a long season of inactivity. While no extensive development has been carried on there recently several properties were worked in a small way and with favorable results. The Utah Queen, Eureka-Ophir and Mono were among the active ones and have made some shipments of ore to the local market.

HISTORICAL.

Charles Herman, the well known civil engineer and deputy United States mineral surveyor, now a resident of Salt Lake, has furnished the Christmas "News" with some reminiscences of early scenes in the now prosperous mining camp of Ophir.

Mr. Herman was present at the meeting of miners called for the purpose of organizing the district. The organization took place late in the summer of 1870; Judge Barber, a familiar character in the camp at that time, acting as chairman. About 50 miners participated, and among the more prominent ones were Buckskin Clark, Daniel Stanton and A. W. Moore. When it came to the selection of a name for the newly found district quite a friendly rivalry arose. A goodly number of those present wanted it called Galena; others thought Agents a more appropriate name, while Ophir was suggested as being a better one. The house seemed to be pretty well divided on the subject, so, little slips of paper were passed around and the matter settled by ballot. Ophir won and the camp has borne that title ever since. Many, in fact nearly all the men who took part in that memorable meeting, have laid down their tools and passed over to the Great Divide. Buckskin Clark and A. W. Moore were among the latest to close life's chapter.

FIRST WHITE MAN.

Mr. Herman says he is positive that the latter was the first white man who settled in Ophir canyon, if not the first one who entered it. Moore laid a ranch there and the present townsite covered a part of it. When the townsite was laid out Mr. Herman, who was then surveyor of Tooele county, was employed to do the surveying. Moore coined money out of the sale of lots, but nearly all the wealth acquired in this manner was lost in mining ventures made afterwards.

ORIGINAL MINERS.

While the soldiers under the command of General Conner may have done the first prospecting in the canyon in the '50's, Mr. Herman says the first real active mining commenced there in 1870, and that the two men who discovered the present Ophir Hill mine—John W. Cooley and James McBride—undertook to market the first ore. They made no money of consequence for the reason they experienced difficulty in finding a market. Some of the ore was shipped to the old Waterman smelter 17 miles south of the Great Salt Lake, but owing to their composition the furnaces would not melt it; hence, the product of the mine was not wanted. Cooley and McBride sold out their interests for a few hundred dollars.

WALKER BROS.

The Walker Brothers entered Ophir canyon, Mr. Herman says, about 1872, and soon afterwards built a mill and operated it for some time on ore obtained from Lion Hill, on the east side of the canyon. Marcus Daly managed the Walker properties. When the mill was abandoned the machinery was shipped to Butte and used at the Aliso mine.

The first experienced miners who entered the Dry Canyon section of the district, according to Mr. Herman, was in the year 1869. The mountains in that portion of the camp were heavily covered with timber and John Moore, the leader of the pioneer party, applied to Mr. Herman to survey some timber claims for them. Mr. Herman cannot recall the names of all the men who comprised the little delegation, but a man by the name of John Dyer was the cook.

Along about 1871 or 1872 the town of Ophir contained several thousand people, and Mr. Herman is ready to confirm all that has been said elsewhere relating to the moral condition of the camp in the early days.

PIONEER HOTEL.

John Duke was the pioneer hotel keeper and kept a place in a log cabin building—on the site of the present O'Brien house. The hotel was known as the Duke House, and the owner did a very thriving business. Mr. Herman stopped at the place a number of times and, on one occasion, while he was engaged in surveying the townsite, put up there. Every bed in the house was taken, and in order to accommodate as many guests as possible, three persons were obliged to sleep in the same bunk. On one particular night Mr. Herman turned in with two bed mates whom he did not know and had never seen before. There were a number of, of course, were filled. While Mr. Herman and his stranger companions were trying to slumber, several men were busily engaged in a lively game of poker. Upon the table where they were playing was piled a considerable amount of money and at times during the progress of the game a great deal of loud talking was indulged in. A number of times hostilities were threatened in the way of run plays; all the players being armed with six shooters, as were nearly everyone else in the camp at that time. Neither Mr. Herman nor his companions slept very soundly; in fact, after many attempts to do so, the former got up, dressed himself and went down to the house occupied by the miners, where, upon being awakened, let him in, where he put in the balance of the night undisturbed.

DECLINE AND REVIVAL.

The camp began to decline about 1876, two years later it was practically dead, and it remained in that condition until a few years ago, when the camp took on new life, sustained by the operations of Senator W. A. Clark.

The decline of the camp came with the exhausting of the rich surface deposits and the inability to extract baser ores to a profit with the crude methods in vogue at that time.

Col. E. A. Wall and the late Allan G. Campbell became the owners of the Ophir Hill property in 1890, through them that the deal for the sale of the mine to Senator Clark was effected. The Montana senator paid \$75,000 for the mine.

Mr. Herman settled in Tooele county in the fall of 1866. He filed the position of probate judge there for a period of six years and for 15 years was county surveyor.

The Mono mine, in Dry canyon, was located and operated for years by Matt Gishorn, who lately disposed of it to an eastern syndicate. The Mono has produced over \$1,000,000.

COS. MERCUR'S BIG IMPROVEMENTS.

(Continued from page fourteen.)

flow of solution and wash water, so other points. This equalizing influence is, in fact, so continuously in operation that at no instant is there any less resistance to the flow at one point than at all other points. Thus, when lifted out from the slimes compartment, the entire basket of filters is in perfect condition for washing and, in practice, all the soluble gold is extracted.

"At the Consolidated Mercury mill all the ore is first passed through revolving cylinders where the stones are washed from the sands. By this operation the benefit to the sands, as shown in the extraction, fully equals the benefit to the slimes; for sustaining only the coarse granular particles, percolation is carried on rapidly and better displacements and washings accomplished. The tailings from both the sands and the slimes are assaying from 40 to 45 cents, a saving of 80 cents per ton over the old system, which on 1,000 tons per day, is a heavy item."

RESURRECTING WEST DIP.

An effort is being made to resurrect the West Dip portion of the Mercury region. Past attempts have proven failures; owing to the extremely low grade character of the ore. It is believed by those who have undertaken the task that, with the more modern methods now in vogue, a small profit per ton can be realized. The ore occurs in vast bodies, thus heavy tonnages can be handled.

On Lion Hill leasers have made some money during the year, but no mining of an extensive nature has been done there.

SIERRA MADRE AND LA PLATA DISTRICTS.

A COMPARATIVELY new mining section, located north of Ogden, is beginning to attract considerable merited attention. This region has been known to contain mineral for a good many years, but capital has been slow to realize its importance. The district comprises a part of Boxelder, Cache and Weber counties. Its western border extends down to the western base of the Wasatch mountains and it extends in an easterly direction for about 30 miles.

CHAMPIONED BY DON MAGUIRE.

Don Maguire, the well known geologist and metallurgist, believes this district will develop some of the biggest mines in the state within the very near future. Work done upon the copper veins during the past year indicates that the bronze metal will play an important part in the camp's output. In this region are the Sierra Madre and the La Plata mining districts. In the former, of which the Sierra Madre mountain comprises a part, are found the old syenite and schistose masses and along them are found the Princes of India, Maximilian, Emma Nevada, Boston, Mahagra, Santa Maria, Mexican and other properties. Higher up towards the summit of the mountain is the Eldorado, Cashling, Vulture, Uwanita, Devil's Neck and other groups, in which silver, lead and copper abound, while only gold and silver exist near the base of the mountain.

Considerable development work has been done in the Sierra Madre during the year and while no work of an extensive nature has been carried on, the results have been very satisfactory, indeed. The Southern Pacific company has opened up some extensive copper deposits, and Mr. Maguire, who is managing the Boston, Mahagra, Prince of India and other properties, has done some telling work. In the La Plata district, some development work has been carried on, but not extensively. In writing of the geological conditions found in the two districts mentioned for the Salt Lake Mining Re-

view, Mr. Maguire conveyed the following:

ONLY PLACER LEAD CAMP.

At La Plata a most extraordinary condition exists. It may be said to be the only placer lead camp ever known. To explain the above, I will state that in the year 1891, when the first discoveries were made there, grotesque looking masses of galena were taken from the soil and gravel that covers the surface around La Plata basin and today, were it possible to sluice this large area of ground, a very large volume of rich silver-lead ore in the form of galena would be obtained from the brown alluvial drift. It is not, however, the amount of this drift silver-lead ore that would undoubtedly be found in this drift were it possible to sluice the large area in La Plata basin, but the opening up of the extensive ore bodies now hidden from which this most galena was derived.

POOR JUDGMENT DISPLAYED.

The work done at La Plata by the former operators there displays very poor judgment, as neither open cuts across the drifts to locate the veins, nor work on the lime and quartzite contacts, was attempted, to find the outcrop of the true mineral veins that we know must exist there. Masses of galena that would weigh from three to fifteen tons, have been found in the drift, which seems to have been carried from points near by through the pressure of a local glacier at some very remote period, the "alus" or accumulation of which consists of all evidence of the bodies or veins that must lie there.

The character of the silver-lead ore is coarse in crystallization with lead values running up to 50 per cent and silver always present to the amount of from five to eight ounces per ton.

HIGH COPPER VALUES.

The copper found here runs high also, assaying from 40 to 50 per cent, occurring as cuprite and red oxide of quartz. Such ores as these of copper have been found in deposits and but little worked upon. A most peculiar local feature found at La Plata is the existence of countless numbers of limestone geodes, varying in size from that of an acorn to a size about six inches in diameter. These are a laminated limestone, formed evidently at the bed of an old lake, or along its margin, their origin being doubtless contemporary with the disembedding of the masses of silver-lead ore found by their side in the brown alluvial of the surface in that district.

ACTIVITY IN LA PLATA.

From the crude workings at La Plata



ELDORADO TRAMWAY.

there were taken considerable quantities of ore during the years 1891, 1892 and 1893, but upon the coming of the money panic in 1893 work was discontinued there. Recently, however, Dr. Withee and others have opened new work there, which promises much for that district, it being undoubtedly the receptacle of some of the largest ore bodies of our state, both in silver, lead and copper.

VEINS ON SIERRA MADRE.

The Eldorado and associated groups on Sierra Madre mountain lie in what constitutes Sierra Madre mining district and the great mineral zone in which lie the above mines extends to and beyond La Plata, a length of about 25 miles, and in width about five miles.

The mines of Sierra Madre district are found from the base of the mountain on its west side, an altitude of 4,000 feet, to its summit, an altitude of about 10,000 feet above sea level, and again showing prominently in outcrop on the east side of the mountain around the Boiler Makers' mine and into the hills beyond Ogden and Cache valleys. In the high plateau that separates these valleys there are outcroppings of veins of great width, in which coarse cube lead ore, quite rich in silver, is found associated with limonite iron. In this part of the district nothing has been done to prospect this mineral outcrop.

FORMATION OF COUNTRY.

The formations here are quartzite, silurian limestone, slate, and an occasional

outcrop of porphyry or granite rock, and the region is traversed by a number of dikes, some of which run parallel, others crossing. Iron is very abundant, as limonite, specular, hematite and pyrite; gold is present in most of the veins, but with the single exception of high values found in one locality on Sierra Madre mountain during the autumn of 1902, gold has not been found in quantity in either district, silver, lead, and copper being the metals most abundant. However, the indications for gold are exceedingly good, and as the development of the mines now bearing gold, silver and copper goes forward, it is not unlikely that gold will also become a factor of consequence in the working of Sierra Madre and La Plata

INDICATIONS EXCELLENT.

I have not hitherto associated these two districts with each other, but upon looking over the extensive mineral field I find that a single zone or mineral axis extends from the west base of Sierra Madre mountain to a point some distance beyond La Plata. As stated earlier in this article, the formations are excellent for the existence of great and rich veins of silver, lead, gold and

copper; the outcrops of veins bearing these metals are numerous and where work has been done the best results are shown in either district and with the encouragement and strength that working capital for investment, together with the aid of experienced men who will take up the work of general development, will lend to the enterprise, we may look for the opening of one of the most extensive mineral regions found in any of our intermountain states or territories.

PEACE AND PROSPERITY SUCCEED OUTLAWRY OF OLDEN TIMES AT STATELINE.

STATELINE, as a mining camp is comparatively new, the first discovery there being made in December, 1895. But the place was the scene of some lively times back in the '60's, when the mines of Pioche were in operation.

Will J. Dooley, one of the principal stockholders in the Johnny mine, now the principal producer in the camp, relates that, Stateline in the early days was a sort of rendezvous for a gang of lawless characters who carried on a business of committing all sorts of depredations, oftentimes resorting to murder to accomplish their ends. The leader of the gang in those times was probably the notorious Nate Hansen. The road covered by the stages plying between Salt Lake and Pioche passed through the camp; the bullion trains also passed that way, and a number of robberies are of record. The robbers would "cache" the bullion train and wait for an opportune time to get out of the country with it. The gang operated along the stateline between Utah and Nevada, from Arizona and Idaho, but the site of Stateline today seemed to be the headquarters for the outfit and Nate Hansen had a home there. One instance of the devilry of the men was an occasion when they robbed a man, afterwards compelling him to dig his own grave and when he had finished, the victim was shot, his body falling into the pit. This happened near Desert Spring. Mr. Dooley says, and the tomb of the unfortunate man is still marked, and can be seen from the stage road between Modena and the camp. In Nate Hansen's house was a mantle built out of rocks which, afterwards, it was discovered by the blisters that had formed on them, were principally ore.

The first mineral discovery was the Utah Spur claim, owned now by David Evans of this city. The location is about a mile west of the Johnny mine. The Utah Spur find aroused considerable interest, and this was followed by the discovery of the Ophir mine; the ore of both properties were principally silver. The first gold find was made on the Creole property in the summer of 1896. The Johnny was discovered the same year, and the locator sold his half interest in the mine for \$25. The town was located in that year and has grown to be quite a village, and is peopled by a refined and contented lot of citizens. The country is heavily mineralized, and the wonder is that its importance as a producer of mineral was overlooked so long.