

# TREMENDOUS TONNAGE RECORD CONTINUES.

THE discovery, development and building up of a great mining camp is always one of the most interesting phenomena of the industrial world.

Camps there are, or rather have been, which sprung up like mushrooms in a night, founded on wild rumors of fabulous veins of incredible richness, whose decay was as rapid as their growth.

But Park City is not of these, rather it resembles a city depending upon some immense manufacturing establishment, growing with the extension and enlargement of the factory.

In the early 'eighties' of the last century there was an idea abroad, apparently given out by interested parties, that the Ontario company owned all the ground worthy of development in this district.

How false and misleading the impression was is best shown by the tremendous tonnage of silver-lead ore now being shipped by the Silver King, the Quincey, Daly-West, Anchor and California.

As a matter of fact Park City is the center and supply point for three great mining districts, Uintah, Blue Ledge and Snake Creek, and of these only the latter has been as yet developed to any extent, and that only in a few places.

In the thirty years which have passed since mineral was discovered on Crested Hill and in the Ontario, however, a few general facts have been established, among which are, that the veins of mineral bearing rock are permanent, that no vein of ore ever struck in this district has been worked out, and that at the greatest depth yet attained the veins are as good as ever.

It is only fair to say that had this camp been advertised and exploited as have some others, it would today have scores of producing mines instead of less than a dozen.

But the opening of the treasure vaults of the May Flower, Silver King, Daly-West, Quincey and California, has removed the scales from the eyes of mining men, and capital for the year has been given to invest in promising ground in this vicinity, and numerous companies are now sinking shafts, driving tunnels, and working miner fashion to get a share of the wonderful deposits of ore which lie in this favored region.

In June, 1898, when the business portion of Park City, together with scores of residences, lay in ashes, many were heard to say that the camp could never recover from the blow, that henceforth it would be but a one-horse town, run by one or two men.

These pessimists overlooked the fact that the producing capabilities of the camp were untouched, that so long as our mines produced the usual amount of ore and paid the usual amount of wages, business would be obliged to go on just as before.

Today Park City is rebuilt, her business houses are doing more business than ever before, more men are employed at good wages, and the future of the camp is better assured than at any time in its history.

## THE SILVER KING.

Little did the locators of the Silver King mining claim foresee that the name would become famous throughout the mining world, and still less did Williams and Drake, when they stumbled over a boulder of galena on the old Bonanza claim, anticipate that their discovery was to grow into the greatest silver-lead mine in the country; but such has been the result and Woodside canyon, which was deserted for so many years, has now become the finest plant in the camp and perhaps in the state.

The Silver King mine is equipped with a 500 horse-power direct acting hoist, an air compressor of 250 horse-power double cylinder, 15x12 inches, capable of supplying some 15 air drills, a Green No. 6 blower for circulating air through the workings of the mine, a fine machine shop with lathes, planer, pipe and bolt cutters, and every necessary appliance for the manufacture or repair of broken machinery.

The shaft is now at a depth of 1,300 feet, and the major part of the dead work done in the mine during the past year has been on the twelfth and thirteenth levels. On the 1,200 foot level the ore body has already been reached, but the 1,300-foot drift has not yet been driven far enough to reach the desired point.

In the Alliance tunnel, which is now a part of the Silver King territory, a force of twenty men is steadily employed in prospecting, and cutting a station for a shaft which will be sunk from the tunnel level, the initial point being over one mile from the mouth of the tunnel in Empire canyon.

Among the most important permanent improvements made by the Silver King during the year have been the aerial tramway, a sampler and a large addition to the concentrator.

The tramway takes all the ore, both crude and concentrates, from the sampler and

delivers it at the terminal station near the R. G. W. station and handles the ore put at the rate of about 27 tons per hour, or over 400 tons per day, twenty-four hours. At present it is used only about nine hours per day.

At the sampler the buckets of the tram are loaded from chutes, each bucket detaching itself from the cable and remaining stationary until the arrival of the next bucket, which automatically starts the stationary one and takes its place to receive its load in turn.

The head works of the tram at the sampler is a huge drum around which the running cable passes. The drum is fitted with powerful brakes and a clutch which connects with a pulley on which runs a belt from the main driving shaft of the sampler, so that when in clutch the speed of the tramway is regulated by the speed of the engine—the brakes are not used and the power generated by the pull of the loaded buckets going down the long steep hill is transmitted by the belt to the main shaft, thereby reducing the work of the engine.

At the terminal each loaded bucket automatically detaches itself and starts an empty on its journey to the mine. The attendant takes a sample from the lower, and the bucket jumps itself into a chute leading to either of the four huge bins, each of 250 tons capacity, and from which are other chutes leading directly into the railway cars on the two tracks below.

Electric motors are being placed at the operating elevators to hoist coal to carry up the coal used for fuel at the mill and mine.

For receiving the coal a large coal house has been erected at the mine where the buckets will deliver their contents in the same manner as at the terminal station. The new sampler at the Silver King is a masterpiece of ingenuity, and with a force of five men, including the engineer, can handle seventy tons of ore per hour without crowding, hence it is in operation but a small portion of the time.

The sampler building is a massive structure, four stories in height, and all the ore both crude and concentrates is received on the fourth floor, the ore from the mine being run directly in as it comes from the shaft while the concentrates are hoisted from the mill by a 250 horse-power friction hoist, geared from the driving shaft of the sampler.

Just below the upper floor are four huge bins, three for receiving ore from the mine and one for concentrates.

From these bins are chutes, which deliver the ore by means of a carrier belt to the powerful Comet crusher, after which it passes through three sets of Fraser & Chalmers rolls, and is then elevated to the upper floor where automatic samplers are attached to each of four steel elevators, and a 20 per cent sample thrown into one chute while the balance goes directly to a large elevator, forming by means of a shifting spout delivers the ore into either of the loading bins.

The sample is picked up by another elevator and again a 20 per cent sample taken from it and so on through four samplers, the residue from each going direct to the big elevator, and the final sample to the sample grinder, where a small sampler perfects the operation.

The machinery of the sampler is run by a compound high pressure engine of 125 horse-power, with boilers whose furnaces are fed by automatic stokers, and fitted with forced draught appliances.

An ingenious electrical device the engine can be stopped from any floor of the sampler by simply pressing a button, the ultimate effect of which is to instantly close the throttle and ring up the number of the floor on an annunciator, which the engineer can see to the exact location of the trouble. The engine room is a model of neatness and convenience and the presence of a large number of house plants, which thrive wonderfully in the equable temperature of the room, appear much like a parlor than like the old time engine room with its dirt and oil.

The Silver King concentrator is a mammoth structure and is a model of its kind; the appliance by which the second class ore of this mine is handled comprises two Blake crushers, two sets of rolls for ore, two sets of rolls for tailings, four Huntington mills, eighteen double compartment pigs, five cone classifiers and six Wilfley tables, nine settlers for slimes, and two filter presses; a new addition to the mill just erected will contain nine new tables, two wetter presses, a rotary drier, for extracting the moisture from the concentrates, with capacity of twenty-five tons per hour, and an Ingersoll-Sargent air compressor, 14x18 inch cylinder for furnishing compressed air to the filter presses.

About 125 tons of second class ore is run through the mill at present, which amount will be considerably increased when the new addition is completed.

The motive power for the mill is supplied by two sets of boilers, which in the near future will be supplied by automatic stokers with forced draught, and a hundred and fifty horse-power compound Corliss engine. In the mill

engine room is also located the engine and dynamo, which supply the whole plant with incandescent lights.

All in all, the Silver King deserves its royal title from its output, its dividends, and its magnificent plant.

At present the mine and works furnish employment for 325 men at good wages, truly a great mine is a blessing not only to its fortunate owners but to the laboring man, to the farmer, the lumberman, and to every industry engaged in producing the supplies needed to carry on a great industry.

## THE OLD ONTARIO.

The old Ontario with its proud record of over \$14,000,000 in dividends, and which was for so many years the mainstay of the town, is still doing business.



IN THE GREAT SILVER KING MINE.

The figures of United States Senator Thomas Kearns and his partner, Hon. David Keith, will be readily recognized in this cut. They were on one of the lower levels of the famous mine, on an inspection tour, candle in hand, when the photographer snapped his camera on them. Considering the difficulties under which this kind of photographic work is done, the picture is a decidedly good one.

at the old stand and bids fair to continue its large shipments for an indefinite period.

No. 3 shaft has attained a depth of 1,700 feet and at that level the ore bodies are still magnificent, while every level above has great stores which will last for years. Over two hundred men are employed at this property, and this force is more likely to be increased than diminished.

The Ontario is still a great mine and has dozens of claims as yet undeveloped. While the Ontario formerly mined the greater part of its product here, now everything is shipped to the smelters and the old mill which produced so many millions in silver has been idle for several years.

All ore is now brought through the old drain tunnel which taps shaft No. 3 at a depth of 600 feet, and delivered directly to the cars on the spur of the Union Pacific.

## AT THE DALY.

At the Daly but little has been done for the past year. Some ore has been taken out by lessees, but the old time activity at this mine is a thing of the past. At present, however, the company is driving a tunnel southerly in the hope of striking the Quincey vein in the Daly ground which extends to the east of the Quincey.

The Daly paid over \$3,000,000 in dividends from ore taken out since 1890, and it is doubtful whether it will come to the front when the shaft is sunk to the level of the Ontario drain tunnel which taps the Daly at a depth of over 1,700 feet.

## THE ANCHOR.

At the Anchor the usual amount of work has continued throughout the year with some additional exploration of the seventh, twelfth and fourteenth levels.

The mine is in excellent condition and producing 100 tons of milling ore daily which is concentrated at the new mill built by the company.

The mill, which has a capacity of about 100 tons per twenty-four hours, is a modern, well built, and up-to-date concentrator, and is credited with doing about the best work of any mill in the state.

One hundred and forty men are employed at the mine, and while no dividends are expected in the near future the mine is on a paying basis.

The Anchor company have almost an empire of ground, extending practically unbroken from the Daly-West south-west to the Prince of Wales in Little Cottonwood, a distance of about three miles, and will undoubtedly be producing ore when the present generation has passed into forgetfulness. All ore from the Anchor is brought through the tunnel and dumped directly into the ore bins at the mill, thus saving any and all handling after being loaded in the mine cars.

## PARK CITY TONNAGE.

The following is the tonnage of Park City ore shipments as weighed out by the railroads for the year 1901 up to and including December 7:

	Pounds.
Silver King .....	63,810,450
Daly-West .....	64,613,000
Ontario .....	41,233,000
Quincey .....	37,800,000
Anchor .....	15,567,780
California .....	1,832,300
Daly .....	1,938,000
Barne Bros. Co. ....	262,000
Clark, Conner .....	105,000
Total to Dec. 8 .....	231,152,130
Estimated for balance .....	20,000,000
Estimated for December .....	20,000,000
Total for 1901 .....	251,152,130

or over 125,000 tons of 2,000 pounds. This does not include the shipments of Mayne & Leonard from their zinc plant nor the amount shipped by the Valley. It is a conservative estimate to say that Park City mines will during 1902 send to market at least 125,000 tons of ore, an amount which will be largely increased in 1903.

The above estimate of 20,000,000 pounds for the tons remaining in December is considered rather low as the mines are increasing their tonnage to take advantage of the present price of lead.

## PARK CITY.

### Snake Creek District.

This district lies between Uintah and Blue Ledge districts on the north, and American Fork on the south, and covers a very large extent of mineral bearing country, and is exceedingly rich in surface indications of gold, silver, lead and copper.

For many years, however, this dis-

J. I. C. group of four claims now under bond for the sum of \$200,000 with agreement to erect hoisting works and begin operations during the present month. This group is considered of great value lying as it does directly south of the Little Bell and the Quincey.

## THE DALY-JUDGE.

A short distance west of the J. I. C. a large shaft is being sunk on the Daly-Judge group under the management of John J. Daly, who in years gone by has developed two of the great mines of Park City, the Daly and the Daly-West. The place selected by Mr. Daly to develop his third great mine is at the old Jones-Bonanza shaft which was sunk some 400 feet twenty years ago.

Much good ore was taken from this

nel now in some 200 feet. A shaft 80 feet in depth has been sunk on an outcrop of iron stained quartz and shows a low grade ore carrying principally iron and copper. Two men are now employed in driving the tunnel for the purpose of cutting the vein exposed in the shaft. A deal is now on for the sale of the capital stock in the treasury amounting to more than one-half the entire stock, and as soon as the tunnel is driven the tunnel will be started from Dutch canyon which will tap the vein at a depth of at least 800 feet, where it is confidently expected shipping ore will be found.

## THE STEAMBOAT.

Southwest of the Southern Tier and near the head of Snake Creek is located the Steamboat group of twenty-two claims, patented and unpatented; this group is owned by the Steamboat Mining company, a corporation controlled by Messrs. Rice, Farrell, Riley and others, who are driving a long tunnel for the purpose of cutting a vein which outcrops on the surface of their ground.

The property is equipped with board-house, blacksmith shop, including an air compressor run by water power. Air drills are used in the tunnel, now in nearly twelve hundred feet, having been driven six hundred feet during the present season. Owing to the great snowfall at this point work is suspended during the winter months, and was discontinued about a month since for this season.

Since that time, however, the company has shipped a large amount of timber and lumber to the mine so as to be in readiness to resume work at the earliest day possible next spring.

From surveys made it is estimated that less than 200 feet will carry the face of the tunnel to the vein at a perpendicular depth of nearly 700 feet.

Until this tunnel reaches the vein it is futile to speculate on its value or productiveness but the surface showing is excellent, and the men who are spending their money in the development of the property seem very confident as to the result.

## BLUE BIRD.

Adjoining the Boulder Basin on the west is the Blue Bird group of three claims on which W. J. Wilson and his partners have expended much time and money. A tunnel some 700 feet in length has been driven in the line and the owners intend to continue on the same line until they reach the granite which is apparently but a short distance from the face of the tunnel.

From small fissures and seams in the tunnel ore has been taken which carried as high as 50 per cent copper with some silver and gold and the owners hope on reaching the contact of the lime and granite to find ore in paying quantities.

## MAMMOTH CONSOLIDATED.

At the Mammoth Consolidated, located nearly north of the Steamboat, no work has been done this year, although the surface showing is one of the best in the whole district. A large blowout of iron stained quartz, carrying some copper, silver and gold, is here exposed on the surface, and a small fissure has yielded very high gold values.

Probably the owners are awaiting developments in the Steamboat, before expending more money in prospecting.

Many other groups of claims are located in Snake Creek district but the amount of work yet done on them is so small that descriptions of them must be postponed until some future time.

## Blue Ledge District.

Blue Ledge district comprises that portion of the mineral zone lying east of the range which divides Summit and Wasatch counties.

But little beside assessment work has been done in the district for a number of years, except at the Valeo.

During the past season, however, many old properties have been started up and several new companies organized for the purpose of developing the unexplored ground of this most promising district.

## AT THE VALEO.

At the Valeo work has been prosecuted during the year by John Boyce under a lease, and a great amount of low grade copper ore has been shipped, the exact amount of which is at present unobtainable, but will probably exceed 7,500 tons.

This property is well equipped with hoist, air compressor, blacksmith shop, boarding house and all the necessary equipments for successful operation.

A matting furnace was erected on the property a couple of years ago, but after a thorough trial it was found that more money could be made by shipping the crude ore directly to the smelters in Salt Lake Valley and that policy has been pursued during the past season.

About twenty-five men are employed at the mine and twelve to fourteen teams have been steadily engaged in hauling the ore to the railroad at Heber.

Adjoining the Valeo on the east and south are the East Valeo, the Bonanza, and the West Valeo groups of claims, all of which show some ore of good values. But little work has been done on them the present season, however, the owners apparently awaiting

further developments on the part of the Valeo.

## RED PINE CANYON.

North of the Valeo, in Red Pine canyon, we find the Glencoe, owned by Wm. Curtis. The Glencoe is a level, open mine, having a tunnel some 1,000 feet in length, with a great vein of silver lead ore opened up for a distance of at least 700 feet, also with seven stopes have been opened and are ready for producing ore in any quantity desired.

The force at present consists of six men, who are engaged in taking out ore and piling it on the dump for shipment next spring.

A small concentrator was erected on this property a few years since, but owing to the lack of sufficient water was never a complete success.

One of much better quality is now being extracted and next year will find the Glencoe one of the regular shippers from the district.

## PEZ BL J. C.

Adjoining the Glencoe is the Pearl J. C. group, owned by Hatch Bros., Thos. Walden and others. This property has been idle for a number of years, but is now being operated by a small force of men. Some good ore is found and the property is considered one of the best prospects in the district.

## OLD HOMESTEAK.

North of the Glencoe lies the Old Homestead property, which has been idle for twenty years, until the present season, but is now being regularly and systematically developed by means of a shaft now at a depth of about 100 feet.

From the shaft at that depth drifts are being run on the vein which shows a strong mineralization in iron with small values in silver and gold.

The property has a good wharf for hoisting and is equipped with boarding house, blacksmith shop, and other buildings.

## HAWKEYE-McHENRY.

The Hawkeye-McHenry is a new corporation, which has taken hold of the old Hawkeye, the McHenry and other claims, which have been dormant for years, and is proceeding with their exploration in a manner which gives every promise of success.

The shaft on the Hawkeye has been cleaned out and retimbered to the three hundred foot level, at which point a drift is being run.

The old McHenry tunnel is being reopened and connection will be made with the Wilson & Barrett shaft for the purpose of securing ventilation throughout the mine.

The mine is fully equipped with steam hoist, good buildings and everything necessary to successful operation.

Some ore of excellent quality has already been encountered and the outlook for this old property is considered extremely flattering.

## HOYT'S WASATCH.

One of the oldest groups in the district is Hoyt's Wasatch group, consisting of seven claims, some of which are as low as fifty-one feet. Like all the other old locations in this section, the Wasatch has been neglected for many years, but is now being exploited by the Park-Wasatch Mining Co., incorporated, which has a lease and bond for three years upon the entire group.

Some 2,000 feet of tunnel was driven on this property in the old days and considerable high grade ore was obtained, but the owners were unable to find the proposition a paying one. Present work is being done in a drift on a vein which was cut by the tunnel in years gone by, but never before followed.

Latest reports show bunches of ore in the face of the drift and that the vein looks strong with indications of an ore body within a short distance.

Various other groups of claims there are, which are worthy of extended notice, but space forbids more than a passing reference. Among them are the St. Louis Ontario and the East Ontario, both incorporated and each hoping to strike the easterly extension of the great Ontario. Both properties are working small forces of men and will continue development work through the winter season.

From present appearances several new producers will be opened in Blue Ledge within the next year.

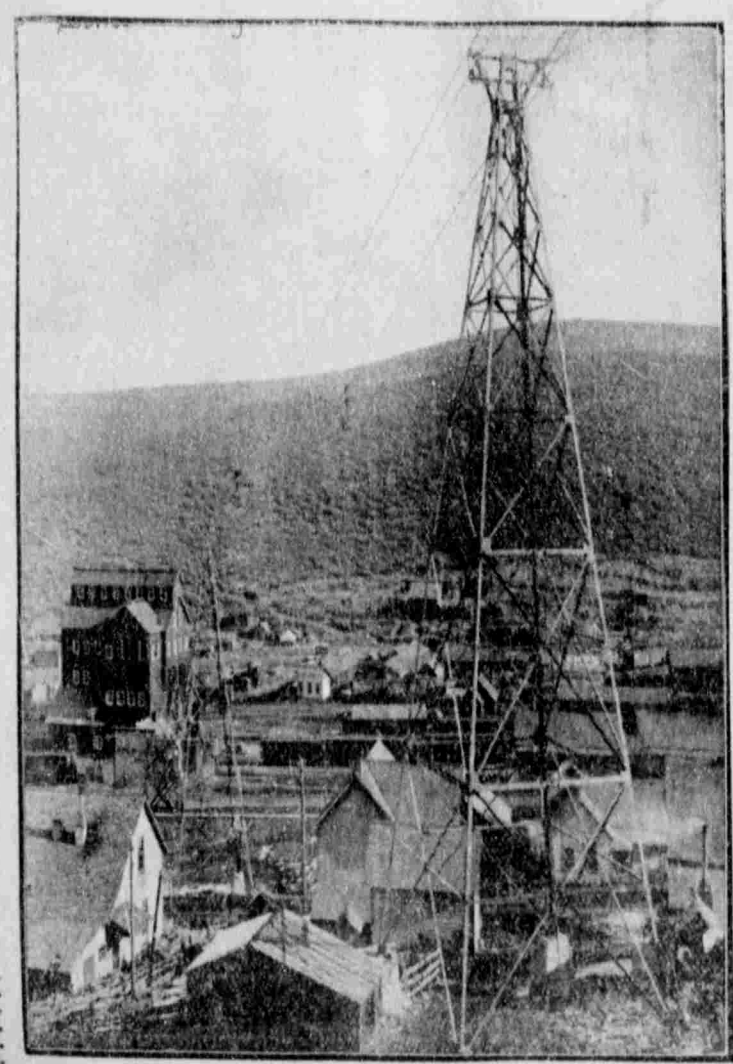
## Park City Notes.

The population of Park City and the mines of Uintah district exceeds 5,000 at present time.

The district is well supplied with public schools, having three large school buildings in the city and one in Ontario canyon besides the Catholic school of St. Mary.

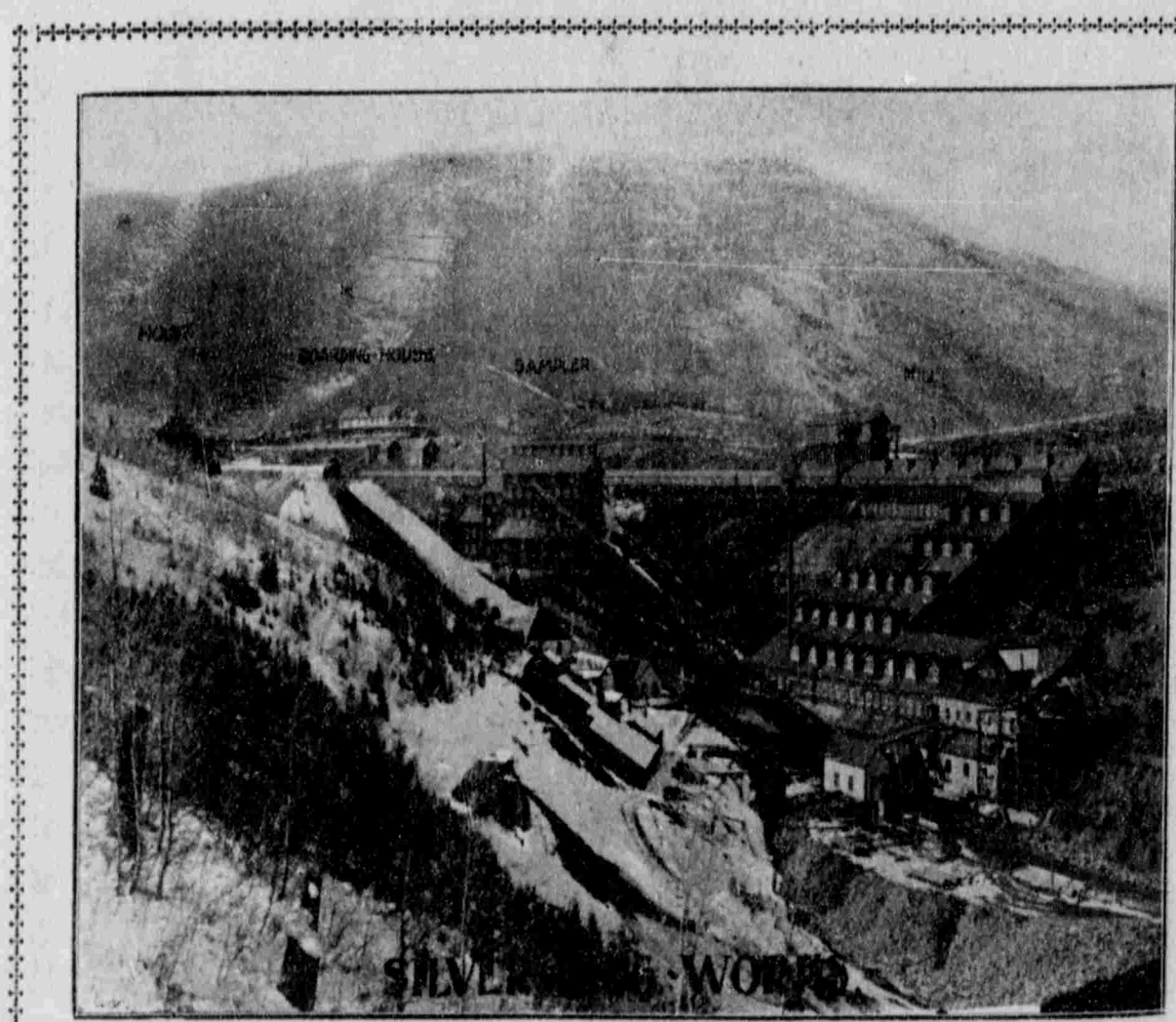
The several religious denominations are well represented and church edifices have been erected by the Catholics, Episcopalians, Methodists, Latter-day Saints and Congregationalists.

The city has a good water system with excellent pressure for fire purposes, a volunteer fire department of about 60 men, besides a paid chief, who is on duty, and the timely supply of hot water, a large chemical engine and numerous hand chemicals. Insurance rates are high by reason of the proximity of the buildings which are principally built of wood.



A DIZZY ROADWAY.

View of Silver King tramway and bins at the railway in Park City.



ON THE GROUND OF THE GREAT SILVER KING.

J. I. C. GROUP.  
Directly west of the Bonanza is the