

Yield of Ely's Copper Mines Will Startle the World.



LATEST PHOTOGRAPHIC VIEW OF ELY, THE ONCE FAMOUS SILVER AND GOLD CAMP, WHICH RECENTLY BECAME ONE OF THE FOREMOST COPPER DISTRICTS.

ELY, White Pine county, Nevada, like Bingham, Utah's "Old Reliable," was worked for many years for gold, silver and lead before it was discovered that the ores of its mines were far more valuable for their copper contents than were all of the other metals combined; and, like Bingham, it has sprung into wonderful prominence during the past few years, and for the simple reason that its copper resources represent values running up into the millions piled upon millions, the aggregate total, upon careful computation, being so stupendous as almost to stagger belief.

Robinson canyon, at the mouth of which is coaly nestled the pushing and enterprising town of Ely, was discovered in the year 1869 by Eugene Robinson while the great camp of Hamilton was in the glory of its wonderful production; and for a period Mr. Robinson worked in the canyon in his search for gold-bearing properties. In the year 1872 "Buckskin" Watson made his advent into Robinson canyon and located the famous Joanna mine, about two miles west of Ely, a gold producer for the treatment of whose ores he built a small stamp mill, the returns from which, according to all accounts, were more than satisfactory. Mr. Watson also located the Brooks and Pilot Knob mines (now owned by the Giroux Company), the Eureka and Star of the West (now owned by the Nevada Consolidated company), and a portion of the ground now included in the hold-

ings of the Cumberland Ely company.

LOCATED CHAINMAN.

In 1894 James McOmie W. N. McGill and H. L. Underwood located the Chainman mine, in Robinson canyon, a short distance from Lane City, which is about two miles west of Ely. Several years later this mine was worked for gold by C. D. Lane of California mining fame, who failed in his enterprise, owing to the failure to recover the values of the ore by the cyanide. Later on the Chainman passed into the hands of the Chainman Mining company, under whose management it was equipped with the largest mill ever erected in White Pine county, and the company might have been successful had it not been for the fact that copper sulphides were encountered at a depth of only 180 feet. This was the first copper discovery to be made in the camp, and this may aptly be termed as the launching of the copper boom for Ely; and which led to such extensive exploration and development work all over Robinson district and throughout an area four or five miles wide by 12 or 14 in length.

In the near neighborhood of the Chainman is the Robust mine, formerly the Ely Mining & Milling company, but which was recently sold to Thomas Kearns, David Keith and Col. E. A. Wall of Salt Lake, making it, with other grounds, the basis for the McDonald Ely Copper company. The Robust is equipped with a fine milling plant utilizing the cyanide process of reduction. But here, too, the appearance of copper sulphides in the mine workings caused a shut-down,

and the property was idle until after the recent sale.

Across the canyon, south from the Robust, is the Revenue gold mine, which has a fine hoisting plant. Development is in progress and good volumes of \$15 gold ore are blocked out, for the treatment of which, it is expected, reductions works are to be built in the near future.

On both sides of the canyon, until Copper Flat is reached, a mile or more to the west, there are many old producing mines, some of which can show receipts for payment of the bullion tax, among the number being the old Keystone, located in 1872 or 1873, from which one shipment of ore was made, sent out by "bull team," that netted its owners \$35,000. The Keystone is a silver-lead producer, and in 1882 a mill was built for the treatment of its output. The ore occurs in blanket formation, with lime as the hanging and iron manganese as the foot wall. There is only about 20 feet of lime above the ore body, and this old mine could certainly be successful operated under modern methods.

The first man to attempt copper smelting in Robinson canyon was A. D. Compton, who built a small furnace in the year 1894; but he used only wood for fuel, and so the enterprise was a failure.

The copper zone, in the sulphide belt, covers an area that is somewhat difficult to describe. On the surface, over an area for miles in extent, hardly anything is visible but a dark red soil, which is here and there cut by iron croppings or "copper blossoms" as they are called. This zone is some 10 or 11

miles in length, easterly and westerly and from a mile and a half to three miles in width. This is within the proven belt, or within the developed zone; and, any place within these boundaries, from 75 to 100 shafts have been sunk and all of these have encountered the sulphides after reaching a depth of 100 feet, some at a lesser depth.

These shafts are scattered over the area mentioned, and have proved the universal mineralization of the section named, to a certain extent; and the rule is that, after reaching the sulphides, the copper values increase 1 per cent for every 100 feet in depth mined; development, so far, indicating an average value of three per cent copper, while in some portions of the zone values of even 6 and 7 per cent are claimed. Outside of the proven belt in the lime, away from the monzonite or quartz-porphyratic zone, in which the great and inexhaustible deposits of copper occur, important discoveries are constantly being made. Two miles northwest of the belt ore has been found by claim owners going as high as 16 per cent in its copper values. North of Lane City four miles, and on a line westerly from Hercules Gap, copper ore has been found showing good pay values; while to the east of the "Ely" copper ore has been found which, it is claimed, goes 60 per cent.

Some authorities who have inspected the copper belt of Ely claim that the copper-bearing rock of the district is nothing more than an immense porphyry intrusion. This porphyry, so one report reads, is a white siliceous rock, which on the surface is weathered brown with but little trace of copper. This is characteristic of all the

copper deposits on the surface. The copper, when oxidized, is very scabulous, but the iron is not.

THE NEVADA CONSOLIDATED.

There are more than six big independent copper companies operating in the copper belt, chief among which may be mentioned the Nevada Consolidated, which owns some of the choicest ground in the thousand acres, amounting to over a thousand acres. Within the past few weeks, however, many other promotions have been launched, and some of them are certain to develop into good mines. The operations of the company are being conducted on a gigantic plan, and it has proven up its holdings on an extensive scale through five shafts on which there are an equal number of fine hoisting works. The Ruth and the Eureka comprise the largest workings at present, although at the Star Point a four-compartment shaft is being sunk, and this eventually will constitute the main working avenue for the company in the way of ore extraction. Besides these shafts, the company has numerous smaller workings, all of which are being utilized in opening up and proving the company's vast holdings.

Closely associated with the Nevada Consolidated is the Cumberland and Ely, and a prominent mining man, who stands close to the management of both concerns, recently said to the writer: "Within five years the Nevada Consolidated and the Cumberland & Ely will be smelting 10,000 tons of ore daily; the ultimate intention of the Guggenheim being to build a 10,000-ton plant. On a large scale it is possible to make

small profits on 1.5 per cent copper, but big money can be made on ore going as much as 2.5 per cent in its copper contents. Some of the mines are productive of 10 and 15 per cent copper, but the great mass of ore, from 1,000 to 3,000 feet in width and several miles in length, along the copper belt, goes within a fraction of three per cent, with payable gold values present."

It is the opinion of many mining men, and this includes some of the most prominent ones in the country, that Ely will rank among the first copper camps of the world.

The big event of the year was the completion of the Nevada Northern railroad into the camp during the autumn, and this marked the real beginning of the intense mining and industrial activity which the camp now enjoys.

Some have predicted that the city of Ely will have a population of 20,000 souls within a year; but it seems certain that it will contain at least half the number within the period stated.

COPPER ORE BLOCKED OUT.

According to the best information obtainable there are 40,000,000 tons of copper ore that will average 2½ per cent, which is already blocked out and ready to be shipped to the smelter as soon as the same is completed, which will probably take another year. The ore deposit here is generally in porphyry. The porphyry dyke is approximately nine miles long by 2,000 feet wide. Along this dyke are several large mining companies operating, such as the Nevada Consolidated, Cumberland & Ely, Ely Mines, Witch Group, McDonald-

Ely, Ely Central. These different companies have merely scratched the surface of their properties, and no doubt in the very near future they will uncover some of the largest ore bodies the world has ever known. The mines are located from three to 10 miles in a westerly direction from Ely. The railroad is now being completed up the canyon to the mines and should be in operation by early spring. The smelting plant is situated about eight miles from Ely City in a northwesterly direction. This plant will have a capacity of 10,000 tons daily, and it will ultimately be enlarged taking 25,000 tons per day. They have ample water supply to treat this amount.

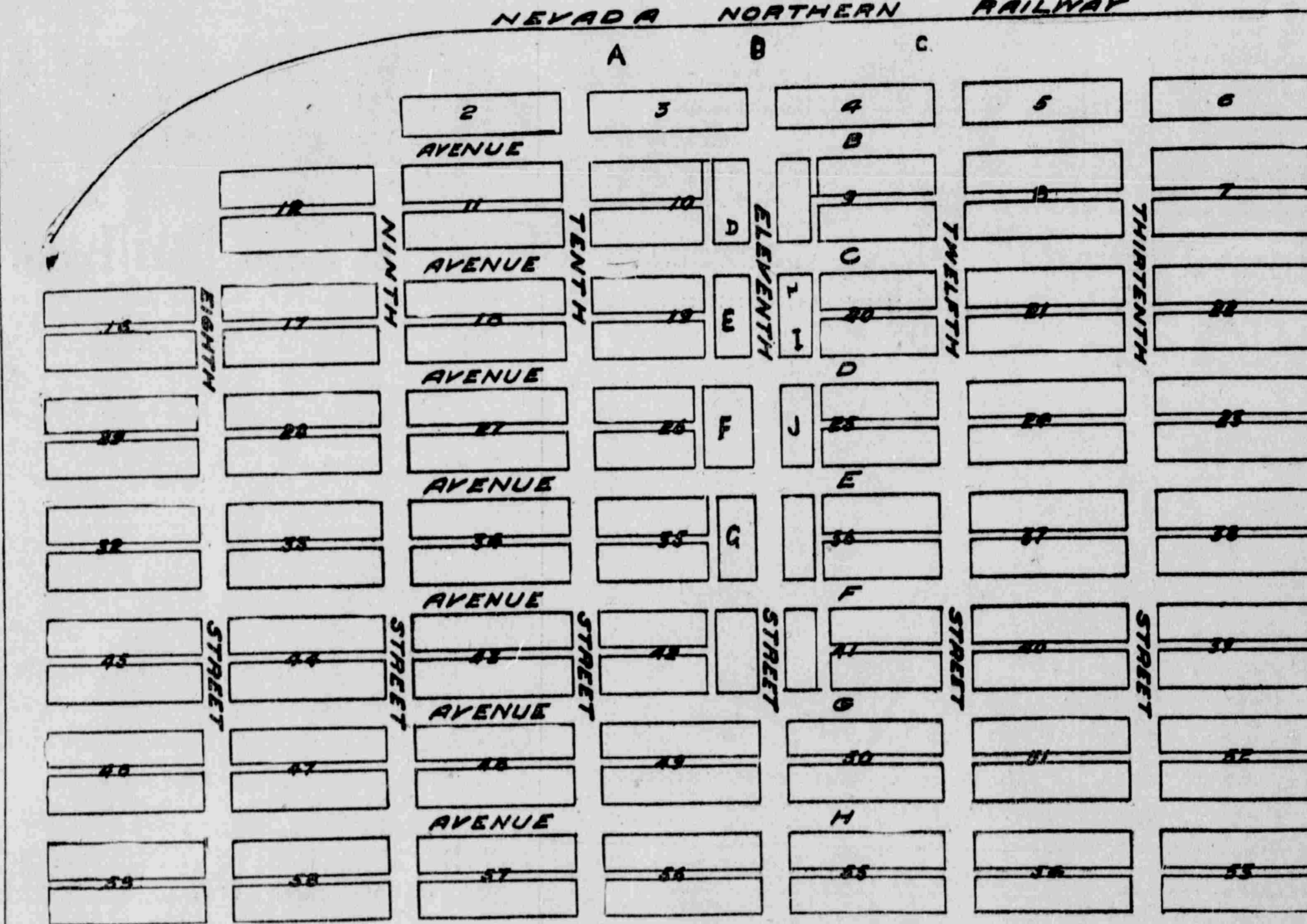
RAILROAD DIRECT.

There is one important factor that has not been sufficiently considered and it is even more important to Salt Lake than to Ely, and that is the building of a railroad direct from Salt Lake through Deep Creek to Ely. The Deep Creek mines have been developed for many years and are known to contain large deposits of gold, silver and lead. In view of the venturesome spirits in Salt Lake who have been making money hand over fist for the past three or four years, both in Utah and Nevada, the wonder is that some half dozen of them have not got together and organized the company in question. To those who have investigated the situation and are somewhat familiar with conditions it seems a pity that Salt Lake don't wake up to the matter being suggested. That it would prove a benefit to Salt Lake and be a pay-off well there is no question.

The Building of Ely, the Metropolis of Nevada's Greatest Copper District

NONE would dare deny to the long neglected Ely district a future of marvelous production and the consequent upbuilding there of a modern city which shall be its metropolis. That city will be one of from 30,000 to 50,000 people within the next four or five years. The building of it, is itself a problem of importance equal to those of economical and profitable ore production and reduction, and it is well that some of the largest New York stockholders in the mines, millionaires and with the broad views and experience commensurate with such an undertaking, early addressed themselves to the task. The result is the Ely Townsite company, which through the efforts of its able and genial general manager, Mr. A. G. Corbett, has acquired absolute title to about 2,500 acres of land, ideally situated at the mouth of Robinson canyon, gently sloping and commanding a splendid view up and down the Steptoe valley, of the Egan and Duck creek mountains on either side, and up Robinson canyon.

By the purchase of ranches and their rights in Steptoe creek, the townsite company has acquired a supply of pure, mountain water amply sufficient for all needs of a population of 75,000 people. The townsite lands are adjacent to the Nevada Northern railway and midway between the mines and the smelter at which the ores are to be reduced. It is said upon reliable authority that the railway will establish a suburban train service between Ely city, the smelter and the mines, so that employees shall live at Ely City and be able to quickly and cheaply go to and from their work. Such a policy will result in the centralization of



NOTE—Eleventh street is 100 feet in width; all other streets and avenues 80 feet.

A—Freight depot and sheds, estimated to cost \$10,000.
B—Passenger station, estimated to cost \$10,000.
C—Warehouses.
D—Ely Townsite company office, estimated to cost \$20,000.
E—Business block, estimated to cost \$50,000.

F—Smith building, estimated to cost \$50,000, being built by George E. Gunn of the Cumberland-Ely and W. B. Thompson of the Nevada Consolidated.
G—Graham Mercantile company building, estimated to cost \$150,000.
H—Bowen building, estimated to cost \$50,000.

I—Bank of Ely building, estimated to cost \$50,000.
J—Modern 100-room hotel building, estimated to cost \$100,000.

the population of the entire district in the one city. Weight is accorded to the plan by the common ownership and control by the Guggenheim interests of the railroad, the smelter, the Nevada Consolidated and Cumberland-Ely companies.

In October of this year, 250 acres was platted by the townsite company and given the name "Ely City," and on the seventh of that month lots were offered for sale to

the local people exclusively. The first three days' sale amounted to over \$300,000. This fact tells more than volumes could, what people upon the ground and thoroughly familiar from personal observation with the situation, think

of the project. Blocks in the business district each contain 36 lots, while there are 26 in each block in the residence section.

The work of grading the streets and installing efficient waterworks and sewer systems, is being pro-

ceeded to an early completion, excavations are now under way for buildings; General Manager Corbett states that materials in addition to building stone are already ordered for delivery at the rate of 25 car-loads per week throughout

the winter, and everything bespeaks marked activity which will be lessened only by unfavorable weather conditions. The railway already has at the townsite commodious, permanent freight sheds at which all freight for the district is delivered, also a roundhouse and other buildings. Material is now being delivered on the ground for a substantial stone passenger station to cost \$10,000, and the general offices of the railway are to be

permanently established there as soon as the proper accommodations can be provided.

In connection with the accompanying plat of the townsite there appears information as to the numerous business blocks upon which work is to be rushed. The construction of frame buildings within the business district is very wisely prohibited, but they may be of brick, stone, or concrete. Building material will largely be supplied from a 400-acre tract containing beautiful white and salmon colored sandstone of an excellent quality for the purpose. This quarry is not far distant from the railway line, and the townsite company is now building a spur track to connect it with the railway so that production will be large and economical. All the buildings now planned will be of this material, although there will doubtless be much use made of brick and other materials, later.

The thing that impressed the "News" representative about the place is the evidence on every hand that a modern city is building there which from the beginning shall have sanitary conditions, up-to-date conveniences and slightly permanent structures. In these respects, it is unique, as contrasted with the usual mining camp, of chaotic growth, commencing with an impure water supply, no sanitation and clusters of board shanties and later having a pure water supply and sewers only when pestilence has claimed many victims, and getting substantial and suitable buildings only when disastrous conflagration has cleared the place for them.