

# HISTORY OF NEVADA MINES DIVISION

## KENNECOTT COPPER CORPORATION

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## CHAPTER I

### DISCOVERY AND EARLY DEVELOPMENT OF THE COPPER DISTRICT

On a warm day in September 1900, Edwin Gray and Dave Bartley, two young mining men, set out from Redding, California with their destination a small town in Eastern Nevada called Ely. Both had been working in the Old Spanish mine at Redding under the direction of the superintendent, S. F. Shepherd. When the latter was placed in charge of the Chainman Mine and Mill at Ely, he sent word to Gray and Bartley that better jobs would be waiting for them if they would drive his team and wagon from Redding to Ely. The two readily agreed to take a chance with their boss in the new area.

During the course of the long wagon ride across half of California and most of Nevada, the young men, perhaps influenced by the vast, beautiful, and lonely Nevada desert, spent many hours discussing the past and speculating on what the future held in store for them. Somewhere along the dusty road they reached, what appeared to them, a bold decision. Upon arriving at Ely, they would strike out on their own. It was easy to convince themselves that there was no future working for someone else, and their obligation to Shepherd would be satisfied when they delivered his team and wagon to him. They were young and healthy, both experienced miners. Besides, Gray had attended West Point and was eager to put his engineering education to a practical test. They had little ready cash but abundant hope more than made up for this deficiency.

Luckily for both and for the future of the Robinson District, conditions in the area were such that when it became known that Shepherd was bringing in two men from his mine at Redding, California, rumor soon projected the two into the role of prospective capitalists. The local newspaper went so far as to state that Gray was to become the Chief Engineer at the Chainman Mine and that Bartley was to be the new foreman, and that both had money and were looking for investment opportunities at Ely. (1)

Under these circumstances, their arrival at Ely, September 25, 1900, was noted with some interest in the weekly paper. The importance attached to their arrival surprised the two men considerably, but having made their decision to locate some mining properties for themselves, they took advantage of the local situation and played the part of capitalists by carefully going from one location to another until a decision was reached. Then, with great trust in the future, for they had only 75 cents between them, they optioned two claims from D. C. McDonald, Walter Rynearson, and George Marx for \$3,000. (2) These claims, the Ruth and Kearsage, had been located by McDonald in 1897 and enough development work done meanwhile to expose some copper outcroppings. It was these outcroppings which attracted Gray and Bartley, both of whom recognized the copper from experience gained in mines in Shasta County, California.

The Robinson Mining District, into which Gray and Bartley had been thrown by circumstances, had been organized as a mining district March 16, 1868, and named for Thomas Robinson. (3)

To the time of the Gray-Bartley entrance, the district had been anything but prosperous. The early locators had established a small town in Robinson Canyon which they called Mineral City and which became in time headquarters for the prospectors who began to move into the area. Prospecting activity at first indicated that the wealth of the district would be in gold and silver. However, as early as 1872 the prospectors discovered copper outcroppings which indicated a rather large area of low grade copper ore. A number of copper claims were located, the most important being those by Thomas Rockhill and Newton Boyd. By 1873 enough copper ore had been uncovered in the district to encourage the Selby Company to construct a small copper furnace in the district to exploit their copper holdings. The furnace built under the direction of Joseph Long, an engineer for the Selby Copper Company, was located in Robinson Canyon just below the site of Mineral City. The furnace was not successful and after a few short runs was closed down permanently. (4) This failure seemed to put an end to the copper development in the area, but try as they might the prospectors could not avoid the copper ore for it seemed to be everywhere they moved. Thus, many of the prospectors, perhaps more from force of habit than anything else, casually filed new copper claims, and if they had the time, did the annual assessment work required to hold them; then as often as not promptly forgot about the copper as they continued their search for gold and silver. By 1888 these miners in this rather casual manner had exposed on the surface what appeared to be a tremendous copper ledge. The White Pine News in an article on August 11, 1888 indicated the extent of these ores when it noted that a mineral lode had been stripped exposing blue and green copper carbonates, and red and gray copper sulphides, and that this strip was a veritable copper belt, being eight or ten miles long and from two to four miles wide... "It appears like a big slice of this country is an unbroken bed of copper ores ... While a number of the mines yield milling ores, the lead and copper of the district are of smelting character... and nothing is wanted to make the country more prosperous than the capital necessary for the development of the mines and the erection of mills and reduction works." The capital, needless to say, was not forthcoming at this time, perhaps due more than anything else to the low grade quality of the ore and the tremendous efforts which would be necessary to get the ore to market. There seems little doubt from articles in the newspapers, and from the evidence of the number of copper claims filed in this district between 1872 and 1900, that the miners in the area were quite well aware of the large copper belt existing in the district. (5) They did not know at this time whether or not the ore would continue at depth, and the problems of extraction, transportation, and marketing were such as to discourage them from more extensive development.

It took stout hearts to continue to operate in the Robinson District during the years from 1872 to 1900. In 1875 recorded production dropped to \$1,200, then plummeted to zero the next year where it remained until 1886 when \$10,937 was recorded. (6)

In one respect the ten year drought in mineral production was a blessing for the district for it turned the emphasis, at least temporarily, from mining to ranching activities in the nearby valleys. Two of these valleys, Steptoe and Duck Creek, had excellent mountain streams running

through them and by 1885 were dotted with numerous productive farms and ranches. (7) Without this agricultural development during these years, the district and its center, which had shifted from Mineral City, a few miles down the canyon to a much better location called Ely, no doubt would have found survival impossible.

Ely, the new district center, located on a stream known as Murry Creek, and at the junction of two canyons, Murry and Robinson, was in an excellent position to act as supply center for both mining and ranching activities in the surrounding areas. The exact date of origin of the town and its naming has been the subject of numerous debates. (8)

Regardless of the confusion over its naming and the date of origin, it is quite clear that Ely's history from its birth until 1885 was mainly a fight for survival against what appeared to be tremendous odds. In that year, a disastrous fire destroyed the Court House in the County Seat at Hamilton, a rapidly declining boom town of a former era. News of the fire was received with great rejoicing in neighboring communities where efforts had been going on for some time to force removal of the county seat from Hamilton to one of the more prosperous towns of the county. Ely had not figured prominently in the early efforts to gain the county seat, but after the 1885 fire, joined vigorously in the battle for what might be its means of salvation as a community. There seemed little likelihood at first that Ely would receive this political plum, for its estimated population of 200 persons placed it fifth in size among the towns of the county. It appeared certain that Cherry Creek, a boom town in 1880 with a population for that year of 566, would become a new county seat. However, Cherry Creek's location at the northern end of the county, and the fact that its treasury was in bad condition, worked in favor of the much more centrally located town of Ely. When the Nevada State Legislature met in January 1887, the White Pine delegation pushed through a law which provided for the removal of the county seat from Hamilton to Ely, to take place by September 1, 1887. (9)

The action of the legislature set in motion two important real estate transactions involving the land upon which the town of Ely now stands. The first concerned the donation of a seven acre plot of land to the county by George D. and Elizabeth Harter. This acreage was the original site of the quartz mill of the Canton Mining Company. The foundation for the original court house which is now a part of the county hospital was laid September 3, 1887. (10) The second transaction concerned the purchase, by A. J. Underhill, for \$5,000, of a rather large area of land in the center of the new town. (11) These two transactions pointed to the need for a survey of the community, both for locating the land upon which the county buildings were to be-erected and for the sale of town site lots which was expected to follow the removal of the county seat from Hamilton. The survey was completed on April 19, 1887, under the direction of the Deputy U. S. Surveyor W. N. McGill. It was not a complete survey of the town site area for it included only the location of a County Court House and six blocks of the town, three on each side of Aultman Avenue, for business and residential development. As soon as the survey had been completed, a dozen lots were purchased on the spot with single lots selling for \$100 each and double ones costing \$180 each. (12)

From 1887 until the beginning of the copper boom in the early 1900's, the town of Ely was kept alive mainly by virtue of its position as county seat and its activity as a center for ranching activities in the neighboring valleys.

The mining development during these years was quite sporadic. In 1889 the district had a slight mining revival as some of the earlier gold properties struck high-grade ore. In that same year, the Mining District was redefined, new boundaries set, and W. L. Lyons elected District Mining Recorder, with a total of forty-seven votes cast. (13) The revival, if it can be called such, lasted just four years. During that time, the district produced a total of only \$99,239. However, this four year sum loomed rather large to a district which had produced a miserly \$45,999 in eighteen years, from 1870 to 1898. By 1903 production had dropped to only \$2,072, and from this year to 1900 mining activity was almost entirely of a promotional nature. In 1900, the year the Gray-Bartley copper discovery was made, there was no recorded production. (14)

One of the most important promotional activities during the years after 1890 was the relocation of the Chainman Mine by James McOmie, W. N. McGill, and A. J. Underhill in 1894. (15) This group had high hopes for this mine which was located directly opposite the old site of Mineral City and which had shown some promise at an earlier date. A mill was built where the old copper furnace stood and almost immediately thereafter in 1897 the property was bonded to a millionaire named Charles D. Lane. Lane turned over the management of the mine to his son, Thomas, who expended over \$150,000 in development work, a development which included the building of a telephone line from Ely to Eureka and which gave to Ely a temporary boom. By 1900 Lane was ready to quit his venture when the awaited production didn't materialize. (16) In that same year, the mine was sold to Dix W. Smith, representing a number of eastern capitalists. (17) In July 1900 the new owners accompanied by two experts, Professor Fred D. Smith, Professor of Chemistry and Metallurgy at Montana State University, and S. F. Shepard, Superintendent of the Old Spanish Mine at Redding, California, visited the Chainman Mine and Mill. It was this purchase and subsequent visit to the Ely area by these men which, at one and the same time, closed the curtain on the first stage of the mineral development of the Robinson District and opened the door on the second and more important stage.

Bartley and Gray entered the Robinson District at an opportune moment for increased demands for copper coupled with technical developments had reawakened interest in the Robinson District copper belt. As a result, many prospectors like D. C. McDonald and Thomas Rockhill, who are the real heroes of this story for they kept alive their hopes for the future mineral development of the area when others lost faith and left, moved again into the area, staking out new copper claims and trying to interest others in their development. Besides the copper area claimed by McDonald and his partners, there were two other areas in the district which had been located earlier by prospectors and which were being worked for copper when Bartley and Gray arrived in the district. The first of these and one which showed real promise was an area just west of the McDonald claims, soon to become known as Copper Flat, which was being worked at the time

by Joseph Bray of Austin. The second was an area still further to the west, known variously as the West End Camp or the Pilot Knob camp, worked by S. F. Paul and his sons.

The claims taken up by Joseph Bray were known as the Calumet group and had been located earlier by Thomas Rockhill, Newton Boyd and Thomas Johnson. The six claims of this group were optioned to Bray in 1898 for \$15,000. Bray, who in this and later transactions was acting as agent for Mulford Martin of New York City, added three other claims by option in the spring of 1899 and the entire group of mine claims was then purchased by Martin for \$25,000 in September of the year 1899. (18) It is evident that Martin planned extensive development in the area; otherwise one could hardly justify the price of \$25, 000 at a time when mining activity in the district was at a standstill. Bray added numerous other claims in 1899 and 1900 and began to explore the area by sinking a number of shafts in an attempt to prove that the copper deposits were more than just a blanket formation on the surface, as most of the local miners believed. (19)

The second of the copper camps in the district, the West End, had been known for its copper as early as 1892. (20) Paul and his sons in the latter part of the 1890s had done enough work on these claims to interest a number of outside investors, including Senator W. Clark, Joseph Giroux, and P. L. Kimberley. The first two of these visited the area in May 1900 and on the strength of the visit bonded the Pilot Knob group of claims in the fall of the year. These interests increased their holdings so that by May 1901, they had nearly 1,000 acres of mineral land. (21)

Thus, it must have been apparent to Gray and Bartley, as they surveyed the mineral belt of the Robinson District, that others not only were aware of the copper deposits in the district but were actively engaged in trying to develop them. It was clear also to the partners that no one yet had proven that the copper ores continued at depth. They knew that until this was proven the property was worthless, for only extremely large deposits of low grade copper ore would be likely to attract enough investment capital to build the plants necessary to reduce the ore to metal, and to construct a railroad to haul the metal from the district to connection with the Southern Pacific, some one hundred and fifty miles to the north. It was evident that a great deal of work would have to be done and that quickly for they held only a ninety-day option on the claims.

Their first task was to build a cabin of boulders which was to be their home for many months to come. They then started a tunnel into the mountain. Copper ore was discovered at 145 feet. From this point, they sank a shaft down some seventy feet and were still in copper ore. They rigged up a whim and borrowed a horse from John Magnuson. They were then able to extend their tunnel to the 315 foot mark. Never leaving the ore body they drifted for 200 feet and were in copper ore averaging 3 per cent. (22) By this time the local newspapers, which had not paid much attention to the two after it had been learned they were penniless, began to follow their movements with some interest. The Gray-Bartley tunnel, surrounded on every side by copper ore, was proving what the local miners refused to believe, that such a huge outcropping could continue at depth. But proving the extent of the ore body and getting the ore to market were two different problems. Had the partners discovered high grade gold or silver ore, sacks could have been filled and

enough taken out by stage or freighter to insure a fortune, or at least to pay for continued development. But this was a low grade copper discovery, and it did not take long to figure how many tons of ore would have to be hauled out to get even a few pounds of copper metal.

Throughout 1901 and into 1902 the two miners clung tenaciously to their claims, kept alive by William B. Graham, a local merchant, who grubstaked them for two years on nothing more tangible than their word that he would be paid in full. Meanwhile, in order to take-up the option on the McDonald claims, it was necessary to seek additional partners. This was accomplished by the addition of J. B. Simpson, S. F. Shepherd, and W. G. Lyons; with Lyons supplying most of the money necessary to complete the purchase. (23)

During these years, the Gray-Bartley discovery became quite well known as practically every local citizen and many outsiders, including engineers representing Chicago and San Francisco capitalists, visited the tunnel and marveled at the walls of ore on every side. (24) Most of the interested buyers soon lost interest when faced with the prospect of spending the hundreds of thousands of dollars which would be necessary to construct a railroad and reduction works. Among the visitors in 1902 was a man named Williams, who crawled into the tunnel, inspected the property very carefully, shared a meal with the two men, thanked them and went on his way. Within a short time Williams, whose real name was J. B. Stevens, was back at the tunnel this time accompanied by his boss, Mark Requa. (25)

Mark Requa, son of a prominent Comstocker, at the age of thirty-five, had been given control of the Eureka and Palisade Railroad by a father who thought it time that his son show what he could do on his own initiative. The railroad was a real challenge, for by 1900 it was nearly defunct. It was evident to Requa that new feeder areas would have to be developed if the line was to prosper. With this in mind, he had sent Stevens on a tour of camps which might conceivably be used as feeders to the Eureka and Palisade Railroad. He had listened to the glowing reports of the copper area from Stevens and was so impressed that he decided to take a firsthand look at the property. One trip into the tunnel convinced him of its worth and in October 1902, he offered to option the claims for \$150,000. Bartley and Gray agreed to Requa's suggestion that they accept stock, covering the entire amount, in the new company which was to be formed by Requa. (26)

On February 15, 1903, Requa organized the White Pine Copper Company under the laws of California. The company was capitalized at \$500,000 and had as its first officers, James Phillips, Jr. of New York City, as president; Requa, as vice-president and general manager; S. D. Olney, as secretary-treasurer and E. A. Gray, as superintendent. The main asset of the company consisted of the fifteen claims of the Ruth group which included those of the Bartley-Gray discovery and others added by Requa during 1902 and 1903. (27) Within a short time, Requa obtained the technical and financial help of two capable San Francisco mining men, Fred W. Bradley and John H. McKenzie. This latter move gave stature to the new company in the eyes of the Guggenheim Exploration Company which now began to take a slight interest in the project.

Fortunately for the future of the district, Requa was interested in long range objectives for the property and cared little about purely promotional activities. The problem of developing the White Pine Copper Company into a real dividend-paying producer, in Requa's opinion, consisted initially of three parts: First, continued prospecting to verify the findings of Gray and Bartley; secondly, an experimental mill to determine the average content of the porphyry in large masses; and thirdly, transportation development to get the ore to the mills and smelters. A fourth item might be necessary and profitable when the other three had been accomplished, the building of mills and reduction works near the mines. It was apparent to Requa that millions of dollars would have to be spent in this area before a penny's profit would be made. For almost two years, Requa and his partners carried on the prospecting where Gray and Bartley had stopped. It was then time for the experimental mill. The work of building the mill was placed in the able hands of John B. Fleming in the summer of 1904. When finished, the mill consisted of one Huntington Mill, one Wilfrey concentrating table, two Frue burners, and two Johnson concentrators. The mill was first operated for two hours on September 1, 1904, but was shut down almost immediately for slight repairs. Back in operation within a few days, the mill soon proved its value. It was operated continuously for three months, during which time exhaustive tests and determinations were made, all proving to be quite satisfactory. Conditions now appeared ripe for the development of transportation facilities so that the copper properties could be exploited. Before attempting this project, however, Requa saw an opportunity to fulfill an earlier ambition by incorporating the Martin-Bray interests at Copper Flat with those of his own company.

Requa had visited the Copper Flat properties when he first arrived in the district and was much impressed with the extensive copper outcroppings which he had noted. However, the Copper Flat property was not for sale at the moment as the Martin interests seemed to be ready to exploit the area to the fullest. The first step in this direction was taken in December 1902, when the New York and Nevada Copper Company was organized under the laws of New Jersey at a capitalization of \$5,000,000, with shares at \$10 per value. The original officers of the company were: Mulford Martin, president; Edwin Beach, vice-president; Joshua Clair, secretary-treasurer; Walter Hook, general manager; Joseph Bray, superintendent. (29) Under Bray's management, a number of shafts were sunk on the property and an extensive copper mass uncovered. It was the opinion of many local observers at the time that the Copper Flat property appeared to be a better prospect than that uncovered by Bartley and Gray.

By 1903, this company had some 30 shafts ranging in depth from ten to four hundred and fifty feet and about 300,000 tons of ore blocked out. A small concentrator had been constructed, but it was now decided to add a larger smelter. The initial move in this direction was taken when the Georgetown Ranch, located about two miles north of Ely, and comprising about 560 acres of land, was purchased from the Mormons for \$35,000 in November 1902. (30) The proposed smelter was to have a capacity of 450 tons and was to use the waters of Murry Creek, which rights had been included in the purchase of the ranch.

Before a smelter could be started, the New York and Nevada Copper Company ran into financial difficulties. The property was attached by W. B. Graham and the Eureka and Palisade Railroad in the closing months of 1903, and was soon in the hands of the receivers. (31) According to the local newspapers, the company had spent some \$400,000 in development and had liabilities of approximately \$200,000. It was noted by the papers that the company had a huge mass of copper ore in sight. The banking firm of S. D. Loring and Sons of Boston agreed to advance \$150,000 to pay off the debts of the company and an additional \$100,000 to continue development work. Reorganization then took place and a new company, the Boston and Nevada Copper Company, was organized. (32)

The plight of the New York and Nevada Company played into Requa's hands coming as it did at the time his experimental mill had proven the value of his own properties. Heavy financial backing was now necessary to develop transportation facilities and to build the reduction works. Why not try to combine such operations with an attempt to incorporate the large holdings at Copper Flat with his own White Pine Copper Company? A further incentive to the incorporation of the Copper Flat properties with those of the White Pine Copper Company came as a result of two geological surveys completed in the area during the spring and summer of 1904. The first came in the spring of 1904 at Requa's request. The study was made by Oscar H. Hershey and indicated that the porphyry deposit extended into the Copper Flat area. The second, and more extensive, survey was made by Professor A. C. Lawson of the University of California. The results of this survey were not published until 1906; however, the initial report in the summer of 1904 indicated the tremendous extent of the New York and Nevada Company's holdings. (33)

With these facts in mind, Requa journeyed to the east coast in the late summer of 1904 to seek financial assistance. His main contact with eastern capital at the time was James Phillips, Jr., a New York capitalist, and W. Hinkle Smith, a Philadelphia financier. It was through Phillips that Requa was able to meet the Loring Brothers of Boston who were then in control of the Copper Flat properties through their stock ownership of the Boston and Nevada Copper Company. The Loring Brothers were bankers and not much interested in running a Nevada copper mine. Consequently, it did not take Requa and Phillips long to convince the Boston capitalists of the advantages of merging with the White Pine Copper Company. This merger was completed with the incorporation of the Nevada Consolidated Copper Company on November 17, 1904. The company was incorporated under the laws of Maine with a capitalization of \$5,000,000 with shares at \$5 par value. Phillips was made the first president of the company and Requa its first general manager. (34)

The new company now had a tremendous ore reserve, but still lacked the cash necessary for the construction of a railroad and a reduction plant. The first attempt to Requa and Phillips to raise capital failed when a group of French capitalists refused to back any venture that showed only two and three-quarters per cent copper ore. For a time, it appeared that no one would be willing to give the necessary financial backing to the new company. Finally the banking firm of Hayden, Stone and Company, urged on by William Boyce Thompson, sometime employee of the

Guggenheims, indicated a willingness to back the venture, but first wanted the testimony of some expert mining engineer as to the ore reserves. (35)

The man chosen for the survey was J. Parke Channing, internationally famous mining expert and considered quite conservative in his reports on unproven properties. The Channing report on the Robinson District copper belt was not made public until August 3, 1905, although it was known to have been in the hands of interested parties before this date. In his report, Channing indicated a large ore body, but estimated that it would take \$2,200,222 before any profits would be forthcoming. This expenditure would include \$1,225,000 for a railroad from the mines to a connection with the Southern Pacific, and \$975,000 for development work on the Ruth mine. These expenditures, it was noted by Channing, would bring an annual profit of \$725,000 for the life of the known ore reserves. The most interesting part of the report, and one which proved Requa's foresight in acquiring the Copper Flat properties, was the paragraph which indicated that if only \$500,000 more should be expended on the Eureka mine of the old New York and Nevada Company, an additional profit of \$1,050,000 would be forthcoming annually. (36) With this information, the banking firm of Hayden, Stone and Company agreed to finance the building of the railroad and the construction of a reduction plant.

The exact part played by the Guggenheims in these early activities of the Nevada Consolidated Copper Company is difficult to determine. It seems evident from the number of their men who were closely connected with the organizational and financial activities of this company that they were interested in the Robinson District as early as 1904. The Guggenheims were known to be friendly to Charles Hayden of the Hayden, Stone and Company bankers, and it is very possible that they were connected with the Nevada Consolidated Company promotion soon after the organization of that company by Requa. Lending some support to this theory is the report of the district by Harold A. Titcomb in the early part of 1904 for the Guggenheim Exploration Company. (37) It is generally agreed, however, that by the close of 1905 they did not have control of this company. (38)

In the latter part of 1905, William Boyce Thompson sent his good friend George Gunn into the Ely area to obtain likely looking copper claims. Whether or not Thompson and Gunn were acting for the Guggenheims is a debatable question. The chain of circumstantial evidence indicates, however, that they were either acting directly for the Guggenheims or in close touch with them. Gunn, a former field expert for the Guggenheim Exploration Company, and at the time of his entrance into the Ely district, chief field expert for the American Smelting and Refining Company, a Guggenheim subsidiary, soon obtained options on the Veteran group of claims, and also on smaller claims which lay on both sides of the Nevada Consolidated property. Thompson and Gunn then organized the Cumberland-Ely Copper Company on November 28, 1905. The company was incorporated under the laws of Maine with a capitalization of \$5,000,000, with shares \$1 par value. Control of the company from the beginning was in the hands of the Guggenheims who owned 51 percent of the stock. The first president of the company was Charles Drummond who was soon replaced by S. W. Eccles. Thompson was made vice-president

and Gunn became the first general manager. Hayden-Stone banking house agreed to finance the new company. (39)

Under Gunn's management, the company moved to obtain water rights and a smelter site for his company. With what appeared to be admirable foresight, Gunn began pre-empting various waters in Duck Creek Valley which had not been filed upon. He culminated these moves by optioning the McGill Ranch in Steptoe Valley, a ranch which not only could give his company an excellent site for a mill and smelter, but what was more important, control of two important water sources, the springs at the ranch and the major part of the waters of Duck Creek, perhaps the best single source of water in the district. Requa, evidently, had also been dickering with McGill for the ranch and water rights but had thought he had ample time to complete the deal when the Gunn purchase was made. (40)

With these moves, the Cumberland-Ely Company, in spite of the fact that A. Chester Beatty, another Guggenheim engineer, had remarked that its property was "principally scenery", was now in an excellent bargaining position in case someone wished to build the railroad or construct a mill and smelter.

The whole procedure in organizing this company and the manner, in which strategic land, water, and mineral rights were acquired, literally from under the noses of the Nevada Consolidated Copper Company officials, gave evidence of carefully laid plans; plans which bore the familiar imprint of the Guggenheims. The next step was to force a consolidation of the two companies, the Nevada Consolidated Copper and the Cumberland-Ely Copper. Before proceeding with this story, some attention should be given to the Pilot Knob or West End Claims during these years.

At the time the White Pine Copper Company acquired the holdings of the old New York and Nevada Company, there was some speculation that any such merger would include the Pilot Knob group of claims. As noted previously, these claims consisted of some of the oldest copper workings in the district and had been marked by Professor Lawson as one of the three important areas in the district. (41) The properties had been optioned to Senator W. Clark of Montana and Joseph Giroux in 1901 and formed into the Giroux Consolidated Copper Company on April 14, 1903. (42) This company had an unfortunate career from the beginning, for one reason or another being unable to make any substantial production in the early years. However, many of the criticisms of the company in the light of later development and production seem to have been justified. (43) It was, perhaps, because of these early difficulties that caused Requa to omit these properties in the merger which led to the organization of the Nevada Consolidated Copper Company.

## CHAPTER II

### MINING AND TRANSPORTATION DEVELOPMENT IN THE COPPER CAMPS TO 1909

Requa was so convinced of the wealth of the Robinson District and of its ultimate development that he sent five surveyors into the field to fix a route for a railroad in October 1904, a month before the organization of the Nevada Consolidated Company, and thus, long before he knew that financial backing for the project would be forthcoming. Requa's survey team earlier had made a preliminary survey from the Robinson District to Eureka with the idea in mind of connecting with the Requa owned Eureka and Palisade Railroad. The prospect of crossing four rather high mountain passes soon turned attention elsewhere and the crew now ran a preliminary survey north from the copper mines through Steptoe Valley to connect with the Southern Pacific. When these surveys proved the feasibility of this route, engineers from the Southern Pacific Railroad were called in. These engineers, Adolph Judell and E. E. Carpenter, made additional surveys in November and December 1904 and reported their results to Requa on February 10, 1905. The route as finally determined was to run from the Copper Flat mine (later the Ruth Pit), to the Ruth mine, down Robinson Canyon to Ely, then along the Steptoe Valley to Omar, a way-station on the Southern Pacific, later renamed Cobre in honor of the copper discovery. (1)

It is somewhat ironic that the proposed railroad for the district was to run in this direction for Requa had entered the Robinson District in search of feeder camps for his own Eureka and Palisade Railroad. However, Requa was unwilling to let sentiment interfere with sound judgment and it was obvious that connection with the Southern Pacific would involve much less expense than would a connection with the Eureka and Palisade. A tie-up with the latter route would be many miles shorter, but would necessitate the crossing of numerous mountain ranges involving serious building problems and unnecessary expenditures, both of which would be eliminated with the almost level Ely-Cobre route.

Once Requa had made a decision in favor of the Cobre route, his next step was to seek an agreement with the officials of the Southern Pacific whereby they would build the feeder line. Receiving no encouragement here, Requa turned to the idea of building a narrow gauge line which would take substantially less capital and might suffice until a broad gauge road could be built.

Before starting the narrow gauge line, however, Requa decided, as noted previously, to seek financial help from Eastern capitalists. When it was indicated that such help would be forthcoming, the Nevada Northern Railroad was incorporated under the laws of Maine, May 29, 1905. The road was capitalized at \$2,000,000, with par value for shares at \$100. The railroad, a broad gauge, was controlled at first by the Nevada Consolidated Copper Company. (2)

Contract to build the road was awarded to the Utah Construction Company, August 29, 1905. The line was to extend from Cobre to Ely, a distance of 140.99 miles. Branch lines were to be built to the mines at Ruth and Veteran and to the projected smelter at McGill. Actual work began

from Cobre on September 9, 1905. (3) On June 2, 1906, the line was completed to a small settlement in Steptoe Valley named Currie. A celebration, the first of a number which were to herald the progress of the line southward, was held at this small way-station, and tri-weekly passenger and freight service was inaugurated immediately between Cobre and Currie. To transport the passengers and freight from the latter station to Ely, stages and autos moved out to make the connection. The autos had been introduced into the district by the Ely Transportation Company, and it was hoped they would supplant the horse drawn stages and freights, not only at this connection, but throughout the district. (4) On July 16, 1906, the railroad reached Cherry Creek, a boom mining camp of the earlier silver era in White Pine County which now hoped that the railroad would mean renewed prosperity. A second and bigger celebration was held here, and the autos and stages in order to keep the pace with the oncoming railroad, immediately switched their routes from an Ely-Currie connection, to an Ely-Cherry Creek connection. (5)

Throughout the Ely district during August of 1906, excitement mounted as the construction forces moved nearer. The newspapers noted the progress with keen interest as plans were rushed for a mammoth railroad day celebration.

Real Estate sales started to boom in expectation of better times ahead. The right of way, which had been granted by the White Pine County commissioners on May 4, 1905, to run through the main street (Aultman) of Ely, was changed in September to Garden (Clark) street and a proviso inserted in the franchise agreement that a passenger depot had to be erected at Ely by the railroad company within 90 days of the laying of tracks through the town. (6)

On September 29, 1906, just one year and 20 days from the time it was started at Cobre, the Nevada Northern Railroad arrived in Ely. The completion of the line from Cobre to Ely set-off a huge two-day celebration held on the Court House grounds. While the festivities were beginning, ties and rails were laid hurriedly a few blocks further west to the temporary depot erected at the corner of Garden and Murry Streets. The Salt Lake City section, made up of 11 coaches and 269 passengers, mostly members of the Salt Lake City Commercial Club, was the first to arrive. It was followed shortly by the second section consisting of seven coaches and 179 businessmen from Ogden, Utah, and three coaches of visitors from Reno and the western part of Nevada. (7)

The program for the railroad celebration got under way with the driving of the last spike (copper, naturally), by Mark Requa. A number of addresses by prominent local business men and visitors followed. The formal part of the celebration out of the way, the entertainment began. This included a huge barbecue under the able direction of W. N. McGill, which fed an estimated 4,000 people; games, races, drilling contests, and finally, climaxing the entire proceedings, a grand ball.

There was ample reason to celebrate for this railroad connection was one of the two major keys to the prosperity of the district. Its building was an absolute necessity for the development of this low grade copper area. In the silver and gold camps of Tonopah and Goldfield, to the south,

railroads were necessary to speed the exploitation of their mineral wealth; in the copper district their building was essential before exploitation could begin.

Although a huge celebration had heralded the arrival of the railroad into Ely, it had not completed, as of September 29, 1906, its main mission; that is, to reach the mines and smelter. The branch line from Ely City (East Ely) to the mines, covering just a few miles, was as difficult to build as the construction of the main line had been simple. It was finally finished to Copper Flat April 1, 1908 and to the Veteran mine a few weeks later. The branch from McGill Junction to McGill, where the smelter was to be located, was completed during the early part of 1907. The so called Hiline route, named because it hugged the foothills overlooking Steptoe Valley and which was to be used solely to carry the ore from the mines to the concentrator, was not completed until April 1, 1908. (8) This high line was continued from Ely City to the mines on a line built above the town of Ely, rather than through it, because the city officials of Ely made demands which the railroad officers felt they could not meet. Partly because of this variation of the original route, the railroad officials encouraged the building of Ely City (East Ely) and made the latter town its headquarters. (9)

The railroad as completed cost a great deal more than the original estimate. The Hi-line and the line from Ely to the mines cost over twice as much as originally planned. Also, the total length of the road including the spurs was now 183.27 miles instead of the original estimate of 154. (10)

Completion of the railroad removed one of the major obstacles to the development of the area. The other, the building of a reduction works, had been contemplated by Requa as soon as the experimental mill in 1904 proved the extent of the copper ore. Requa had gone so far as to indicate that the site for the proposed smelter would be near the Georgetown ranch on land which had belonged to the defunct New York and Nevada Copper Company. (11) Possession of this land brought with it some of the water rights to Murry Creek. Additional rights to the Creek were obtained when the Nevada Consolidated Company optioned, then later purchased the Chainman Mining and Electric Company in the early part of 1906. The latter purchase gave the company claim to 40 acres of land at the head of Murry creek with certain water rights to the Creek. (12) Requa was convinced that there was sufficient water available at this site for the type of reduction works planned.

When Requa in May of 1906 moved to carry out his plans by having the Georgetown site surveyed for the proposed smelter, he found his way blocked by the Guggenheims. (13) Already interested in this district through their control of the Cumberland-Ely Company, the brothers in January of 1906 secured an option on 400,000 shares of Nevada Consolidated stock at \$12.50 a share. W. B. Thompson acted as their agent in this transaction. (14)

Before exercising this option, the Guggenheim Exploration Company sent a number of their experts, J. H. Hammond, A. Chester Beatty and Henry Krumb to the Robinson District to examine the property. The report made by Mr. Krumb, dated March 20, 1906, visualized a much

larger copper ore reserve than had the earlier report of J. Parke Channing. The report by Krumb was verified by A. Chester Beatty, another Guggenheim consultant. On the basis of the Krumb report, the Guggenheims took up the option on Nevada Consolidated stock which gave them a substantial but not yet controlling interest in the company. (15)

Krumb and Beatty also recommended that a smelter site other than that at Georgetown be chosen. (16) Their argument was that the Murry Creek waters were not sufficient to supply the domestic needs of the town of Ely and an enlarged reduction plant which now was made necessary by the increased ore reserves.

It was obvious by this time to Requa that he was in a fight not only over a proposed smelter site but over control of the Nevada Consolidated Copper Company as well. Evidence of this came in the spring and summer of 1906 when the Guggenheims attempted to force a merger of the Cumberland-Ely Company with the Nevada Consolidated. This move was opposed strongly by Requa, Phillips, Bradley and McKenzie, the original promoters of the Nevada Consolidated Company, who maintained that the Cumberland-Ely had little ore and their water rights and smelter site were no better than those of Nevada Consolidated. Those supporting the merger pointed to the fact that the Cumberland-Ely had some \$7,000,000 in its treasure, a sum which would be useful in sustaining the necessary development work, a more adequate water supply from the McGill Springs and Duck Creek Valley, and a better smelter site overlooking the McGill ranch, some 13 miles north of Ely.

Requa and his partners fought hard for the Georgetown site noting that Murry Creek made available 4,176,000 gallons per 24 hour period and that the company had an option on two-ninths of the waters of Steptoe Creek which would guarantee about 1,000,000 gallons more. They appealed directly to Dan Guggenheim noting that besides the above water supply underground water could be tapped and further, that tailings could be impounded and water reused. Altogether, according to Requa, there was enough water available at the Georgetown site to smelt 17,500 tons of ore per 24 hour period and to supply enough additional water for 20,000 people. (17)

Requa's opposition to the merger was sufficient to block that proposal temporarily. However, the Guggenheims indicated that any decision in regard to a smelter would have to include the Cumberland-Ely Company. The fight over the smelter site narrowed down to Requa and partners on one side and Krumb, Beatty, and Gunn and Thompson of the Cumberland-Ely Company on the other side. The decision as to the final location was resolved finally by S. W. Eccles of the American Smelting and Refining Company and now president of the Cumberland-Ely Company, who made a quick trip to the area in the summer of 1906. His choice, no doubt greatly influenced by Henry Krumb, in favor of the site near the McGill ranch was a major victory for the Cumberland-Ely group and a bitter defeat for Requa. (18)

A peculiar feature of the fight over a smelter site was the position of Thompson and Gunn. By this time, Thompson was ready to launch his Ely Townsite Company to promote a central town in the district to be located at Ely City (East Ely). It would seem that their position in regard to the Cumberland-Ely Company and the McGill water rights was directly in opposition to their position as promoters of the new town site, for a smelter site at the Georgetown ranch site would have been literally in their own back yard as promoters of the Ely Townsite Company, while a smelter some thirteen miles to the north might be a real disadvantage to the development of their town site. Anyone who has followed the operations of W. B. Thompson in these years knows that he was not likely to promote any scheme which was not to his own advantage. It seems logical to assume, therefore, that he hoped to profit from both the smelter site decision for McGill and the Town site promotion for Ely City. Profit from the location of the smelter at McGill would come from the Cumberland-Ely's control of the water rights there. Profit from the Town site promotion would come only if the idea of a central city for the district matured. There is little doubt today that the Guggenheim officials encouraged the idea of a central city and were not at first planning to build employees homes at either the mines or the smelter. Thus, Thompson would gain immensely from such a promotion and as for Requa's supply of water from Murry Creek, it would be needed for the new city which would arise. The choice of the smelter site at McGill's ranch, and sale of the Murry Creek water rights and the Georgetown area to W. B. Thompson, the latter transaction completed in May 1906, bear out this contention. (19)

With the merger temporarily blocked by the Requa crowd, the Guggenheims hastened to work out some kind of joint arrangement between the two companies for the erection and operation of a reduction plant. At a joint meeting of the directors of the two companies, held in New York City during the first week of October 1906, it was decided to form a new company which would construct and operate the proposed reduction works. The new company, to be known as the Steptoe Valley Smelting and Mining Company, was organized under the laws of Maine in 1906. Under terms of the agreement, control between the Nevada Consolidated and Cumberland-Ely was equally divided through a stock ownership plan by which each had one-half interest. As part of the deal, the Cumberland-Ely Company was allowed to purchase one-half interest in the Nevada Northern Railroad which at the time had been completed to Ely. (20) Requa and his supporters fought this arrangement equally hard, but to no avail. The Guggenheim victory was complete. The final gesture came with the announcement that, effective December 1, 1906; Mr. Requa would retire from the management of the Nevada Consolidated Company. Mr. Pope Yeatman, a Guggenheim engineer, was made managing director of all three companies. (21)

With this short announcement Mark Requa, the man whose vision uncovered the immense deposits of copper ore in the Ruth area and demonstrated the possibilities of such low grade ores, who had organized the Nevada Consolidated Company and brought in the railroad, now bowed rather unceremoniously out of the picture while fighting to make his dream come true. (22)

The site chosen for the reduction plant was on a bench area on the eastern side of Steptoe Valley, above and to the southeast of the McGill Ranch. The actual pin-pointing of the site came as a

result of conference of Guggenheim officials on December 4, 5, and 6, 1906. The group was composed of Karl Eilers, W. S. Morse, and F. M. Martin of the American Smelting and Refining Company; Thomas Cox, the Construction Engineer of the new project; and Walter Perkins, the new Smelter Superintendent. (23) The proposed mill was to overlook a broad expanse of valley floor, an expanse considered at the time admirably suited to catch the tailings from the mill and slag materials from the smelter.

The conference of December 4-6 also completed plans to tap the waters of Duck Creek. This creek had its headwaters in the Schell Creek range of mountains to the east and behind the proposed smelter site. Flowing north through Duck Creek Valley, this stream gathered the waters from the other streams in the valley, then cut through the mountains at Gallagher's Gap to enter Steptoe Valley. The creek then flowed south about five miles to within a short distance of the McGill Ranch House, then turned again northward to lose itself eventually at the foothills of the Egan Mountains. The question arose as to how best to tap these waters. A local engineer, Charles Vail, after extensive surveys, proposed two plans. One would require a pipeline 8 or 9 miles long from Duck Creek Valley to the smelter site. The other proposed to cut a tunnel through the mountain thus connecting the water supply directly to the reduction plant and providing an additional head for power. (24) Although Vail recommended the latter plan, the company officials had decided to use the pipeline system even before the December meeting. (25) The latter meeting filled in the details.

The Duck Creek pipeline project was an interesting one. To make the waters available, dams were to be built at the Duck Creek site and the waters then piped to the reduction works at McGill. Pipeline construction began September 25, 1906. The first water was sent through the line on December 25, 1907; approximately one year and three months after construction began. The line when completed was nine miles in length, some seven miles of wood staves, bound by iron bands, and two miles of steel rivet pipe. A system of five reservoirs was constructed in Duck Creek Valley to take care of excess water. By 1910 these reservoirs had a storage capacity of 260,000,000 gallons. (26)

Before the pipeline had been completed the local company officials led by Yeatman turned back to the tunnel idea, more as a means of developing cheap power than anything else. A site for such a tunnel was surveyed, the local newspapers noting the fact that work on the tunnel would begin in the latter part of 1907. (27) The tunnel was to be approximately two miles in length, starting at the base of the mountains on the western slope just south of the Duck Creek Valley range and coming out on the eastern slope just south of the Bird Ranch on Duck Creek. The project was discontinued in 1908 after some distance had been covered. (28)

The tunnel idea died slowly. It was revived again after the winters of 1908-09 and 1909-10 illustrated the possibility that the flow of water from Timber and Berry Creeks might be cut off completely in the face of continued cold weather. The new project was estimated to cost \$124,000 and it was assumed the project would increase water flow by some eight second feet

and would develop about 400 K. W. of power. The length of the tunnel was to be 2,393 feet. It was never completed. (29)

When the pipeline was started in September 1906, a small city of tents formed above the McGill Ranch to house the workers. Houlder Hudgins was given the contract for feeding and housing this first contingent of workers. (30)

Within a month, offices, warehouses, barracks, and mess halls were constructed under the supervision of Thomas Cox. Shortly thereafter the office force of the Nevada Consolidated Company was moved from Copper Flat to McGill. By the middle of November 1906, the temporary city had a population of from 250 to 300 men. (31)

Another step forward was taken on November 27, 1906, when a contract was awarded the Ely Construction Company to excavate, haul, and grade for the smelter and concentrating plant. (32) A short time later, the American Bridge Company of New York was given a contract to erect the superstructure of the buildings at the reduction plant. (33) The first actual excavation took place December 7 when ground was broken for the machine shop excavation. (34)

General supervision of the reduction works was in charge of Pope Yeatman, the Consulting Engineer of the Guggenheims, now manager of all three companies, the Nevada Consolidated Company, the Cumberland-Ely company and the newly formed Steptoe Valley Smelting and Mining Company. The local manager of the three companies was Joseph P. Gazzam who came to the Robinson District at Yeatman's request after a number of years in South Africa as General Manager of the Simmer and Jack, Proprietary Mines. Gazzam found little to his liking in the new area, being particularly provoked with the Cumberland-Ely officials and with his own auditor H. J. Douglas. He resigned June 1, 1907. Gazzam's place was taken by C. B. Lakenan and it was under the latter's supervision that most of the construction was completed. Construction of the mill was under the supervision of Thomas W. Cox until May 1907, when he resigned, his place being taken by S. S. Sorenson. The plans for the smelter were drawn by Walter G. Perkins and constructed under this supervision. (35)

The year 1907 was a year of building activities at the reduction site and a further mapping out of ore at the mines. By the middle of that year, fairly clear estimates of the total cost of construction at the mines and the reduction site were made by Yeatman. His estimated total cost of \$4,544,670 was far beyond that contemplated by Requa and other officials earlier. (36) More than making up for the additional costs were the estimates of ore reserves by Yeatman as of October 1, 1907. These estimates showed a reserve of some 14,432,962 tons of ore carrying approximately 40 pounds of copper to the ton. This reserve at 18 cents a pound would bring a profit of some \$28,261,533 which with estimated railroad profits of \$5,773, 185 would total \$34,034,718. (37) Even at the time these estimates of reserves and profits were known to be conservative, how much so, of course, developed only with the passing years.

By October some 800 men were employed at the smelter site in building operations and some 400 at the mines in mapping out ore reserves, constructing shops, etc. (38) Construction came to a temporary halt the early part of November 1907, when the panic of that year forced the company to discharge most of its men. The bank was able to pay them off, some \$17,000 in all, but this depletion caused the bank some difficulty and it was only prevented from closing by activities of the company in making cash available to the bank. (39) The panic in the district was short-lived and within weeks the company had started to rehire its employees and to begin again the task of construction.

By the spring of 1908, the no. 2 section of the concentrator, a total of five was at first contemplated, was ready for ore. The Hi-line, from the concentrator to the mines was ready the first part of April. The first trainload of ore from the mines to the mill at McGill left the mines in the early evening of April 15. The train reached Ely City (East Ely) at 6 p.m., its progress through the towns of Ely and Ely City being greeted by many demonstrations of enthusiasm. At 6:30 p.m. the train stopped over the ore bins at the new concentrator. (40) Test runs began at the concentrator on April 15 with the arrival of the ore. However, it was not until May 15 that this section was put on regular runs of three shifts daily. Section no. 1 was tested May 6 and was on a regular three shift schedule by May 26, handling ores from the Veteran mine of the Cumberland-Ely Company. Section no. 3 was started August 5, Section no. 4 on September 17, and Section no. 5 on October 31. The latter three sections handled ore from the Nevada Consolidated Company while Section no. 1 and no. 2 (originally handling Nevada Consolidated ore) handled ore from the Cumberland-Ely Company. (41)

The first reverberatory furnace was charged on June 22, 1908, and concentrate sent in on June 26. The next step in the smelting process, that is the converting of the matte from the reverberatories into blister copper at the converter, took place July 9, 1908 when the converter was blown in, thus completing the reduction cycle from ore to concentrate, to matte, and finally to blister copper. The first shipment of blister copper, each bar bearing the letters S. V. was made August 7, 1908. This shipment, destined for the east and further processing by electrolysis, was composed of two carloads carrying 36 tons of blister copper in each. (42)

A period of nearly eight years had elapsed from the Gray-Bartley discovery until the ore body uncovered was ready to be milled and smelted. A time which had been spent in exploratory work mapping out ore reserves, in constructing a pipeline, and finally in completing the reduction works at McGill. The length of time involved in this preliminary work and the tremendous sums of money which had been expended bore dramatic testimony to the fact that a great deal of wealth was necessary to develop a low-grade copper area into paying proposition. Equally dramatic, however, were the rewards awaiting those who had the time and money necessary for the development work. Recorded production for the Robinson District, which had consisted of only \$420 for the seven years preceding the completion of the reduction works, jumped in 1908 to \$622,470 and to \$6,561,787 for 1909. (43)

Before the reduction works were completed in 1908, a number of merger proposals, involving the Nevada Consolidated in one way or another, arose in the district.

The first of these came in February 1907 when the Guggenheim Exploration Company was offered 510,000 shares of Giroux Company stock at \$10 a share. A. Chester Beatty asked Yeatman to survey the Giroux property before any such deal was closed. Yeatman in April 1907, recommended against such proposal, but suggested a six months option should be taken on Giroux property for not over \$7,000,000. This the Giroux people refused to agree to, so the deal fell through. (44) It is evident that the Nevada Consolidated officials knew that the Giroux Company had some good ore bodies, but no water, so felt that the latter would have to sell out to Nevada Consolidated or have its ores treated at the reduction plant at McGill. Thus, they were in no hurry to accept the initial offer from the Giroux Company. (45)

The deal with the Giroux Company was not dead, however, for in September the Steptoe Company made a cash offer of between \$750,000 and \$1,200,000 for the Morris, Brooks, and Bunker Hill properties of the Giroux Company. The latter refused the deal. (46)

A much more fanciful merger was proposed in 1907 by W. B. Thompson. In May 1907, Thompson and others organized the Coppermines Company with a capitalization of \$50,000,000, later upped in April 1908, to \$60,000,000 with shares at \$5 par. This company was a holding company planned to control through stock ownership the Guggenheim properties in Nevada and Utah. Officers of the company were Thompson as president; J. Phillips, Jr. as vice-president; F. W. Holmes as treasurer; T. M. Harriman as secretary; and W. Hinckle Smith, Louis Marshall, and F. L. Hermann as additional directors.

No one quite seemed to know just what the Guggenheims, or more specifically, Thompson were up to with this huge combine. The fact that Thompson was the leading light in the deal made many suspicious and a great deal of opposition developed before the merger was completed. The great combine failed before it got started with the Coppermines Company capitalization decreasing to \$5,000,000 on December 31, 1909. (47)

These were just the beginning of literally dozens of rumors from this time forward concerning the Nevada Consolidated properties buying or merging with the Giroux (later the Consolidated Coppermines) Company.

## CHAPTER III

### THE BOOM COPPER TOWNS, 1900-1908

When the huge copper deposits were uncovered in 1900 in the Robinson District, the center of activity for the area, as had been noted previously, was the small town of Ely. Nestled in the foothills of the Egan Range at an elevation of 6,433 feet and approximately at the point where the two canyons, Murry and Robinson, converge, this little community, from the movement of its birth until the copper discoveries in 1900, struggled to survive. There had been no real boom during this early period of the town's existence. There was, it is true, a short flurry of excitement when the County Seat was moved to Ely from Hamilton in 1887 as permanent buildings were erected and real estate lots sold. There were other brief moments after 1887 when a small discovery in the area might lead to much talk and perhaps some action, but by and large, the town in 1900 must have looked quite similar to the one of 1897. A main street, a few saloons, a newspaper, a post office, one or two cafes, a drug store, a grocery store, and other incidental commercial establishments, made up the main business area. The census of 1900 indicated a population of 525 people, a figure which represented a growth of some 322 over the 1890 census and which no doubt was to the flurry of excitement occasioned by the huge expenditures of money by C. D. Lane on the Chainman properties in the years from 1897 to 1900. (1)

Ely was slow to experience any type of boom, a fact which is borne out by a notice which appeared in the Ely Mining Record estimating the population of Ely as of January 1, 1906 to be 500 persons, this is in spite of the fact that the Gray-Bartley discovery had been made in 1900. (2) The cry of copper, although an ancient one in the history of mining, carried no such magic now as did that of gold and silver, particularly if this cry was tainted with the stigma of low-grade copper. It was quite clear to thoughtful persons that millions of dollars would have to be expended here before any production could be made. The Ely area was no place for individuals seeking easy fortunes from the mines. This third Nevada boom area of the 1900s was to be the most conservative of all. Many people who visited or worked at Goldfield, Tonopah, and Ely noticed the difference in tone as they passed from the exuberant silver camp of Tonopah, to the riotous gold camp of Goldfield, and then on to the rather subdued but optimistic copper boom in the Ely district. Production figures for the three districts during the so-called development and boom periods in each also indicated this difference. Whereas it took eight years before the Ely district could record any substantial production; Tonopah recorded \$234,231 in 1901, the first year after its discovery jumped to \$1,543,204 in 1902, and to \$4,747,941 in 1907; Goldfield, starting slowly with only \$14,904 in 1903, the first year after the initial discovery, moved to \$874,789 in 1904 and to the large figure of \$7,781,038 in 1907. (3) Although these figures are in no way a proper index of the ultimate worth of the mines of the three areas, they do show, at least to some degree, the comparative ease with which the silver and gold camps moved into production, and the slowness of the low-grade copper in this respect.

And yet, there was a boom at Ely for railroad building, the construction of a huge reduction plant, the mapping out and uncovering of the ore reserves and the numerous other incidental developments necessary to exploit the area took money and men. Large sums of money and hundreds of men were necessary for this development, and the ultimate result of the mixture of the two was a boom; not so boisterous or so glamorous as many others in Nevada history, but nevertheless a substantial amount of capital investments and thousands of people were attracted to this district.

The Ely boom began rather slowly in 1905 when it was evident that railroad and reduction plants were to be built. The first notice of its coming was the purchase in June 1905 of one-half of the Ely town site by A. D. Campton from the heirs of the W. G. Lyons estate. As Campton had purchased the other half of the town site in 1891 from the Harter estate, this new purchase in 1905 gave him practical control of all the lots not yet sold in the town site area. (4) Although Ely had been surveyed originally in 1887, only a few blocks had been laid-out, and so Campton immediately after his purchase in 1905, ordered a new survey. This survey was completed on June 19, 1905, by W. Y. McGill, son of the original surveyor of the Ely town site. (5) The sale of lots was slowing during the remainder of 1905, but during 1906 particularly in the later part of the summer as the railroad approached Ely, sales began to boom and prices for the lots went, in some cases, to rather fantastic figures. Many lots which had sold originally for \$100 now went as high as \$5,000 and two choice lots in the center of town, wanted by Tex Rickard of Goldfield for hotel purposes, brought \$15,000. Ely's metamorphosis from a rather sleepy community in 1900 to a bustling center of mining activity was proudly indicated by the White Pine News in its First Annual Edition of December 25, 1906, when it stated that Ely now had an electric light plant, a railroad, a dozen tributary camps, a County Court house, a Volunteer Fire Department, a brewery, a post office, two banks, three newspapers, one church, 10 restaurants, 17 saloons, two steam laundries, one bakery, seven hotel and rooming houses, four tent lodging houses, two blacksmith shops, one furniture store, five mercantile stores, one undertaking establishment, one plumbing shop, one tin shop, nine physicians, 11 lawyers, two livery stables, five real estate firms, three barber shops, three lumber yards, two assayers, five engineering and surveying firms and numerous other smaller establishments. The News was quick to point out that the community still lacked certain essentials, such as incorporation, a police department, an ice plant, a library, more schools, more churches, a better water system and a more substantial sewer system, paved streets, and a theater, before the town could become a first rank mining community. Nevertheless, growth had been substantial and each of the items listed as needed in 1906 soon became a part of the town's facilities.

The Ely boom was at its peak from the fall of 1906 when the railroad arrived until the fall of 1907 when the panic of that year reached the district. Population increased from a known of 525 in 1900 to an estimated one of 4,000 in 1907. (7) Most of this increase was due to the hundreds of workers needed by the various companies for development work at the mines and at the mill and smelter. Individual miners, in many instances, searching for high wages and perhaps a

chance to "high-grade" valuable ore, avoided the copper area to choose instead the gold and silver camps of Goldfield or Tonopah. This caused a scarcity of mine labor which threatened to interfere seriously with the development of the district. This threat continued until the company decided to turn to open-pit mining where unskilled workers could be employed more readily than in underground miners, the possibilities for the suppliers of food, clothing, liquors, and women, were as good here as in the other boom camps. The saloons in Ely far outnumbered the total of other type establishments. The restricted district in Ely grew rapidly after 1905, and "red-light" areas were established near the mines and the smelters. An increase in population of almost 800 percent brought excitement, crowded conditions, inflated prices for everything, numerous brawls and some killings, and to some of the more fortunate, substantial wealth.

Physically, the boom flowed in and around the old community of Ely. The center of the town remained where it had been around the cluster of buildings on Aultman Street. However, numerous new structures were completed as rapidly as material could be brought in. Building during 1906 and 1907 couldn't keep up with the influx of people and so half-tent or all tent structures were erected to house and feed the hundreds coming in monthly. Freight congested the roads during this period and was not relived until some months after the completion of the Nevada Northern Railroad. Ely must have presented a strange sight in these years for here was an old camp with many permanent structures in place suddenly booming to life with numerous tents and other more makeshift dwellings moving in between, in front of, and to the rear of other buildings. (8)

Ely's boom differed in many respects from those at Tonopah and Goldfield. In the latter camps, the rush was more sudden, more pronounced, and began, so to speak from nothing; for not only was there a transportation void in the southern camps, there was a political one. The problem of transportation, communication, sanitation, water, sewage, police and fire protection at Tonopah and Goldfield were problems confronting new societal areas. There was no preparation there for their onslaught and temporary measures or none at all sufficed in the early years. This was not true to the same degree at Ely. Here a small but stable mining community, which had faced many of these problems before, was able to soften the intensity of boom-created problems. By 1900 Ely had become a stage and mail center for White Pine County, with some seventeen mails arriving there weekly. Mail and stage connections were made with Eureka, Hamilton, Cherry Creek, Sunnyside, Duck Creek, and Frisco, Utah. (9) B. F. Miller conducted a freighting service during these early years that included connection with the Southern Pacific Railroad at Toano, to Cherry Creek, Aurum, Duck Creek, McGill Ranch, Ward, Taylor, and Ely. (10)

Besides being a mail, stage, and freight center for the surrounding area, Ely was the county seat of White Pine County and therefore the home office of the county sheriff and other county officials, a condition which promoted a more orderly development once the boom got under way. Ely, in 1900, also had electric lights, a telegraph and telephone connection with Eureka, and if the town lacked a water system it did have an adequate supply of water near at hand from Murry Creek. In addition there were numerous ranches in the area which supplied fresh meats and

vegetables to the growing population. Because of these developments, Ely was nearly a self-sufficient area when the boom began. There were no near crises here occasioned by lack of food or unsanitary conditions as there had been at Tonopah and Goldfield. The difference between the two boom areas in these respects might be summarized by nothing that in the copper area inconveniences were experienced, while in the gold and silver booms in Southern Nevada, severe crisis had to be met.

As the boom got under way at Ely, two serious shortcomings were noted; Ely had no banking institution, and the influx of population soon showed the need for a modern sewage system. The idea of banking received strong support in 1905 as Requa moved to obtain railroad and reduction facilities for the copper district. However, it was not until 1906 that Ely received banking facilities and then on April 20, two banks, the Bank of Ely and the White Pine County Bank, opened their doors. The Bank of Ely moved to East Ely in 1908 and changed its name to the Copper National Bank in November 1909. A third bank was provided in the district when the Bank of Ely opened a branch at McGill in the fall of 1907. (11)

The matter of a modern sewerage system was a topic of great discussion among the people in Ely throughout the latter part of 1905 and the early part of 1906. Finally in October 1906 the county commissioners granted a sewer franchise to G. L. Rickard, Thomas Rockhill, W. S. Elliott, and J. E. Stevens with the proviso that work on the system had to begin within 30 days of the date of franchise. (12) This agreement was allowed to lapse and it was not until the spring of 1909 that a new sewerage contract was awarded. (13) By 1910 the system built under this contract covered a goodly portion of the incorporated town of Ely, and generally by this time, those homes not connected with the sewerage system had septic tanks.

The census of 1910 showed Ely to have a population of 2,055 people. The town by the end of that year had all the institutions, political, social, and economic, necessary to carry out its role as the center of this rich copper district.

Town development during the boom era was not confined to Ely. In the years from 1900 to 1910, a number of new communities were established throughout the Robinson District. Generally these new towns followed three patterns: first, the town sites established as real estate propositions hoping to capitalize on the fact that the employees of the various companies would need places to live, such were the towns of Ely City, Smeltonville, Tiptop, and Star Pointer; secondly, and by far the most important, were the permanent company towns, such as McGill, Ruth and Kimberly; and thirdly, were the communities, if they can be dignified with such a term for they were often just clusters of shacks, which were established near the mines and smelter as centers to relax from the cares of the day, such were the towns of Riepetown, Steptoe City, and Ragdump (Ragtown).

Ely City (East Ely) was by far the most important town site promotion in this district and very nearly succeeded in becoming the central city of the copper area. The plans for the promotion of

a central city for the copper district seem to have originated in the mind of William B. Thompson, who, incidentally, was interested in the mines of the area, holding many shares of Nevada Consolidated stock and being the main organizer of the Cumberland-Ely Company. The idea of a central city was meant to appeal to both the company officials and the employees for under the plan Thompson was to build a number of substantial homes which would be available to employees for the various companies either for purchase or for rental. Thus, the company officials would benefit in turn by having their living quarters removed from the smokes and gases of the various plant operations.

The development of such a town got its first real boost on May 2, 1906 when officials of the Nevada Consolidated Company and Thompson signed a memo agreement providing that Thompson's proposed company would be able to buy the Georgetown lands for \$90 an acre, which price would include the rights to the waters of Murry Creek. In return Thompson's company was to deposit \$12,000 to be used in the construction of a passenger depot and freight depot. The Town-site Company was to erect cottages for employees of the railway and conduct a suitable boarding house. (14) On the basis of this agreement, the Ely Townsite Company was organized by Thompson and his partner George Gunn in August 1906. (15) In the latter part of August the partners purchased 190 lots and about 200 acres of unimproved lands from A. D. Campton. (16) The next step was to plat the town of Ely City which was done in October the plat being accepted by the County Commissioners on November 5, 1906. (17) Lots went on sale shortly thereafter although the deal with the Nevada Consolidated Copper Company which would guarantee a water supply for the new city and give them additional land was not consummated until December 21, 1906. (18) The speed with which the promoters moved in these months indicated their desire to have the town lots for sale as soon as possible after the railroad entered the district. On the first day of sale, November 6, 114 lots were sold, ranging in price from \$250 to \$2,500, and bringing in a total of \$192,450. (19)

Throughout the remainder of 1906 and into the spring and summer of 1907 activity in the sale of Ely City lots continued to be brisk. By the middle of the latter year, officials of the old city of Ely were quite worried for not only had this upstart taken the railroad headquarters from them, or so they thought, but it now possessed control of Ely's only source of water, and to add to the insult, the company had the audacity to purchase 190 lots in the old town area. (20) The animosity between the two towns came to a climax with the removal of the White Pine News, the oldest paper in the county, from Ely to Ely City in September 1907. (21) The first issue of the News from its new location started a series of word battles with the Ely Mining Record and the Ely Daily Mining Expositor. The tone of these exchanges is indicated by the following editorial in the Ely Mining Record for December 21, 1907, following a News article requesting the city of Ely to disincorporate; "The News since its removal to Ely City has certainly demonstrated the hostility of the Town site Company towards Ely. Heretofore the Town site Company has always pretended to have a friendly feeling for Ely, but the mask of hypocrisy and deceit has now been torn away by the News, and the people of Ely realize as never before that the policy of the Town

site Company is the annihilation of Ely. The editor of the News, in his vilification, slander and abuse of Ely, is simply carrying out instructions of the Town site Company and he is certainly making a heroic effort to 'make good'.....The scheme of the News to disincorporate Ely is too apparent to fool anyone."

When the Town site Company started to build a pipeline through Ely, many citizens of the latter town fearful that their water supply was to be cut off, threatened to prevent the completion of the project. Eventually tempers cooled before any violence occurred and a contract was entered into whereby the Town site Company agreed to furnish water to the city of Ely, maintaining that it never had been planned by them to do otherwise. (22)

The panic of 1907 put a temporary halt to construction at Ely City, but in a short time the town site officials were moving ahead with new plans. In January 1908, Thompson tried to get the copper companies to keep a central office in Ely City. This, of course, would have been a big boon to the town site promotion, but Yeatman opposed the move and it fell through. (23)

Disappointment over the loss of a central office was more than made up for the announcement in March 1908, by officials of the Town site Company that arrangements had been made between the Ely Townsite Company and General Manager Lakenan of the Steptoe Valley Smelting and Milling Company for the erection of houses for smelter employees with families. The White Pine News, obviously pleased with this information, states, "It is the desire of the smelting company to have their employees live away from the smelter smoke and where they can have modern conveniences, pure air and water, and afford their children an education under the most desirable conditions..." (24)

Building activity encouraged by this announcement brought Ely City to the high point of its development in 1908. By that year, the town was a bustling community with two hotels, the Steptoe Annex, planned originally as a six story building extending over nearly a full block, and the Cumberland. The main passenger and freight depots of the Nevada Northern Railway were located here as were the company hospital, the White Pine News, the Copper National Bank, and the Steptoe Drug Company. A number of saloons and cafes rounded out the business district. (25) The News boasted that "Ely City is the natural and logical future center of population for the 30,000 to 50,000 people who will be here within the next five years". (26)

A post office was added in September 1908, but the joy was mingled with some bitterness when the Post Office Department would not approve the name of Ely City, but instead authorized the name of East Ely. (27) This latter appendage seemed to emphasize just what the Ely Town site officials wished to avoid, but a post office seemed worth it; besides, let the post office be called East Ely, they would continue to use the name of Ely City. But the post office designation soon proved to be stronger than that of the Town site Company, and within a few years, the name Ely City passed out of existence. The change in name corresponded to a drop in the fortunes of the

community, the declining hopes of its citizens no doubt being partially responsible for the rapidity with which they accepted the name East Ely.

In spite of the promotional activity of the Ely Townsite Company and the expenditure by the company of an estimated \$900,000, Ely City was not destined to become either the home of the smelter and mine employees, or the center of the district. The idea of a central city for the district, and particularly one located at Ely City, was doomed when the smelter site was changed from the Georgetown area to the McGill Ranch. The disadvantages to the worker of having his home located one place and his place of work some twelve miles away were soon apparent in the complaints which began to reach company officials. The cost of living in Ely City was increased by the monthly rate of \$5.00 for railroad fare. The time in transit consumed some eighty minutes daily, which many didn't like. Besides, the company had constructed some fifty concrete houses in McGill during 1907. The low rental charges for these houses, plus the fact that the company paid for many of the utilities, made living at McGill so attractive economically that pressure mounted on company officials to build more homes and to rent them on the same basis as the others. To these arguments the company, through its manager, could add, "It is also apparent that men who live in Ely are subject to more temptations and consequently spend a considerable fraction of their remaining wage in the usual rounds of pleasure... (28) Thus, without the expected flow of company employees, the Town site Company could not hope to make their city into the social and financial center of the district, and although they continued to advertise the advantages of their new town, further growth was limited. The census of 1910 indicated a population 738 for East Ely, composed mainly of railroad employees and their families. This figure was to remain fairly constant in the years to follow.

The second most important real estate promotion in the district was at Smeltonville, about a mile southwest of the concrete houses at McGill, near the point where a spur of the Nevada Northern Railroad turned northeastward from the Cobre main line toward the new smelter site at McGill.

Smeltonville town site was approved by the county commissioners of White Pine County in October 1907. The town site company which was formed to promote the area was known as the Smeltonville Town and Land Company and had as its president a very prominent old-time resident of the Ely district, H. A. Comins. (29) The initial sale of lots, which was preceded by a terrific advertising campaign, took place on October 26, 1907, and was not very brisk in spite of the advertising campaign. (30) This lack of enthusiasm in Smeltonville lots was due in no small part to the attitude of the company officials at McGill, who at first favored the Ely City promotion as a place of residence for their employees, and then later decided to build houses for their employees at the smelter site. In spite of the lack of enthusiasm, several buildings were constructed at Smeltonville, and some improvements made in the hope that employees would be encouraged to buy there. (31) The promotion managed to survive through 1908, and then early in 1909, the Herrick-Kerin Investment Company, which was now in charge of the sale of lots, began a new campaign to put across the promotion. Prices for lots were set at \$100 and \$150, and five lots were to be given away free on April 1, 1909, in "order to get the ball rolling", as the

newspapers indicated. (32) But "the ball never did get rolling" at Smeltonville, at least as far as becoming a suburban home site was concerned. Failing to boom one way, Smeltonville attempted to survive by turning to liquor and gambling as its main businesses. These efforts kept the cluster of buildings standing beyond what would have been their normal span of years, but eventually even these last strongholds gave way and Smeltonville disappeared from the scene.

There were other town site promotions in the district during these years, but none amounted to very much as far as actual building or sale of lots were concerned. Such schemes as the Tiptop promotion, the Star Pointer Addition, and Junction City, were attempts to establish towns near the mines at Ruth. (33) Here again, although each promotion was advertised heavily, few sales were ever made, due in final analysis to the decision of the companies to build town sites on their own properties.

Of the company towns which were established, the town of McGill, located at the smelter site was by far the largest and most important. The town got its name from W. N. McGill, who at the time of the Gray-Bartley discovery, owned the ranch near the site which was later to be chosen for the smelter. When work on the pipeline and smelter began in the fall of 1906 a group of half-tent houses quickly formed near the road which lead from the McGill ranch to Ely. These tent houses were built for the construction gangs who were to excavate and build the Duck Creek pipeline and the reduction works. To house and board these men the company made an agreement with Houlder Hudgins whereby the company put up the temporary buildings for Hudgins and in return the latter was to furnish board and room to the men at nominal rates.

As construction got underway the smelter company was forced to erect temporary building to house its engineers, office personnel, etc. Thus, another group of temporary buildings arose which was known generally as the headquarters camp. This camp consisted of a general office, a drafting office, a blueprint room, a vault, an assay office, a shop, a power plant, an emergency hospital building, a temporary depot building, a barn, a water tank, a foreman's bunk house with outhouses, a mess house, a general quarters for forty men, four 4-room cottages, five 3-room cottages, and two 2-room cottages. An ice house had been constructed almost as soon as the smelter site had been determined. (34) These clusters of temporary buildings were known almost from the beginning as McGill, although company officials for a time persisted in calling the site Smelter or Smelters. Perhaps, the most important reason for continuing the name McGill was the fact that McGill's ranch had been the official post office for the area for some years. To change the name to Smelter would have necessitated work that seemed rather unnecessary, and so within a short time company communications used the name McGill as the official designation of the smelter site. (35)

During 1907 the smelter officials hesitated in trying to decide just what policy to pursue in respect to the housing of its employees. When construction got underway at McGill, most of the workers were employed by contractors who were building the reduction plant and there seemed little necessity at the time for the company to furnish permanent structures for this type of

employee. However, company officials were compelled in the beginning to construct a few substantial and permanent structures for the supervisory personnel in order to keep them in the area. These permanent buildings were started in the early part of 1907 and included homes for the general manager, the smelter superintendent, the mechanical engineer, the chief clerk, a general office, and a staff quarters. The main office and staff quarters were completed in October 1907 and the others shortly thereafter. This cluster of permanent buildings below the smelter buildings was known generally as "The Circle". (36)

As it became necessary to hire more and more permanent employees to staff the mill and smelter, it became apparent that more substantial housing would have to be provided in the area if such type personnel was to be encouraged to stay. At first the company officials seemed to move in two directions, first completing fifty concrete houses at McGill for skilled employees in the fall of 1907 and the spring of 1908, (37) and soon thereafter making arrangements with the Ely Townsite Company for the latter organization to build low cost units for employees of the smelter and mines. (38)

The latter approach broke down before the end of the year due mainly to the fact that the Ely Townsite Company couldn't compete with the low rentals charged by the company at the mines and smelter and to the fact that convenience and general living costs favored living close to the job. It was soon apparent that getting and keeping a stable labor supply would be furthered by constructing more homes at the smelter site and at the mines. This realization spelled an end to the company policy of building homes only for supervisory and highly skilled personnel and set the officials on a program which inevitably resulted in the formation of complete company towns at Ruth and McGill.

This new building program received its first impetus when Pope Yeatman recommended that at least 50 frame houses be built at Smelter Village. (39) These units were rented also at a very nominal sum which made them particularly attractive to the workers, and as we have seen, disrupted the promotional schemes at East Ely, Smelterville, and other sites in the district. (40)

Once committed to the policy of furnishing homes for the employees, the company found itself, in the ensuing years, not only continuing to build houses in an effort to keep up to what appeared to be an insatiable demand, but seemingly unable, or unwilling, as sole landlord of these towns to keep from active participation in the control of crime, the protection of property, and the many other activities that come normally under town control.

The twin problems of liquor and gambling were the first items to get the attention of company officials. Before the community was much more than a group of shacks, a saloon was established on company property, the owners neglecting to first obtain permission of company officials. When the eastern officials of the company found out about the saloon they ordered the local manager to evict the tavern keeper immediately. (41)

Attempting to keep liquor from the camps proved to be an impossible task and so local officials looked for a solution which would be acceptable to Eccles and other eastern officers. The solution suggested was that a single saloon should be allowed in each community but its operation should be regulated closely by the company. After some discussion, this suggestion was received favorably in New York; however, only if the concessions was given to W. N. McGill, a man with whom the company had done a great deal of business and one they trusted. However, even McGill was warned that liquor purchase had to be drunk inside the building and that games of chance would not be tolerated. Official company attitude was made plain in the following communication to McGill:

"You know that personally, we object to any saloon on the property and favor prohibition absolutely; but owing to the conditions out here and to the fact that liquor would be brought in anyway, and that in bringing liquor in in quantities, there would probably be greater drunkenness than were a properly operated canteen installed. We believe the latter the lesser evil of the two."(42)

This canteen as the company officials referred to it in their correspondence soon became known as the Copper Club Saloon. It was started in a tent on the western side of the street almost directly opposite the Post Office which at the time was located in a dry goods store. According to old timers of the area, one of the most interesting sights in that early period was the almost continuous line of men coming from work, moving first to the Post Office and then across the street to the saloon where many remained the rest of the evening. (43)

Another problem which came on the heels of the decision to build more houses in the towns was the matter of stores. The attitude of company officials was stated the early part of 1907 when Eccles wrote Yeatman that if living quarters were established at the mines and smelter then it would be unfair to make employees travel to Ely to buy their groceries. However, he warned, "we would sell no land at either the mines or the smelter and if we permit the stores to be located at either or both places there must be a very rigid contract drawn and with responsible parties only and providing in that contract a strong agreement as to the sale of liquor. (44) A specific answer to the problem was demanded when the Herman & Cohn store was erected at McGill's siding in the early part of 1907. This store was about 1-1/2 miles from Smelter Village. Soon pressure was brought on local company officials to allow stores closer to the village. Yeatman was opposed personally to a single store and thought that stores should be allowed both at the mines and the smelter, "so that competition would be free and ample facilities would be available". (45)

Within a short time thereafter, the company began its policy of leasing ground to individuals who thereby agreed to construct or have constructed various types of stores, company officials being careful to regulate both the number allowed and the types of merchandise to be sold. (46)

By the time the reduction works were started in 1908, McGill was in the transition stage from a cluster of temporary shacks to a permanent company town. As one approached the smelter site on the Nevada Northern's new suburban train, the first thing that caught the eye was the smoke pouring from the three stacks at the smelter, the earliest trademark of the community, and always the most impressive. As the train drew nearer, the fifty newly erected concrete houses came into view. Above and to the east of the recently created upper town site was the huge mill and trestle, nestled at the foot of a small, well-formed mountain that soon was to be known familiarly as "the Peak". To the north of the mill were the smelter buildings. The depot at McGill, where one alighted from the train, already had a history of its own in keeping with the mining frontier. Erected originally at Currie when that community was the terminus for the Nevada Northern, the building was moved to Ely to become that town's first passenger depot, and then later transported by flatcars to McGill in November 1907 to serve that community.

Walking from the depot to the county road which was also the main street, the Emergency Hospital building was passed on the left. To the right were the rather imposing homes of the "bosses", at the time standing rather forlornly in the midst of the sagebrush. Below the "Circle" were the tennis courts, a rather incongruous touch in the middle of the desert indicating, perhaps, the college background of many of the supervisory personnel and the growing popularity of that sport at the beginning of the century. Standing near the tennis courts the visitor saw the remaining part of McGill as a number of tents and temporary frame buildings with the few stores stuck in their midst. To the north were the Matthews & Barnes buildings, which included a large boarding house and a number of tar-paper (malthoid) buildings which housed single employees. Below the tennis courts were some one hundred shacks, tents, etc., in the old temporary quarters that by this time were referred to collectively as "lower town site". At the southern end of this collection of dwellings and a little to the west were the stables. Next came the stores, on either side of the county road. Below this section were the American Trading Company boarding house and employees quarters. Still further south were more temporary buildings which housed the "foreign" Laborers, who for one reason or another were separated from the other employees. All in all it was an imposing sight to the Ely visitor who a few years before had seen nothing but sagebrush in the area above the McGill Ranch.

Living conditions at McGill were quite primitive at first. The tar-papered houses, which were used at first to house from four to six single employees and later to take care of families awaiting construction of the more permanent house, were not adequate in a climate where temperatures often went below zero. These houses equipped with a pot-bellied stove and with outside water taps and outside toilets, were long and bitterly remembered by those housewives who were so unfortunate as to reach McGill during this transition stage. (47) The concrete houses as well as the later wooden ones, on the other hand, were well constructed, furnished from the beginning with running water, but not until sometime later provided with inside toilets. The decision of the company officials to build substantial dwellings for their employees and to control the type of business establishments allowed in the community insured the orderly development of a modern

community without the usual over-crowded and unsanitary conditions which were so much a part of the normal boom mining camps.

By 1910 McGill was a bustling community of 1,904 persons. It boasted a newspaper, Copper Ore, which emphasized local items to the extent of running three to five columns of "locals" on the front page, and scattering other such items throughout the remainder of the paper. (48) A branch of the Bank of Ely was established at McGill in 1908 and two years later the town received a new jail. The jail was located very appropriately a short distance behind the Copper Club Saloon, a location strongly advocated by Deputy Sheriff Newman, who stated to the county commissioners in tones that bore evidence of much experience, "it is very hard work to carry a drunken man uphill three or four hundred yards in order to lock him up.....it would be very much easier to roll him downhill an equal distance for the same purpose". The jail, it might be noted was used almost exclusively as a temporary detention while "sobering up" took place. (49)

Company control of the town was noticeable by 1910 in the number and types of establishments which were to be found in the town: one jewelry store, one tailor shop, one newsstand, one meat market, four grocery stores, one cafe, two drug stores, a barber shop, one livery stable, one doctor, one clothing and men's store, two saloons, and Stone's Amusement Hall. (50)

The construction of Stone's Amusement Hall is an early example of the benevolent attitude company officials locally took toward their employees. For some time after the awarding of saloon privilege to W. N. McGill, company officials and wondered how to use the funds which were accumulating from this privilege. The officers in New York suggested that a recreation hall be built for the men. Early plans called for a moving picture hall, a cigar stand, a billiard room, a card room, a reading room, a committee room, bath rooms, and a gymnasium to be added later. (51) General Manager Lakenan had another idea. One of the employees, named Henry Stone, had lost a leg at the mill. It was Lakenan's suggestion that the canteen funds amounting to some \$2,500 should be used in erecting an amusement hall for Stone, considering that this amount would not be sufficient for the other plan. This was done, the company constructing the building out of the canteen money then turning over operation of the theater to Stone. (52) Plans for the more extensive recreation hall for employees were put aside, temporarily, until sufficient funds were available for the completion of an adequate building.

Ruth, the company's other town in the district, had received its name from the Ruth claim, which in turn had been named by D. C. McDonald in honor of his daughter Ruth. (53) The first houses at Ruth, if we expect the stone cabin erected by Gray and Bartley, were the two cabins erected by Mark Requa in 1903 near the Ruth mine in Ingersoll Canyon, to house his family while the work of exploration and development was carried on. His daughter, Amy, later described these two cabins as the "two comfortable cabins of vertical board and batten with tar-paper roofs, nestled cozily near the foot of the turquoise-blue copper-ore dump from the mine. There was no running water in either house, although I vaguely remember a pump in the kitchen sink. Wash bowls and pitchers did service in the bedroom; the heavy china, when handled by the young, sometimes met

disaster. At a discreet distance from the upper house, there was a privy, always redolent in a definitely sanitary way of what we children knew as 'Chlorada-lye'-'a county as big as the State of Connecticut'. Papa, who thought of everything, had it freighted in and installed in a small room next to the hoisting works at the mine...We had candles for light and drum stoves for heat in the bedrooms, kerosene lamps elsewhere, and cord upon cord of pinewood stacked back of the kitchen to feed the 'cook-stove'." (54)

When the New York and Nevada Copper Company and the White Pine Copper Company were merged into the Nevada Consolidated Company and new development work begun, tents and shacks began to spring up around each of the main shafts, at Ruth, at Star Pointer, and at Copper Flat. Eventually, the name Ruth superseded the others as houses and commercial buildings bridged the gap between the local areas, and when a post office was obtained for the area, the name Ruth became the official designation.

Ruth's growth as a town site paralleled in many respects that of the town of McGill, although growth here was slower after McGill became the official headquarters of the company. A number of town sites were platted in the Ruth area before the Nevada Consolidated Company decided to make Ruth a company town. Some of these were recorded in the County Recorder's Office, others were merely talked about. The most important of these, other than Reipetown, were the Lizzie Buchanan town site, the Tiptop town site and the Star Pointer Addition. Eventually these were purchased by the company and became part of the town of Ruth. By the spring of 1905, there were in the Ruth area approximately 100 employees of the Nevada Consolidated Company. To house and feed these men, a number of frame and tar-paper bunkhouses had been erected as well as a boarding house. A post office building, a temporary hospital building, and a few other commercial buildings completed the picture of Ruth in 1905. (55)

Development of the town site at Ruth was at a standstill during all of 1906 and the first part of 1907 while company officials were concerned with the completion of the railroad and the building of the reduction works at McGill. However, in the summer of 1907, the Nevada Consolidated Company initiated a limited building program at Ruth, following much the same pressures which were being exerted at the same time at McGill. This building program consisted of the erection of a number of frame buildings at Copper Flat and near the Star Pointer Shaft. The construction at Star Pointer was the most extensive, including three bunkhouses which would house 40 men each, one mess hall capable of feeding 400 men and a number of houses for married personnel as follows: six three-room houses, 14 two-room houses, two four-room houses, and one six room cottage for the mine superintendent. At Copper Flat, a number of frame cottages were built to house the so-called "foreign" single men. (56) For the next two years, there was little construction while company officials decided upon a permanent policy in respect to the housing of employees. In 1909, a second building program was initiated and in the years that followed additional employee housing was constructed when such expansion was warranted. By

1910 there were 967 people in the precinct of Reipetown, which included at the time the towns of Ruth and Riepetown. (57)

A third company town grew up around the Veteran shaft of the Cumberland-Ely Copper Company. This company, as it will be remembered, along with the Nevada Consolidated Company controlled the Nevada Northern Railroad and the Steptoe Valley Smelting and Mining Company. The Cumberland-Ely Company initiated a large building program in 1909 near the Veteran shaft which in effect created another community which was known as Veteran. This development included a mess hall, 11 three-room houses, 12 two-room houses, three forty-men bunk houses, two four-room houses, and one eight-room cottage for the mine superintendent. The actual cost of the construction at Veteran was about \$20,000 more than that at Star Pointer. (59) The Cumberland-Ely Company, which meant in effect the same local officials as those who controlled the Nevada Consolidated but not the same eastern officials, attempted to control liquor, gambling, prostitution, and regulation of business at Veteran in much the same manner as was being attempted at Ruth and McGill. The town of Veteran did not prosper and when the Veteran shaft was closed down in 1914 most of the houses were moved to Ruth.

Perhaps the most interesting type of town developed by the copper boom in Eastern Nevada were the parasitic towns which found their opportunity when the development of the closely regulated company towns forced liquor, gambling, and prostitution outside the town limits. The best representative of this type of community was Riepetown, located between the Ruth mines and the Giroux properties at Kimberly. Riepetown was platted originally as a town site promotion while company officials tried to decide on a permanent housing program. The idea of Riepetown as a residential area never caught on as almost from the beginning it was evident that its future lay in attracting miners from Ruth, Kimberly and Veteran to the doors of its saloons and bawdy houses. And the more company control tightened the more prosperous the Riepetown businessmen became. It was not long before Riepetown became the haven of lonesome miners looking for excitement, an excitement which the people of Riepetown were only too glad to furnish, for the price of course. Saloons and gambling houses began to dot the main street, and in a very short time this type of establishment made up approximately 90 percent of the business of the community. By 1909 there were 16 saloons in this little community of not more than 200 people. (59) Besides the type of saloon which dispensed only liquor, were those commonly referred to as 'dance halls', a definite misnomer, for most of these establishments were centers of prostitution. Riepetown was by far the liveliest town in the copper district, with drunken brawls, knifings, and killings, almost daily occurrences during the height of the boom. (60)

There were two other communities of the Riepetown type, both established to benefit from the trade of the single men working at McGill. One of these, Steptoe City, was located directly above the town of McGill, a few hundred yards north of the mill; the other, Ragdump or Ragtown, was located about two miles north of McGill. Both of these communities were smaller counterparts of Riepetown, attempting to prosper by catering to the various vices of the human male.

There were many other town sites platted, some even obtaining the approval of the county commissioners, during the boom years in the Robinson District. However, most of these promotions went no further than the paper stage, and there is nothing today to indicate the exact locations. Perhaps, the most important contribution of these paper town sites was to add color to the excitement of the copper boom. (61)

The boom in the Ely area received a slight set-back in the fall of 1907 when the panic of that year forced many companies to shut down temporarily. At McGill construction forces were reduced and at the mines the Nevada Consolidated Company laid-off a number of men. (62) Nevada Consolidated stock, which had risen to \$13.75 in May 1907, sank quickly to \$7.00 in November of the same year. (63) Both banks closed temporarily but were able to reopen in a short time without loss to the depositors. (64) Although the effects of the panic were felt sharply in the Ely district, within a short time employment was back to normal at both the mines and the reduction plant.

The year 1908 was a banner year for the district, for not only were the mill and smelter completed and the first ore converted into blister copper, but this year also marked the completion of the suburban train service from Ely City to McGill and from Ely City to the mines. By the middle of 1908, there were 36 scheduled suburban trains running between the communities. (65) At first the terminal for Ely was at Ely City because of difficulties between the railroad officials and the town officials over a right of way through the town. In June 1908, the Ely City Council and the railroad officials disagreed over a freight depot for the community, city officials arguing that a single freight depot, located as it was at Ely City, was a major disadvantage to the development of the City of Ely. Although this matter was taken before the Nevada Railroad Commission and there given a great deal of consideration, the end result was that Ely City (East Ely) and not Ely had the freight depot.

Living conditions and social activities in the towns of the copper boom mirrored, to a great extent, those at Tonopah and Goldfield. One of the earliest social activities was the formation of numerous social clubs. Some of these, such as the "Good Time Club" of Ely, incorporated in November 1907 were devoted entirely to having a good time. Some clubs, like "The Strollers", emphasized dancing activities. (67) Others, such as the Caledonian Club, and -the Greek and Serbian Societies, and the University Club, added to the above purposes the desire to get together with people of similar race and background. Still others, like the numerous Athletic Clubs, both male and female, which were formed in the various towns, combined social activities with physical activities. (68) Besides the above clubs, there were three rather unusual organizations in the district which emphasized purely social activities. These were the Slag Club of McGill, the Lobster Club of Ely, and the Booster Club of East Ely. These clubs whose combined membership included most of the important businessmen of the three towns entertained each other with lavish dinners, each trying to outdo the other in the variety of foods, drinks, and entertainment offered. (69) Adding to the numerous dinners, smokers, and dances given by the above groups were those given from time to time by the various fraternal organizations the

isolation of the camps and lack of commercial entertainment during the early years insuring excellent attendance at each of these affairs.

Activities of the above sort were periodic. By far the most important single contributor to the entertainment of most of the single men and a large number of married men, in the copper camps as well as in the silver and gold camps to the south, were the saloons and the pool halls. The unique position held by these establishments in the mining history of many of our western states often has been overlooked. The mining town saloon was not just a dispenser of liquor and a place where gambling might be enjoyed. On the contrary, it was a hub of social and political activity. This was particularly true in the company towns of Ruth, McGill, and Kimberly where company policy eventually eliminated all but one or two such establishments from the town area. For example, at McGill, there was at first only the Copper Club Saloon and one pool hall which came to be known generally as the McGill Pool Hall. (70)

The pool halls in the copper camps came to be rather unusual establishments in that they developed into the meeting place for miners and businessmen of the communities. Many single men spent a large portion of their off duty time, and with it a large part of their semi-monthly checks, at the pool halls. This was true particularly after the Prohibition Amendment eliminated the main source of income for the saloons. The pool hall usually had within its walls, besides pool and billiard tables, a soft drink bar, punch boards, cases filled with tobacco and candies, souvenirs and postcards, a shoe shine stand, and if not inside the building, a barber shop nearby. Those individuals who wanted to gamble or drink hard liquor passed by the pool halls to enter the saloons. (71) Holidays filled these establishments to overflowing, taxing their facilities greatly and those of the nearby jail as well. Not only did men visit the saloons and pool halls to drink, gamble, and play pool, but also to discuss the events of the day, activities on the job, sporting events which had occurred or were to occur, mining deals made or which might be made, the price of copper, labor troubles, hunting and fishing trips, the new mechanism known as the automobile, or as often as not the subject of women. The latter, by the way, as well as children, were forbidden entrance to the saloons and pool halls; the women usually preferring by choice, not only to stay out of such establishments, but to walk on the other side of the street when passing by. Obviously, in an atmosphere such as that created in a boom mining camp, there were moments when drink and temper combined to produce brawls of one sort or another within the walls of the saloons or pool halls. Generally these were handled quickly and effectively by the proprietors and the police. Particularly in the company towns where the proprietors ability to keep order was the best insurance that the company would renew his lease and thus allow him to keep in operation. If a married man was involved in the affair and the results were not serious, he was usually taken home and placed in the sometimes not too-gentle care of his loving wife. If a single man was the instigator of the brawl, and if he was drunk, as he was more often than not he was placed in jail "to sleep it off". Fights, where serious wounds or even death occurred, were much more prevalent in the parasitic communities outside the company community. Within the company towns there were a few disturbances once company control became effective and even

in the rowdiest communities of this copper district little comparison can be made with the rougher camps of the earlier period in Nevada's mining history.

For amusements outside the pool halls, saloons, and dancing halls, the people turned to a variety of activities which ranged from athletic contests of various kinds to the formal dances which were often given to climax some holiday event.

One of the most distinctive amusements, perhaps it should be called a sporting event, and one which attracted nearly the whole population, was the "badger-fight". The "badger-fight" was usually one of the first amusements to enliven each new camp in this boom area. The scheme was worked out to the most-minute detail within the confines of the saloon or the pool hall. There were three participants necessary to any successful "badger-fight": the "badger", so ferocious he had to be kept constantly covered, usually within a barrel or strong box, and carefully guarded from the prying eyes of those who might want to obtain some pre-fight information on his condition; a dog, usually the biggest, meanest looking dog in camp, bulldogs preferred; and a gullible stranger, strong enough to make the initial tug which would bring the "badger" from his stronghold, and fast enough to keep in advance of the developing fight between the dog and the "badger". Preparations for the event were made days, sometimes weeks, in advance; stories were told, usually in the presence of the person picked to handle the dangerous assignment, of past events which had resulted in victory for the dog or for the "badger". On the day chosen for the event, the promoters arranged the stage as carefully as any Broadway producer might in preparing for an opening night. Long before the appointed hour people began to line both sides of the main street and began to offer odds on either the "badger" or the dog. Betting was usually quite heavy and the enthusiasm such that strangers were eager to participate. The dog was usually brought to the scene first and held on a strong leash ready to be released as soon as the "badger" broke from his cage; next, the "badger", carefully covered from public view in his barrel or box, was brought in while a number of stalwart guards took their stations around the cage to prevent any injury to the bystanders in case he broke loose. At the proper moment the hero was brought to the scene, so carefully coached by the promoters and encouraged by the crowd that he deemed it a distinct honor to be allowed to pull the "badger" from his cage. In order to protect him from possible injury, he was provided with make-shift shin guards, usually of metal, and his hands encased in heavy gloves. When all was ready, the cord, supposedly attached to the "badger", was placed in the hero's hands and the slack taken up; the path down the middle of the street was cleared, and as the dog strained at his leash, the signal was given. At this moment, the victim with all the vigor at his command usually set off down the main street as though possessed of demons. The emergence of the "badger" from his cage was the signal for the crowd to burst with shrieks of laughter. As the victim heard the reaction from the spectators and unusual noises emanating from the "badger", he turned to find out just what type of animal was at the other end of the rope. One look usually was sufficient to establish just how badly he had been victimized, for the "badger" was really a chamber pot. Then came one of the most interesting parts of the whole affair, from a spectators standpoint: just what would be

the victim's reaction? Some continued down the main street even more quickly than before in an attempt to escape the scene. Others returned to the crowd, joined in the merriment, and quite often set-up the drinks in a nearby saloon. But the reaction the spectators liked best of all came from those "who couldn't take it" and whose wounded ego demanded some satisfaction for the ignominy they had suffered. When such individuals were the victims, arguments and fist fights inevitably resulted before the evening was over. But no matter what the reaction of the individual to the "badger" fight, he was never allowed to forget the part he had played in one of the mining frontier's oldest amusements.

As at Goldfield and Tonopah, athletic events were always popular in the mining camps. And again as usual in the mining west baseball was the first organized sport, (72) although tennis was certainly the first provided at McGill by the company. From 1904 on baseball games between teams from various camps were a main attraction of any celebration, and by 1908 a regular summer baseball league was established, first between Ely, McGill and the Nevada Northern Railroad, and later between Ely, McGill and Copper Flat. Eventually twilight leagues, encouraged and partly subsidized by company officials, were established at McGill and Ruth. The only other team sport actively engaged in during this period was football. The first football game ever played in White Pine County was played in November 1909 and resulted in a 12 to 0 victory for McGill. (73) A number of football games were played later between teams from Ely and McGill, but this sport did not develop rapidly in the communities. Of the minor sports, tennis and bowling attracted some attention. Tennis courts were built in most of the camps during the early years and maintained a small, but devoted, following throughout the history of the camps. Bowling entered the picture later, around 1914, but once initiated became the favorite winter pastime, particularly at McGill, where two alleys were built in the basement of the employees' clubhouse. (74) Boxing and wrestling events were staged from time to time and always attracted large crowds.

The climax of the sporting activities as well as the general social activities came, as in most mining camps of this and earlier eras, during the July 4th and the Labor Day celebrations. Here in one celebration was incorporated practically all of the social and sporting events known to the mining community. Celebration of these holidays bore a great deal of similarity from one camp to another and from one era to a later one. During these occasions, which usually started with a parade and a flood of oratory, there would be a barbecue, foot races for young and old, lean and fat; some track and field events, such as relay races, broad and high jumps contests, and once in while pole-vaulting contests. There were often other kinds of races, horse races down the middle of the main street, and less often, bicycle and motorcycle races. After the races, there was usually a drilling contest, which in the early days attracted large crowds, and caused a great deal of betting as to the outcome. The drilling contest was followed by the main sporting attraction, the baseball game, usually for a purse ranging from \$300 to \$500, winner take all. In many instances, boxing and wrestling matches in the late afternoon or evening brought the athletic

events to a close. The holiday celebration was always climaxed with the Grand Ball which attracted people from most of the surrounding areas. (75)

Besides the July 4th and Labor Day celebrations, which were generally quite similar in tone, the Greeks and Serbians held numerous celebrations of their own commemorating religious or national holidays of their native country. Although these celebrations at first tended to follow patterns of the old world, the features of the traditional American holidays soon were added. One of the featured events at many of the Greek celebrations was the marathon race, which attracted considerable attention at McGill, being run from Smeltonville to McGill, a distance of some three miles. (76)

One of the most popular recreational activities in the boom mining camps was dancing. Many of the social and fraternal clubs in the mining communities held frequent dances as a regular part of their social programs. There were numerous public dances held, particularly in the company towns. At McGill, public dances in the early days were held during the summer in the open air pavilion at the McGill Ranch and in the winter in the American Trading Company's Boarding House. (77)

The picture house, which usually made its entrance into the mining town,, during the early part of the boom, soon became an important amusement center. Crowds gathered nightly at these amusement halls to see movies, traveling shows, local vaudeville acts, or school plays. These show houses were of fundamental importance in the societal structure of these boom camps. (78)

A modern touch was introduced into the social life of the copper communities with the entrance of the automobile. The first interest in the automobile in the copper camps came with the formation of the Nevada Automobile Company in March 1903. This company was capitalized at \$4,000.00 with shares selling at \$1.00 each. The object of the company was to establish an automobile line between Ely and Wells (the latter town was a station on the Southern Pacific), a distance of 140 miles. This connection, it was hoped, would cut the time for this route from 36 hours by stage to 10 hours by automobile. The first automobile ordered by this company was a Haines-Apperson, weighing 2,100 lbs., with a 12 horse power engine, and capable of carrying six passengers at a maximum speed of 75 miles per hour. (79) The auto was shipped by rail from the factory early in June 1903, to Wells, Nevada. The machine arrived at the latter station late in June and Mr. Ridenour, the factory-designated driver who had accompanied the machine to Wells, then set out on the dusty journey to Ely. The automobile, the first into the Ely district, arrived at 7:50 p.m. July 1, to be greeted by practically the entire population of the Robinson district. The machine was placed immediately in service between Wells and Ely, but soon ran into difficulties caused by peculiarities of desert travel. Late in August 1903, a notice appeared in the local newspaper to the effect that the constant dust on the road so interfered with the car's mechanism that the automobile would be taken off its regular run between Ely and Wells, and hereafter used only for special purposes. (80)

The next appearance of the automobile in the copper camps occurred in the early part of the year 1906 when a big auto-truck, nicknamed "Steptoe" came to Ely from Wells on May 3. (81) This auto-truck, along with other automobiles which arrived shortly, were used to run from Ely to each new station of the Nevada Northern as that railroad moved closer to the Ely area; first from Ely to Currie, then from Ely to Cherry Creek. With the completion of the railroad Cobra to Ely, these automobiles were used locally in service between the various towns of the district.

From 1906 on, interest in automobiles among citizens of the copper camps quickened and soon a number of local residents obtained them. First obtained as a symbol of prosperity and social prestige; the automobile soon became an important part of the social life of the district. Automobile caravans from Ely to Ruth, McGill to Ely, or sometimes from Ruth to McGill soon became commonplace, and were important in helping to break down the isolation of these camps. Gradually the caravans extended their field of operations to include trips between Ely and Goldfield and later between Ely and Reno. One of the most interesting of the early auto caravans into Ely was that led by Tex Rickard and a party of Goldfield enthusiasts in 1907 that drove the distance of over 200 miles in a little over 11 hours over a route that was a road in name only. The local papers reported that this group had traveled the last 34 miles into Ely in 35 minutes. (82) Such trips as this, when made the first time were sensational, but soon became more common as roads and machines were improved.

By 1912 Ely had become a station on two international auto routes, the so-called "Midland Trail", and the "Overland" route. (83) Ely's automobile population grew from three machines in 1907 to 450 in 1914. (94) It appeared for a time that Ely might well become an important station on the most important routes from Salt Lake City to San Francisco and from Salt Lake City to Los Angeles. However, the factor of distance favored the northern route through Nevada from Salt Lake to San Francisco via Elko and the Salt Lake-Los Angeles route via Las Vegas, Nevada rather than Ely. (85)

Fraternal and religious activities played an increasingly important role in the social activities of the communities during the early years. When the copper discovery was made in 1900 and for a number of years thereafter fraternal activity was confined to get-togethers of small groups belonging to some particular organization. The Masons were the first to organize a regular lodge in any of the copper camps, organizing Ely Lodge no. 29 at Ely, August 15, 1905. (86) The Eagles established White Pine Aerie no. 1705 at Ely October 22, 1907 and Steptoe Aerie -no. 1876 at McGill June 9, 1909. (87) Other fraternal groups to organize before 1920 were: the Brotherhood of American Yeomen, establishing lodges at McGill October 1911 and Ely June 1912; and the Knights of Pythias, organizing their first lodge in the district, Cyprus Lodge no. 33 at McGill in May 1912. (88) Other fraternal groups which established lodges in one or more of the copper camps before 1920 were the Elks and Odd Fellows.

Although Ely was established as the county seat of White Pine County in 1907, there was no permanent religious establishment there when the copper discoveries were made. As settlers

began to move into the area, particularly those with families, religious services were inaugurated. At first these services were held in offices or private homes, as were also the Sunday School exercises for the children. The first church built at Ely was the Episcopal Church, St. Bartholomew, which was complete in time for the Christmas Day services in 1907. The Episcopalian group had been active at Ely for some time before the completion of their church, having established their first missionary there in January 1902. (89) The next church to hold services at Ely was the Roman Catholic, when on Sunday, June 10, 1906, Father Mannion of Eureka held services. (90) The Catholic Church Building was completed in 1907. The Christian Science Church group held services in private homes as early as June 1907, and were holding services in their own building by 1909. (91) The first Methodist-Episcopal Church in the area was built at East Ely in 1909 and was followed by the erection of a larger building in Ely in 1910. (92)

At McGill, Sunday School services were held in 1908 and 1909 in private homes under the auspices of a group calling themselves "the Volunteer Ladies". The first church at McGill was the Presbyterian, organized May 19, 1909 under the ministry of Rev. S. C. Gillman. An abandoned ice storage warehouse was the first meeting place of this society. (93) The Greek Orthodox Church established small chapels at both Ruth and McGill; the first divine liturgy being performed in the St. Barbara's Church at McGill, April 26, 1910; (94) A large Greek Church was planned for Central Ely but was never constructed. The Roman Catholic Chapel at McGill was dedicated October 18, 1911. (95) The last church group to erect a church at McGill was the L. D. S. who dedicated their church there February 27, 1912. (96)

The population growth of the copper camps was not rapid in comparison to that of the Southern Nevada camps. As in the case of Tonopah, Goldfield, and Rhyolite, the boom period in the copper district came between the census of 1900 and that of 1910 so that it is very difficult to estimate just how many people were attracted to the area in these years. However, the newspapers here made no fantastic claims concerning the copper camps and their population growth which might lead one to believe that the population movement into the area was not so spectacular and a great deal slower than in the camps of Southern Nevada. In checking the growth of the five most important towns in the area from 1900 to 1920, it becomes apparent that the copper boom attracted a substantial number of persons to the area; White Pine County going from 1,961 in 1900 to 8,935 in 1920. (97)

## CHAPTER IV

### PUBLICATION AND SPECULATION IN THE COPPER CAMPS

The copper boom in the Robinson District created no wild speculative boom as had developed over the Tonopah-Goldfield-Rhyolite discoveries. In the first place, most of the good ground was taken quite early in the development by two or three companies. Secondly, copper stocks, although not unattractive, did not have the lure of gold and silver issues. Then too, the entrance of the Guggenheims into the area with complete dominance of the major company made speculation by the "little" guy rather difficult. Besides these factors, the mild boom created by the copper discoveries did not attract the writers and publicists who, about the same time, were flocking to Goldfield, Tonopah, Rhyolite, and Rawhide. (1) There as consequently, little coverage of the Nevada copper boom in the popular magazines of the day. The coverage of the copper camps by the professional magazines as however, as adequate as that in the gold and silver ones. Even the newspapers, which generally were the backbone of the local -publicity for the boom camps, spoke here in rather subdued tones. There was some speculation to be sure, and the newspapers were used cleverly in some instances to "hook suckers", but it must be remembered that in the copper camps, at least at the local level, speculation in copper stocks was minimized.

The earliest newspaper in the copper district was the White Pine News. This paper was the oldest paper in the county, having first been published in July 1863, at Treasure City, near the famous old camp of Hamilton. (2) Before finally succumbing at East Ely in the 1920s, the News had been published in practically all of the boom camps of White Pine County, going in succession from Treasure City to Hamilton, to Cherry Creek, to Taylor, to Ely, and then to East Ely. (3) The News began as a weekly, changing in 1906 to a semi-weekly. It became Ely's first daily paper on December 25, 1906. The News reverted to a weekly in July 1910. The paper was a strong supporter of the Republican ticket and used its columns constantly to boost the glories of East Ely (Ely City). The paper was a firm believer in many of the small companies in the district and attempted to promote their stocks whenever possible.

The Ely Record was established March 4, 1905, as the Mining Record. The original name soon was changed to the Ely Mining Record, and in January 1909, to the Ely Record, under which name it has been published to the present time. The Record was Republican in politics, but had little else in common with the News. While the latter supported the Nevada Northern Railroad, the former was a consistent critic of both the railroad and the News during these years. The Record carried rather detailed accounts of the mining properties in the area and in its enthusiasm was often led to support purely speculative ventures. (4)

The third paper in the district, the Ely Mining Expositor was established in 1906 by Denver S. Dickerson, later Lieutenant Governor, then Acting Governor of Nevada. The Expositor, initiated as a weekly, became a daily in May 1907. It was strongly Democratic in politics, anti-big boss,

pro-labor, and pro Ely. The editors of this paper carried on a bitter intercity rivalry with the White Pine News after the latter's removal to East Ely. (5)

In some respects, the most interesting paper published in the district was a small weekly published at McGill called Copper Ore. The first issue of Copper Ore appeared February 11, 1909, and the last issue sometime in 1914. This little paper centered its attention on local happenings and mining news. Copper Ore was owned by the E. W. Hulse Company, a brokerage firm of Salt Lake City, Utah, a fact which obviously colored reports of mining stocks in the district. (6).

These newspapers each did their share to publicize the camps and no doubt accounted for much of the outsider interest in the communities for they were sent by local citizens to many parts of the United States. From a speculative standpoint, the local newspapers here, as well as in the other mining booms in the west, was the most useful tool which could be employed in giving the tone of respectability to the various mining ventures and each speculator carefully made sure that the papers were given the proper material. One of the first professional publicists to enter the Ely area was Tex Rickard, who attempted here, as in Goldfield and Tonopah, to publicize mining ventures by prize fights. In October 1906, Rickard announced, through one of the local newspapers, that Ely would be the scene of the next Gans-Nelson fight. (7) Much was heard of this fight through the local papers during the summer of 1907 and the spring of 1908. The bout seemed to be a certainty for the Labor Day Celebration of 1908, and enthusiasm reached great heights in the summer of that year. One news editor, hoping that such a fight would do for Ely what a similar one had done for Goldfield, wrote as follows: "and so it will be with Ely. This fight will focus the attention of the world on Ely, and every newspaper correspondent will tell of our wonderful mines and smelters and of the great future awaiting this section and the result will be the inpouring of capital, the rapid development of the mines and the general up-building of the town..." (8) However, in the latter part of July 1908, Rickard called off the proposed fight, giving as his reason the failure of the railroads to grant a special low-rate fare to Ely for the fight. (9) The loss of the Gans-Nelson fight didn't stop some local boosters who now thought a championship prize-fight necessary to insure the success of the copper camps. Within a week of Rickard's first announcement, came another that Ely would have a championship heavyweight bout between Burns and Johnson. This proposed bout was talked about for a few weeks and in turn dropped. (10) It was evident, after these two promotional failures that the Ely district would have to develop without the benefit of a championship fight.

The copper district did have a certain amount of "wildcat" stock promotions in the days when the discoveries were first made known to the outside world. However, the big speculative venture in the Nevada Coppers didn't get under way until 1909. In that year a tremendous advertising campaign was initiated concerning a company known as the Ely Central Copper Company. Old timers in the district knew this company well for it had been incorporated under the laws of Delaware, March 1906, with a capitalization of 1,200,000 shares at \$10 a share, par value. Its president at the time of incorporation was O. A. Turner, the original purchaser of the Butler

mining interests at Tonopah. The treasurer of the company was John W. Woodside, a Philadelphia capitalist, who had been one of the financial backers of Turner at Tonopah. (11) The fact that these men organized the company, coupled with the fact that by the end of March 1906, the company controlled a number of claims lying between the Star Pointer, and Ruth mines (the original Gray-Bartley discovery), and the Eureka shaft (the area known as Copper Flat), gave an air of respectability to the Ely Central Company. The Nevada Consolidated Copper Company's properties, which were on either side of the Ely Central property, were known to have untold thousands of tons of copper ore reserves. It seemed reasonable to assume then that the Ely Central claims with proper development would exhibit copper ore similar in type to that developed on the Nevada Consolidated properties. Activity on the Ely Central property during the years 1907 and 1908 was confined to the sinking of a number of test holes. This was followed by a drop in stock to only a few cents a share, a fact which indicated to many observers, that the test holes must have indicated a lack of copper ore. In spite of this, in the summer of 1909 a series of articles appeared in the Financial and Mining News, under the name of Sam C. Dunham, extolling the virtues of the Ely Central property and of the plans for development which would make Ely Central second only to the Nevada Consolidated Copper Company as a copper producer. The local newspapers, reaching for any news that might add luster to the district, eagerly accepted these stories and reprinted the articles almost verbatim. (12) As a result of this build-up, the stock rose from \$.97 to over one dollar in one week and by October 1909, had reached \$2.50. Few, if any, of the local people suspected that this build-up was nothing more than a speculative attempt and many were righteously indignant when the editors of the Engineering and Mining Journal began a campaign to expose this speculative swindle. (13) In a series of articles beginning in the fall of 1909, the editors of this magazine pointed out that the Financial and Mining News, which had started the build-up of the Ely Central, was edited by none other than George Graham Rice, a notorious speculator, who but recently had been forced to leave the Goldfield area because of speculative activities. It was also noted that the B. H. Scheftels Stock Agency, which was handling the Ely Central stock, was nothing but a front for the operations of Rice. For those who doubted that the fine hand of Rice was manipulating the Ely Central stock, the Engineering and Mining Journal editors pointed to the fact that a recent transaction had given 750,000 shares, at \$.50 each on contract to George Graham Rice, and that he had obtained an option on the remainder of the stock for from \$.37 1/2 to \$.75 per share. The editors further stated that the Ely Central property was an ideal speculative venture, located as it was between two of the best proven copper deposits in the district; but that in actual fact the claims were nothing but an overflow of rhyolite, with little copper showing anywhere, and if that had not been true the Nevada Consolidated no doubt long before would have obtained the ground. (14)

Rice and his co-workers shrugged off these attacks and countered them by additional activity. What appeared to be a stroke of genius was accomplished by Rice when he sent a well-known mining engineer, Col. William A. Farish, to inspect the property. Farish's arrival in the district was greeted with a great deal of enthusiasm. The local newspapers, copying word for word from

Rice's own newsletters, gave the engineer a tremendous buildup. (15) Farish inspected the property in a cursory fashion, making no trial assays, and digging no test holes. His report, dated September 6, 1909, was a mass of generalities filled with optimism for the future of the Ely Central property. Two parts of the report were seized on eagerly by Rice and local enthusiasts. The first, "that there is enough ore practically assured from present developments to make of this a large mine, and the prospective values are such that on full development they should, and in my opinion will, place this property in the rank of the largest and best dividend-payers (of the same acreage) now being worked, if ably managed and properly equipped as stated above". The second and more important part read as follows; "Near the southern portion of your property, or, more properly speaking, that portion of it lying in a direct line between the steam-shovel pit of the Nevada Consolidated Copper Company on the west and the Star Pointer shaft and the workings of the same company on the east, has been partially developed by these workings. That is to say, that whereas there has been no development work upon your property within the area between the above works, we take but little risk in assuming that the deposit will extend through your ground". (16) This report obviously became a key weapon for Rice and his supporters. It was made part of a fancy prospectus issued from the B. H. Scheftels office which carried, besides Farish's report, a full page picture of Farish, a story of his life with particular emphasis on the numerous properties he had discovered, a market and mine history of the Ely Central Company, a description of the geology of the copper district, and a map of the property portraying pictorially the important fact that this property was sandwiched between the two excellent deposits of the Nevada Consolidated Copper Company.(17)

Publications of the report and the resulting publicity which followed caused the stock of the Ely Central Company to rise to \$4.25 by November 6. On this same day, the Engineering and Mining Journal carried a story titled, "A New Scheme to Hook Suckers", a story which brought Rice's venture to an untimely end. In this article, Rice's background was carefully traced from his first brush with the law in New York, when as a youth he had been convicted for larceny and sent to the reformatory at Elmira, to his speculative deals at Goldfield and subsequent removal, by request of the citizenry, from the latter area. The editors of the Journal pointed out that Rice was trying to trap suckers by erroneous impressions such as the following: that the Nevada Consolidated Copper Company was a great company, and thus by virtue of being next to it so also must be the Ely Central; that the directors of the Nevada Consolidated were in back of the Ely Central venture (which they were not); and that the Mining and Financial News was a real paper (although it was nothing but a stock booster). (16) The above article was picked up and copied by numerous other magazines and papers throughout the western area. Evidence that these were read and believed by many is indicated by the rapid decline in Ely Central stock from \$4.25 on November 6, to \$1.00 just one week later. (19) The local newspapers were reluctant to face the truth and, when the Ely Central stock plummeted, blamed this fall in price on "the scandalous attack" by the Engineering and Mining Journal. (20)

The final act in this speculative drama began September 29, 1910 when Federal officers made simultaneous raids on the B. H. Scheftels office in New York and its branches in other large cities. The officers of the company were charged with misusing the mails, of operating a "bucket shop", of making false quotations, of charging interest on false securities, and converting securities belonging to customers. (21) Within a week, Rice was arrested by federal officers. He blamed his arrest on the Guggenheims, convenient whipping boys for almost anything connected with the copper industry , stating, "wait until the true story comes out. I am a victim of a conspiracy. The Guggenheim people are after me. But they won't get me. I am innocent." The local paper, the Ely Record, remained steadfast in support of Rice, adding to his quotation that there must have been an ulterior motive in the unwarranted attacks on him by the Engineering and Mining Journal. (22)

While Rice was waiting trial, he put his talents to the task of writing a series of articles titled appropriately, "My Adventures with Your Money", for publication in the Adventure Magazine. (23) The difficulty of convicting anyone in that day and age on such speculative charges as faced Rice was apparent when, after five months of trial, Rice was sentenced on March 7, 1912 to one year in the Federal penitentiary while Sheftels was allowed his freedom on a suspended sentence. (24)

The Ely Central property was placed in the hands of a receiver in November 1910, and after many attempts at reorganization, was absorbed shortly after the Consolidated Coppermines merger of 1913. (25)

The last note on Rice in this period came in March 1919, with his declaration of bankruptcy, with liabilities of \$700,000 and assets which he listed at \$237,000, but which included some \$200,000 of worthless securities. (26)

The Rice episode was by far the outstanding speculative attempt in the copper camps. There were numerous local speculative ventures in the years from 1906 through 1920, but they were of little importance and caused little public reaction in the copper communities.

## CHAPTER V

### COPPER PRODUCTION-1908 TO THE FIRST WORLD WAR

From the moment the Steptoe Valley Smelting & Mining Company produced its first blister copper in the fall of 1908, White Pine County, and for that matter the State of Nevada too, left the silver era of mining development and entered into an even more productive, if less flamboyant, age of copper.

With the beginning of production, the personnel changes, which at times during the construction stage of development had been rather critical, became more stable. One of the basic factors which had helped to create such a problem at first was the fact that three different companies were attempting to operate the copper production of the area as a cooperative venture. Two of these, the Cumberland-Ely and the Nevada Consolidated were concerned basically with the mining of the ore. The third company, the Steptoe Valley Smelting and Mining Company was owned and operated jointly by the other two companies. It was this latter operation which caused many of the early disputes among the supervisory personnel of the companies because the Cumberland-Ely Company was thought by many of the officials of the Nevada Consolidated Company to be nothing more than a stock-jobbing scheme of the Guggenheims to gain control of the copper deposits of the Nevada Consolidated Company. The elimination of Requa in the latter part of 1906 had not solved this problem for many of the eastern officials of the Nevada Consolidated Company continued to resent the activities of the Guggenheims. There is little doubt that J. P. Gazzam's chief difficulty as the first general manager locally, came from his disparaging remarks about the Cumberland-Ely Company. (1)

Control of three companies, after Gazzam's resignation, remained more solidly in the hands of Pope Yeatman, the consulting engineer of all three companies, who managed to keep ruffled feelings in the background until a later date when the companies were merged into one. The local manager chosen to replace Gazzam, a youthful engineer named C. B. Lakenan, proved an excellent choice, holding the job as general manager until 1927 when he resigned.

Another major personnel problem of the early years was solved when C. V. Jenkins became business manager, later Chief Clerk of the companies. The first business manager, or auditor as he was generally referred to, was H. J. Douglas. Almost from the beginning he had difficulties with Gazzam. Adding to a definite clash of personalities was a clash of authority for Douglas maintained he owed allegiance to the central business office and not to Gazzam. This trouble came to a head when Douglas refused to authorize payment of Gazzam's private secretary. After a heated exchange of words, Gazzam resigned and shortly thereafter Douglas was removed, first being replaced by a man named Herman Wise who proved totally incapable of handling the position. In December 1908, C. V. Jenkins was sent to take charge of the business end of the operation. It was an admirable choice for not only was Jenkins an excellent Chief Clerk, but he and the general manager, Lakenan, worked well together.

The stage was now set for the development of this, the third of the low grade copper areas to get into production in the United States. The term "porphyry coppers" soon came to be applied to all of these large, low-grade, disseminated copper deposits which were found in the Rocky Mountains in the United States, or in the Andes in South America. Little attention had been paid these low grade deposits before 1900. After that year, however, improved methods of extraction and reduction of the ore, first put into practice by D. C. Jackling at Bingham, Utah, made possible the exploitation of copper deposits which previously had been cast aside as useless. (2)

The two major copper deposits of the Nevada Consolidated Company, as well as the properties of the Cumberland-Ely Copper Company and the Giroux Company, were originally worked as underground developments. The success of Jackling and Gemmell in introducing the open-cut method at Bingham in 1906, led to similar developments at the Copper Flat property of the Nevada Consolidated Company in the latter part of 1907. It was being demonstrated by these two men at Bingham that where the copper tonnage was great the overburden was from 40 to 100 feet. This had been recognized in 1905 by Channing when he suggested the use of steam shovel mining at the Eureka claim. (3) However, activity in the mines area slowed down after 1905 as the companies turned their attention to construction of railroad and the building of the reduction works. Development work did continue during the construction period and resulted in the decision of company officials to shift the scene of operations from the Ruth mine, where there was little doubt but that the ore would have to be extracted by underground methods, to the Eureka mine area where the less costly open-pit mining could be employed. So in August 1907, steam shovels were introduced and began the task of stripping the overburden in the northeast end of the Eureka mine area. By the spring of 1910, operations there had produced an oval pit, 160 feet deep, 1,000 feet in width, and 2,000 feet in length. Similar operations were started at the Liberty shaft, located about 1,500 feet west of the Eureka Pit, in 1909. The two pits were connected in 1916 to form a single, large pit known commonly as the Ruth. (4)

The stripping activities, or removal of the overburden, was a Herculean task which increased constantly as more ore reserves were proven and the demand for copper continued to rise. One of the amazing features of this tremendous ore body was its seemingly endless extent. A policy of continuous exploration, plus improved techniques and higher prices for the copper metal, made possible the continuous expansion of the proven ore reserve; this, in spite of the heavier and heavier production and lower average copper content of the ore. In 1907 there was a known ore reserve of 14,432,962 tons, averaging 1.97 percent copper. At the end of 1919, there was a proven reserve of 66,414,219 tons, averaging 1.563 percent copper. (5) During the period to December 31, 1920, 30,060,499 tons of ore were milled while 31,141,633 cubic yards of overburden were removed. (6)

The conditions which favored open-cut mining at the Copper Flat properties were not present at the Ruth mine, and so this ore was removed by underground methods. The Ruth mine will be recalled as the original copper discovery of the Gray-Bartley team. From the discovery of the ore body in 1900, enough exploratory work had been done by 1907 to indicate a sizeable copper ore

reserve. For various reasons, mainly concerned with cost, company officials in that year decided to place the Ruth mine on reserve and to actively mine the Copper Fiat properties by the open-cut method. Thus, it wasn't until 1915 that the Ruth mine produced any ore.

W. S. Larsh was hired in that year as Assistant Mine Superintendent and placed in charge of this development. Larsh had worked at the Veteran mine for the Cumberland-Ely Company in the very early days of the camps and then had spent a number of years at the Braden Copper Company in South America. He now introduced a variation of the block-caving system, known generally as the branch-raise-caving system. The particular method used so successfully at the Ruth mine was supplemented by an elaborate system of records devised by Mr. Larsh. These records made it possible for the engineers to chart the efficiency of their operations and to make changes when and where necessary. The main idea in the branch-raise system was to use and control the force of gravity in such a way as to remove as much of the ore as possible and leave the cap rock. By December 31, 1920, ore milled from the Ruth mine totaled 4,404,096 tons, and the recoverable ore remaining was estimated at 11,205,672 tons. (7)

The Veteran mine, the most important mineral deposit of the Cumberland-Ely Company, proved to be a disappointment in the early years of development. Drilling had indicated a sizeable deposit of fairly high grade copper, but the expense per ton compared with that at Copper Flat, and the Ruth Mine, caused officials to close the Veteran mine on the recommendation of Robert Marsh in 1914 and to consider the ore deposit as possible future ore reserves. The Veteran mine to the date of its closing had produced some 641,169 tons of ore averaging 2.69 percent copper. (8) Thus practically all of the production of the Nevada Consolidated Company through the First World War period came from the Ruth Pit and the Ruth Mine.

The character of the ore mined at Ruth indicated to Requa and others the advisability of reducing the ores by a process of milling and smelting. The milling process was necessary to separate the ore into tailings and concentrate, and the smelting process to reduce the concentrate to matte and slag, and then to convert the matte into blister copper. The leaching process, which was used in some of the other porphyry coppers, was not considered advisable here because of the character of the copper ores of the district.

The choice of a reduction site and the construction of the mill and smelter have been considered in a previous chapter. The story from 1908 then, is one of actual production. The large mass of copper ore, decreasing in average value as more and more tons were taken from the earth, was a constant challenge to the engineers, metallurgists, and chemists to devise or adapt new methods of mining and reduction which would enable the company to continue to operate at a profit.

From the moment a mill was contemplated, constant revisions were made to increase its capacity. Thus, before it was finished capacity was increased from 4,000 tons to 9,000 tons. Later the capacity was raised to 12,000 and finally to 14,000 tons in 1917, where it remained until the mill was destroyed in fire in 1922. (9)

When constructed, the mill used tables and vanners for concentrating, and Huntington and Chilean mills for fine crushing. Operational costs from the first compared favorably with similar operations at other porphyry properties, and recovery was generally better.

In 1912 there appeared in the United States a new concept in concentration called flotation. In the flotation process, the copper minerals were made to float off at the top of the pulp rather than to settle to the bottom as under the old process where table or vanners were used. The magic in flotation was the fact that the particles of copper mineral adhered to the bubbles which were made to rise by reagents and the flotation cell through which air was forced, while the particles or gangue, or waste rock, did not. There was no simple scientific explanation for this phenomenon, but none was needed from a practical standpoint for flotation soon proved its advantages over other concentrating processes by being adopted almost universally. (10)

However, there soon appeared a major obstacle to the use of the flotation process in the United States and elsewhere. Minerals Separation, Ltd., a British company with a U. S. subsidiary, held patents which it maintained covered the flotation process. Thus to use flotation, and most copper companies wanted to do so after its worth had been proved at Braden Copper in 1912 and 1913, one either had to pay Minerals Separation for use of its patents or attempt to use one of other flotation processes on the premise that they did not infringe the patents. The first of these processes used agents in excess of "1 percent on the ore" (more than 20 lbs. per ton of ore), the second used the pneumatic cell of the Callow type arguing that this did not involve "violent agitation" as described in the Minerals Separation patent.

Nevada Consolidated Copper Company when it began to install the flotation process in its mill after 1914 used the pneumatic cell, or bubble column process. Minerals Separations then instituted suits against the Nevada Consolidated Company as well as the Utah, Ray, and Chino copper companies who took the alternate method of avoiding the Mineral Separations patents.

Litigation continued in the courts until 1922 when the Jackling companies, including Nevada Consolidated, settled out of court with the Mineral Separation Company. By paying to Minerals Separation a lump sum, which some estimated to be over \$3,000,000, the Jackling companies became parties to a favorable license agreement. Of the lump sum, Nevada Consolidated paid some \$671,505. (11)

At first oils were used exclusively as reagents in the flotation process. However, experiments conducted after 1914 indicated that good results could be obtained by the use of oils and chemicals. In 1917 the Magma Copper Company at Superior, Arizona adopted what was known as X-cake (alphanaphthylamine) as its flotation agent and with good result. In the years to follow, other chemical reagents were discovered and placed in use by the copper companies.

Nevada Consolidated used X-cake and Xylidine, from 1920 until the destruction of its mill in the summer of 1922, with very good results.

The achievements of researchers in finding new flotation agents should not blind one to corresponding achievements by mill mechanics and others in devising new machines and cells and adapting old ones to new purposes in their efforts to keep milling costs at a minimum. And of course what is true in regard to the flotation process is true of each of the major steps necessary in milling for only with continuous experimentation are milling costs kept low enough to ensure profitable operation. (12)

Smelter practice at McGill in the years after 1909 were concerned as at the mill with techniques and research aimed at reducing costs. Experiments were necessary and continuous.

In building the smelting plant, the engineers had the advantage of experience and advice of those who had constructed the Garfield smelter of the Utah Copper Company. (13) Because of this, Lakenan, the general manager, tended to compare performance at McGill with that at Garfield. Sorenson, the smelter superintendent, at the time, pointed out that differences in costs should be taken into consideration and that "in this connection it should be borne in mind that in this plant where the smelter has no contracts with the mills supplying its smelting material and has to take whatever it is given, that in adjusting the balance for the maximum overall profit the smelter may be penalized in a way that precludes comparison with other smelters on an equal basis". (14)

Sorenson's two pet tripes during the early days were first, the condition of the concentrates as noted above, and secondly, the poor roasting facilities. In another letter to his boss, he cited these conditions frankly and with a humor which set him apart from the general run of supervisory personnel. He noted in this letter that "the feature of the supply (concentrates) is its utter irregularity. It varies in quantity, in quality, and in moisture...I am painfully aware that our roaster building is no show place and that our costs apparently reflect no credit...You must have noticed here that when a train is in drawing calcines every man is either out of the building or his head and shoulders is hanging out of the nearest window, and if you have experienced the reason you must admit the cogency and pungency of the argument". (15)

Gradually, under Sorenson, the smelter was adapted to the character of the concentrates and costs began to go down, from \$5.703 per ton in 1908 to \$3.765 in 1913 when Sorenson resigned. (16)

Another problem arising from the smelting process was how and where to dispose of smelter slag. In the beginning, the slag was simply allowed to build up below the converter building. It soon endangered the Matthews and Barnes boarding house and rental units as well as the hydro-electric plant and the McGill Ranch.

Sorenson suggested three plans to Lakenan; dumping by pots, granulating and sluicing, and a combination of water and car transportation. His own preference was for granulating and sluicing, and so suggested that a slag launder be run beyond the ranch as "it is the only attractive spot in this neighborhood ..." (17) Although Sorenson's suggestion of using slag launders was adopted, he was unable to convince others of the advantage of saving the ranch property and within a short time the "black sands" moved over much of the yard area of the ranch house.

A major change in the firing of the reverberatory furnaces was made under Sorenson. A decision was made in the latter part of 1910 to switch from coal to fuel oil. In order to do this, a large oil reservoir was built in the spring of 1911. By August of that year, the change-over to fuel oil was complete and, according to the Annual Report, with a marked increase in the capacity of the furnaces and a reduction of costs. (18)

The use of oil as a fuel was in turn discarded under Sorenson's successor, R. E. H. Pomeroy beginning in 1916. The latter change was made necessary by the increasing cost of oil and the difficulty of arranging for a satisfactory oil supply due to the European War. Coal was again used until April 27, 1919 when pulverized coal firing was initiated. The latter change-over required the construction of a coal plant which went into operation May 1, 1918 with a capacity of 600 tons of slack coal daily. (19)

Perhaps the most colorful incident which occurred under Pomeroy's superintendence was the destruction of the first roaster stack on March 1, 1914. This stack was one of the three stacks which were built at the time of the smelter construction in 1907-1908, but the roaster stack because of excessive moisture and acid in the smoke it carried showed signs of deterioration much more quickly than either of the other two. As early as 1912, huge cracks began to appear at the top of the stack. Soon falling bricks were so numerous as to interrupt the flow of smoke and create a definite work hazard. It was estimated that at the time of destruction over fifty feet had been eaten away from the top of the stack. (20)

In the years from 1908 when the company first began to produce copper until the First World War, the problem of safety was a major one. On July 12, 1912, ten men were killed by an explosion at the shovel pit of the Nevada Consolidated Copper Company's operations. This was the first major accident to strike this company and immediately focused attention on the safety measures which were then employed at the mines and at the reduction works. The fact that the workers killed were of the so-called "foreign" labor gang also focused attention on a particular problem faced by the company in reference to its steam shovel mining operation. The introduction of open-pit mining in the copper mines of the United States corresponded roughly with a change in the nationality make-up of immigration to the United States. Thus, the demand for laborers by the copper companies; particularly, the demand for unskilled and semi-skilled laborers, was met by the introduction of large numbers of workmen from central and southern Europe. The institutional barriers met with in regard to these national groups, especially the language barrier, made additional safety precautions necessary, particularly if these persons were employed handling explosives or in other dangerous positions.

The Nevada Consolidated Company and the Steptoe Valley Smelting and Mining Company recognized this problem by passing a law, effective January 1, 1914, prohibiting employment in underground mines or handling explosives of workers who couldn't speak or understand the English language. (22).

The 1912 disaster was responsible also for additional emphasis on safety through the issuance of Safety First Monthly Bulletins, which started in November 1913. (23) The company issued, as a general supplement to its other precautions, a book of safety rules in three languages besides English; the most unusual appearing was the book in the Greek language. (24)

The Nevada Consolidated Company pushed its safety program further early in 1914 by organizing a Safety Department under a qualified safety engineer named W. H. Droll. (25)

Perhaps the greatest weakness of the safety program in the early years of the Nevada Consolidated Company was the inability of the company to keep workmen constantly aware of the need for safety devices, for all too often safety emphasis declined as accidents declined and became important again only when a major accident occurred. The lack of consistency in the Safety First program in the early years of the company is a failure whose responsibility must be shouldered not only by the company, but by the attitude of the public generally and of the working men specifically.

The financial success of the Nevada Consolidated Copper Company in the years from 1908 through 1920 is told clearly in the payment of dividends, which by the latter year reached \$46,769,616 and in the production figures for the Robinson District for those years of \$166,767,591. During this same period, the Tonopah District had produced \$109,532,249, and the Goldfield area \$80,243,945. (26) This comparison indicates the relative importance of the three districts in the mineral production of the State through 1920. However, it does not show the potentialities of the three areas as of that year. Generally speaking, the southern gold and silver camps had reached their peak long before 1920. On the other hand, the copper area had more ore reserves in 1920 than ever before. It had shown its production abilities during the war years, when the demand for copper was great, by producing over 24 million dollars a year for each of the three years, 1916, 1917, and 1918. (27)

The Guggenheims centralized their position in the Robinson District in the years from 1908 to 1920, by various corporate movements. The first of these occurred in November 1909, at the annual meeting of the stockholders of the Nevada Consolidated Company when it was voted to increase the capital stock of the company by 400,000 shares in order to acquire the Cumberland-Ely stock. The transfer was to be on a basis of 3-1/4 shares of Cumberland-Ely for one share of Nevada Consolidated, a proportion recommended by Pope Yeatman. The merger gave the Nevada Consolidated Company all of the Cumberland-Ely stock in the Nevada Northern Railroad and in the Steptoe Valley Smelting and Mining Company, besides all of the physical assets of the Cumberland-Ely Company. The transfer was consummated August 30, 1910, when the Nevada Consolidated Company took possession of the Cumberland-Ely properties. (28)

A second important result of the 1909 stockholders meeting was a move to combine the Guggenheim interests in Utah and Nevada. As a prelude to this action, the entire capital stock of

the Boston Consolidated Company was delivered to the Utah Copper and the Guggenheims turned over 40 percent of the Nevada Consolidated stock to the same company. (29)

These initial moves by the Guggenheims created a great deal of opposition, both from within the Nevada Consolidated Company and from a number of writers in the professional mining journals. The editor of the Engineering and Mining Journal in rather strong language condemned the proposed merger on the basis that the Utah Copper was badly financed and operating inefficiently, while the Nevada Consolidated was in fine financial condition. It was the opinion of this editor that the Nevada Consolidated stock was being used as a "sweetener" to manipulate consolidation of the Utah Copper and Boston Consolidated. (30)

Much stronger, however, was the opposition which developed within the ranks of Nevada Consolidated officials. In January 1910, President Phillips, of the Nevada Consolidated, issued a circular letter to all stockholders protesting the merger of Nevada Consolidated with Utah Copper on the basis that Nevada Consolidated stockholders were giving up too much in being asked to transfer stock at 2 1/4 shares of Nevada Consolidated to 1 share of Utah Copper. (31) Phillips was unable to stem the tide, although he continued to oppose the merger and indicated strongly that John Hays Hammond and Pope Yeatman had made "a dirty deal with the Guggenheims". (32) Phillips' defeat was indicated even more emphatically when the Board of Directors in April gave Yeatman a vote of confidence. (77) From this point on Nevada Consolidated was controlled directly by Utah Copper through stock ownership.

The last major corporate change which took place in the period before 1920 was the absorption of the Steptoe Valley Smelting and Mining Company by the Nevada Consolidated Company. This event took place August 24, 1914, when the stock of the Steptoe Valley Company held by Nevada Consolidated was exchanged for the physical properties and assets of the smelting company. This was purely a matter of form, for the Nevada Consolidated had controlled the Steptoe Valley Company completely since 1910. On November 28, 1914, the Steptoe Valley Smelting and Mining Company was dissolved. (34)

As noted previously, there were three main mineral areas in the copper belt of the Robinson District; two of these, the Copper Flat properties and the Ruth Mine were owned by the Nevada Consolidated Company. The third, known in the early days as the West End or Pilot Knob area, was owned by various companies. The most active of these, if we except the Veteran property of the Nevada Consolidated Company, was the Giroux Consolidated Company.

The Giroux Company had difficulty getting into production because of financial and operational difficulties, although many experts acknowledged that the company had some good ore prospects. A mill and smelter were planned in 1905, but were not completed until 1907 and 1908, respectively. The 400-ton capacity mill was built at a cost of about \$160,000 but was hampered from the beginning by an insufficient water supply. The smelter, a 250-ton blast furnace, was completed in March 1909, but burned to the ground in December 1908 before it

could be put in operation. (35) Such difficulties as these, plus numerous mine accidents, gave the company a bad name during these years.

In the early part of 1909, a number of rumors were started in the Ely District to the effect that the Amalgamated Copper Company, controlled by the Cole-Ryan interests, would absorb the Giroux Consolidated. The rumors seemed to be substantiated when a new directorate was named for the Giroux Company which included both Mr. Giroux and Mr. T. F. Cole as three year directors. (36) The local papers made the most of these events indicating that there now would ensue a fight to the finish between the Cole-Ryan interests on the one hand, and the Guggenheims on the other. (37)

In August 1909, four directors of the Giroux Company, including T. F. Cole, visited the Ely district and indicated to the newspapers that new concentrator units and a smelter would be constructed by the Giroux Company in the near future. (38) This statement kept the local newspapers alive to the possibility of such construction for over a year. Such rumors die slowly in mining camps, but by 1911, most were convinced that the Giroux had given up hope of building a reduction plant. The dying interest was reawakened in October 1911 by another announcement by the company that a new concentrator would be built. (39) Such rumors as these were pushed into the background when the Giroux Consolidated, in January of 1912, entered into a five-year contract with the Steptoe Valley Smelting and Mining Company whereby the latter would handle 900 to 1,000 tons of Giroux Company ores each day. The first ore under this contract was sent to McGill May 1, 1912. (40)

In 1913 there occurred a consolidation of the West End properties under one management. The new company was to be known as the Consolidated Coppermines Company and was organized under the laws of Delaware with a capitalization of \$8,000,000. The merger brought together many strange bedfellows on the board of directors of the new company including the following; Thomas F. Cole, of Amalgamated Copper; Mulford Martin, first president of the old New York and Nevada Copper Company which had merged in 1904 with the White Pine Copper to form the Nevada Consolidated Company; W. D. Thompson, Guggenheim associate and former vice president of the Cumberland-Ely Company; and W. Hinckle Smith, for many years a member of the board of directors of the Nevada Consolidated Company. Edwin F. Gray, co-discoverer of the Ruth Mine and first superintendent of the Nevada Consolidated Company, was made superintendent of the new company. The merger included at first four companies, the Giroux, the Butte and Ely, the Ely Coppermines, and the Chainman Consolidated. (41) The Ely Central property was added in November 1913. (42)

Under Gray's management, the Consolidated Coppermines added many valuable claims, to its total property. Gray's knowledge of the district, particularly of the Nevada Consolidated Company property, made it possible for him to file many new claims and acquire many old ones which became invaluable to the Consolidated Company in later years.

Inevitably after the consolidation, there came the expected announcements that a smelter and mill would be built by the new company. Two different sites were contemplated, one near the Heusser Ranch on the west side of Steptoe Valley, roughly opposite the reduction works of the Steptoe Valley Mining and Smelting Company, the other at Warm Springs, about three miles from the business center of the Town of Ely. (43) The latter site was the same location which Requa had desired for the Nevada Consolidated smelter which was to be built there in 1905. The area had been sold by the Nevada Consolidated to Thompson and Gunn in order to develop the Ely City town site. It came into the hands of the Consolidated Coppermines by virtue of the big merger of 1913.

The proposed site near the Heusser Ranch brought some reaction from company officials at McGill and no doubt was responsible in part for the events which followed. (44) Within a short time, rumors arose again concerning a merger of the Giroux properties with those of the Nevada Consolidated. (45) This time Nevada Consolidated officials seem to have been responsible for the rumors for in September 1913, Jackling wrote Charles Hayden that "it would be a good plan to acquire the properties, if this can be done at a reasonable price....." (46) Evidently the price was not right for no more was heard for this proposal.

However, by the next year a situation developed in regard to the mining development in the Ruth Pit which pointed the need for some kind of arrangement with the Consolidated Copper Company (Giroux).

Nevada Consolidated, in the process of shovel mining the Copper Flat area had developed two pits, the Eureka on the East, and the Liberty on the West. Adjoining the Liberty Pit was the Ora claim of the Consolidated Copper Company. In order to make a proper approach to the Liberty Pit, it became necessary for the Nevada Consolidated Company to have a right of way over the Ora claim. Consolidated Copper at first granted this right of way without much-question. By the middle of 1914, however, operations of the Nevada Consolidated Company uncovered commercial ore in the Ora Claim. It was then that Superintendent Gray of the Consolidated Company threatened cancellation of the Nevada Consolidated right of way.

It will be recalled that Gray was one of the discoverers of the Ruth mine and had been the first mine superintendent for the Nevada Consolidated Company. The chance to embarrass the latter company obviously pleased him and gave him a chance to ask for a better arrangement from Nevada Consolidated in regard to treatment of Consolidated ores at the McGill reduction works. He hoped to get a better contract for ore treatment by using the right of way as a wedge. He also hoped to get the Nevada Consolidated Company to treat additional ore and so asked that 20,000 tons of ore from the Ora claim be treated monthly. At the moment the price of copper was high and the Nevada Consolidated Company was not at all eager to process more ore for its neighbor. However, they did need the right of way and they also needed additional dumping ground which could also be obtained through contract with Consolidated Copper.

The question of the Ora claim right of way entered a new stage when Gray suggested to Lakenan that Nevada Consolidated might like to buy the claim. Nevada Consolidated officials showed immediate interest for it was obvious to both groups of company officials that Consolidated couldn't mine the Ora without caving Nevada Consolidated property and vice versa. However, when negotiations began the two sides were far apart on the price. Lakenan suggested \$235,000 for the Ora claim alone. Gray countered with a sum of \$500,000 for the Ora alone or \$1,000,000 for the Ora and part of the Westphalia. Lakenan suggested to his superiors that they should go as high as \$700,000 but that the claim was not essential immediately. He did, however, recommend that the claim be purchased within three years. (47)

After negotiating for months Nevada Consolidated officials were willing to offer \$500,000 for the Ora claim and part of the Westphalia. Consolidated officials, however, were unwilling to come down from their price of \$1,000,000 for the Ora, the NE corner of the Westphalia, and additional dumping grounds. So the purchase fell through at this time. (48) Lakenan and Gray did come to an agreement in regard to dumping grounds alone, whereby Consolidated gave up additional space for this purpose, in return Nevada Consolidated agreed to handle 10,000 tons of ore monthly from the Ora Claim. (49) The rumors about construction of a mill and smelter by the Consolidated Company continued for the next few years. The final result, however, was the completion in January 1917, of a 500-ton concentrator near Kimberly and the signing of a new agreement with Nevada Consolidated for smelting of Coppermines concentrates. (50)

## CHAPTER VI

### LABOR TROUBLES IN THE COPPER CAMPS - 1902-1913

The first serious labor trouble in the copper camps came before the area was known to the outside world. The difficulty began about the middle of December 1902, when the New York and Nevada Copper Company, which had been incorporated the same month, reduced the wages of underground miners from \$3.50 for an eight hour day to \$3.00 for a ten hour day. The reduction in wages was the climax of a series of difficulties between the miners and the local management, which had started when John A. Traylor replaced Joseph Bray as general manager of the company's properties at Copper Flat. One result of the difficulties between Traylor and the miners was the organization of the Robinson Miners' Union no. 175, a local of the Western Federation of Miners.

On December 17, 1902, the president of this local, William Lloyd, sent a letter to Mulford Martin, president of the New York and Nevada Copper Company explaining the union side of the controversy. In this letter, Lloyd stated that the miners were of the opinion that Traylor ordered the reduction of wages without authority from the home office in New York City, and that although they didn't want to tell the company how to operate its own properties, they hoped Mr. Traylor would be removed as general manager. The reply sent by Martin on December 26, 1902, was disappointing to the miners for it showed clearly that Traylor had acted on orders from the main office and that there was no intention on the part of the company to remove him as manager.

The union members then took matters into their own hands. On January 6, 1903, Lloyd, as president of the local union, addressed a letter to Traylor which was delivered to him personally the next morning by a group of union men led by Lloyd. The letter was in fact an ultimatum, for it demanded that Traylor accept its terms within 12 hours or be forced to leave the camp. The terms mentioned in the letter concerned mainly the restoration of pay cuts, but the action which followed the delivery to Traylor indicates that personal animosities played a great part in the whole affair.

A few hours after receiving the ultimatum Traylor and his secretary, James P. Gaskill, left Ely for the mining properties at Copper Flat. Before they reached their destination, they were intercepted at Lane City by a group of 23 or 30 miners, mostly union men. Traylor was asked what he intended to do about the 12-hour notice. Before answering, Traylor drew a revolver from his pocket, cocked it, and told the miners to move back. He then indicated that as he was given 12 hours in which to act, he fully intended to take the time allotted. The miners, a trifle confused by this action, allowed the two men to proceed, but almost immediately regretted their action. Consequently, they decided to send a committee after Traylor to discuss the matter further.

Traylor and Graskill, meanwhile, had arrived at the company officials at Keystone, a short distance below the Copper Flat property. The committee of miners arrived at Keystone about

12:00 noon, January 7. The miners, after a short consultation outside, entered the office and again demanded to know what action Traylor contemplated concerning the 12-hour notice. Traylor told the men that he didn't have to comply with their demands. What happened thereafter is quite confusing, for the stories told later by the participants conflict in most instances. It is clear, however, that one or two of the miners moved toward Traylor and at least one of them seized his arm and shoulder. At this point, Traylor managed to get his revolver from his pocket and begin to fire. Of the six men who entered the office, Traylor killed one instantly, fatally wounded two, and wounded two others less seriously. The only one of the group who escaped entirely unharmed was Lloyd, the president of the miners, who according to later testimony was slightly intoxicated at the time. It was brought out later and confirmed by many witnesses that Traylor and Gaskill were the only ones in the office who were armed.

After the shooting, Traylor and Gaskill returned to Ely by a little used route in order to prevent interception at Lane City. When news of the shooting reached Ely, there was a great deal of excitement, mixed with some talk of lynching the two men. However, Sheriff Newman and a single deputy took Traylor and Gaskill to Elok where they were placed in the county jail. (1)

A Grand Jury was called on January 23, 1903 to investigate the whole tragic affair. After seven days of investigation, the Grand Jury, which had as its foreman, former State Senator H. A. Comins, found that John Traylor acted in self-defense in killing the three men and that no shooting had been done by Gaskill. However, the Jury did bring two indictments against William Lloyd, one for kidnap and the second for attempt at false imprisonment. (2)

This incident brought a great deal of unfavorable publicity to the camp and resulted within a short time in the elimination of Local no. 175 of the Western Federation of Miners.

After the Traylor incident in 1903, no further major labor disturbances occurred in the copper camps until the fall of 1912. In the intervening years, a number of labor unions were organized in the district. Most of these were craft unions: Painters' Local 436 in 1906; Bricklayers' Local no. 4, Typographical Local 506, and Carpenters' Local 1326, in 1907; Machinists' Local 212, Carpenters' Local 1572, all in 1910. (3) However, there were two locals of the Western Federation of Miners organized in the district during these same years. The first was known as the Lane City Miners' Union no. 251, and was chartered November 10, 1906. The other was the Steptoe Mine. Mill and Smeltermen's Union no. 233, chartered April 2, 1900. (4)

There was during this period a great deal of opposition, labor and otherwise, to the company policy of bringing into the district large numbers of "foreigners" who were content to work for lower wages than that paid to others. This opposition was particularly strong in the years 1907 and 1908, and received the support of many Ely businessmen and at least one newspaper editor in these years. In December of 1903, the editor of the Ely Daily Mining Expositor, under the caption, "White Man's Camp" stated, "We advocate, especially, the employment of white labor,

meaning thereby an American citizen, who would fulfill the requirements of the same...A white man's camp for white working men..." (5)

The anti-foreign feeling in the district came to a head at McGill in January 1900, when Constable Davis was shot and critically wounded by a Greek. A crowd from Ely and neighboring points went to McGill in search of Davis' assailant. During the search, James A. Smith shot and killed a Greek named Diamantes Kalampokos. Smith was not held at first, but was later arrested at the insistence of the Greek government. However, no legal action was taken against him.

While the Smith-Kalampokos incident was taking place, the local police authorities from Ely rounded up the entire Greek population of McGill, culled what they thought were the good from bad, and placed the remainder in two box cars. It was evidently the intention of the anti-foreign element that the cars be taken to some spot outside the district. However, the Nevada Northern Railway officials, in the absence of any instructions, refused to haul the cars further than the Ely depot. No one appeared willing to pay the expense necessary to have the cars hauled away, and so, very shortly, the cars were opened and the Greeks allowed their freedom. (6) Activity against the "foreign" element continued during 1908 with the editors of the two other local papers joining the position taken originally by the editor of the *Expositor*. The *White Pine News* in an editorial in March 1908 summarized the reaction to the Davis shooting as follows "There was haste and a good deal of unnecessary noise on the part of the crowd that went to McGill at the time of the trouble in the Greek quarter at that point... The spilling of the blood of an officer incited hatred of a class that had not been felt to be desirable and is not desirable, but that at one stage or the development of the camp was absolutely necessary in order that its progress might not be brought to a standstill at the expense of the entire community....." (7) The *Ely Mining Record*, in the same month, joined the opposition, protesting the resumption of operations (after the panic of 1907) with hundreds of Greeks, Hungarians, Slovenian, and Japanese coming into the district. The *Record* went on to say that although it could not be determined if these groups were being brought into the district by the companies under the a guarantee of employment with various companies as common laborers..." It would seem far better policy", stated the article, "for companies to employ home labor, if possible, thus give the people who are interested in the upbuilding of the country an opportunity to make a living...There is one thing positively certain and that is if an effort be made to put the foreign labor into the mines there will be trouble in the district..." (8) By the following month, the editor of the *Record* had no doubts as to the conditions under which the "foreigners" were being brought in, "It is now apparent to all observing people", he wrote on April 18, 1908, "that a systematic effort had been undertaken by the allied interests in this district to supplant American labor by the employment of Greeks. Several hundred of them have arrived during the past few weeks and as they are not in the habit of traveling for their health, it can be set down as a fact that they are here under the promise of employment...The *Record* does not object to the Greek because of his nationality, or for the reason that he is a foreigner, but does object to him for the reason that he is not here to cast his fortunes with the country...His mission here is to cut wages to a point where an American cannot

live, to save a few dollars and return home...No community can prosper on this cheap class of labor..." (9)

The first active labor reaction to this practice came in May 1908, when a mass meeting of workers was held at McGill and a committee appointed to see the general manager about a pay raise arguing that cheap "foreign" labor caused the scale to be low. Company officials refused the request, but put in many anxious moments wondering whether or not a general strike would develop just at the time that the plant was being readied for operation. There was no strike, most of the men going back to work immediately with no change of status. (10)

Union resentment against cheap "foreign" labor began to ease gradually in the next few years. For one reason, this labor was employed at first in unskilled positions and thus didn't compete with the better organized crafts. It soon became apparent also that many "foreigners" had no intention of returning to the old country, but instead wanted to become citizens of the United States and to become part of the union movement.

The Western Federation of Miners, not attracting too much support from the older citizenry since the Traylor incident, was quick to see the opportunity presented by this new labor supply. The union was more successful at first at the mines where the Lane City Miners' Union no. 251 had a roll call of 261 active members as early as July 1, 1903. The W. F. M. attempted to use these elements to lead strike movements in the fall of 1908 but none of these were successful. (11)

By the end of 1909, some of the "foreigners" had moved far enough to the side of labor to take a stand against an employment practice which they claimed forced them to pay tribute to certain company bosses in order to keep their jobs. These charges were common during the development period here as well as in other porphyry copper development. Unable to speak English, these newly arrived employees commonly did business through one of their members, usually designated by the company, who became the "Greek Boss" or the "Jap Boss". It was rumored for years that the Greek and Jap bosses received tribute from their men which, in turn, was shared with other bosses higher up. These rumors were never completely substantiated, though in January 1909, District Attorney Reeves charged that certain grafters were forcing wage-earners to pay to hold their jobs. He claimed to have the affidavits of 60 workers to the effect that they paid \$2.00 a month to keep their jobs. Reeves' charges seemed to be upheld when the Grand Jury accused Gust Johnson and Superintendent Vanderhoeff of extorting money from alien laborers at Copper Flat from June 1908 to December 1908. The Grand Jury asked the District Attorney to take action, but no formal indictments were issued and the matter soon disappeared from the newspapers, but not from the realm of rumor. (12)

During the above activities, the local unions took advantage of the grievances of the "foreign" employees to attract them to their organization. These efforts met with some success and within a short time the new labor union members had an opportunity to demonstrate their organization. On January 19, 1909 a strike was called on all construction work at McGill. The dispute arose

over reduction of wages while hours of work were being reduced from nine to eight. (13) The labor unions maintained that the wage for eight hours should remain the same as the previous scale for nine hours work. The company thought that wages ought to be reduced \$.25 in order to take care of the loss of one hour of work. This would cut the wage for "foreign" labor from \$2.00 to \$1.75 and many of the "foreigners" joined other workers in going out on strike. (14) The company officials, knowing that the "foreigners" were not yet well integrated into the union, acted quickly, giving notice to these men to get back to work at once or draw their time. The threat was effective and most of the "foreigners" went back to work immediately. The other strikers, mainly carpenters, iron workers, and pipefitters, receiving no support for a general strike, settled with the company on January 21 on company terms, and returned to work on the 22nd. (15)

The "foreigners" showed more strength at the mines during this same period. Here they had been assimilated into the Lane City Miner's Union no. 251, the oldest miner's union in the district, and were well organized when they went out on strike on July 1, 1909 against the Cumberland-Ely Company. Their demand was for \$3.50 per day for all men working underground and recognition of the union by the company. The strikers, about 300 men, were mostly Greeks and Serbians. (16)

Lakenan's strategy here was to recommend to Eccles the closing of the Veteran Mine of the Cumberland-Ely and the operation of the plant at McGill entirely on Nevada Consolidated ores, which by this time were plentiful. His -argument was that the union was looking for positive resistance from the company and thus the best way to break the strike would be to close the Veteran mine. Fortunately, the smelter union was not in sympathy with the strike and so the trouble was confined to the Veteran area. (17)

The strike dragged on for over one and a half years without a settlement, for the company could not afford to wait. In May 1911, S. W. Belford, an Ely attorney, acting as a disinterested party but encouraged by public opinion which wanted the strike settled, began negotiations with Lakenan which eventually led to a settlement in October 1911. The miners lost their main point, recognition of the union, but did get a slight increase in pay. (18)

From the labor strike of 1909 until the year 1912, labor made substantial gains in the copper camps. In November 1909, the smelter union at McGill, unable to obtain facilities in the company area, erected a labor home at Steptoe City. Its membership at the time was approximately 450 men. (19)

In September 1910, a local labor party was formed, holding its first convention at the County Court House at Ely on September 28. The party placed a slate of candidates in the November election and publicized a platform favoring the direct primary, the initiative, the referendum, the recall, free textbooks in the schools, and safety devices in the mines. The party was not strong

enough to place any of its candidates in office, but made enough showing in the election to indicate a growing emphasis on organized labor in the district. (20)

During the latter part of 1910 and throughout 1911, evidence accumulated that the more radical labor unions in the west were moving into the district. A Socialist local was organized September 3, 1911, but did not become very important in the labor movement of the district. Then too, throughout the year 1911 many members of the I. W. W. moved into the area making their headquarters at Riepetown, which had become the center of union activity at the mines area after the calling of the Veteran strike in 1909. The I.W.W. soon proved to be a disrupting influence for it brought with it into the copper camps grievance and hatreds accumulated from many years of unsuccessful labor warfare against employers at Coeur d'Alene, Cripple Creek, Goldfield, and other mining areas of the west.

In spite of the entrance of the Socialists and the I.W.W., the labor organizations in the Robinson District were definitely in the hands of conservative forces when a major labor disturbance rocked the Guggenheim copper holdings at Bingham, Utah, on September 18 1912. (21)

Conditions which brought about the strike at Bingham were recognized by many as among the most deplorable working conditions of any mining area in the west. Failure of the company to rectify these conditions, the continuance of a wage scale which was thought by the unions to be unjust, and the desire of the union to gain recognition from the company, brought about the strike. The strike was led by the Western Federation of Miners, officially separated, by this time, from the I.W.W. on a national scale, but very closely allied with the latter group on the local level. Charles H. Moyer, President of the W. F. of M. took personal charge of the Bingham strike.

The progress of the strike at Bingham was followed closely by both employees and employers in the Ely district, for the two copper areas were controlled by the same general financial interests. Knowing that the Bingham strike might well move to the Guggenheim properties in the Ely district, the Ely Central Labor League (dominated by A. F. of L. craft unions), on September 21 voted against support of the Bingham strike. This action was somewhat nullified when President Moyer of the W. F. of M. visited the McGill Miners Union no. 233 and obtained from that group a unanimous vote, September 23, to support the Bingham strike. This was followed September 24 by similar action from the Lane City Miner's Union no. 251, also at the instigation of Moyer. (22) This little struggle between the laboring forces within the district was the result of two widely different approaches to the solution of labor's problems. Similar struggles had taken place in earlier labor difficulties in the mining areas and many more were to follow in succeeding years as the contestants struggled for labor leadership. The one viewpoint, held by the conservative A. F. of L. unions in the district, was to move slowly, use no violence, but maintain steady pressure for legitimate objectives. This viewpoint at the time emphasized local solution of local problems, and obviously was encouraged by the company officials as soon as the strike developed. The other viewpoint, held by W. F. of M. and the I. W. W. was that only united action, violent if

necessary, would be to any avail in gaining objectives from well-organized companies who could very well afford to close down one camp while continuing to operate their holdings. This group knew from past experience that it could expect little success if the strike remained a local one at Bingham. Thus, every effort was made to extend it to other Guggenheim properties. It was inevitable under these circumstances that the strike would, in course of time, reach the Ely district, in spite of the fact that there were no major areas of conflict between the employees and the company at McGill and Ruth at this time. (23) There were, it is true, numerous grievances that needed attention, particularly the wage scale employed and some minor working conditions. Moyer took advantage of these small grievances to issue a demand on the company for a wage increase and recognition of the union by the company. The initial demand by Moyer for a wage increase was for a \$.25 a day raise for all employees. The company, when presented with these two demands indicated a willingness to raise wages and went so far as to post a notice to the effect that wages would be increased \$.25 a day for those receiving \$3.00 or more and \$.20 a day for those receiving less than \$7.00. The raises were to be effective October 1. The company refused point blank to recognize the union, or even to discuss the issue with the union leaders. (24)

Following the raise increase, a mass meeting of employees was called at McGill for October 2. The meeting had been announced by placards placed throughout the community, but no one admitted responsibility for this action and the local newspaper, Copper Ore, indicated it had been unable to find any indication as to the responsibility for this distribution. (25) The Mine, Mill and Smelter Union officials said both the raise in pay and the mass meetings were moves by the company to weaken the labor movement in the district so that it could continue to exploit the working man.

At the mass meeting which was attended by an estimated 1,000 employees and town people, a number of speakers, mostly working men, voiced loyalty to the company and against the strike. Moyer attempted to speak but was shouted down and so left the meeting accompanied by many of the members of the local miner's union. (26) The same evening, this group met at their hall in Steptoe City and with Moyer in attendance voted to walk out at McGill on receipt of orders from the W. F. of M. officials. This vote of the union was taken on October 2 with an estimated 200 members present. (27) The action at McGill followed a similar meeting of the miner's union at Riepetown, called by Moyer, at which time the Lane City Union had decided to go on strike at the mines on October 2. (28) On that day, at Veteran mine and Copper Flat, strikers armed with rifles called in all engines and drove the "foreigns" out of the pit. According to officials of the company, none of the railroad crews went out on strike except through intimidation. (29) This strike affected directly only those men employed at the mines, approximately 1,600 workers. However, with the mines closed, it was but a few days before the smelter at McGill was forced to curtail operations because of lack of ore.

During these preliminaries, many people of the district, and at least one newspaper editor revived the anti-foreign feeling to blame the "foreign element" for fomenting the labor troubles. There is

little doubt that the W. F. of M. leaders had been recruiting these laborers for the past few years and were now using them to gain their own objectives against the Guggenheims. However, many of the so-called "foreign element" were loyal to the company and attested to this fact publicly through a notice in one of the papers to the effect that only about 13 to 14 percent of the Greek employees at McGill belonged to the Union, that most of the Greek employees were against the strike, and that they were in no way to blame for the situation, and were being condemned unjustly. (30)

The call for a general strike in the Robinson district came on October 14 on orders from Moyer, signed by local leaders, then in conference with Moyer and other W. F. of M. officials in Utah. The announcement came so suddenly that over a hundred smelter employees, operational crews mainly, were unaware that a strike had been called so appeared for work Monday morning. Many of these, as well as others from the "graveyard shift", were inside the gates when pickets were placed by the union officials. They were encouraged by the company officials to remain inside. Thus, a situation developed whereby a sizeable group of employees were inside the yards, obviously on the company's side, while surrounding the gates were the pickets stationed by the W. F. of M. Most of the employees, for one reason or another, respected the picket lines and remained at home or gathered from time to time to watch the activities near the gates. It is quite obvious, from reports of numerous individuals who participated in the entire proceedings, and from the newspapers, that only a small part of the entire labor force at McGill was involved actively in this strike. It is equally obvious that the picket lines were effective enough by Tuesday morning to prevent operations by the company.

It was during the second day of the strike, Tuesday, that activities near the gates between strikers and non-strikers turned from word battles to rock battles. The fact that many individuals on both sides of the fence were armed indicated that more violent action might be expected. The sheriff agreed with Lakenan that the situation might get out of control and so both wired the Governor of Nevada Tuesday morning for help. (31) Meanwhile County Sheriff Crain deputized 60 men to help patrol the situation at the mines-and within the smelter. (32)

On Wednesday, October 16, thirty strike breakers from the Waddell-Mahon corporation, now in the employ of the company, arrived at McGill from the Western Pacific terminal at Shafter. Lakenan had assumed that these company guards would be deputized by the sheriff. However, when Sheriff Crain was asked to do this he refused, saying he had the situation under control. From the standpoint of public relations, the entrance of the guards, who had reputations as professional gunmen, was a mistake on the part of the company for it turned the sympathy of many from the company to the strikers and led to charges that the company was unwilling to negotiate in good faith with the workers. Lakenan's decision, or perhaps more realistically that of his superiors, no doubt was conditioned by the general reputation of the I.W.W. group, previous experiences with the radical leaders during the Veteran strike, and above all the general anti-labor feelings prevalent in the western mining areas.

Regardless of the motives in calling for the guards, their arrival created an explosive situation for the strikers refused to allow them entrance into the smelter area. Governor Oddie, who had arrived late Tuesday evening, indicated at the time that he was ready to call for the State Police if necessary. The arrival of the guards Wednesday morning disturbed him, but he managed to convince Lakenan that they should be sent to Ely until he Oddie, had a chance to talk to the men. The train bearing the guards was then sent to Ely and Oddie, on Wednesday afternoon, made a speech before the strikers at the entrance to the smelter. In the course of his address, he asked for a peaceful settlement and offered the workers his good offices in bringing about a settlement fair to both sides. He asked also that food provisions be allowed to enter the gates. (33)

On Wednesday morning, two wagon loads of food had been delivered to the men inside the gates without opposition from the strikers, but on the third trip the strikers became suspicious that company officials were trying to open the gates to allow men to enter, and so refused to allow the wagon to pass. A few hours after the Oddie speech, company officials decided to make another attempt to move the food wagon inside the gates. Tacit agreement was given by the strikers, but in the general confusion they did not at first realize that the thirty strike breakers were moved in the same time by flat-car. The strikers now were in an ugly mood. Governor Oddie was disturbed by Lakenan's decision to move in the strike breakers without consulting with him. Under the circumstances, he thought it best to wire that evening for the State Police. On Thursday morning, October 17, an attempt was made by the company to admit a man through the gates. Strikers hurriedly assembled, giving evidence by their threats that they were in no mood to let his challenge go without protest. In order to frighten the strikers, many of whom were armed, the leader of the Waddell-Mahon guards ordered his men to fire. As a result of this action, two men were killed and a third was severely wounded; all were Greek. The situation was critical. Reprisals against the strike-breakers were threatened but before any definite action could be taken, Governor Oddie who had been summoned immediately after the killings declared martial law. Union officials, through their lawyer, then obtained warrants for the arrest of C. B. Lakenan and C. V. Jenkins (company officials) for the murder of the two men. Governor Oddie, after the declaration of martial law, refused to allow the warrants to be served. (34)

State troops, numbering 90 men and under the command of Captain Donnelly, arrived in McGill October 18. They immediately closed all saloons near the mines and the smelter and disarmed the company guards and the strikers who had been carrying weapons. Under the protection of the state police, employees gradually returned to work at the mines and the smelter. (35)

Following his promise of October 16 to the employees, the governor appointed a commission made up of a company representative, a union representative, and a representative from his office. A settlement was reached late in October whereby the men were to receive the same increase as before the strike; the union was not granted recognition by the company, but employees were to be returned to their old positions without recrimination. The Ely Central Labor League then called off the strike October 28. (36)

The pledge of no recrimination was challenged almost immediately against D. C. Jackling, President of the Utah Copper Company. In answer to these charges, Jackling said, "We shall use our own discretion in the matter of reemploying strikers. This can be called discrimination, selective action, good judgment, or whatever one pleases, but we will hire only those we think will be good workmen". (37) However, Lakenan was careful not to give cause for such charges at McGill and Ruth. In a letter to Pope Yeatman he stated, "I am careful not to give any orders about discrimination and have advised the department heads to work entirely for high efficiency. I am also careful not to get in a jam by blacklisting as between the Steptoe Valley Company and the Nevada Consolidated for the reason that there is a misdemeanor statute in the State of Nevada against blacklisting as between two companies..." (38)

An aftermath of the strike came when the coroner's jury, which had been appointed in the deaths of the strikers at McGill, returned a verdict early in November 1912, that George Prinaris and Nicholas Papagianuckus (commonly known as Nick Pappas), "came to their death by gunshot wounds inflicted by parties unknown, and find that the killing was unnecessary by any persons or parties and we recommend a thorough investigation by the Grand Jury". This report was followed almost immediately by issuance of warrants against 21 of the guards employed by the Nevada Consolidated Copper Company during the October strike. The warrants charged each of the 21 with murder and were sworn out by Anthony Jurich, local attorney for the W. F. of M. (39) The 21 were arrested and held for the Grand Jury. The Grand Jury, after taking evidence from both sides, issued its report November 26, 1912, finding no true bill against the alleged slayers of the Greek strikers. (40) Jurich continued to try, during the early months of 1913, to have the case resubmitted to the Grand Jury. District Judge Coleman refused to do this pointing out that evidence indicated that some of the hired guards shot over the heads of the strikers and some were guilty, but that it would have been impossible to find the guilty ones and was unheard of to convict the innocent with guilty. (41) There were those who pondered the responsibility of the leader who had given the order to fire.

## CHAPTER VII

### THE COPPER TOWN, 1908 to 1922 - THE PATTERNS OF TOWN GOVERNMENT

In the years between 1908, when the first blister copper was produced at McGill, until the year 1922, when the big concentrator was destroyed by fire, the copper camps with one minor exception, Reipetown, left the boom stage of development and settled down to an era of quiet development.

The political patterns which were developed in these years offer interesting variations, for within the Robinson District were incorporated cities and towns, towns governed under the Town Board Act of 1881, towns under direct county control, and company towns.

The most important incorporated area in the district was Ely, the oldest town in the copper area. From 1887 when Ely became the county seat of White Pine County, until the Gray-Bartley copper discovery in 1900, the political history of the town cannot be distinguished from that of the county. It was so quiet in the county during those years that the county officials required by law were sufficient in number to handle not only the county affairs, but the local town affairs as well. There was never a suggestion in these years that Ely incorporate or even that she take advantage of the Town Board Act of 1881 in order to gain additional political rights.

A severe labor disturbance in 1903, and a slow but steady stream of miners into the area, set in motion a petition asking that the Town of Ely be placed under the Town Board Act of 1881. This petition was filed and accepted by the County Commissioners on April 7, 1903. (1) The commissioners, as soon as these preliminaries were completed, established boundaries for the town and passed the first two town ordinances: the first designed to prevent the placing of obstructions in alleys or streets; and the second, to prevent the throwing of waste or refuse matter into any of the streets or alleys or into the "Ely high water ditch", or into Murry Creek. (2) Later, ordinances controlling the speed limit of vehicle and providing for the levying of town license taxes were passed. The usual problems of sanitation, police protection, fire protection, street improvements, prostitution, et cetera, soon were placed before the Town Board, but no real solutions to any one of these problems were made before efforts to incorporate the town were initiated.

Indications that the Town Board set-up was not functioning smoothly came as early as June 1904, when a Citizens' Alliance was formed. This Alliance had two stated objectives: first, to maintain law and order, to promote harmony and good fellowship between employers and employees, to condemn all unlawful acts on the part of either, to work for the best interest of the county and to strive for industrial peace; and second, to promote confidence in the camp as a law-abiding community, so that capital would feel free to enter. The Alliance assured one and all that it abhorred any violence, coercion, or persecution on its own part. The formation of this group no doubt was due in part to an attempt to overcome the bad publicity of the labor difficulties of 1903, but the fact that it was organized at all attested to the fact that many of the

leaders of the community had little faith in the ability of the county fathers to keep peace and order. (7) The Citizens' Alliance soon lost its early aggressiveness as it became apparent that additional police protection was unnecessary.

A second criticism of the Town Board came in relation to its failure to do something about the problems of sanitation and fire protection. In spite of the fact that Ely dated its history to the 1870s, no real need had arisen to force development of a modern sanitation system. It is true that no epidemics broke out here during the early days of the copper rush as they had at Tonopah and Goldfield when sanitary facilities broke down completely in those two towns; nevertheless, it was necessary from time to time for the county officials to warn the citizenry against breaking the town ordinances concerning sanitation. The local newspaper, after 1900, from time to time made feeble efforts to force some action by printing articles such as the following: "Ely is getting to be too large a place for people to empty their rubbish in the streets and alleys and throw the house slop in their back yards, the polluted water to sink into the ground, thence into the nearest well, and the germs of the decaying solid matter to be blown about promiscuously..." (4) Warnings from the commissioners and the newspaper accomplished little. It seemed to many that the only solution would be the installation of a new sewerage system. This project received little attention from the county officials until the White Pine Chamber of Commerce was organized on March 3, 1906. (5) This new group began exerting pressure on the county officials not only for a new sewerage system but also for a more adequate water system and more efficient fire protection. Efforts of the organization to improve sanitation facilities in the community met with some success when the county commissioners in October 1906, granted a sewer franchise to a number of local businessmen. (6) It was to be some years before the sewerage project was actually started; however, the work of the Chamber of Commerce had centered attention on the sanitation condition in the community and led to the elimination of the most flagrant abuses.

Fire protection at Ely in 1900 was a hit or miss affair. Population movement into the area after this date, and the subsequent erection of many tent and wooden buildings caused many citizens to take the problem before the town officials. Little action was forthcoming from these officials so the people turned to a device used often in the mining camps to get results when other means had failed, and called a mass meeting to be held at the County Court House February 15, 1906, for the purpose of taking steps to organize a voluntary fire department. The mass meeting resulted in the organization of a temporary fire department with C. R. Reeves as its chief. (7) Within a short time, the temporary organization gave way to a permanent Volunteer Firemen's Organization.

Lack of cooperation from the county officials, acting as a Town Board, in seeking solutions to the various town problems, particularly at a time when population increase was aggravating these problems, led many businessmen to see in incorporation the only hope for efficiency in town government. One of the major reasons for desiring a separate political organization was a financial one. The County of White Pine had been in debt since 1872, issuing scrip at that time and later which was still largely unredeemed. (8) So long as Ely remained directly under control

of county officials, it was obvious that this debt burden would be used by those officials as the reason for not making necessary town improvements. The original license tax for the Town of Ely, passed in 1907 by the Town Board, had proven insufficient for the needs of the community. Consequently, in May 1906, the Chamber of Commerce called a mass meeting which met at Ely Hall, Sunday evening, May 6. The result of this meeting was to recommend to the commissioners that an adequate tax be levied and that the county loan the town the sum of \$4,000 for town improvements. (9) Failure of the White Pine County Commissioners to take action on these recommendations in 1906 was followed by a movement for incorporation, which was led by the Chamber of Commerce.

The demand for incorporation increased steadily in the spring of 1907. By May of that year all preliminary requirements had been met and a judgment and decree incorporating the Town of Ely was entered May 2, 1907 by Judge Brown of the Fourth Judicial District. The only protests to the incorporation came from the Ely Townsite Company (Ely City) which seemed to be harboring ambitions of its own along these lines. The protests were overruled by Judge Brown and on May 6 the city was divided into three wards by the County Commissioners, who on the following day established its boundaries. The first city election under the new charter was held on June 15. (10)

Incorporation brought with it a more orderly approach to the settlement of the basic problems of fire and police protection, street watering, paving of streets and sidewalks, and adequate water and sewerage systems. The solution to these problems in most cases was not immediate and a great deal of pressure from business organizations, from the newspapers, and from citizens of the town, was necessary before action was taken. The problem of finance was a continuous one and entered the picture whenever any of the other town problems were discussed. It was evident within a short time that city officials could become just as apathetic toward necessary reforms as had been the County Commissioners before them. However, when this occurred, the citizens could bring pressure on officials whose main duties were concerned with a specific city area, and whose attention, therefore, was not diverted by county problems as was the case at Tonopah and Goldfield. Perhaps the best example of how the spotlight could be focused on these city officials came in the early part of 1909 when a Citizens Municipal Party was formed. This party held a convention April 10 and nominated candidates for each city office. Their platform was based mainly on the reforms thought necessary in the town government, including such items as an adequate finance program, improved streets and sidewalks, a better sewerage system, more efficient police protection, restriction of vice, and more efficient operation of the town government. At the election which was held on May 4, the Citizen's ticket elected its entire slate, with the exception of one councilman from the first ward. (11)

Other than the continuing problem of finance which was always an issue in local politics, the combination problem of liquor, gambling and prostitution was the most difficult to solve. This problem had been faced by each of the mining communities of the previous mining eras and little real control achieved. It was to be faced in these years by officials of the mining towns of the

copper district where hope for solution seemed little better. Actually, as far as Ely officials and officials of White Pine County were concerned, the basic problem was soon aggravated by the decision of the large copper companies to establish company towns under rather strict company control. This decision caused many miners to seek diversion outside the limits of the company to where control by the county was exceedingly difficult.

The city council at Ely attempted by ordinance to keep the red-light district within its established boundaries, and usually one city policeman was charged with the duty of patrolling the area. The increase of population within the Robinson District, particularly of single men, made control difficult and soon the red-light district began to spread into nearby residential areas. The growth of this area, which was located in the western part of town and thus sometimes referred to as the "Sunset District", by 1907 had reached such proportions that organized efforts were made during that year and periodically thereafter, either to eliminate the nuisance or keep it within its prescribed boundaries- These movements for control were generally led by the ministers, school officials, and property owners from the surrounding areas. Reverend Hunting of the Episcopal Church was particularly active in attempting to get some action from city officials. He became a regular attendant at the council meetings. There, armed with reports from the newspapers about the numerous brawls in the red-light district, and with petitions signed by hundreds of property owners, he bombarded the city fathers with verbal blasts for not doing something about the problem. Eventually he got the council to agree to the erection of a high board fence to surround the restricted district. Although Hunting and others continued to prod the city officials from time to time, the fence was never completed. (12)

Here, as at Goldfield and Tonopah, the greatest barriers to adequate control of the restricted district were those property interests which controlled the area. These owners, although they might fight bitterly against each other, presented a united front against any attempts to confine the district within specified limits after all; property in this area was worth ten times that in the residential areas. The city officials found themselves being pressured by two groups of property owners: one group, with the support of many citizens of the town, fought extension of the district; the other group, and often more powerful economically, fought such attempts at limitation, and actively, though generally secretly, pressed city officials to take no action. (17)

Another basic difficulty in controlling this problem was the widely held belief obviously encouraged by the proprietors of the restricted districts, to the effect that confining prostitution to such areas was the most effective way of controlling a problem which had faced mining camps in the past, and no doubt would continue to face those of the future. Newspaper accounts of the arrests of prostitutes outside the limits of the restricted districts, accounts which continued during most of the early history of the camps, attested to the fact that district confinement was not as effective as many of its supporters indicated. (14)

There were periodic attempts by city officials to curb criminal activities within the red-light district. These attempts usually followed trouble in the area such as drunken brawls, opium peddling, or murder. Such attempts at cleaning-up the area were half-hearted and seemed more

tuned to quieting the public than in effectively controlling the area. In a few instances, city officials were stirred to action by the activities of federal agents, who in a number of instances uncovered white slavery and narcotics activities within the district. (15) Grand Jury reports, even when they noted extreme conditions of corruption and criminal activity, were not effective in controlling the redlight district in Ely. A disastrous fire in June 1920 practically destroyed the area. (16) It was soon rebuilt, however, and continued in existence until World War II, when military orders forced its closing.

The prostitution problems within the city of Ely was mild, however, compared to that faced by the county officials in the numerous unincorporated towns which arose as a result of the copper boom. Here the problem of control was aggravated by distance, lack of enforcement officers, and, as mentioned previously, by the fact that company control in the three towns of McGill, Ruth, and Kimberly, forced prostitution activities from these communities into fringe areas nearby. The fact that the population of these three company towns during the development and boom periods was heavily weighted toward single men, who had few opportunities to squander their semi-monthly pay checks within the company town, hurried the rise of these small, parasitic communities whose main attraction were to be liquor, gambling, and women.

Three such towns early vied for the trade from the smelter camp at McGill. One of these, Smeltonville, a few miles southwest of McGill, had been platted originally as a suburban town site, and only turned from this development when the decision of company officials to house their own employees at McGill took away the main reason for Smeltonville's existence. Some of those who had invested in Smeltonville real estate saw in company control of the McGill town-site an opportunity to establish liquor and gaming establishments, and of Smeltonville a center for smelter employees during their off-duty hours. A certain amount of success came immediately, but Smeltonville was too far away from the center of McGill, and soon its business slacked off as other fringe areas, closer to the smelter, were established.

The second of these parasitic towns was Steptoe City, located above the town of McGill. Although the distance from the center of McGill to Steptoe City was not great, the climb was steep enough to separate the real gamblers and drinkers from those unwilling to make the effort needed to climb "Steptoe Mill". On the other hand, this location worked to the advantage of those who tarried too long at the houses of vice, for the return down the mountain took little exertion. This town site was surveyed July 9, 1909 and approved by the county commissioners about a week later. The initial purpose of the town site, no doubt, was similar to that of that of the Smeltonville development but again company decision ruined the hopes of these that saw this area as a real estate promotion. (17) Within a short time after its initial survey, Steptoe City was a booming cluster of saloons, gambling houses, and "dance halls".

By far the most wide open of the sites near McGill was a cluster of shacks known variously as the Ragdump or Ragtown, located about two miles north of the smelter town. The area was as nondescript as its name testifies and came into being solely to attract the men and their money

from the bustling camp of McGill. During the boom day, there were four "dance halls" at Ragdump, which competed with each other for the trade of the smelter town. The height of this competition was reached when the proprietors of each of these "halls" hired a horse and a buggy and offered free transportation both ways from the Copper Club in McGill to their respective places at Ragdump. (18) Certainly there was no thought here of a housing development; one purpose alone brought the Ragdump into existence.

Little control was exerted by county officials over these communities. Insufficient manpower made it impossible to properly patrol them. However, some pressure could be exerted by refusal to grant liquor and gaming licenses. This latter method was not resorted to by the officials unless and until public pressure forced such action. The first indications that the two areas, Steptoe City, and the Ragdump, were getting out of control, came in June 1909 with the publication of a Grand Jury report which labeled them as "Sinks of Vice and Breeding Spots of Crime". (19) The Grand Jury report of 1909 did little more than force a short-lived cleanup of the two places, during which time the worst offenders went into hiding until the pressure decreased. Public attention was focused again on the Ragdump in 1912 and 1913 when federal agents arrested many of its inhabitants on charges of white slavery. Numerous complaints were sent by McGill residents to the county commissioners immediately following these arrests, but no action was taken. Finally in August 1914, three hundred residents of McGill, alarmed by reports that many high school age youths were being attracted to the area, signed and presented a petition to the Board of County Commissioners with the request that liquor, gambling, and dance hall licenses of all clubs at Steptoe City and the Ragdump be cancelled. The petition, this time obviously backed by company officials at McGill, was enough to get action; and when these establishments requested renewal of their licenses in September 1914, they were refused. (20) This decision was enough to force Ragdump into virtual obscurity. Steptoe City continued to exist, but more as a place of temporary residence for those workers and their families who could not find accommodations in the main part of McGill. The area received some attention during the prohibition when it was alleged to be a hand-out for local "moonshiners". (21)

The problems of Ragdump, and that of Steptoe City, were minor when compared to those faced by the county officials in respect to the town of Rieptown. Its location, between the two mining communities of Ruth and Kimberly, seemed to insure a bright future as a residential area. (22) Progress in this direction encouraged the citizens to request that their community be placed under the Town Board Act of 1881. On September 4, 1908, the county commissioners, satisfied that all legal requirements had been met, established a town board government for Riepetown. (23) This change brought with it a constable for the area and more attention to its problem by the county commissioners, who now governed the community as a Town Board.

Two policies of the copper company officials soon entered to change the course of the town's history. The first, a decision to encourage the development of the Ely Townsite Company's Ely City as a residential center for company employees a decision which was soon followed by another, seemingly contradictory, decision to build more company houses at both the mines and

the smelter. The second policy, which stemmed from the first, was the determination of company officials to keep the company towns free of prostitution and to control effectively saloons and gambling halls within the boundaries of company property. These policies, and they were adopted ultimately by both the major copper companies in the mines area, the Nevada Consolidated in respect to Ruth, and the Consolidated Company in respect to Kimberly, had the effect of turning Riepetown into a center of saloons and dance halls rather than of homes.

The first official recognition of its new fame came in February 1909, when District Attorney Reeves announced that the cribs and dance halls on the main street of Riepetown had to be discontinued; and if this were done, "with proper management, Riepetown can soon be made a business center in importance second only to Ely and McGill". (24) Mr. Reeves was prophetic in one sense, for Riepetown soon did become a business center of sorts, but one which emphasized merchandise not contemplated by the district attorney. Reeves was persistent in his desire to give Riepetown a better moral tone, and so continued to press for removal of the dance halls and cribs by applying a Nevada law which prohibited dance halls on the main streets of Nevada towns. However, when he attempted to carry out application of the law, the Riepetown businessmen hurriedly decided that "in order to work the least hardship on property owners, some of whom have dance halls on the Main Street", Pheby Street, two blocks south would be designated the main street of the community, thus leaving the dance halls intact and at the same time satisfying the letter of the law. (25) Such evasive fighting by Riepetown residents was to become a major stumbling block to any future attempt to cleanup this town.

From an administrative standpoint, the Riepetown problem increased tremendously after 1909, corresponding with tighter control by the companies in the company towns. In March 1909, it was discovered that the Riepetown constable, George Sheard, appeared to be connected with a gang who made a practice of luring victims from the bars, or cribs, into the back alleys where they were beaten and relieved of whatever money they had in their possession. (26) The case attracted the attention of the White Pine Grand Jury which proceeded to indict the constable and an accomplice named Terry. Sheard and Terry were brought to trial finally in June 1909, and after a rather lengthy session, were found not guilty by the jury. According to a spokesman for the jurors, the decision was reached only because the jurors felt that some of the witnesses for the state had been so deeply involved in the affair that to jail only Sheard and Terry, although obviously guilty, and allow the others to go free, would be a gross injustice. What really irritated the editors of the local newspapers and many of the citizens in the communities outside Riepetown, was the big celebration held upon the release of Sheard and Terry from the clutches of the law. (27)

The furor over the Sheard case hardly had quieted when the Grand Jury released its report. Although the report blasted establishments at the Ragdump (Ragtown) and Steptoe City, its choicest words were reserved for Riepetown. In respect to the latter town, the report summarized as follows "At Riepetown, we find one legitimate business and sixteen saloons, besides numerous 'cribs' and rooms occupied and used for purposes of prostitution and other vices.

Practically the sole business of the place is the selling of liquor, gambling, and prostitution, while the sole occupation of the tin horns, pimps and blacklegs, who are permitted to infest the place, is the fleecing of unwary miners and other wage earners, and living off the earnings of prostitutes. A noteworthy instance of the degradation existing was shown by the testimony in the recent case tried from there, that an officer of the law, supposed to uphold law and decency, was living with a prostitute in a state of illicit cohabitation". (28)

For a few years after the Sheard trial and the release of the Grand Jury report, the county commissioners looked more carefully at license renewals for Riepetown. By 1912, public opinion had lapsed again into its normal state of apathy and Riepetown was going again at full swing. Brawls in the streets and dance halls were common occurrences, and it was unusual for a night to pass without a robbery, drunken brawl, or murder, taking place in the community. As the editor of the Ely Record remarked ruefully in 1912, "when there were several hundred men of many nationalities in town, and when they were all filled with 'Riepetown Red', fights began to occur all over the place." (29)

Riepetown managed to weather numerous Grand Jury reports after 1909, and so continued to act as the social center for the miners of the area until a disastrous fire on Saturday, June 8, 1917, destroyed most of the main business area, with a loss estimated at \$50,000. Once having started, there was little opportunity to control the fire for Riepetown had no fire equipment and had neglected an adequate water supply when it was discovered that other liquids were more profitable. There was a great deal of pessimism in the community after the fire until Superintendent Gray of the Consolidated Copper Company, some of whose employees lived at Riepetown, promised to lay a three inch water main into the town if the people there would agree to "cut out a lot of the wild and woolly stuff". (30) The residents agreed and the town was soon rebuilt along lines that many hoped would make for more respectability.

It was not long, however, before many businessmen whose establishments had been ruined by the fire, applied to the county commissioners for licenses to operate saloons. The commissioners agreed to grant such licenses if the saloons would close at 12 midnight and stay closed until 6 a.m. the next morning. This was satisfactory to the saloon owners who were ready to do almost anything to get back into business. (31) Not long after this, the question of prostitution within Riepetown arose to plague the commissioners when a petition, signed by many residents of the community, was presented to the Town Board asking that a restricted district be established on the outskirts of the community. The main reason listed in the petition was the fact that since the fire and the elimination of the cribs, prostitutes, prohibited by law from entering the saloons, were congregating in the streets and creating a nuisance. (32) This petition was not granted, but it mattered little; for within six months, Riepetown was as prosperous as ever, paying little attention to the hour limit set by the commissioners or to the law concerning women in saloons. As soon as Riepetown turned again to a life of vice, the more respectable elements of the town and surrounding areas began circulating petitions asking the county commissioners to refuse to grant liquor licenses at Riepetown. Success appeared about to crown the efforts of these citizens

when the Riepetown leaders again moved to block the attempt to control them. The solution, and a very clever one, was to have the town incorporated so that it could issue its own licenses, not bound by the county commissioners. A petition praying for incorporation was signed, sealed, and delivered to the district court within a short time and in strict accordance with the Nevada incorporation law. Judge McFadden, when convinced of the legality of the petition, granted incorporation on January 27, 1910, and appointed the following men to take charge of the first city elections C. F. Mahoney, Frank Williams, O. E. Cartlidge, Peter Robertson, and Stanley N. Parsons. The total population of the community at the time was estimated at 200 people, with possibly 20 voters. (33) The editors of the local newspapers emphasized that it was a well-known fact throughout the district that the only reason for incorporation was to protect the interests of the saloon keepers.

There was, however, another factor which should be considered in this movement for incorporation. Since the labor strikes of 1912, leaders of the I. W. W. Union had been moving into the Robinson District. With their activities as an organization curbed within the company towns, these leaders found in Riepetown an excellent location for their local headquarters. (34) The I. W. W. leaders were as anxious as the saloon keepers to get out from under county surveillance. Further testimony to this fact came when the first city elections were held on Tuesday, March 12, 1919, C. E. Mahoney, one of the national leaders of the I. W. W., was elected Mayor of Riepetown. Frank Williams, Peter Robertson, and A. E. Cartlidge were elected aldermen, and within a short time the new government passed a number of ordinances for the town which were duly published in the newspapers in accordance with the law and then almost entirely forgotten. With the ordinances out of the way, the council got down to its main business and soon granted liquor and dance hall licenses to those establishments which had so requested. There were no restrictions, this time, as to how long they could keep open their doors. (35) Although the community, at the time of incorporation, was without a school and a post office, it had once more managed to evade the confining pressures of too much county government.

The security gained through incorporation was not to last long, however, for when the State Legislature met in January 1919, the White Pine County delegation, pressured both by the moral elements within the county and by the employers who wished to be rid of the I. W. W., pushed through the legislature a law which provided that in order for a town or city to maintain incorporation, "at least 250 voters shall have been cast by that town or city at the last general election for justice of the Supreme Court". This law automatically disincorporated Riepetown. (36) According to the Ely Record, the city books and records were brought from Riepetown by the former Mayor, C. E. Mahoney, and turned over to the White Pine County Clerk. This story is disputed by the man who was then, and is now, county clerk, who maintains that nothing was given to him by the former mayor, except the town seal. (37) Disincorporation created little comment at Riepetown in 1919, ratification of the 18th amendment in that year seemingly ringing down the curtain on the town's main activities. Gambling had been outlawed in Nevada in October 1910, and now that the saloons were eliminated, there seemed to be little to look

forward to in the face of such events. Riepetown wasn't finished, however, for within a year it had become local headquarters for "moonshiners" of the district. This "speak-easy" existence was a poor substitute for the days when the town had been the liveliest community in the copper district.

The copper boom, particularly when it reached the stage of steam-hovel operations uncovering masses of low grade copper ores, demanded a stability of working force undreamed of in the earlier gold and silver camps. High labor turnover could be disastrous, particularly in respect to the smelter where a skilled labor supply was essential. The company town seemed to answer some of the problems connected with the operation of a low-grade copper producer; for within this area on their own property, company officials might be able to guarantee enough security to the employee to prevent constant movement to other, better paying areas. Three of the important new communities of the copper boom era became company towns, McGill, Ruth, and Kimberly.

In the early stages of development, these towns differed little from the appearance of any boom mining camp. However, within a short time company control was exerted to change effectively both the external and internal make-up of the communities. The external differences were easily noted in the general pattern of the towns; the row upon row of well-built houses, confusingly alike in appearance; the rather broad and generally well-kept streets; the lack of hotels, and the scarcity of saloons along the main street; and the fact that there was no restricted district within the town area. The important differences between these communities, however, were differences which didn't appear on the surface. In the first place, the company town, no matter what might have been the wishes of its citizens, had no local government of its own. The company owned the land on which the town was built and thus controlled the community pretty much as company officials so desired. What private businesses there were in the community began their operations only upon approval of company officials and continued to operate so long as the company wished. Operators of these businesses might own their own buildings but the land on which the business stood was leased to them by the company; a fact which made control easy, for by refusal to renew a lease a business would be forced to cease operations. One might well inquire why, under these circumstances, private enterprises would seek to enter the company towns. There were many advantages of so doing the company by its control allowed only a certain number of each type of business in the community, and thus if an operator was fortunate enough to acquire a lease, he could be assured of a rather lucrative and stable trade; besides, the copper companies, interested in the stability of the communities, were not likely to refuse lease renewals except under the most unusual circumstances. (38)

Politically the company towns were a part of the county and the residents, therefore, under the direct jurisdiction of the county commissioners. Usually the company and the Board of County Commissioners worked out arrangements for common participation in the maintenance of law and order in the communities. For example, if the town required two deputy sheriffs, the salary of one would be paid by the county, the salary of the other by the company; if only one deputy was required, the salary would be split on a fifty-fifty basis between the company and the county.

(39) In numerous other matters of a similar nature, the two cooperated; for instance, at McGill when a jail was needed, the company gave the land for a jail site, and the county furnished the jail. Later the company constructed a combination jail and sheriff's office on the main street, which became a clearing house for any county business which needed to be transacted in the community.

Town services, other than that of police protection, generally were provided entirely by the company. There was a great deal of similarity in the manner in which these services were handled by the two different copper companies in the three company towns; McGill and Ruth under the Nevada Consolidated Copper Company, and Kimberly under the Consolidated Copper Company. Because of this similiarity, the town of McGill, which was the largest of the company towns, will be used as an example to show how company officials provided the town services to these communities.

One of the first of such problems to face company officials was the matter of streets, sidewalks, and gutter. As the various residential areas were surveyed, ample space was left between the houses for streets, which at first were nothing more than cleared areas and included such area as normally might have been marked off for sidewalks. Gutter, in the early days, were little more than indentations in the streets cut by the water as it flowed from the foothills into the valley below. Dust was a problem from the moment a town site was cleared. The McGill area lies in a naturally windy spot, and the fine dust which covered the streets usually found its way inside the houses. As the town developed, this problem became the cause of increasing discontent among the inhabitants and so the company began to send water wagons through parts of the business and residential areas in an attempt to control the dust. This sprinkling system, however, could not keep up with the work of the wind and the sun. Gravel was added to many of the streets in later years and gutters and sidewalks were marked more carefully. (40) Street lighting was provided almost from the beginning of the community and extended readily to cover the town as it developed, the matter of property protection being a strong factor in forcing this development.

The question of an adequate water supply, generally one of the most pressing problems in these desert mining camps, gave little concern at McGill. When the town was in the tent-stage, water was supplied from springs at the McGill Ranch, a supply that was more than ample for the needs of those engaged in building the reduction plant. When the Duck Creek pipeline was completed, part of its waters were diverted for domestic use. Duck Creek water in the early days, according to many of the citizens of that era, was not fit to drink, and for some time after completion of the pipeline, the company found it necessary to haul spring water to the residential area. (41) With the exception of the half-tent houses, which had outside water faucets, the houses built by the company at McGill were equipped from the beginning with interior faucets. Water service for the employees was furnished free of charge and was generally quite efficient.

The problem of sanitation, which in many of these boom mining camps led to the outbreak of serious epidemics, caused no real difficulty here. Garbage disposal, although somewhat

haphazard for the first few months, eventually was taken over by the company and an orderly pick-up system installed. This service was also free to the employees. Pick-ups included anything and everything one might want hauled to the dumping grounds about a mile south of the town site. At first this service was provided by horse and wagon, later by trucks converted to that type of service, and still later by modern garbage disposal trucks.

The sewerage system developed with the town. With the exception of the half-tent houses built in the lower part of town, and the first houses built in the upper town site, both of whose occupants were forced to use outside toilet facilities the houses built by the company in the upper and middle town sites were furnished with interior toilets. However, many of the houses in the lower town areas did not receive the latter facilities until the 1920s.

Fire protection was also a company function. On the surface, this protection may have appeared insufficient for the needs of a community the size of McGill, for the service included only a minimum of equipment at first a fire wagon, later a single fire engine, and generally only one or two men on duty as firemen. Other employees were drafted into such service if the fire occurred during working hours, or if not, volunteers were always at hand to provide untrained but willing help. There were no disastrous residential fires in the history of this camp, partly due to the fact that houses were spaced rather far apart, although in 1922 the large concentrator burned to the ground in one of the most costly and spectacular fires in the history of any mining community in Nevada. (42)

Police protection, a dual responsibility of county and company, was good. McGill was considered a rather quiet town in comparison to other towns of the copper boom area. There were few burglaries, robberies, and like crimes committed here; although, during the first few years, there were numerous brawls in the saloons, or on the main street, and from time to time resulted in death or injury to one or the other of the participants. Actually, most of the disturbances in or around the neighborhood of McGill came from the fringe areas, Steptoe City, the Ragdump, and Smeltonville.

The problems of health and safety were both matters which early caused the companies a great deal of concern. The use of "foreign" labor added to the hazards of building and operating a reduction plant, and mining and transporting the ore. Most of these "foreigners" could not read, write, nor understand English and numerous accidents were the result of inability to read warning signs or understand shouted warnings.

Very shortly after work was started at the smelter site, emergency hospitals, with a company doctor on call, were established at McGill and Ruth. The company erected the emergency hospital buildings and provided lights, heat and water. The doctor was expected to furnish all drugs and all expenses incurred in maintenance. Under the first medical plan, the men paid \$1 a month, all of which went to the doctor. (43)

Later a modern hospital was built at East Ely to supplement the emergency hospitals at the mines and smelter. The East Ely hospital, more familiarly known as the Steptoe Valley Hospital, was placed under the direction of a trained surgeon and an adequate staff of doctors and nurses. During most of the period to 1920, each employee paid a fixed and quite nominal sum each month for hospital care. This entitled the employee to such medical care as he needed, including surgery and hospitalization, but not including medicines and drugs. The monthly sum did not cover surgery or hospitalization for members of the employee's family, although during most of the history of the camp, medical care was provided by the company doctors at Ruth and McGill to entire families without charge. This medical care might be criticized by some as socialistic; to the employee, however, it was one of the most attractive features of the company town.

Company officials, in their efforts to create conditions at the camp which would make for a peaceful, stable community and one that was attractive to the citizens, encouraged various recreational activities. Reading rooms were provided at McGill and Ruth even before the towns had taken on the aspects of permanency. Athletics were encouraged, the company donating liberally of equipment and money to keep alive such sports as baseball, tennis, football, and later bowling. In 1915, a company clubhouse was completed which included in its basement a small swimming pool and two bowling alleys; and on the main floor a library, a billiard table, and a combination recreation, dancing, and athletic hall. The clubhouse became an important social and recreational center for the younger people of the community, although it could not compete with the pool halls as a gathering place for the employees.

One of the most important relationships between employees and the company was that concerned with housing. To many McGill residents, the company was a benevolent, although sometimes slow-moving, landlord, renting houses for a very small sum per room (generally \$7.00 for "whites", and \$1.50 for "foreigners"), and providing all the supplies necessary for the employee to keep the house in good condition, such as electric light bulbs, paint supplies, wire fencing, wooden posts, and later black dirt and grass seed for lawns, as well as many other items needed from time to time. Besides these supplies which were furnished, necessary repairs to the plumbing or electric systems, or to the house itself, were obtained without too much trouble by first getting a work order from the rent agent and taking it to the proper department for completion. Electric power was furnished at about half the cost that was charged at Ely and the same was true of wood and coal supplies. As noted, water was furnished free, as was garbage service. A company commissary was later provided where employees could purchase foodstuffs and work clothing at prices somewhat lower than at the regular stores. Besides these services which were provided, the residents could be assured of a well-policed community, free of most of the worst elements of the typical mining camps. In other words, as many parents were quick to admit, the company town was "a good place to bring-up children".

It is quite apparent that from the economic, and to a lesser degree, from the social standpoint, the residents in the company houses at McGill benefited greatly under company rule. Not only were the usual town services such as fire and police protection provided virtually without cost, for the

residents paid no taxes to support these, but in addition, other services provided either free of charge or at cost. If one compares the two towns of Ely and McGill, which were approximately the same size from 1910 to 1920, in respect to the number and quality of the town services for residents thereof and the tax rates in the two communities which normally would be used to support these services, the bargain received by the McGill residents becomes even more apparent. (44)

Obviously, there were criticisms leveled against company officials and the manner in which they controlled the company towns. Some of these concerned the economic aspects of company control, but many more were aimed at political aspects.

From an economic standpoint, some individuals criticized the company for not allowing them to buy or erect their own homes. They pointed to the fact that wages in the company towns were lower generally than those paid on the outside, and thus the fact that the company provided many free services simply made up this difference and in no way compensated for the basic desire of many to own their own homes. Others complained about the fact that the company did not furnish the entire upkeep of these houses it was the contention of these individuals, that as landlords, company officials should not only furnish all the supplies but also the labor involved. There was, of course, the usual difficulties that normally arise between landlord and tenant, and sometimes the rent agent, who was what might be called the company overseer of housing, was deluged with complaints about plumbing, electric work, the water supply, outside and inside repairs, demands for additional services, and innumerable other complaints about various aspects of company housing.

The economic and political omnipotence of the company caused many of the more "rugged individualists" to seek their fortunes outside the company towns. One who lived within the company town, of necessity, had to live within the prescribed limits established by the company officials and not by those set by elected officers. True, these regulations usually benefited the individuals, but there was little individual freedom, a loss, by the way, which was most willingly accepted. (45)

An unusual problem developed in the three company towns in relation to the hundreds of "foreigners", mostly Greek, Austrian-Hungarians, and Japanese, brought in by the companies to provide a cheap labor supply for the mines and the smelter. Many of these unskilled workers were brought into the communities to aid in the construction of the railroad and the building of the smelter and the mill. It was felt that the number of such workers would decrease rapidly as soon as the major construction was finished. However, the introduction of steam-shovel operations at Copper Flat made possible the use of unskilled labor to an extent impossible where underground mining alone was employed. And the increasing output of ore which continually expanded both the mines and smelter divisions forced retention of large numbers of these laborers.

These individuals, usually coming directly from their native countries to the copper district, were for the most part, unable to speak English, and consequently presented many problems of assimilation into the societal structure of the mining camps. Although these persons were no more "foreign" than the English, Irish, Scotch, Germans, French, Swedes, Danes, Norwegians, and others, who came directly from their native lands to Nevada, the term "foreigners" applied almost automatically to the Greeks, Serbs, and other South Europeans; while the immigrant who was Irish, English, German, at cetera, moved at once into the charmed circle of those known as "whites".

Generally, and for numerous reasons, these so-called "foreigners" came to be separated from the other inhabitants of the company town by social, economic, and geographic divisions. The economic distinction came mainly from the company policy of hiring these men at wages lower than that paid to others for similar services. The social barriers arose, not only from this economic distinction, but also because of the language and cultural differences and were emphasized and continued by the geographic separation. This latter division was caused originally by the natural desire of these people to stay with their racial and cultural groups; and the feeling of the so-called "white" group, which was magnified greatly by the fact that the "foreigners" accepted lower wages, that the two groups should be kept apart. The company officials saw in this geographic division an excellent means for controlling the early antagonism between the two groups, which by the way they had been responsible for to a degree at least, because of the salary scale. Consequently, it became a permanent policy of the company to house these "foreigners" in separate areas, later to be called "Greek Town", "Austrian Town", and "Jap Town".

The policy of separating various national groups within the towns also fitted into another company housing policy; that is, a separation along economic lines. The first houses in McGill, if they can be called houses, were the half-tent, half-frame structures erected below the old road between Ely and the McGill Ranch for the purpose of housing the men employed during the period of construction. One group of these buildings housed the "foreign" labor and the other the "white". In 1907, a number of concrete-block houses were completed in an area above and to the southeast of the original half-tent structures. These structures were to house the first contingent of skilled workers and their families. Soon other houses were added to the original fifty and this area soon came to be commonly referred to as the upper town site. The policy of housing the more permanent, skilled employees in the better houses was implemented continuously by the company until McGill came to be divided into four or five town sites, delineated by economic and racial lines. (46)

The town sites as they evolved ultimately included the lower town, which had become Greek Town in part at least. (47) The upper town site, the middle town site (which included "the Circle"), Austrian Town and Jap Town. On the lowest rung of this ladder, economically and racially, was Jap Town, next Greek and Austrian Towns, then the part of lower town occupied by the "whites", next the upper town site, followed by the middle-town site, and finally at the top of

the economic ladder, the five large houses north of the main middle town, which were reserved for the highest company officials and which were known collectively as "The Circle". The economic barrier to movement from one town site to another was easily broken by the whites, and many families moved from lower to upper then on to middle town. A few families made the move from upper town site, to middle town, and into the Circle". The racial barrier was harder to break. Greek town, and later Austrian town, was more strongly isolated from the other areas both by economic and racial barriers. Seldom in the early years did individuals from these towns move into the so-called "white" area, or for that matter from the economic category of unskilled laborers to that of skilled laborers- It is important to note that even when the economic barrier was broken and the Greek and Austrian moved from unskilled to the skilled category, it did not immediately break down the barrier to movement out of Greek town and into one of the other town sites.

Movement upwards for these groups generally began with the second generation. The most important instruments in this development were the public schools, athletic contests within the school systems and those sponsored by the company, events other than athletic contests where common participation was encouraged without regard to race or economic standing, such as the July 4th and Labor Day celebrations, and the benevolent attitude of most company officials toward the problems faced by these new Americans. Perhaps the economic system itself should be added. For certainly the opportunity to advance within the local company was always present for those, regardless of race, who wished to move forward. The process of assimilation was a slow but steady one. (48) In a short time, second generation Greeks and Austrians were equal and many times superior, participants in grade school and high school athletics. In a few instances before 1920, individuals from these racial groups broke the economic barrier from unskilled to skilled laborer, although it remained for a later era to overcome the racial bias to inter-marriage and the economic and racial bias to movement from Greek or Austrian towns to the other town sites. (49)

This stratified society, which got its start originally from more or less natural causes, was encouraged by the company officials at both McGill and Ruth. The system was looked upon with some distaste by a few citizens of Ely and surrounding areas who saw in this development something rather far removed from the democratic processes usually associated with boom mining camps. There is little doubt that the system of continuing the segregation of these racial groups into various camps attached a stigma to the names of Jap Town, Greek Town, and Austrian Town. Whether or not the system speeded or slowed process of assimilation of these groups is open to question. (50)

Regardless of the good or bad points of this system, it is generally agreed that the public schools, here as elsewhere in the United States, were the greatest single agent in the process of assimilation. The problem here was not just the basic one of teaching large numbers of foreign students to read, write and talk English, but to go further and attempt to break down the language barrier presented by the fact that most of these students' parents could not read, write, nor speak

English. This process was necessarily a slow one and can be appreciated by the citation of a notice which appeared in one of the local newspapers as late as May 1914, to the effect that of the 41 children who had enrolled in the primary grades at Kimberly at the beginning of the school year, only 14 could understand a complete sentence in English, and that the big achievement at the end of the year was that practically all the students could speak some English. (51) A law passed by the Nevada legislature in 1917 helped this process some by making it unlawful to employ miners in underground mines or in handling explosives below or on the surface who could not speak and readily understand the English language and who could not readily read and understand any sign, notice, or list of rules, or direction, printed in the English language in regard to rules of safety in underground mines or in handling explosives. (52) However, the right area of the educative process as far as assimilation was concerned was the athletic field. Long before these students completed an eighth grade education, they had shown such skill at baseball, football, basketball, and track, that they were eagerly accepted as equals by their fellow-students from other parts of town. It was on the athletic fields that barriers of race and language were first effectively broken down in these company communities. The part played by friendly officials, who were sincerely interested in the welfare of their communities, should not be overlooked in helping to break down social barriers between the racial groups.

Politics was never much of a problem in the company towns. There was not popularly elected local government in these communities, consequently, the political activity of the citizens had to seek other outlets. County and state campaigns were followed generally with great interest, most candidates for such offices generally visiting the town a number of times in the course of a campaign. Once in a while, McGill residents ran for county offices and in one or two instances were successful. These, however, were the exception; citizens, because of the nature of their employment and the fact that they came from a company town, seemed to prefer to stay out of direct participation in politics. McGill was strongly Republican during most of its early career, a fact due in part no doubt, to the unusual arrangement between the company and residents. However, the copper companies during the first twenty years were little interested in local politics on the state level. There was no attempt to run its own men for various county or state offices, and there was no combination in Nevada political history in these years between copper kings and political bosses as there was, for instance, in Montana.

## CHAPTER VIII

### THE FIRST WORLD WAR AND ITS AFTERMATH

When war broke out in Europe in August 1914, its impact was felt immediately in the copper districts of Nevada. On August 14, one of the local newspapers reported that the Consolidated Copper Corporation at Kimberly was closing down temporarily and that the Nevada Consolidated Company was to go on a half-time- basis. (1) The effect of these moves was a sharp and short depression in the local communities, attested to by the fact that the county commissioners reduced taxes in the county 10 percent for the last quarter of the year. (2) The reduction to half-time operations by the Nevada Consolidated the latter part of 1914, plus the production of a large tonnage of low grade ore during the first half of that year, combined to cut the production in 1914 to the lowest figure since 1909. (7)

The curtailment of operations and resulting depression in the district proved to be temporary and simply the result of the war's first impact on American industry. As soon as it was determined that the war was likely to last a while and that the part to be played by the United States was that of a neutral nation supplying goods to either or both combatants, the scene changed dramatically and soon Great Britain and France were clamoring for all the copper that could be produced in the United States. It remained only for the United States State Department to authorize loans to the allies to insure a ready market for American industrial goods. This approval came March 31, 1915, when Secretary of State Bryan, reversing an earlier position, opened the door to large scale loans. By this time, Nevada Consolidated was at full capacity.

By the end of 1916, copper production at Nevada Consolidated had reached 90,774,716 pounds as compared with 62,726,651 pounds for 1915 and 47,244,056 for 1914. Production and earnings continued exceedingly high during the next three years, the company showing a net settlement for copper alone of \$19,046,820.70 for 1916, \$22,000,708.74 for 1917, and \$15,767,708.40 for 1918. (4) It was also during these years that Nevada Consolidated -stock reached an all-time high of 34-1/8 in 1916. Obviously, one of the factors bringing about these increased earnings was the rising price of copper on the market, shown dramatically in the increase in 1916 to 25.83 cents per pound from 17.647 cents per pound in 1915. (5)

In order to keep up with the demand during these years, all phases of operation had to be worked at rated capacity or over and in many instances improvements were made in smelting and concentrating to make possible increased capacities at both mill and smelter.

At the mill, under the superintendence of George Riser, who had been sent from the Magna plant of the Utah Copper to take charge when George Waddell resigned in 1915, a number of improvements were made which sent mill capacity to 14,000 tons daily late in 1917. These improvements included the replacement of Huntington and Chilean mills with tube mill regrinding equipment and the installation of a new coarse crushing plant in 1917 with railroad approach on ground level, thus eliminating the old trestle which had become a hazard. (6)

Increasing the capacity of the mill in 1917 placed a definite burden on the smelter. It was decided to add a fifth reverberatory furnace, but this did not go into operation until late in 1918. Of more definite help in increasing the capacity of the smelter was the introduction of pulverized coal firing in April and May 1918. (7) However, throughout the superintendence of R. E. H. Pomeroy, who replaced S. S. Sorenson in the latter part of 1913, the smelter was hard put to keep up its end of the production process. J. C. Kinnear, Sr. became smelter superintendent in 1919 when Pomeroy resigned.

At the mines, overall production was increased when the Ruth mine was successfully opened in 1915 under the superintendence of W. S. Larsh with a production for that year of 7,674,859 pounds of copper. By 1918 the production from this mine had jumped to 48,974,432 pounds of copper, its highest single year of production. (8) The town of Ruth grew in size as a result of this development for besides the Veteran houses which were moved to Ruth at this time, a number of other structures were built to take care of the employees necessary in this development. (9)

The pit at Copper Flat, under the superintendence of E. E. Vanderhoef until 1918 when he resigned to be replaced by F. E. Grant, jumped to a production of 102,272,602 pounds of copper for the year 1916. (10)

When the United States entered the war on the side of the Allies in April 1917, a peculiar problem was presented at Ruth and McGill because of a large number of Greeks, Serbians, and Austro-Hungarians. The Greeks and Serbs reacted to this labeling with individual protestations to the effect that they were not Austrians. When these proved to no avail the two groups organized loyalty parades and marched through the streets of Ruth, Ely and McGill. The first of such parades occurred on May 6, 1917 when the Greek residents of McGill and Ely paraded through the streets of McGill, then boarded the train and upon arrival at Ely, paraded a second time. At both places, speakers vowed their loyalty to the United States. (11) Two weeks later, hundreds of Serbians from the towns of the district paraded through the streets of Ely. Again speakers denounced autocracy, the Hapsburg in particular, and pledged their lives and fortunes to the service of the United States. (12) Later, on December 26, 1917, the Serbian Benevolent Society of the Ely district sent a resolution to President Wilson denouncing Austria-Hungary and pledging loyalty to the United States. (13.)

Evidently the Serbians succeeded in separating themselves from the stigma attached to the name of Austria-Hungary for in June 1918, forty-two Serbians who had been recruited by Sergeant Zranjen of the Serbian Army for service on the Balkan front were given a big send-off by the Nevada Consolidated Company and asked to return to the community and to company employ after they had helped to win the war. (14)

The people of the copper district towns entered into defense activities in much the same manner as hundreds of others in small communities throughout the United States, taking part in Red Cross drives, watching and listening to the "4 Minute Men" as they appeared before large

audiences in the local theaters to spearhead the war loan drives, helping to collect tin foil, trying to observe Mr. Hoover's wheatless Mondays and Wednesdays, meatless Tuesday, and porkless Thursdays and Saturdays, and finally sending their sons to participate more directly in the war to make the world safe for democracy.

Patriotic enthusiasm was a high pitch in these communities during most of the First World War. Demonstrations of one kind or another began right after our entrance into the war and continued until after the war was over. The United States declaration of war was the signal for rather elaborate flag raising ceremonies at Ruth, McGill, and Ely.

At McGill on Sunday afternoon April 27, 1917, a huge flag, twenty by thirty-two feet, provided by popular subscription, was unfurled atop a 100 foot steel pole which had been pieced at the summit of the peak immediately behind the mill. The completion of this project was something of an engineering project, but one entered with great enthusiasm. The pole was constructed in sections of standard pipe in lengths that could be packed by mules. However, even the mules had to be supplemented in certain areas by block and tackle rigged to trees and rocks along the way. The total weight of the pole was 2,150 pounds and its raising obviously presented some little difficulty before it could be placed in a hole prepared in the solid rock, cemented, and guy lines attached. These were minor problems, however, and long before the appointed hour for the ceremony, the task had been completed. The ceremony included the Salute to the Flag by the McGill school children and a detachment of Nevada State Police, followed by a number of patriotic addresses by company and county officials. Electric lights were provided at the base of the pole and reflected skyward so the "Old Glory" could be seen day and night. (15)

Simultaneously with the program at McGill a similar program took place at Ruth. Again a large flag was placed at a point where it could be seen for miles around. Charles D. Gallagher delivered the patriotic address here. (16)

National holidays, once war was declared, became the excuse for tremendous outpourings of patriotic enthusiasm. The Memorial Day exercises of 1917 set the standard in the copper district for all those which followed. The events of that day started with a big parade in Ely led by the Union Band and the Boy's Band. In order, behind the two bands came city and state officials, Spanish-War Veterans, members of the Grand Army of the Republic, fraternal groups, the White Pine High School Cadets, grade and high school children, and citizens in autos. At the cemetery, the patriotic address was given by Charles A. Walker; decoration of the graves followed. Each succeeding national holiday was made the occasion for similar demonstrations in 1917 and 1918. (17)

None of these celebrations, however, quite came up to that which took place September 20 and 21, when the first contingent of local draftees left for Camp Lewis, Washington. As with hundreds of thousands of other young men throughout the country, these sixty-five men in this contingent had been chosen by lot through the Selective Service Law of May 18, 1917.

The first registration under this act had taken place June 5, 1917. Secretary of War, Newton D. Baker, remembering the draft riots which had accompanied the Civil War draft in 1863, enlisted the aid of local and state officials in making this registration day a nationwide demonstration of patriotism.

Following this plan, Governor Boyle of Nevada, on June 1, 1917, proclaimed June 5 as a non-judicial day, requesting all business houses, especially saloons, to remain closed during the hours of registration and suggesting that banks be opened only to sell Liberty Bonds. Careful plans were made in each locality in the copper district to insure that the spirit of the day would not be violated. The results were so excellent that one local newspaper, rather relieved it seems, was led to remark that not a single slacker had been found in the county. (18)

Within weeks, the registrants, or rather, those selected to go in the first contingent, had taken physical examinations and had been processed for movement to Camp Lewis September 21, 1917. Their departure was the signal for the largest patriotic demonstration yet seen in the district. Thursday evening, the group was taken to a movie at Ely, and then entertained at a dance which lasted until midnight. At that hour, each of the sixty-five "boys" was presented with a "Comfort Bag" which had been prepared by the ladies of the Red Cross and sewing class of the high school. At five-thirty, the next morning, the band appeared in Aultman Street and played a half-hour concert of patriotic music. At six o'clock, a procession formed on Aultman Street and paraded to the depot. The papers noted that the "sidewalks were a mass of humanity". The draftees then boarded the train, obviously relieved to get out of the hands of the well-wishers who seemed well intent on killing them with kindnesses, and in a few minutes were on their way to Cobre and the first step in what for some was to be their last journey. (19)

The enthusiasm evidenced in this first send-off continued during most of the war. Each succeeding group to leave the district was treated to much the same kind of demonstration, including movies, dinner, dances, and parade.

Some attention was given in the district to Civilian Defense during the First World War, but these efforts were not consistent and accomplished little in the way of real training. Early in March 1918, a county defense meeting was called at Ely, by H. A. Lemmon, Chairman of the State Council of Defense. At this meeting, the County Commissioners were allowed complete discretion in naming the County Defense Board. Those named to the Executive Committee of this council were Arthur Smith and L. M. House of East Ely; Charles Chandler, W. N. McGill, C. D. Witcher, Fred West, Joseph Murphy and Pres Dray of Ely; Len Stone and Wm. Hogan of McGill, and Mr. Mahoney of Copper Flat. County Commissioner North was named permanent director of the County Defense Council. (20)

As in many other communities throughout the land, the patriotic fervor was such that the right of freedom of speech and press were sometimes overlooked in the desire to "beat the Kaiser". (21)

However, considering the potentialities for trouble that existed in the copper camps with their mixed national populations, it is amazing that there were so few incidents of such abuse.

The war gave opportunity also on the local, state, and national levels, to the advocates of liquor prohibition. This movement, started in the United States many years before, began to gain headway as soon as the United States entered the war. A spectacular victory nationally came when the anti-liquor supporters succeeded in pressuring the addition of an anti-liquor provision, to the Lever Act, passed August 10, 1917.

Under this provision of the Lever Act, Wilson in October 1918, ordered breweries closed. From here it was a short step to national prohibition. The 18th amendment to the United States Constitution was declared in effect January 29, 1919. The Volstead Act, the enforcement measure supplementing the 18th amendment, was passed in October 1919.

On the state level, the voters of Nevada acted in 1918 by approving, by a vote of 13,248 for and 9,060 against, an initiative measure on November 5 of that year to prohibit the manufacture, sale, keeping for sale, and gift, of malt, winous and spiritous liquors, and other intoxicating drinks, mixtures, or preparation, which would cause intoxication. The act as passed was so inclusive in respect to the definition of what constituted intoxicating liquors that the legislature felt it necessary to pass an act March 26, 1919, to exempt vanilla, lemon, or similar extracts for culinary purposes, and perfumes, etc., used for toilet purposes. Also exempted under the initial act was near beer and similar beverages. (22)

Reaction in the copper towns to the state and national moves toward prohibition was mixed. As early as 1909, there had been strong pressure exerted by certain groups within the company towns to force the county commissioners to limit or stop the approval liquor and gambling licenses in towns outside the company areas. Company officials earlier had indicated their preference in the company towns for prohibition, and only modified this position when they had made sure that any gambling or liquor establishments in the towns were under their own control.

Official company attitude toward prohibition was echoed in the voting on the initiative position at McGill, the vote was 415 for prohibition and 176 against; at Ruth, 124 for and 99 against; at Kimberly, 83 for and 51 against; at East Ely, 180 for and 57 against; and at Ely, 410 for and 461 against. The total county vote was 1,484 for and 916 against. (27)

As a result of the state and national prohibition laws the copper camps took on a new air of respectability. The saloons were replaced by pool halls and soft-drink parlors. Activity in the parasite towns of Ragdamp and Steptoe City practically ceased; even Riepetown was forced to slow, for a time at least, its dizzy social pace.

However, legislating prohibition and enforcing it proved to be different matter. The parasite towns soon awoke to the possibilities of bootlegging. A raid at Riepetown in February 1919 gave indication of things to follow. The old saloons supposedly had become "soft drink" parlors. The

raid proved otherwise, for hard liquor was found everywhere in these establishments, in original and unbroken packages, in coffee pots, syrup jars, and camouflaged surroundings. (24) During the next few years, prohibition raids on Riepetown became a normal part of monthly events.

Another harbinger of things to come as far as the prohibition agents were concerned was the device of bootleggers in using old mine shafts to cache their whiskey. One raid by Sheriff Enslow of White Pine County uncovered 700 cases of Sunnybrook and Old Hermitage in the Black Mule mine, about 12 miles south of the gold camp at Osceola. In a short time, the County Court House at Ely, the basement; that is, was filled to overflowing with illicit liquor. (25)

When the war came to a close November 11, 1918, celebrations over the victory somewhat dulled by an influenza epidemic which had struck the district in the early part of October. The epidemic reached such proportions that on October 12, the County Health Board closed all picture shows, churches, schools, and other public meeting places. This order was followed on November 1 by an order requiring face masks to be worn in all public places. (26) It was not until midnight of December 28 that the "flu" bans were lifted. By that time, hundreds in the various towns of the district had suffered in varying degrees from the onslaught of the disease. (27)

Events in the copper camps early in 1919 gave more dramatic emphasis to the fact that the war was over. First there were the returning soldiers who were welcomed back to the communities with open arms. Celebrations were held in the towns as the first contingents came home. The copper companies not only gave moral support to these celebrations, but under the direction of the General Manager, C. B. Lakenan, made real efforts to see that any returning soldier who wanted employment was given such.

On the heels of the returning soldiers came various army groups demonstrating here, as they did in dozens of other American towns, their new weapons of war, and at the same time aiding in the Victory Loan drives. Particularly impressive was the tank demonstration at McGill, April 26, 1919, before an estimated crowd of 1,500 people. Today those World War I "Whippet" tanks look woefully inadequate compared to the modern monsters of war, but to the citizenry of McGill, Ruth, and Ely, in the spring of 1919, they were surely the ultimate in destruction as they rumbled through and over old sheds, uninhabited wooden shacks, and for that matter, anything that stood in their way. After each demonstration, one of the members of the crew would hop to the top of the tank and make a patriotic appeal for support in the Fifth Victory Loan Drive. (20)

Attracting unusual attention from the copper camps was an Army motor convoy which arrived in Ely August 25, after being delayed for some time by bad roads in Utah. The convoy was made up of 72 vehicles and 300 men and was headed to San Francisco. Camp was established at the old Chainman mill site, the present city park of Ely. The soldiers were provided with a huge buffet dinner and a dance in their honor was held that evening. Before the dance, the band which accompanied the convoy presented a concert of patriotic songs on the lawn in front of the county

courthouse. Many local veterans and others who had done their part at home relived days not too long past as they listened, hummed, and sang with the band, "K-K-K-Katy", "We're All Going Calling on the Kaiser", "Keep the Home Fires Burning", "Over There", "Pack Up Your Troubles", "Beautiful Ohio", "We'll Knock the Heligo into Heligo out of Heligoland", "Where do We Go from Here?", "Keep your Head Down Fritzie Boy", and many other songs of World War I fame. (29)

The first Armistice celebrations in the copper camps were rather impressive with the participation of veterans of the Spanish-American War, Civil War, and World War, bands, school children, and county, state, and company officials.

Not so gala but just as sure an indication that war was over were the labor strikes that began to rack the country as soon as the pressure to win the war was released.

The labor disturbances of 1919 in the copper districts, as in many other areas throughout the United States, were the result of grievances which had mounted steadily during the war, but which were not settled at the time due to the overall need to keep production wheels rolling. There was, also in the copper camps, as well as other mining areas of Nevada, a sort of last ditch effort by the I. W. W. to control the labor situation in the mines by taking advantage of these war grievances. (70) However, the strike that followed in the copper camps in 1919, particularly the big one in August of that year, was a well-organized, orderly strike, with practically no signs of violence of any kind indicating, perhaps, that the I. W. W. as an effective labor movement had failed in the copper district.

Labor trouble in the Robinson District after the war began at Ruth on January 18, 1919 when 150 men refused to go to work, maintaining that living costs had risen out of all proportion to wages during the war and the company should now make a readjustment. The action of the Ruth miners was followed the same day by a walk-out of certain employees of the Nevada Northern Railroad.

On July 21, the union employees at the reduction works at McGill addressed a demand to the General Manager, C. S. Lakenan, asking among other things, for an increase of \$1.25 per day. This was answered on July 27, 1919, when Mr. Lakenan sent a letter to union officials agreeing to an increase of \$.75 per day, but refusing to add additional social benefits as requested. The union officials, upon receipt of this letter indicated a willingness to settle for an increase of \$1.00 per day if certain hospital benefits were restored. The union answer indicated, also, that if the company didn't agree to this modified request that a strike would be called for July 29. No further action was taken by the company at this time and so on July 29, the Mine, Mill and Smeltermen's Union no. 233 called a general strike. (31)

Negotiations for a settlement began immediately with Governor Boyle and Federal Mediator Lord attempting to work out a compromise between employees and employer. However, settlement was complicated by action of officials of the Nevada Northern Railroad in suspending service between Ely and Cobre without first obtaining permission of the Nevada Railroad

Commission. The reason given for this move was the obvious one that the strike made it impossible to continue service. Union officials, however, immediately challenged the position of the railroad officials, maintaining that the latter had suspended operations in order to gain favorable publicity and were making no effort to keep the trains running. Anthony Jurich, attorney for the unions, led the fight to have railroad service restored and was successful in arousing public sentiment in favor of this project. On August 22, 1919, the Nevada Railroad Commission ordered reinstatement of daily mixed train service between Ely and Cobre. At the same time, the Commission recommended that the men return to work at the increase offered by the company until such time as a decision in the case could be made by the Federal Mediator.

Meanwhile Governor Boyle, Federal Mediator Lord, and C.B. Lakenan, went to San Francisco to confer with D. C. Jackling, president of Nevada Consolidated Copper Company. As a result of this conference, a settlement was made August 29, 1919, and the men returned to work immediately. Terms of the agreement included a raise in pay ranging to \$.75 per day, and the promise of establishment of company commissaries at McGill and Ruth. It was hoped by the employees and the company officials that the establishment of commissaries to operate at or near cost would make up the difference in wage demand and wage settlement. (32)

The strikes in 1909, 1912, and again in 1919, demonstrated that many of the "foreigners", brought into the district originally by the companies, had been assimilated into the labor unions of the district. Thus after 1907 a sizeable proportion of the "foreign" labor force was on the side of the unions as opposed to the position of the company. Union protest, which had been very strong against these individuals when they first entered the district, had changed rapidly to a recognition that this group could become a potent union force in the district. (33)

The adjustments made necessary by the end of the war, plus the 70 day labor strike in the fall of 1919, caused production to drop from 76,07,062 pounds in 1918 to 47,971,992 pounds in 1919. This meant a drop in net settlement from \$15,767,709.40 in 1918 to \$6,694,756.62 in 1919. (34)

In February 1920, Nevada Consolidated Company entered the Copper Export Association, Inc. negotiating at the time a transfer of 200,000 tons of metal to the new association and receiving a cash advance of \$200,000 per ton. (75)

Copper production from Nevada Consolidated did go up to some 48,711, 985 pounds for the year 1920, but by the last quarter of that year it had fallen to about 40 percent of normal. (76) This drop forewarned of events to follow for demand and price had weakened so badly in the early part of 1921 that Nevada Consolidated felt obliged to suspend its operations on March 31, 1921. By that time, the copper price was down to \$.12 a pound. (37)

When the plant closed down, there was a rather large stockpile of blister copper at hand. In the latter part of 1921, much of this surplus was shipped to the refinery. The route followed was unusual, from McGill to Shafter on the Western Pacific, to San Francisco, then by boat through the Panama Canal to Baltimore. It was estimated that \$5.50 a ton was saved by this routing. The

surplus copper was cleaned up by a shipment of thirty-five cars on December 10, 1921. (38) This clean-up enabled the Nevada Consolidated Company to deliver some 29,747,900 pounds of copper although only 9,762,725 pounds was produced that year.

The depression of 1921 kept the Nevada Consolidated Company closed tight until April 25, 1922 when one section of the concentrator was started with three shifts. The plant would have started sooner but a coal shortage caused by a national labor disturbance prevented this. (39)

The depression although relatively short-lived was severe. Only a skeleton crew was kept at the mines and the smelter and activities in the copper communities were kept to a minimum. The company did allow many of its employees to remain in the houses, and furnished them with light, coal and water during these months, without demanding immediate payments.

## CHAPTER IX

### BOOM YEARS, 1922-1930

About 6 p.m., Sunday evening, July 9, 1922, as many workers and their families were sitting down to their evening meal, a fire broke out near the southeast corner of the McGill mill. Within minutes, it had spread over the entire structure aided in its course by the usual strong southerly wind. By 7:30 p.m., the entire structure, covering nearly nine acres of land, was a mass of ruins. Hundreds of volunteers from McGill rushed to aid the company fire department; trained volunteers from the Ely Fire Department were hurried to the scene in the big autos of the United Taxi, and the Star Auto service. The holocaust, however, could not be contained. Soon the shrub timbers on the mountains behind the mill were ablaze, adding to the fiery spectacle. The Ely-McGill road was soon dotted with cars as hundreds of people from the neighboring communities sought to get a closer view. It was spectacular, and it was destructive. The all-steel superstructure collapsed completely with about 50 percent damage to all heavy machinery parts. The concrete foundations, except in certain instances, were not seriously impaired. The course crushing plant and ore bins were saved. The fire loss was estimated at between 1-1/2 and 2 millions of dollars. Fortunately, the loss was a material one for not a single injury occurred as a result of the fire. (1)

The material loss seemed particularly appalling to the people of the community coming as it did just three months after the plant had resumed operations after a twelve-month post-war depression shutdown.

However, company officials lost no time in rebuilding the mill and resuming production. On July 11, just two days after the fire and before the twisted metal had cooled, the company engineer was sent to the central purchasing department of the company with copies of all the blueprints of the superstructure for a new concentrator. Rush orders were placed for the necessary reconstruction.

The first steel for the superstructure was on the ground thirty-four days after the fire. Then began an amazing show of speed and skill, enjoyed especially by the youngsters of the community, by the steelworkers of the Kansas City Steel Company to whom the contract for erection of the superstructure had been given. Company repair crews had been put to work immediately after the fire to salvage all the machinery possible.

On September 16, two of the revamped ball-grinding mills were put into operation with a daily capacity of 700 tons. This capacity was increased to 7,600 tons of ore by January 3, 1927. This tonnage, however, does not represent the total copper output of these last months of 1922. By direct smelting of some of the richer ores, the September tonnage was brought to 1,023,334 pounds and that of December 1922 amounted to 2,732,471 pounds of copper produced. (2)

The destruction of the old mill proved not as great a misfortune as at first thought. The old mill was obsolete in many ways. Many adjustments had been made in the old plant when experiments with flotation were begun after 1914. Other changes had been made from time to time in an effort to make operations more efficient and thus reduce costs. It was well known before the fire that major changes would have to be made if the company intended to modernize the mill and use only the flotation system. As a matter of fact, company officials had worked out a plan for gradually modernizing the old mill and had, at the time of the fire, already made some of the changes necessary to complete the task. The fire allowed the company to build an entirely new plant unhampered by the necessity of trying to make old machinery fit new purposes.

The new plant covered a ground area about 63 percent of the old mill, yet the capacity was the same. Careful designing reduced the labor necessary for operation and repair. The flow sheet was simplified in keeping with developments which had been made in concentrating during the years since the first mill was completed. The result was an exceptionally clean plant where machinery did most of the work. Operating costs, therefore, were kept at a minimum. Milling cost in cents per ton dropped in 1924 to 59.7 cents from 107.5 cents in 1919.

One puzzling feature in the new construction was the fact that Wilfrey tables were made an integral part of the new arrangement. (3) One wonders why, after the successful experiments with flotation, and the settlement of the Minerals Separations suit in 1922, the company officials did not move completely to flotation. However, it wasn't until 1927 that the flotation system entirely supplanted tabling at McGill.

The new mill construction showed advantages in other ways for while costs were going down, concentrator recovery was going up; from 67.28 percent in 1918 to 87.09 percent in 1924 and to 92.24 percent in 1925. The big factors in this increased recovery were; first, the improved techniques of froth flotation, particularly the introduction of sodium xanthate in an alkali circuit as the flotation reagent, and secondly, the finer grinding of flotation feed in the ball mills. As copper price rose and demand increased in the 1920s, the capacity of the mill was increased, first to 15,000 tons daily in 1926, and to 18,000 tons daily in 1930. (4)

During the period of mill construction, throughout the second half of 1922 when production of necessity was limited, company officials took occasion to make a number of minor improvements at the mines. The nine Bucyrus steam shovels with 3-1/2 cubic yard dippers were provided with caterpillar tractors to eliminate the need for laying shovel tracks. Two new 85-ton American locomotives and two Peterson track shifters were added, also to the pit operations.

Verification of churn drill sample results was made in 1923 at the pit. These showed reserves of 70,701,000 tons of ore averaging 1.55 percent copper. (5)

In 1925 officials decided to erect a five compartment working shaft on the Wedge claim in order to use extensive ore deposits which were known to exist at depth, laterally surrounding the ore bodies of the steam shovel pit. It was felt at this time that these deep ore bodies could not be

shovel-mined economically and so the Wedge shaft was completed in order to have it available, when and if the shovel operations became too costly. (6)

The opinion that these bodies would have to be worked from underground persisted, and so in 1929 a second shaft, the Monitor, was sunk and connection made between the two shafts. Again, no ore was removed; the two shafts simply were kept in readiness. (7)

At the smelter during the decade of the 1920s, a number of experiments and change took place. Perhaps, the most interesting, and, as it proved later, the most costly experiments, came in the early 20's when some of the reverberatories were changed from center-feeding to side-feeding. The experiments lasted from October 17, 1920 to August 20, 1925, when the furnaces were changed back to center-feed units. (8)

The side-feeding experiment led to costly litigation when the Carson Investment Company, which held certain side-feeding patents, brought suit in the Federal Court at Carson City charging infringements of those patents. The original complaint was filed March 19, 1926. The case was still before the courts in 1929. (9)

Later in the decade, direct smelting, that is the treatment of the concentrates without roasting, was attempted. The first test covered a period of eleven days in February 1922, and showed the following results an increase in waste heat recovery, the elimination of flue dust, and the production of a 70 percent matte with a 25 percent concentrate. It was noted in this first test that direct smelting of the ore retarded the smelting process. Following this initial test, a thirty day test was carried out in April and May of the same year. Results showed that from a cost standpoint there was little or no difference between the two processes for the increased converter cost due to a lower grade of matte produced over-balanced the saving from the elimination of the roasting process. Again it was noted that direct smelting so slowed down the smelting process that it was impossible to get enough tonnage to meet production requirements. As a result of these tests, General Manager J.C. Kinnear, Sr. reported to his superiors that he "would not at this time recommend going into the practice of direct smelting". (10)

It was during 1929, also that studies were made as to the copper losses through dust loss from both the reverberatory and roaster stacks. These studies indicated that the average dust loss per day through the reverberatory stack was 31,050 pounds which meant a loss per day of some 2,573 pounds of copper. The dust loss per day through the roaster shack was 34,202 pounds which caused a loss of some 4,930 pounds of copper per day, the greater loss through the roaster stack being accounted for by a greater percent copper in each pound of dust. (11),

In order to help control some of this dust loss, a Cottrell system was installed at the roasters, December 10, 1929. A.P. Winsness of American Smelting and Refining Company was in charge of construction. The system was of automatic operation where dust was collected on series of plates controlled by a time switch. At regular intervals, a damper closed on one circuit and opened on the next. As soon as the first was closed, a battery of air hammers above it went into

action. After the circuit was cleared, the dampers opened automatically and the plate was again in position for dust gathering. The dust from the plates fell into a hopper from which it was taken to cars by a screw conveyor. Leonard Larson, General Superintendent of the Reduction Works, estimated that the Cottrell system which cost \$200,000 would pay for itself in two years. (12)

As productive capacity at the mill and smelter was increased in the late 1920s to keep pace with the demand for more and more copper, it became necessary to re-evaluate the water supply at the mines and at the reduction plant. As a result, a number of important improvements to the water supply were made during these years.

The most interesting was the replacement of the wooden stave Duck Creek pipeline, which had been completed in 1907, with an all steel line. The new pipeline when completed was 46,620 feet in length and could carry a capacity of 12,000 gallons of water per minute. The pipe was fabricated at the McGill Boiler Shop in lengths of 77 feet each; diameter of the pipe was 77 inches. After fabrication, the steel pipe was dipped in asphalt then covered with aluminum paint, a process which made the completed pipeline look like a long silvery snake gliding along the foothills of the Duck Creek range. This pipeline connected the Duck Creek reservoir with the McGill Reduction Plant.

Another part of this project concerned the laying of some 58,000 feet of steel pipe, varying in diameter from eight inches to nineteen inches, from the stream channels in the Duck Creek basin. Some of this pipe replaced old lines; part of it, however, consisted of new lines placed in strategic places to gain a maximum flow of water from the basin. The entire project was completed in 1927. (17)

The water supply for the mines also came in for a number of improvements in 1928 and 1929. The supply of water for the mines and the town of Ruth had been adequate to this time, but there had been little reserve. The main supply came from Holt Creek on Ward Mountain; the pipeline carrying this water having been completed during 1916. The line was some 10,700 feet long. The Ward Mountain supply had been supplemented for some time by treated mine water, but this additional supply was insufficient. Consequently, in 1929, a new pumping unit was installed at Murry Canyon Springs to make available the overflow from the Ely town supply. The additional water was pumped to steel reservoirs of 1,000,000 gallons capacity each. The completion of this project seemed to take care of the water supply at Ruth for the general manager in his report for 1930 noted that "1930 was the first year in our history, perhaps, that the water situation was adequately met at the Mines". (14)

An interesting organizational change within the so-called Jackling companies took place in the 1920s. This concerned two of the western "porphyry coppers", Nevada Consolidated Company and the Ray Consolidated Copper Company of Arizona. The deal was noted as a merger, rather than a straight exchange of stock share for share, because under the merger arrangements Nevada

Consolidated was to take over the physical assets of the Ray Consolidated and give stock in exchange.

When the deal was announced October 19, 1925, Jackling indicated that the directors of the Nevada Consolidated Company had approved the merger and that the stockholders would be asked for their approval at the stockholder's meeting scheduled for November 10. Before this meeting could take place, however, one of the Ray Consolidated stockholders, F. C. Armstrong, obtained a temporary restraining order halting the merger. The approval by the Nevada Consolidated stockholders, thus, was delayed until Armstrong's suit was settled. Finally on May 26, 1926, this approval was voted. Under the rather complicated arrangement, Nevada Consolidated acquired the physical properties of the Ray Consolidated Copper Company for \$46,157,605 in Nevada Consolidated 15 year, 5 percent debentures. The holder of each share of Ray stock was entitled to exchange their debentures at \$15 a share for Nevada Consolidated stock on or before July 1, 1927. (15)

The merger brought into the Nevada Consolidated organization not only the Ray properties in Arizona, but also the Chino Copper properties in New Mexico which had been acquired previously by Ray Consolidated. The Chino property included the old Santa Rita del Cobra mine, the oldest copper mine in New Mexico and the second oldest in the United States, first having been opened in 1804 by the Spaniards.

A new organizational set-up was established after this merger, with the parent company, Nevada Consolidated Company divided into three divisions; Nevada Mines, Ray Mines, and Chino. However, the local Nevada officials did not have any control over the other two companies. (16) Under the organizational plan, D.C. Jackling became the President and Managing Director, with W. S. Boyd as Assisting Managing Director of the parent company. In the Nevada Mines Division, C.D. Lakenan remained as General Manager; J.C. Kinnear, Sr. was named Assistant General Manager; W. S. Larch became General Superintendent; George Riser, Concentrator Superintendent and F.E. Huffer, Chief Clerk. (17)

The later 1920s were boom years in copper production. With the expansion of industry in the United States after 1927, copper because of its versatility became indispensable to the economic growth of the country. This importance was particularly outstanding in the development of electrical equipment industries, where its excellent conductivity, its ability to withstand corrosion, its virtual indestructibility, and other qualities, combined to create for it a unique position in the world of metals. (18) Nevada Consolidated Company and the copper district as a whole were to benefit substantially from the prosperity of these years.

By the end of 1935, the company was ready to resume dividend payments after a lapse of five years. The Nevada Consolidated had been a steady dividend payer through September 30, 1920 when the post-war depression set in. During that time, some \$77,260,480.05 had been paid out in

dividends. The directors resumed dividends by voting 25 cents per share to be paid December 31, 1925. (19)

Copper production steadily increased from 1927 until 1929 and, as a result, net settlement for copper produced by Nevada Consolidated jumped from \$3,812,140.26 in 1922 to \$10,040,032.31 in 1925 and to a high of \$10,806,402.94 for the year 1929. (20)

The 1920s were the years of welfare capitalism in the United States. This philosophy aimed at eliminating the causes of industrial unrest by substituting cooperation for conflict in the field of industrial relations. Basic to the concept of welfare capitalism was the belief that the payment of high wages was the best insurance for full production and consumption. Welfare capitalism also attempted to win the support of labor by better working conditions, recreational programs, grievance committees, company unions, and many other devices and programs of like nature.

On the national scene, the restraints on business, placed during the Progressive era and the war, were gradually removed. Three Republican presidents, in slightly different language, indicated their belief that businessmen knew what was best for business and general prosperity throughout the United States during these years seemed to prove the philosophy of the Carnegies, the Rockefellers, and the Morgans, than when business prospered so did the other elements of society.

This seemed to be true particularly in relation to labor, for according to some economists the worker's real earnings averaged 32 percent higher in 1928 than in 1914. This increased earning power was due partly to the low prices to be paid for food stuffs, a fact that indicated a dangerous economic condition for the farmer, but brought a gratifying increase in purchasing power to the worker. Partly because of these facts organized labor throughout the United States showed a definite decline.

This decline was noted also in Nevada and more specifically in the Robinson Mining District, for example, union membership declined at McGill from 625 in 1910 to 93 in 1922. Of course, part of this decline was due to the burning of the mill and the onslaught of the depression, but the fact is that membership did not improve proportionately as more men were hired in the 1920s. By 1930 in the copper district of Eastern Nevada organized labor consisted mainly of small groups of craft unionists. (21) The Western Federation of Miners, in effect, had dwindled out of existence after the 1919 strike, the victim at once of its own internal dissensions, the reaction of conservatism which followed the First World War and the acceptance of the tenets of welfare capitalism by the local copper officials.

The fact that there were no major labor disturbances at McGill or Ruth in the 1920s was in keeping with the decline in the average number of strikes throughout the United States from 3,503 for the years. 1916-1921, to 791 for the years 1926-1930. Organized labor, locally, seemed to have little to offer the worker during these years which he couldn't obtain anyway and without paying dues.

Company officials at McGill and Ruth made an extended effort in the 1920s to improve working conditions at the mines, mill, and smelter, and to improve the housing and recreational facilities of the workers and their families. Paternalism was nothing new to these company towns, but during the 1920s the idea was pushed to new heights.

The year 1925 ushered in a number of such welfare programs. Some of these were joint ventures of the company and the people of the community; others were established and controlled by the company.

Perhaps the best example of the former, were the Community League programs started in 1925 at both Ruth and McGill. The two Leagues were quite similar in make-up, procedures, and programs. The initial move in the development of this idea seems to have come from J. C. Kinnear, Sr., at the time Assistant General Manager. There is little doubt that the program was company inspired.

The object of the McGill League according to its constitution was "to promote the general welfare of the community; to organize, finance and govern athletic sports, such as baseball, basketball, tennis and other sports of this nature; to help finance and encourage the Boy Scouts, Camp Fire Girls and similar organizations; to finance, support and govern the McGill Bank; to provide healthful recreation and amusement from which the entire McGill community will receive benefit". The Ruth League's constitution stated a similar objective in similar words although there was no direct organizational connection between the two leagues.

Dues were at first \$.50 per month for each and every employee of the Nevada Consolidated Copper Company and for each business house in each community. These dues entitled the worker and his family to participate in all activities sponsored by the League, either as a contestant or as a spectator. Officers of the McGill League as established in 1925 consisted of the President, the Secretary and Treasurer and five directors. Each director was responsible for the program of aid to the Boy Scouts, Camp Fire Girls and similar organizations; a third was to be in charge of the McGill Band; The fourth had charge of football, basketball, tennis, and other sports; and the fifth was responsible for membership collections and "any other duties that should be handled by the League not specifically delegated to the other directors". (22)

The Community Leagues brought an orderly development to recreational and athletic functions where before haphazard conditions had prevailed. More and better recreational facilities were provided in the years after 1925 to make the two copper camps the envy of surrounding communities, particularly Ely, where taxes and contributions never seemed able to provide equal facilities.

These were the years when McGill and Ruth developed town baseball teams of semi-pro caliber, the company obligingly insuring jobs to those baseball stalwarts whose other abilities were not necessarily suited to the employment secured. Twilight leagues, composed of baseball teams representing various divisions at the mines and the reduction plant, gave anyone willing and with

average skill an opportunity to play the great national game. There had been town teams and twilight league teams before in these communities, but the 1920s saw their greatest development. The Sunday afternoon games between Ruth and McGill town teams were watched by practically every inhabitant of the two communities. For a time, special trains were run to Ruth and to McGill insuring, at each community, a sizeable rooting section from the opposing camp. The climax in this baseball rivalry came on the Fourth of July and Labor Day, when the two teams played for a \$700 to \$500 purse, winner take all.

Football, which had been played in the company towns off and on since the early days, was revived in the late 1920s by the Community League and for a time enjoyed a great popularity. At McGill a town football team was formed and for a few years performed before enthusiastic audiences. The cost of equipment and lack of proper opposition made it difficult for football to survive in these communities.

Basketball, on the other hand, became one of the most popular team as well as spectator sports both at Ruth and McGill. Again, sponsorship of a town team by the Community League gave the initial impetus to the sport in both towns. Soon other teams, the McGill Outlaws, and the M. I. A. teams were organized to develop rivalry within the communities as well as among teams from the various towns. During the winter months, hardly an evening passed without a basketball game; and the gyms at both Ruth and McGill soon proved completely inadequate to hold the people who wanted to enter.

The Community League at McGill also sponsored tennis by supplying tennis rackets and balls which could be checked out from the Club House and used on the near-by courts.

Golf courses were built in both communities during the 1920s. The Ruth course was far superior to that at McGill, a fact which, perhaps, was the reason why this sport thrived at Ruth, but soon died away at McGill.

Many employees and their families continued to use the bowling and swimming facilities located in the basement at the McGill Club House. The bowling alleys presented a problem of upkeep which the Community League was unwilling to solve and soon were in a bad state of disrepair. The small swimming pool in the north end of the club house basement soon proved to be inadequate to the demands made upon it, although to hundreds of McGill youngsters this little pool was McGill's main attraction. During the summer months, dozens of boys could be seen eagerly crowding around the club house doors, in various stages of undress, for there was always a dare as to which one would be the first in the water, waiting for "Old Man" Lee to open-up as soon as the one-o'clock whistle blew.

The Community League in connection with the company placed swings, teeter-totters, rings, and other such equipment, behind the McGill Club House for the benefit of the younger children. This equipment was not too popular and soon was taken down.

The recreational facilities sponsored by the Community Leagues at Ruth and McGill were great social equalizers. Although the make-up of the towns physically might point to racial and economic differences, participation in the games and sports followed no such pattern. A dozen nationalities learned to play and watch together during these years. There were no reserved seats at any of the Community League-sponsored contests. Greek sat next to Englishman, Serbian next to Swede; Irishmen played with Italians, Japanese and Mexicans with Germans and Frenchmen. The men became just another spectator or player, even the General Manager asked no favors and took whatever space was available, at basketball games this usually meant standing room, although at baseball games he generally managed to find seating facilities. Athletic contests gave many of these national groups a chance to prove that the language barrier was not necessarily a barrier to excellence in sports.

Certainly, the Community Leagues were in the 1920s one of the most important socializing activities in the company towns, giving to all company residents, large and small, old and young, rich and poor, an opportunity to belong and participate in common activities. It might even be suggested that such activities helped to fill the void of lack of political activity in the communities.

Improving the social conditions within the copper communities was only one aspect of the welfare program which entered the districts in the 1920s, for it was in 1925 that the first real efforts were made to beautify the company towns.

Much of the impetus for this movement came from J. C. Kinnear, Sr. who was appointed Assistant General Manager in 1923. As a first step, the company encouraged the planting of lawns and the growing of vegetable gardens, the company cooperating to the extent of providing top soil, fertilizer, lawn seed, fencing material, and water, free of charge. The Community League soon entered the picture to carry on further by sponsoring yard and garden contest and giving prizes to the best yards and gardens.

Also in 1925, Mr. Kinnear supervised the seeding of the first park at McGill. The initial strip was a very small parcel of land on the north side of Avenue K (Depot Hill). In 1927 and 1928, 4.62 acres of lawn were seeded in the same general area and 1929, 2.4 acres were added. All of these lawns were provided with sprinkler systems. At the same time, hundreds of trees were planted along the sides of these lawns and a fountain was built in front of the general office. (27)

These efforts by the company and the Community Leagues began to pay off. In a few years, the towns changed appearance tremendously. One might note that many of such improvements probably would have taken place many years previously had the houses been owned by the employees. Nevertheless, most employees showed their appreciation of the attitude of officials by treating the yards as their own.

Ruth was not quite as fortunate as McGill in the amount of attention paid to the physical make-up of the community. The town of Ruth, nestled as it was in the mountains, did not readily lend

itself to a central park area. The lack of water also helped to prevent the beginning of such activities. Probably more important in the apparent favoritism shown McGill was the fact that it was the company headquarters, where both the general manager and the assistant general manager resided at this time. Yard improvement, however, was encouraged at Ruth in much the same manner as at McGill, and within a short time, this community, too, looked better for the well-kept yards and gardens which began to appear.

A comprehensive building and building improvement program was initiated in 1927 at both Ruth and McGill. This program included the construction of a number of new residences and the improvement of many others, as well as improvements to the dormitories facilities at both towns. One of the most important of the improvements initiated in the 1920s was the addition of baths and standard plumbing to most of the dwellings in the two towns; that is, with the exception of many of the dwellings in the so-called "foreign quarters".

Perhaps the most important new building added in either community in the 1920s was the huge boarding house, with ice plant attached, which was completed in 1925 at McGill. The company had taken over operation of the boarding houses from Zemo Barnes in 1913, but continued to use the old Facilities. The new building at McGill was one of the largest and most elaborate of its kind in the state of Nevada, providing service for 500 men with a minimum of delay. At Ruth, the old boarding house was remodeled in 1927 and 1928 in order to modernize its equipment and to provide facilities equal to those now provided at McGill. (24)

Board and room charges for single men at both Ruth and McGill were \$35.00 per month, a figure not much different from that charged originally in 1908. The boarding house in 1927, 1928, and 1929 operated at losses, due mainly to the extensive building and remodeling costs, plus the attempt of the company to keep the charges to the employees as low as possible.

Extensive street, sidewalk, and street lighting programs were initiated at about the same time as the building improvement program. It might be said that the street and sidewalk programs were far overdue, but certainly the streets and sidewalks were no worse than would have been expected in any other mining boom towns. At McGill, 3.85 miles of road were oiled and an additional seven miles was gravel surfaced. Five hundred and seventy-five feet of concrete walk was put in and the same amount of oil-surfaced walk. Neither, however, succeeded in keeping the residents from walking in the middle of the road, a carry-over, perhaps, from earlier experiences in frontier camps; but fraught with danger with the arrival of autos. Over 5,000 feet of municipal and residential sections were illuminated as was 7,500 feet of parkway.

So much activity along welfare lines was initiated in the 1920s that the Chief Clerk, Mr. F. Juffer, in his 1929 annual report to the general manager, referred to the above activities as belonging to the Welfare Department. He defined the Welfare Department, generally, as "all activities at both Ruth and McGill that affect the welfare of the employees and their families". This department, he noted, included operations, the result of which were cleared through Income

Accounts, as well as some items of general expenses roads, streets, sidewalks, parks, and etcetera.

Another item of welfare capitalism in the 1920s, the addition of the company store or commissaries, was the result of labor pressure, particularly as a result of the labor strike of 1919, rather than any desire of the company to get into the store business. As the reader will recall, one of the provisions of the strike settlement of 1919 was that calling for the establishment of commissaries at each of the company towns. Actually, such stores had been suggested before by the employees and promised previously by the company but it wasn't until after the 1917 strike that they became realities. Once established, the commissaries proved successful enough to insure their continuance. The commissaries were operated throughout the 1920s with very small profits, and in at least one year, a small loss. For example, the profit in 1927 was \$4,177.5 in 1922 it was \$5,748.11, and in 1929 the stores operated at a loss of \$7,744.82. (75)

Business at the commissaries was conducted through the medium of coupon books, thus reducing overhead to a minimum by eliminating most of the bookkeeping and preventing bad account. Employees were allowed to draw coupon books to the total of their earning and these coupons were accepted then as cash for purchases at the commissaries.

Perhaps the most interesting of all the welfare programs entered into by the company in the 1920s was that of the dairy business. Prior to the year 1927, the dairies at Ruth and McGill had been operated as private enterprises by Greeks. In that year a number of complaints were registered against the dairies by the Medical Department of the Nevada Consolidated Company. Because the owners of the dairies had insufficient capital to install proper sanitary equipment and no other arrangements were available at the time, company officials decided to purchase the facilities. In July 1927, the company purchased the dairy at McGill which included 140 head of cattle of various ages. In 1929, the dairy at Ruth was purchased and the 70 animals there were moved to McGill. During 1928 and 1929, well-equipped barns were built and sanitary equipment installed. The McGill Ranch was developed for production of more hay by proper fencing and the establishment of irrigation ditches. Pure bred bulls were purchased and soon the McGill Dairy had developed into one of the most modern in the state, all because local producers were unable to insure company consumers a product that would meet the sanitary requirements of the Medical Department of the company and the Nevada Health officials. Milk was sold at 15 cents a quart to employees of the two communities; deliveries were made both at Ruth and McGill by truck. (26)

A summary of the activities of the Nevada Consolidated Company in the communities of Ruth and McGill during the 1920s thus indicates how far along the general road of welfare capitalism company officials had traveled in these years.

Company officials had one main social problem to contend with in their communities during these years. This was the bootlegging problem, spawn of the 10th amendment and the Volstead Act.

Much to the surprise of many, the advent of Prohibition while eliminating the saloons created a liquor problem which proved in the long run much harder to control.

By the end of 1922, one of the local newspapers indicated that conditions at McGill were so bad that 50 to 75 men had failed to show up for work on their regular shifts. Subsequent newspaper reports continued to indicate that dozens of employees were having little difficulty finding adequate supplies of illicit liquor. One of the biggest problems, both at Ruth and McGill was trying to catch the so-called "hip-pocket" bootleggers who carried a small supply on their persons and inter-mingled with the employees, sometimes selling the liquor in bottles, but just as often dispensing it by the drink. The usual treatment of these small-time operators was to run them out of the community. (27)

Much of the bootlegging in the copper district took place, at first, on the fringes of company property. In the fall of 1927, company officials sent letters to all those known bootlegging on company ground, ordering the offenders to vacate company land at once. The letter was followed by action on the part of the company, but their success in eliminating the bootleggers was only temporary for the latter simply moved to the nearby towns of Riepetown, Steptoe City, and the Ragdump and operated from these without much difficulty. Many of the bootleggers during this period preferred to operate from abandoned mine buildings, ranch houses, and the sundry other old buildings in the surrounding areas which had survived from an earlier era. (28) A good example of this latter type of operation came in January 1925 when federal agents raided the copper district. The biggest haul, according to the Ely Record, was at a place 20 miles north of McGill operated by a man named Luther Keyes. The haul included some 1,000 gallons of mash and 43 gallons of whiskey. According to the labels, there were three kinds of whiskey manufactured by Keyes, "good" whiskey, "loving" whiskey, and "fighting" whiskey. (29)

Of course, the district soon had its share of speak-easies where entrance gained by knowing someone who knew someone and then passing the scrutiny of some mysterious person who watched you through a peep-hole, or from behind drawn window-shades, or perhaps from some vantage point in the house across the street. The activities of these prohibition "saloons" became more openly known, as violation or the prohibition laws increased in the later 1920s. And it was quite evident from reports of bootlegging in the 1920s and the subsequent arrests by federal officials that persons caught in each raid were oftentimes repeat offenders who found it to their advantage, monetarily speaking, to operate rather openly and on a large scale, pay their fines when caught, and get back into business as soon as possible, knowing that the amount of the periodic fines was a minor part or the profits they made in between federal raids.

Community life in the copper communities during the 1920s followed much the same pattern as that experienced in small towns throughout the United States in these years. The first half of this decade, here as elsewhere, was a period of readjustment and reaction following the war; the second half was a period of happy reaction to the cares of the day, a sort of nationalistic binge, freeing society from the responsibilities it had been faced with during the war and which everyone seemed convinced should be avoided now at all cost.

During the first part of this period, Ruth and McGill people experienced the post-war reaction. The strike of 1919, although settled peacefully, hinted at the potentialities. Then the post-war depression shutdown the large reduction works and the mines for nearly a year. Coexistent with these events came the Red Scare, aimed mainly at the I. W. W. in the copper district, and the Ku Klux-Klan; both significant barometers of the temper of the post-war reaction in the United States with its extremes of narrow nationalism and isolation.

The Ku-Klux-Klan made some headway in the mining communities. At Ruth, McGill, and Ely, burning crosses on the mountain-sides gave indication that the hooded men were meeting. However, two of the main hatreds of the Klan, the Jews and the Negroes, were not numerous in these communities; consequently, some of the initial impetus of the movement was lost. There were some threats against some of the so-called "foreign" elements of the towns, and there were a few tar and featherings during this period. These latter, however, may well have been nothing more than ordinary mining frontier reaction to undesirables. It seems, from the meager evidence at hand that the Klan movement in the copper districts was of a minor nature, useful for a time to cloak the intentions of some who operated best in secret, but dying rapidly for want of real purpose.

The revolution in morals and manners which has been so often identified with the "Roaring Twenties" came rather quickly to the district, for the copper towns, like boom mining towns of other eras, were peculiar combinations of the rural and cosmopolitan demanding to be kept abreast of the latest social changes. Thus, on the one hand, new fads like bobbed hair, rolled stockings, rouge and lipstick, smoking and drinking by women, Mah Jahn, the Gin Flask, "petting" parties, came rather quickly to the towns; yet, on the other hand, rural undertones in the communities forced innovators of some of the new and shocking customs to suffer rather strong social stigmas for not abiding by the dictates of a former age. All of these changes and their reactions were but a part of this fabulous era, an era later generations would look back upon with a great deal of nostalgia.

## CHAPTER X

### DEPRESSION YEARS

The stock market crash of October 29, 1929 caused little concern in copper camps. There was no indication among the workers that such a financial shakeup might shortly cost many of them their jobs and eventually close the plant.

So firmly fixed, here as elsewhere, was the idea that the 1920s had ushered in perpetual prosperity that even continued stock market declines in 1929 failed to shake the people's faith in it. Besides didn't the business leaders, defined by the 1920s, indicate that it was a temporary situation and that there was little danger of a depression?

In January 1930, however, Nevada Consolidated Copper Company laid off some 400 men at Ruth and McGill and cut production nearly 7,000 tons a day. This was reality, and not quite the picture of dreams and paradise envisioned by the prosperity of the 1920s. It was to get much worse. By the end of 1930, production had been reduced to 40 percent of capacity. One year later it was below 70 percent of capacity and the price of copper was down to 9.17 cents per pound. A wage reduction of 10 percent on salaries took place September 1, and on wages October 1 in all divisions of the company. (1)

In December 1931, the Copper Institute announced that the large companies had agreed to cut production about 26-1/2 percent of capacity beginning January 1, 1932. This curtailment was based on a copper price below 12 cents a pound. If the price went above 12 cents for a period of 15 days, the curtailment was to cease. (2)

In spite of D.C. Jackling's encouraging remarks while visiting the district in March 1932, that there would be no shut down at Ruth and McGill and that the depression in his opinion would soon mend, evidence continued to accumulate to the contrary. (3) By the summer of 1932, the plant was operating on a 15 day basis and by the end of 1932 there had been further reduction in payroll and number of man employed. As of December 31, 1932, there were 964 man employed in the two camps which represented a reduction of 404 man or 29-1/2 percent from the number employed December 31, 1931. The total payroll had gone down faster; that of December 31, 1932 standing at \$1,241,647.94, a reduction of some \$877,485.46 or 41.4 percent from that of December 31, 1931. Capacity of the plant fell to about 17 percent of normal in 1932 while an operating loss of \$2,106,062 was sustained for that year. (4)

Actually the Nevada Mines Division of the Nevada Consolidated Company fared much better than the other divisions of the company in Arizona and New Mexico. In April 1933, the Ray Consolidated closed down and in September of 1934, the Chino unit was closed. (5)

Such facts were little consolation to the people of the Nevada copper district. It seemed at the end of 1932 that conditions could get no worse, yet production slipped steadily ever lower until

at the end of 1933 the company looked back upon the worst year in its history. Only 2,858,224 pounds of copper were delivered to the refinery that year with a net settlement of only \$1,624,042.40. (6) It was during this year that the copper metal price at the refinery reached an all-time low of 4.775 cents per pound. (7)

It was during the year 1933, also, that there occurred the most important organizational change in Nevada Consolidated since 1914. On June 17, 1933, Kennecott Copper Corporation acquired possession of Nevada Consolidated Company. This was the end of a process, so far as Nevada Consolidated was concerned, which began in April 1915, when Kennecott first obtained Nevada Consolidated stock through purchase of some Utah Copper stock.

The immediate background for the 1933 transfer began on May 5, 1932 when Kennecott exchanged one of its shares for two of Nevada Consolidated, receiving by this means in 1932 some 2,085,305 shares of Nevada Consolidated stock. Then early in 1933 Utah Copper distributed its Nevada Consolidated shares to its own shareholders which meant that Kennecott as the largest holder of Utah Copper stock acquired some 88 percent of Nevada Consolidated holdings. The final step was taken, as noted, on June 12, 1933, when Kennecott acquired all the assets of Nevada Consolidated Copper Company, including the mines at Ruth, Nevada; Ray, Arizona; and Santa Rita, New Mexico; and the Nevada Northern Railway and the Ray and Gila Valley Railway. For local reasons, officials of Kennecott determined to operate the Nevada mines through a wholly owned company bearing a name resembling the old one thus, the name Nevada Consolidated Copper Corporation was given to this subsidiary (8)

The story of Kennecott Copper Corporation is one of the most fascinating of all copper developments. It really began in the summer of 1914 when high grade copper ore was discovered on the Jumbo level of the Bonanza mine in Alaska. This mine, outcropping on the crest of a precipitous mountain overlooking the Kennecott River, at the time, was being exploited by Stephen Birch. The copper ore was so rich, some as high as 65 percent and 70 percent copper, that Birch decided to make a public company of the Alaska mines in order to speed development. Thus on April 29, 1915, the Kennecott Copper Corporation was formed. What followed was an amazing series of organizational changes involving various Guggenheim properties that marked Birch as nothing short of a genius in such matters. The first of these, made December 31, 1915, was with the Guggenheim Exploration Company who agreed to exchange their Utah Copper shares (some 25 percent of the total of the company) for 607,000 Kennecott shares. At the same time, 76.5 percent of the bonds and shares of the Guggenheim dominated Braden Copper Company in South America were exchanged for 770,000 Kennecott shares and the Copper River railroad. By this move, Kennecott came into possession of practically all of Braden Copper and 25 percent of Utah Copper.

In 1916 and 1917, Birch borrowed \$16,000,000 in short term notes with which Kennecott bought additional shares of Utah Copper. Then between 1923 and 1925, Kennecott offered Utah stockholders an opportunity to exchange one Utah share for 1-1/3 shares of Kennecott. In this

manner, Kennecott obtained 95 percent interest in Utah Copper and, in effect, came into control of Nevada Consolidated because Utah Copper Company through stock ownership controlled the Nevada company.

All of the above moves were made possible by the amazing the Alaskan mines, which in 3 years and 7 months made a net profit of some \$50,000,000. The Company with this windfall paid dividend and capital distributions of \$36,800,000 and proceeded with its expansion at Braden and the strengthening of its position in Utah Copper. (9)

The change in Nevada from Nevada Consolidated to Kennecott seemed to mean little, at first, for from the standpoint of operational changes, the local general manager continued to have a great deal of autonomy. However, it marked in fact the beginning of subtle changes in policy aimed at centralization of methods and procedures in production, operation, and finances.

During the years 1930 through 1933, when the plant was operated at varying degrees of capacity, company officials initiated a program of plant improvement both at McGill and Ruth, which not only improved the efficiency of the plant, but which kept numerous employees at work who might otherwise have been unemployed.

At the mines, the big improvement was the electrification of the shovel equipment. The first two Bucyrus 120-B, full revolving electric shovels were received in September 1931. Initial tests in comparison with the steam shovels then in use showed the electric shovels to be much more economical, saving almost \$100 per shovel per 6 hour shift. It was recommended, after these tests, that the steam shovels be replaced with electric shovels as soon as possible. (10) Additional steam shovels were replaced in the ensuing months so that by November 1, 1932 electrification was complete. Tests conducted from November 1931 to October 31, 1932 again confirmed the tremendous savings involved in turning from steam to electricity. During this period, the electric shovels were operated at a cost per 8 hour shift of \$50.74, while the steam shovels for the same work shift cost \$154.58. (11)

The major improvement at the mill was the installation of a new ore receiving and crushing plant. This installation included a forty-foot rotary car dumper built by the Wellman Engineering Company and designed to handle thirty 100-ton cars per hour. The dumper weighed 26,000 pounds and was powered by an 80 horsepower motor. An 84-inch by 66-inch jaw crusher, grizzlies, and a pan conveyor completed the installation.

The new crushing plant went into operation July 9, 1932. Some difficulty was experienced with the devices which grasped the cars preliminary to revolving and dumping, but these adjustments and others were made without difficulty. Once in operation, the new system attracted a great deal of attention, both from employees and visitors, who were amazed by the ease with which the rotary dumper grasped the huge, heavily loaded cars, and turned them over to be emptied. (12)

Further improvement of the crushing operation came in 1937 when a brick building was erected for housing the rotary converter and transformers. The job of installation was completed and a new General Electric locomotive put into service on September 27, 1937. (17)

At the smelter, a major change was adopted when direct smelting was installed. This process, whereby the step in the smelting process known as roasting is eliminated, had been tried earlier in the 1920s, but had not proven feasible at the time. However, with the complete adoption of the flotation system at the mill certain engineers wanted to give direct smelting another chance.

Opportunity for the tests was presented when the depression forced an on and off operating procedure. The first direct smelting tests were made during the latter part of June the entire month of July and the early part of August 1931. Results indicated that material savings in metal recovery and operating costs were possible and that by direct smelting about 50 percent of present reverberatory stack dust loss could be eliminated, and the slag loss reduced about 30 percent. The amount of copper saved in a year would amount to some one million pounds, but to make direct smelting possible the concentrates would have to contain about 28 percent copper. (14) Additional tests were made in 1932 confirming previous results. The smelter then operated on direct smelting during the entire year of 1933. Again, results were both metallurgically and economically successful. (15)

As a necessary part of this move toward direct smelting, a smelter rearrangement program was planned in 1933. However, no field work was done that year although plans were completed for the new layout. (16)

The actual work of smelter rearrangement began May 26, 1934, when concrete was poured in forms for the direct smelting conveyor system. The rearrangement program was fitted into the operating schedule then in effect in order to make the least conflict possible. This project, which moved the converters next to the reverberatory furnaces and provided overhead cranes for transfer of matte and converter slag, which brought the coal pulverizing units alongside each furnace, and installed conveying equipment from storage bins to points of use, was ready for operation the first days of 1935. (17)

Following the successful change to direct smelting, the roasting plant was abandoned in 1935, most of the old buildings being used for other constructure and repairs. (18) With the abandonment of the roasters, the Cottrell system, which had been used to treat roaster gases, was moved from the roaster flue to the reverberatory flue to reduce reverberatory stack losses. (19)

The depression in the copper district was at its height in 1933 when F. D. Roosevelt was sworn into office as President of the United States. Hundreds of workers and their families were cheered by the message of hope that came from Washington that March 4; and yet as they looked about them at the row upon row of blister copper bars, stacked on all available loading platforms, they wondered whether the new administration would be any more successful than the old in solving the riddle of this depression.

Slowly, very slowly, as the national administration began its program of reform, conditions in the copper camps began to improve. Industrial recovery on the national level received its first big legislative impetus with the passage of the Industrial Recovery Act of June 16, 1933. As originally written, this act was meant to guarantee the interests of business, of labor, and of the general public. As Roosevelt signed the bill into law, he called it "the most important and far-reaching legislation ever enacted by the American Congress." The objectives of the act were: to end cutthroat competition; to raise prices to a profitable level by limiting production to actual needs; and to guarantee a reasonable work week and a living wage to labor. These ends were to be achieved by the adoption of codes for industry and business by committees representing management, labor, and the public.

In view of the fact that the NIRA later came to be condemned unmercifully as regimentation and outright socialism, it is interesting to note the responsibilities of each; management, labor, and the administration, in the adoption of this legislation. To begin with, the United States Chamber of Commerce had been working on a plan for recovery since 1931. This plan proposed the creation of a national council of industrialists and businessmen with power to work through trade associations to control production, raise prices, and stabilize wages. Businessmen, at first, were unwilling to admit the necessity of governmental supervision. Labor made its move in December 1932, when a bill, sponsored by the A. F. of L., was introduced in Congress to limit hours of labor in industry to thirty a week. The administration, to this time, had no real plan for industrial recovery. Roosevelt and his advisors, now improvised a plan of recovery in order to halt the movement in Congress and keep recovery in the hands of the administration. The NIRA was the result, with business, labor, and the administration united in a solid front to insure its passage through Congress.

Under the act, business obtained price stabilization, production controls, the outlawry of allegedly unfair competition, and the right to govern itself. This last point was insured by the provision which allowed each code to be administered by a code authority generally composed of trade association officials representing the large corporations, and by the exemption from anti-trust prosecution for restrictive practices previously held illegal by the courts. However, in return, business had to concede to labor the right to organize and the establishment of minimum wage and maximum hour scales. (20)

The process of code making was a complex and oftentimes a lengthy process. Draft codes had to be made by the association representing the industry, public hearings then had to be conducted. Next came intensive study by N. R. A. officials, at which time the code might be amended. It then was approved by the N. R. A. administration and the President and declared in effect.

Although the first N. R. A. code, covering the cotton textile industry, was approved by the President July 9, 1933; it wasn't until April 21, 1934 that the Copper Code was adopted. (21)

The first copper codes were submitted to the N. R. A. Bureau in August 1933. Unlike many other industries, the copper industry attempted in its code to obtain production control by establishing definite production limits. This, of course, seemed to be necessary because of the large amounts of copper on hand. In this attempt at production control, the copper code set up three classes of producers, A, B, and C. Kennecott was placed in Class A. Under the copper code, also, domestic sales were limited to newly mined metal, the vast stocks of copper on hand remaining frozen. The minimum wages and maximum hour provisions of the copper code conformed to President Roosevelt's Reemployment Agreement of July 27, 1933. This latter agreement was a purely voluntary one to which all employers were invited to subscribe. The Agreement pledged the employer not to employ children, to limit hours to forty per week in businesses, thirty-five in factories, and to a minimum wage of not less than 30 cents an hour. The purpose of the Reemployment Agreement was to obtain immediately some of the objectives of the N. R. A., while the codes were being processed.

To hurry compliance with the so-called "blanket code", Hugh S. Johnson, the N. R. A. administrator, tried to publicize the N. R. A. along lines made famous by George Creel during the First World War. Employers who cooperated in the objectives of the Reemployment Agreement were allowed to display the Blue Eagle N. R. A. symbol. Blue Eagle parades were held throughout the nation during these months and many other devices were used to make conformity with N. R. A. objectives a part of each citizen's patriotic duty.

Following this idea, a group of local citizens, late in August 1933, formed a local unit of the Patriotic Volunteers of America with Vail Pittman as county chairman. This group immediately began to sponsor drives to secure full cooperation of all local businessmen and consumers with F. D. R.'s program. Part of the work accomplished by this group included an N. R. A. Sunday, observed in all the local churches, a series of talks by "Four-Minute Men" in the various copper communities, and cooperation with the local committees in charge of the Labor Day celebration.

This latter event, September 4, 1933, was used as a means of focusing attention on the Blue Eagle campaign and particularly on the new role of labor in the President's program. The celebration, the first Labor Day event in two years, was spotlighted by the parade of 800 union workers who carried at their head a huge N. R. A. Blue Eagle banner. The Labor Day celebration was fittingly climaxed by one of Nevada Consolidated's free Safety First Dances at the McGill Boarding House. A gesture which fitted neatly into the pattern of cooperation between labor and management under the N. R. A. (22)

The copper code, however, was slow in coming. Throughout the early months of 1934, local newspapers carried notices that the code was near adoption, but the process of obtaining agreement on production controls proved difficult, and it wasn't until April that the code finally was approved by the President.

Whether due to the code or not, conditions improved somewhat in the copper industry in 1934. Locally, Nevada Consolidated operated 201 days in that year for an average of 16.75 days per month as compared to 160 days or an average of 14 days per month in 1933. The net settlement for copper went up in 1934 to \$4,302,543.58 from a low of \$1,624,042.40 in 1933. (24)

Although the N. I. R. A. soon came crashing to the ground when a Supreme Court decision on May 25, 1935 declared it unconstitutional, conditions throughout the United States continued to improve during the years, 1935, 1936 and 1937. Nevada Consolidated's production followed the general pattern in these years. The plant operated 257 days in 1935, 332 days in 1936, and 350 days in 1937. During that same period, the amount of copper delivered to the refinery reached a new high of 121,818,424 pounds in 1936, with a net settlement for that year of \$11,137,310.20. (25)

This new found prosperity was not to last. Copper demand began to taper off in the latter half of 1937. By the middle of the next year, the price per pound for copper was off almost two cents from that of the previous year. On June 3, 1938, Nevada Consolidated announced that it was suspending operations for thirty days starting June 16. On July 15, however, the company announced it wouldn't resume production until August 1, and then on a curtailed basis of one shift, five days a week. Production dropped to \$3,183,711.66 for that year as the plant operated but 284 days. (26)

When the plant resumed production, it was under the provisions of the Fair Labor Standards Act signed by the President June 25, 1938, which set minimum wages and a maximum work week of forty-four hours. In order to keep within the requirements of this act and operate most efficiently, the Nevada Consolidated Company worked five and one-half days back-to-back, thus giving eleven straight working days and then three days off. This schedule held for the operating crews mainly; construction crews, particularly, operated on a number of different plans during this period, causing no end of confusion to workers and time clerks alike. Provision was made for time and a half for overtime and the act provided that hours were to be reduced until a forty-hour week was reached in 1940. The Fair Labor Act was partly responsible, no doubt, for the addition of some 164 men to the payroll in 1939, a fact that aided the general air of prosperity in that year. (27)

One of the most important results of the New Deal legislation in the copper camps as well as in many other areas throughout the United States was the impetus that was given to organized labor. Beginning with Section 7a of the N. I. R. A. which guaranteed labor's right to organize and bargain collectively the New Deal consistently legislated in the 1930s for the benefit of labor.

Under the provisions of the N. R. A., employees at Ruth and McGill formed labor unions and affiliated with the International Union of Mine, Mill, and Smelter Workers; this latter union was basically the old Western Federation of Miners with a new name. (28) The strength of the two locals at the time of affiliation with the International Union of Mine, Mill, and Smelter Workers

was as follows: Local 124 at Ruth, 300 members, and Local 233 at McGill with 400 members. (29) The initial, impetus given to labor during the early New Deal period was never lost in the ensuing years, and even though the N. I. R. A. was voided by the Supreme Court, the rights granted in Section 7a of that act were continued by other federal legislation passed in subsequent years. It would be unfair to indicate that labor unionism died in the 1920s in the copper camps; on the other hand, it is quite clear that the New Deal gave it a tremendous shot in the arm. A glance at the Nevada Labor Commissioner's Reports in the 1930s will bear evidence to the above statement. A comparison of reports during the 1920s, with reports from the 1930s (July 1, 1934 to June 30, 1936) shows an increase of 11 unions reporting from Ely, McGill, and Ruth. (30)

During the recovery of the 1930s, besides the numerous plant improvements already touched upon, a very important development took place at the concentrator. This concerned development of the molybdenite plant.

Experimental work concerning the possible extraction of molybdenite from Nevada Consolidated's ore was carried on throughout 1936 and 1937. In 1938, work was started on the molybdenite plant. The initial run in the plant was made November 29, 1938, but it wasn't until April 1941, that the first car of molybdenite concentrates was shipped. (31) Since that time, the plant has been a steady producer. Through the year 1954, 3,752,453 pounds of molybdenite have been produced. (32).

The 1930s saw renewed emphasis on the safety program at the Nevada Consolidated's operations. Actually, this new interest began in 1929 and again, as was so often the case in the past, got its impetus because of a serious accident. The accident, involving four men, one of whom later died, was caused when a scaffold collapsed. (33) After this accident, meetings of department heads and plant foremen were held weekly to review accident records and to discuss means of promoting safety education. Instruction in first-aid was re-emphasized and signs showing the safety record of each department were erected at the mines and reduction plant and placed so that employees could readily see them. To make the entire community conscious of the safety program, in 1930 a free dance was promised to the employees for any month in which no lost time accident occurred. (34)

Under the impetus of this new safety program, lost-time accidents began to decrease in 1930, and on April 15, 1931, the first safety-first dance was held at the McGill Boarding House to celebrate the fact that there had been no lost-time accidents during the entire month of March. (35) This same year the United States Bureau of Mines awarded Nevada Mines a certificate showing 100 percent training in first-aid. (36) In 1933, the Ruth First-Aid Team won first prize in the mining division of the Utah-Nevada Safety Society contests and won second prize in the Society's sweepstakes contest. (37) In the spring of 1936, the Nevada Consolidated Corporation was awarded the Joseph A. Holmes Safety Association Certificate for operating four years, 1933-1935 inclusive, without a fatal accident while employing an average of 700 men. (38) Thus, it

can be seen that the company kept its employees and the people of the communities aware of the safety program during these years.

The copper camps fared better than most communities during the depression. This was true, particularly, of the company towns, but Ely benefited also from its position between Ruth and McGill.

It was during the depression years that many people in the district came to appreciate the attitude of officials of both the Kennecott Corporation and the Consolidated Coppermines Company toward the company communities. In reference to the actions of Kennecott officials, it is of course obvious that they wished to protect the vast investments of the company in the district and, when possible, to continue to make money from their operations. However, local company officials could and did exercise numerous choices in reference to employment practices, rent charges, issuance of coupon books, and many other items, which benefited employees and their families.

To begin with, the morale in the communities was helped considerably by the official attitude that the depression was a temporary thing to be suffered through; thus one's eyes should be focused on the future, not the past or present. In line with this attitude a number of improvement projects were initiated at the mines, the mill, and the smelter, which, besides aiding the unemployment brought about by the decreased demand for copper, kept the plant in excellent operating condition and in many instances made it more efficient.

During the worst days of the depression, the company tried to operate fifteen days each month. Sometimes splitting the months was impossible, and twice in 1934 the smelter was down completely, during September and again in December. However, even in the worst year, 1937, the plant operated an average of 14 days per month. (39) Staggered operation of this sort kept employees with enough take home pay to cover essential expenses. No one got rich, but neither did anyone starve.

In some instances, people were allowed to remain in the company houses while others were furnished with coal, both on credit. Others were issued commissary books when they did not have any salary to back such issuance. One or two local company officials were known to have paid for these coupon books out of their own pockets. Milk, from the company's dairy at McGill, was distributed to those families in direst need. The company also contributed heavily during these years to the local Red Cross units. At both Ruth and McGill, the Red Cross did a great deal to help care for families where the earning power was insufficient. At Ruth, for example, the Red Cross, in the last six months of 1932, distributed 9,000 pounds of flour to needy families in the mines area. This unit also kept a clothes depot for needy families of Ruth, Kimberly, and Riepetown. (40)

Helping to ease the depression in the district, both in a material way, and from a psychological standpoint, was the establishment of a Civilian Conservation Camp at Berry Creek in Duck

Creek Valley, about 10 miles from McGill. The quota allowed the district was 100 men above the ages of 25, and 40 men between the ages of 18 and 25. Enlistments were for a period of six months. Each recruit received \$30 cash a month plus food, clothing, shelter, and medical service. (41) Although many criticized the C. C. C. program, here as elsewhere, it took many off the streets and put them to work at useful projects in wholesome forest environments. Camp Berry, although of short duration, proved to be a model camp, being judged the best of 25 tent camps in its district. The camp was transferred to Moapa, Nevada in November 1937. (42)

Social activities in the company towns during the depression continued along much the same lines as in the 1920s, but on a more conservative, if somewhat less sober note.

Bringing some humor and lightness into an otherwise dreary, depression year was the legalization of beer by Congress in March 1933. Prohibition, locally and nationally, had proven to be somewhat a more foolish experiment than a "noble" one.

The people of the copper communities, along with others throughout the country, got their first taste of legal beer April 7, 1933. The Ely Daily Times of that date carried as its headline, "New Brew Makes Bow". In the accompanying article, it was noted that 75,000 barrels of beer were consumed in downtown Chicago shortly after its sale became legal. And that the Reno Brewing Company exhausted its supply of bottled beer in a few hours, in spite of a protest parade through Reno's streets by the Salvation Army. The copper towns had to wait until evening for the supply of beer to arrive from Reno and from Ogden, Utah. Long before any beer arrived, crowds jammed the local dispensaries. At Ely, a beer parade, "short in length, but long in fun", was held. At Ruth and McGill, people gathered in front of the Ruth and McGill Clubs carrying mugs, buckets, and all conceivable sorts of containers. When the supplies arrived, needless to say, a shortage soon developed. (43)

The same lame duck session of Congress which legalized beer passed and submitted to the people of the States the 21st Amendment, to the Constitution which would repeal, if enacted, the 18th Amendment, but at the same time prohibit the transportation of liquor into any dry state or territory.

In line with the congressional action, the Nevada legislature passed an act, March 25, 1933, calling for a state convention to be held at Carson City, September 5, 1933 to consider the ratification of this 21st Amendment. Under the provisions of the Nevada act, mass meetings of the qualified electors in each precinct were to be held at which time delegates were to be elected to the county convention. The county conventions were to meet at their respective county seats on June 10, 1933 to select delegates to the state convention. Each county was entitled to as many delegates as it had state assemblymen. The White Pine delegation, selected at the county convention of June 10, consisted of F. E. Siegert, J. C. Wheeler, Joe Hopson, and Neil A. McGill. All of these delegates were pledged to vote "wet", although there had been some prohibition sentiment at the county convention from the Lund area.

The state ratifying convention met at Carson City September 5, 1933 with 39 of the 40 delegates present. When the vote of the delegates in convention was taken, the result was a unanimous vote for repeal of the 18th Amendment. (44)

The 21st Amendment to the United States Constitution was declared in effect December 5, 1933. Three days later in Congress, the members of the House Ways and Means Committee, still concerned about bootlegging, recommended that whiskey be sold at \$1.50 a quart and single drinks at 15 cents per drink. (45) There was little need for such worry in the early years after repeal and before the national and state governments found liquor taxes to be such a good source of revenue, for legalized liquor soon lessened the threat bootlegging.

Once again in the Robinson district the saloons, which had been masquerading in many instances as "soft drink parlors", became a prominent part of the local scene. Riepetown, once again showed signs of prosperity; dozens of saloons soon opened their doors at Ely. At the company towns, however, company officials exerting their usual control, allowed liquor sales in only one or two establishments in each of the towns of Ruth and McGill.

Community League activities continued in the 1930s along the same general patterns established in the late 1920s. And if a little less money was spent by the League on the various activities, on the other hand, there was more actual participation in the sports program because of the additional leisure time enjoyed by the employees.

In 1930, the company opened an outdoor swimming pool at the old McGill Ranch which soon became one of the most popular recreational spots in the district. Sand was hauled in and placed along the edges of the natural pool formed by the McGill Springs, a device which not only helped to control the weeds along the edges, but gave the appearance of an ocean beach. The old pool had been used for many years by youngsters who wanted to swim, but until 1930 the company had not encouraged such activities and had made little effort to make the place available for swimming. With the improvements to the pool, dozens of people from Ely and Ruth were attracted daily to the area; an outsider, viewing the cars driven from Ely and Ruth to McGill, never would have suspected a depression in the district.

Another company practice, which continued under J. C. Kinnear, Sr. even during the depression, was the real effort made each summer to give employment to local youths who were attending or who wished to attend colleges and universities. It is certain that many of these jobs were "busy" work where no real need for the labor existed. The resulting benefits, however, to the young people employed and to the company in the way of good-will, would be difficult to measure.

Most mining companies, and particularly those which are successful over a long number of years, have their share of legal difficulties. In this respect, Nevada Consolidated Company had been rather fortunate until the 1930s. There had, of course, been the Minerals Separation Suit, decided out of court in 1922, and the Carson Investment Suit against side-smelting practices in the late 1920s. Neither of these had involved action with other companies in the district; as a

matter of fact, Nevada Consolidated had not been involved in a major legal case against a local company until October 21, 1929. On that date, Nevada Consolidated Copper Company instituted proceedings in the United States District Court at Carson City, Nevada, to secure an injunction against its neighbor, Consolidated Coppermines, to compel the latter to change its mining methods in certain ore bodies adjacent to the Liberty Pit of the Nevada Consolidated Company.

The background of the case goes back to June 16, 1926 when the two companies entered an agreement whereby the Nevada Consolidated agreed to treat a certain tonnage of Coppermines ores at its reduction plant at McGill. A further agreement was reached at this time whereby Nevada Consolidated agreed to mine the Ora, Emma Nevada, and Westphalia claims of the Consolidated Company in connection with its Liberty Pit operation, while Consolidated Coppermines agreed to mine the western extension of the Liberty Pit in the Nevada Consolidated's Champion and Liberty Claims by underground means. When the Consolidated Company began its underground development in the western end of the pit, the Nevada Consolidated Company felt that it did so violation of the 1926 agreement. When efforts to settle the matter out of court failed, the Nevada Consolidated brought suit as indicated above.

When the case got underway, many oldtimers in the district shook their heads knowingly to indicate an "I told you so" attitude for it was commonly conceded that one day the two companies would come to blows over the mining of these claims.

Officials of both companies had realized that certain areas has the companies had bordering claims would have to be worked under agreement of the two parties. Nevada Consolidated had, on more than one occasion, attempted to purchase part or all of the Coppermines holdings, but had never found the right time combined with the right price. And so finally, the companies had worked out the 1926 agreement, as the only solution to the complex situation where the Ora, Emma Nevada, and Westphalia claims of Consolidated, while beginning outside the pit area extended into it, and the Champion and Liberty claims of Nevada Consolidated, while beginning in the pit extended westerly beyond the pit perimeter.

This agreement, seemingly, had failed to protect the interests of both parties and thus the injunction suit by Nevada Consolidated, which was followed shortly by the institution of counter-claims by the Consolidated Company. (46)

The initial suit occupied the court for over two months. Large legal staffs were employed by both companies including some of the most expert mining law talent in the United States. It took nearly seven weeks alone to present the evidence in the case as dozens of employees of both companies testified. The main contention of Nevada Consolidated was that the program as outlined by the Consolidated Company would destroy the western and of Liberty Pit, not only interfering with the entire pit operation, but endangering the new five compartment Wedge shaft of the Nevada Consolidated Company.

Decision in the original suit, handed down in the Federal District Court at Carson City August 8, 1930, favored the contention of Nevada Consolidated. As a result of the decision, the defendant, Consolidated Coppermines, was enjoined from "mining at and west of the contract plane below the pit area until shovel mining therein, prosecuted with reasonable diligence and in accordance with good mining practice, is concluded." (47) The case was appealed immediately by Consolidated Coppermines. On April 6, 1938, the Federal Circuit Court of Appeals of the 9th Circuit at San Francisco upheld the decision of the Federal District Court. A rehearing of the case was denied by the Appellate Court on June 5, 1938. (48)

The first round had gone to Nevada Consolidated, but this was only the beginning. On January 23, 1933, Consolidated Coppermines filed suit against Nevada Consolidated charging that the latter company had defrauded them in treatment charges, assay of ores delivered for treatment, and in excessive charges for power. The suit initiated in White Pine District Court, was transferred at once to the Federal Court at Carson City due to diversity in citizenship of the corporations involved. (49)

Again the legal forces of both sides met at Carson City and again week after week was spent in presenting the evidence. Practically every engineer of both companies, chemists of both companies, all supervisory personnel at the mines, and numerous members from the office forces of the companies, at one time or another during 1933 and 1934 was called to Carson City to testify in the case. As it turned out, the suit filed by Consolidated Copper took longer, some 146 days of testimony, and covered more areas of conflict than did the original suit filed by Nevada Consolidated.

Finally, in October 1934, Federal Judge F. H. Norcross handed down a lengthy decision covering the counter-claims of the Consolidated Coppermines Company. Although awards were made to both parties and the court held that no fraud was found in respect to either party; nevertheless, Consolidated Coppermines won, in the end, rather substantial sums. The largest Consolidated claim which was allowed in the 1934 decision was for \$413,000 for alleged excess payments made the Nevada Consolidated Company on account of operating expenses. Actually this was not an outright payment as the court held that this sum should have been spread over the life of the contract (20 years) between the two companies, instead of being paid as it had been in one sum. The charges that Nevada Consolidated had charged excessively for power sent to Consolidated were dismissed. The claim of Coppermines for over one-half million dollars involving important metallurgical questions was given by the court to a master in review who was to study the details and report back to the court before final judgment in the manner could be handed down. (50)

This latter point proved to be the most important from a monetary standpoint. On September 22, 1936, Judge Norcross accepted the findings of fact presented by the master in review, to wit, that Consolidated Coppermines was entitled to damages of \$896,000. (51)

A settlement of these damages and the matter and the matter of a new working contract were worked out by officials of the two companies in July 1937. According to this settlement, Consolidated Copper was to receive an award of \$500,000 in cash settlement and 5,400,000 pounds of copper (which realized \$300,000). Nevada Consolidated was granted permission by Consolidated to extend the size of Liberty Pit by excavating in the Emma Nevada. and Ora Claims, thus making available to Nevada Consolidated about 50,000,000 tons of ore. Also a new ore treatment contract was signed July 20, 1937, whereby Nevada Consolidated agreed to treat up to 6,000 tons of Coppermines ore daily for a minimum of 15 years and a maximum of 30 years. (52) Thus, there came to a close in July 1937, litigation between the two companies which had cost hundreds of thousands of dollars and taken nearly eight years of time. Yet, in spite of this seeming waste of time and money, something had been gained. The position of the two companies to each other not only was better defined after the suit, but the experience of the costly suit to both parties made each much more willing to compromise in order to prevent the development of another such case.

The above settlement was the main issue involved in a proxy battle within the Consolidated Coppermines Company when a minority, headed by officials of American Metals Company, opposed unsuccessfully the terms of the Nevada Consolidated - Consolidated Coppermines agreement. (53)

During the 1930s, the company made many physical improvements at Ruth and McGill which not only tended to brighten-up the communities but also to modernize many of the houses in both areas.

Beginning in 1935, a plan was inaugurated which contemplated painting all the buildings in both communities, a certain number to be completed each year. The same year the commissaries at both Ruth and McGill were remodeled into the "serve yourself" type of stores. Before this conversion was made at McGill, the commissary was moved from its old location just below the tracks to the southwestern end of the main hoarding house. (54)

In 1936, the renovation plan was enlarged to include, besides painting, outside repairs, renewal of foundations, and the complete remodeling of certain dwellings. It was in this year that the plan to modernize Austrian town was started by installing inside bathrooms and repairing and painting certain houses in the area. (55)

The year 1937 saw a continuation of the above painting, repairs and remodeling and the beginning of a new remodeling development at McGill whereby one of the old men's dormitories was converted into apartments with two to four rooms and a bath. The remodeling of these dormitories into apartments continued at both Ruth and McGill during the next three years. (56)

The necessity for more facilities for married personnel coincided with a major labor force change in the district which was no doubt speeded by the onslaught of the depression. Company policy during the depression had sought to retain married employees whenever possible. Thus, of the

hundreds of men who were laid-off during the 1930s, most were single men. When recovery began, there was an obvious demand for men; part of this demand was encouraged by the N. R. A. Act and the later Fair Labor Standards Act. The proportion of married men employed after 1936 was greater than in previous years, thus creating a pressing demand for quarters for married personnel.

In 1939, two other renovation projects were started in McGill. One of these concerned the area west of the main highway known as "Greek" town. Here, in 1939, fifteen houses were built as bachelor quarters and repairs were made to some thirty-four of the older houses in the area. The other renovation concerned "Japanese" town, where a new boarding house was completed in 1939 and foundations set for two fifteen-room dormitories. (57)

A number of new building projects were completed at McGill in 1940. In the upper town site, an extra room was added to twenty-nine three-room houses. At Middletown, three new, five-room apartments were built, and two residences made from the old schoolteacher's dormitory which was replaced by a 28-room brick structure in 1940. At Greek town, remodeling continued with seventeen bachelor apartments completed, fifty-three houses remodeled, and two new houses with four rooms and a bath each, were built.

In this same year, 1940, a new town site, to be known as "North" town site, came into being. Located just south of the smelter slag launder, on the east side of the main highway, this town site was developed when the 10 old Japanese dormitories were moved from the north to the south side of the slag launder and converted as follows: two three-room and bath apartments; two four-room and bath apartments; three four-room and bath cottages and three five-room and bath cottages. In addition, seven new, four-room and bath apartments were started in 1930 and completed the next year. At "Jap" town, the two fifteen-room dormitories were completed and one old dormitory was converted into two four-room and bath apartments. (58)

The same type of building program was carried on at Ruth during these years. In 1939, three old bunkhouses at Ruth were moved from the town site above the mine and converted into family dwelling units. One additional bunkhouse was moved to the foreign quarters and converted into a four-room dwelling. In 1940, twenty-six buildings at Copper Flat in the stripping area had to be moved. Repairs were made to numerous houses and a number of old buildings were converted into apartments during this year. (59)

By the end of 1940, both communities, as a result of repairs, remodeling, painting, and building, had changed perceptibly. The change-over from men's dormitories to married personnel apartments seemed to be one more mark of the continuing stability of the copper camps.

## CHAPTER XI

### THE COPPER CAMPS AND THE SECOND WORLD WAR

Demand for copper increased in 1939 and 1940, partly in response to the outbreak of a general war in Europe in the fall of 1939 and the subsequent move for additional defense measures in this country in 1940. Thus, the Nevada Mines Division was able to increase its production to 67,190,668 pounds of copper delivered in 1939 and to 73,650,948 pounds delivered in 1940. (1) The increased demand for copper from 1938 to 1940 was only one indication of the developing conflict in Europe. Throughout the early part of 1940, as the Nazi armies successfully invaded one country after another in Western Europe, conviction grew in the United States that the defense policy of this country should be re-evaluated.

Of the preparations taken by the government in 1940, perhaps none brought the crisis so close to home for the millions of citizens as the passage of the first Peace Time Draft Law on September 16, 1940. This measure provided that all men between the ages of twenty-one and thirty-six must register for a possible one year's military service within the limits of the United States. October 16 was set by the President as the day for registration.

Again, as during the First World War draft, efforts were made to make of the registration day a day of patriotic participation throughout the towns and cities of the United States. In the copper district of Eastern Nevada, the Veterans of Foreign Wars sponsored two national defense parades which were held at Ely during the first two weeks of October. (2) Then Governor Carville, following the wishes of the President, declared Wednesday, October 16, to be a legal holiday in Nevada with all state, county, and city offices, the state university, and public schools to be closed. All places of business were asked to close between 7 a.m. and 9 p.m.; however, the Nevada Consolidated Corporation continued to operate, allowing its employees time off in which to register. On register day, some 2,094 males registered in White Pine County as follows: 800 from Ely, 442 from McGill, 259 from Ruth, and 278 from Kimberly (which included Riepetown). (3) The draft board set-up was very similar to that employed during the First World War. The local board for the county was composed of Harry Watson, chairman; T. A. Smith and J. C. Kinnear, Sr. Dr. O. Hovenden was the examining physician. Appeal boards, legal advisors, etcetera, again were part of the county arrangement. (4) As was the case in the First World War, a person's registration number was significant only in relation to what sequence it was chosen from the large bowl used in the draft lottery. This second number, the draft number, placed each in proper rotation among members of the same classification in the local area.

In November 1940, the first peace time draftees left the copper district to serve what they thought would be one year in the armed forces of the United States. Events occurring in Europe and Asia in the spring and summer of 1941, however, soon brought a re-evaluation of the one year draft idea. On August 12, 1941, Congress, by a very close margin 207 to 202 in the House

and 47 to 70 in the Senate-passed a six month extension to the draft. Than after Pearl Harbor, Congress extended the draft to the duration and six months.

There were many evidences, in the copper towns during these months, which focused attention upon the increases in United States spending and the growing danger of United States involvement in the war.

On May 1941, United States Defense Bonds were placed on sale in the communities and soon the company made possible payroll deductions for the convenience of the employee. On the same day, Nevada Consolidated increased wages 25 cents a day, a good sign that the copper demand and world price for copper were above normal. (5)

That many Nevadans were further along the road to war than was the administration became evident July 18, 1941, when the Nevada Veterans of Foreign Wars at their convention in Reno adopted one resolution for immediate war with Germany and Italy and another one to extend the draft beyond a year and give the President authority to send troops wherever they were needed. (6) From the conversations in the clubs at Ruth and McGill, there were many in those communities who felt the same way.

County defense councils had been established in Nevada shortly after the Council of National Defense was established by Congress in May 1940. These local councils got their first big work-out when a scrap aluminum drive was held in Nevada July 25 and 26. At that time, pots, pans, hair curlers, even an aluminum bathtub were contributed. (7)

Another harbinger of things to come was a local "run" on silk stockings following the OPM order closing the silk mills. Local department stores were swamped with feminine buyers, some buying as many as a dozen pair. (8)

In the latter part of October 1941, the White Pine County Defense Council approved a plan to present to the Nevada State Council of Defense, whereby the copper district would be named a Defense Area and thus be eligible to certain Federal funds. Named on the five man board to study the plan were William Walker of Ely, Leonard Seifers and T. A. Smith of East Ely, William Overfelt of McGill, and Ben Gilliam of Ruth. (9) On October 28, 1941 at Ely, Congressman Scrugham brought the war picture closer to the communities by a speech outlining the dangers of a Hitler victory to the United States and pointing out the possibilities of our involvement in the European struggle. (10)

In spite of these and other evidences of mounting world tensions, which could be followed easily in the newspapers and on the radio, the local communities like others throughout the United States, were unprepared psychologically for the bombing of Pearl Harbor by the Japanese on the morning of December 7, the day that was "to live in infamy". The next day hundreds of employees and their families listened to the President's war message and a few hours later to the

news that Congress had declared war on Japan by a vote of 82 to 0 in the Senate and of 733 to 1 in the House.

By this time the measure of Japanese perfidy at Pearl Harbor had spread throughout the district. As a result, sentiment mounted steadily against the Japanese residents at Ruth and McGill and to a lesser degree against those living in Ely. In the company towns, antagonism against the Japanese came easily, resulting basically from the fact that they were willing to work for substantially lower wages than white personnel. Their color, clannishness, and seeming desire to maintain their own language and customs only complicated this basic antagonism. Added to these feelings, now, come anger and fear anger for what their countrymen had done to Pearl Harbor, fear as to what the local Japanese and others like them throughout the United States might do if not carefully watched.

The first definite action against the Japanese came from the employees rather than the company. On December 8, a group of Ruth employees in an open meeting, by resolution, requested the company to keep the Japanese away from their jobs in order to prevent possible sabotage. A copy of this resolution was presented also to the White Pine County Defense Council and a committee of that council composed of W. Howard Gray, Judge H. Watson, and Sheriff Orrock, then contacted Governor E. R. Carville and the F. B. I. office in Salt Lake City. The F. B. I. suggested that the company keep the Japanese from their jobs and confine them to quarters. (11) Previous to the confinement order, and dismissal from employment which followed December 11 for most of the Japanese at both Ruth and McGill, Roy Muranaka, Japanese boss at Ruth, was taken into custody and held for immigration authorities on December 8, 1941. The following day similar action was taken at McGill when the Japanese boss there, Fred Toyota, the elder, was taken into custody. (12) In the next few weeks, the Japanese nationals at both Ruth and McGill were removed from the district. First to go, after the bosses, were six from McGill who were taken to Salt Lake City about the middle of December. One of these, Suichi Baba, committed suicide in the Salt Lake City jail a few days after he was taken to that city. (13) Then on December 30, forty Japanese aliens from Ruth were taken to the White Pine County jail at Ely and lodged temporarily while awaiting transfer out of the district. (14) The last movement from the area came in May 1942, when 13 of the 14 Japanese remaining at Ruth, were sent to Utah. The fourteenth, Yaichino Hanma, former section foreman for the Nevada Northern Railroad, committed suicide rather than leave the district. (15)

What is there to be said about the handling of the Japanese at Ruth and McGill except to indicate that it was unfortunate meeting of people and events? The obligation of the company to protect its employees and its mines from sabotage seems quite clear. The obligation of the company, the employees, and the State, to these Japanese nationals, is not so clear. Intolerance, bred of fear and encouraged by the necessity of protecting life and property, caused innocent individuals to be condemned with the guilty. Japanese aliens who were loyal to Japan, perhaps even in her employ; other aliens who loved their adopted land and might have become citizens had they not been prevented from so doing by national law; and Japanese-Americans who had little sympathy

for Japan and who wanted desperately to show their allegiance to their country of birth; all were lumped together, easily identified by color and treated as enemy aliens by most of the residents. In one respect, and with one major exception, it was fortunate that most of the Japanese residents at Ruth and McGill were Japanese aliens, and so the problem of the native-born Japanese did not become critical. The exception came in the case of the reaction against the Toyota children at McGill, particularly young Fred, who had been a prominent member of the high school athletic teams in the thirties, and so well thought of by his classmates as to be named by them student-body president in his senior year. The story of this young American from December 7, 1941 until his untimely death at the age of 27 years on January 22, 1948, is the story of an American tragedy. Forced to choose between father and country, he acted unhesitatingly to offer his services to his land of birth and worked with the F. B. I. and the armed forces during the remainder of the war. In spite of this, he found himself the victim of the unrelenting hatred engendered by the attack on Pearl Harbor, unwelcome in his hometown and by those with whom he had played, worked and associated with during most of his life. (16)

With the declaration of war by the United States, local defense councils moved into higher gear. Volunteer defense offices were established in Ely, Ruth, McGill, Kimberly, East Ely, Lund, Preston, Baker, and Cherry Creek. Each of these defense offices was to include units of volunteers prepared to aid in certain defense activities such as fire, police, first-aid, air raid warnings, et cetera. By December 19, just 12 days after Pearl Harbor, A. F. Briggs, Chairman of the County Defense Council, announced that over 2,700 persons had volunteered for Civilian Defense activities. (17)

At McGill a defense meeting of employees was held December 12 at which time J. C. Kinnear, Sr., general manager, explained the defense measures to be taken by the company. He was followed on the speaker's stand, first by Dr. Hovenden, who outlined the health problem, Ed Moran, in charge of civilian registration at McGill, and H. Williams, head of the McGill Red Cross. A similar meeting was held at Ruth by officials of the mines division. (18)

Defense measures taken by the Nevada Consolidated Corporation were explained to the White Pine County Defense Council by J. C. Kinnear, Sr. a few days later. He pointed out that all water supplies of the company, both at Ruth and McGill, were under constant guard to prevent sabotage; that powder magazines and strategic plant areas at Ruth and McGill were guarded; that the plant buildings were being readied for black-outs from dusk to dawn, in some instances by painting the windows in the buildings, in others by hanging materials over them; and that employees were being trained to conduct their work with a minimum of light. Kinnear suggested, and the council members readily agreed, that William Sanders, Chief Engineer of the power plant at McGill, be named black-cut coordinator. This was an obvious move in view of the fact that the McGill power house was then supplying power to McGill, Ely, Ruth, and Kimberly. (19)

The early months of 1942 were hectic ones in the copper towns as residents tried to adjust themselves to the many changes demanded to meet the war crisis. Tire rationing, to protect the

dwindling rubber supply, came December 31, 1941. (20) About the same time, a Justice Department order forced all Japanese, Italian, and German aliens to turn in their cameras and radios to the county authorities. Sheriff Orrock reported that a truck load of equipment came from Ruth and another from McGill, both voluntarily, after the aliens had read the notice in the papers. (21) About a week later, a notice appeared in the local papers that five powerful air raid warning sirens had been ordered, two for McGill, one for Ruth, one for Kimberly, and one for East Ely. The sirens arrived and were tested Wednesday, January 21, at McGill. (22) A Red Cross emergency drive, the first of many to hit the towns came in the latter part of January 1942, with McGill and Ruth reaching their quota in rapid order.

The government's need for more revenue was marked by increases in excise taxes, speeded-up bond sales, and a new device, auto use stamps that went on sale January 17. (23)

Both company towns, Ruth and McGill, were eager to participate in defense activities. At a county defense meeting, February 12, 1942, the evidence of this was shown in the report by Ed Moran of McGill. The report showed that 814 men, 466 women, 150 youths, and 136 girls had signed for defense work at McGill. This total of 1,566 persons represented over half of the McGill population. Moran pointed out that all of these had been trained and assigned to posts such as air raid warning, casualty stations, first-aid, chemical warfare, auxiliary police, et cetra. Besides this work, some 1,448 men and women at McGill had been typed for blood. (24)

Then in March the parade of draftees began with officials of the American Legion and Veterans of Foreign Wars, relatives, and a few other citizens gathered to bid them goodbye. Many onlookers who had seen similar scenes in 1917 and 1919 noted many differences between the two eras. One of the most nostalgic, if not important, differences was the fact that the World War II draftees were to leave the district by buses, for the passenger train which had served the copper communities since 1906 had ceased operation the previous fall. Although scheduled at first to stop July 16, it wasn't until August 1 that plans were completed for the changeover from train to bus passenger service. On July 31, old locomotive no. 40, built by Baldwin in 1905, pulled out of Ely on its last passenger run. (25) Thereafter, Nevada Northern buses served between Ely and Wells, connecting at the latter station with the Southern Pacific. Besides the change in conveyance from one war to the other, there was noted the difference in attitudes from one era to the next. The uncontrolled enthusiasm of the first war had given way to a more mature attitude of recognition of a dirty job that had to be done and the quicker the better. However, few of the draftees or onlookers realized then just how many times this goodbye scene would have to be repeated before final victory.

The anti-Japanese feeling in Nevada and the copper district, specifically, came booming again to the forefront as the military began to move the Japanese from the West Coast in February and March 1942. Rumors persisted that many of these Japanese would be allowed to seek employment in Nevada. Governor Carville, in answer to these rumors, wired General DeWitt that if any Japanese came to Nevada, they would be placed in concentration camps. The White

Pine Post No. 7 of the American Legion backed Carville's stand by wiring him to that effect. (26) Later, when it was found that some of these Japanese were Nisei looking for places to work in lieu of being placed in concentration camps, and that at least one farmer at Paker was willing to hire them, the antagonism relaxed and a few Nisei were allowed to enter the state without official protest.

As in the First World War, flag-raising ceremonies became an important part of the patriotic demonstrations, although the enthusiasm this time did not extend to emulating those individuals at McGill who during the First War managed to place a pole and flag atop the peak in back of the concentrator. (27) Such ceremonies were only part of numerous activities beginning in the spring of 1942 and continuing throughout the war which emphasized to the residents of Ruth and McGill that we were in an all-out war requiring the cooperation of all segments of society to insure ultimate victory.

Salvage drives began in earnest in the summer of 1942 and continued intermittently for the duration. Starting with scrap rubber in July 1942, these drives came to include other items such as fats, scrap iron, tin, and other metals, and later papers and cloth. Housewives and children became essential parts of these drives. School children did a tremendous job of collecting salvage items. By introducing competition based on military rank, Superintendent Davis obtained results at Ruth which soon littered the school grounds with scrap metal. Each child's metal contribution was weighed and a simulated military rank given; for instance, twenty-five pounds for the rank of Corporal, one thousand pounds for the rank of major-general. Before the war was over, school officials had designated a number of five-star generals. (28) Other schools throughout the county had similar programs, achieving quite similar results. Various drives to obtain money contributions paralleled the salvage drive. Contributions to the Red Cross, the U. S. O. to the United War Fund, the Salvation Army, were asked constantly as the war continued. The purchase of war bonds, as in the first war, was made a patriotic duty. From the standpoint of money contributions, the civilian residents of the company towns more than did their share. Quotas in the drives of this sort at Ruth and McGill were generally oversubscribed; the size of the communities where most individuals knew each other, the increased pay checks due to the war, and the fact that payroll deductions were allowed, made it difficult for any employee to shirk his financial responsibility toward the war effort, even if he had been so inclined. The company itself contributed generously to most of these money drives.

The Red Cross units at Ruth and McGill were extremely active during the war, other than in collections of monies. Both chapters conducted courses in nutrition and home nursing collected clothing and cleaned and repaired it and conducted knitting and sewing details. It was in this latter work that both units did yeoman service, knitting sweaters, gloves, helmets, caps, socks, etcetera, and sewing such articles as hospital gowns, dresses petticoats, pajamas, and other items. When the sewing room of the McGill Red Cross closed its doors in June 1946, after four and one-half years of service, the woman of this unit had accomplished the following: given 42,616 hours in sewing and knitting produced 4,696 army and navy knits; 3,382 "housewives"; 314 pairs

of pajamas; 1,029 pairs of hospital slippers 1,619 bedside bags; 97 layettes; and dozens of other items such as bed socks, gowns, slippers, snow suits, bathrobes, bed jackets, operating gowns, bed shirts, washcloths, overalls, helmets, socks, mufflers, beanies, gloves, booties, and many more. (29)

Also helping to remind civilians in the company towns that a war was being fought was the entrance of all kinds of rationing. Following tires in December 1941, came sugar in May 1942, gasoline in November 1942, then item after item until the consumer was completely confused. One of the local papers in order to aid its floundering customers began printing "consumers ration almanacs". (30) Even speed was rationed when Governor Carville, in keeping with an order by Director Joseph Eastman of the Office of Defense Transportation, issued a proclamation, effective October 1, 1942, setting the speed limit on all Nevada highways at 35 miles per hour. (31)

Adding a note of reality to the war were the visiting soldiers from the Wendover Air Base. Although Salt Lake City, literally thousands of times larger than the copper camps, was nearly as close, dozens of these soldiers preferred to visit the copper district, attracted, no doubt, by the open-wide atmosphere, the gambling, the type of liquor sale, and the restricted district, at least at first. Many families at Ruth and McGill entertained troops from this base from late 1942 until the end of the war. The American Legion Auxiliaries in the two towns arranged many dinner-dance affairs where the soldiers enjoyed dinner at various homes in the communities and later were entertained at a dance in their honor. (32).

The large number of service men visiting the district eventually caused the elimination of one of Ely's oldest institutions, the "Red Light" district. In July 1943, a representative of the Federal Security Agency told local authorities that if they didn't close the "district", the Federal Government would. At a combined meeting of the county commissioners and the city council, the commissioners indicated they were quite willing "to pass the buck" to the federal authorities. Some of the members present voiced definite objections to the right of federal authorities to interfere with local city matters. Mayor Gallagher, however, feeling the city had a responsibility to face in view of the request of the federal authorities, was willing to act. Using as his authority an old ordinance of February 26, 1908, the mayor issued an order closing the restricted district, effective, Sunday, August 6, 1943. (33)

If anything else was necessary to bring the copper towns closer to the war, it came with the news of the wounded, missing, and dead. The first confirmed casualty from McGill had enlisted in the Navy in December 1941, shortly after Pearl Harbor. The communication to his parents was brutally brief, to the effect that Lester Nelson Lee, Seaman Second Class, had been killed in action August 9 in the Solomons. Before the Japanese finally surrendered, forty-six additional notices came to parents in the copper district. (34)

Long before the Pearl Harbor attack, Nevada Consolidated, reacting to the defense demands on copper turned to a 24 hour, 7 day week basis for plant operation. Production steadily increased until a peak was reached in 1942. Production decreased slightly in 1943 and dropped more specifically in 1944 and 1945 as manpower shortages became more pronounced. (35)

Before the war was a year old, it was evident that labor shortages were developing in many key industries. At McGill and Ruth, almost from the time war was declared, dozens of employees left the Nevada Consolidated for the Pacific Coast, attracted by better paying jobs and it must also be acknowledged because such jobs were more likely to bring draft exemptions. To keep the men on the job in the copper mines, Donald Nelson, Chairman of the War Production Board, Major-General Hershey, head of Selective Service, J. H. Davis, Chairman Of the War Labor Board, and Paul McNutt, Chairman of the War Manpower Commission, all sent messages to 'the copper mines requesting them to stay on their jobs in the interest of national defense. Nelson, at the same time, requested local selective service boards to give serious consideration to copper miners in the matter of draft deferments. (36)

In February 1943, the War Manpower Commission adopted a policy which tended to "freeze" persons on the jobs they held at the time. This plan announced in Nevada by the Area War Manpower Committee designated certain industries as "essential" industries and others as "critical" industries. For a worker to transfer from an essential industry it was necessary, first, to obtain a "certificate of availability" from the War Manpower Commission. To transfer from a "critical" industry, a worker needed a War Manpower Commission referral card. A worker could obtain either of the above two certificates, only if the transfer was considered to be in the best interests of the war effort.

The metal mining industry was listed as an "essential" industry. The plan was to become effective, Wednesday, February 24, 1943. (37) This procedure slowed down the movement from the copper district, but it didn't stop it because employees could still transfer to other "essential" or "critical" industries did not guarantee the copper companies a stable labor supply for most of the workers were still eligible for the draft and quotas had to be met by the local draft boards.

The General Manager's Report for 1943 gives evidence for this manpower shortage at McGill and Ruth by noting that at the end of 1943 some 1,191 men had either quit or were discharged; that employment of 67 furloughed soldiers had eased the situation slightly in 1943 as had also the employment of some 108 women. (38) During 1944 and 1945, more women were hired to replace men in unskilled jobs, particularly at the mill where they were employed in clean-up, as samplers, scale clerks, and oiling jobs. In some divisions at the mill, women, at war's end, made up as much as 20 percent of the working force. (39) Attempts were made by Kennecott to obtain Mexican laborers and a number of these entered the district. In April 1945, forty-eight Puerto Ricans were hired for six months to relieve the track labor situation, without great success, however. These attempts to supplement the regular labor supply were not successful in keeping production at the 1943 level, and as noted previously, production was off substantially by 1945.

During the war, employees of the Nevada Mines Division of Kennecott received two awards from the government for their efforts in defense production. The first of these was the National Security Award from the United States Office of Civilian Defense, presented to Nevada Mines Division March 11, 1944, for achieving "outstanding success in inaugurating protective measures against air attack, fire, sabotage, and avoidable accidents..." The presentation ceremony, held at the White Pine High School Gymnasium, was made the occasion for a patriotic demonstration with state, county, and local officials participating. Colonel C. K. Wing, Chief Security Officer of the 9th Service Command, made the presentation which was accepted by J. C. Kinnear, Sr., on behalf of the employees of the Nevada Mines Division. (40)

The second award, actually there were two awards, one at McGill in April 1944 and one at Ruth in July 1944, was made by the United States Armed Forces for efficiency in training of the plant guards in the two communities. The first presentation was made at the McGill Boarding House, April 11, 1944, and again the presentation ceremony was made the occasion for another patriotic demonstration. During the ceremony, the auxiliary plant guard at McGill was presented with a Guidon, symbolizing efficiency in training, alertness, and neatness of appearance. The award was made by Major John F. Moran, Director, Security and Intelligence, Eastern Security District, and accepted by J. C. Kinnear, Sr., who then presented the Guidon to the Captain of the Guard, Clifford Clays. The plant guards were voluntary police organizations established at the request of the internal security division of the 7th Service Command in order to take over the guard and police duties in case of air raids and to protect the plant against possible sabotage. Both guards before winning their awards had trained for over a year in all types of military training, including basic training, target practice, fire alerts, espionage and sabotage, infantry drill, and military law. (41) The award at McGill was only the fifth of its kind made to that date in the eastern security district. Approximately three months later, the Ruth Auxiliary Plant Guard also received a Guidon for similar service. The ceremony for this occasion was held in the Ruth Grade School Auditorium. (42) The use of auxiliary guards was in marked contrast to the policy of the First World War when regular troops were sent to McGill to guard the plant, a further indication of the difference of manpower demands of the two wars.

Just preceding and during the war years, when demand for copper was so great, Nevada Mines Division, like all the other domestic divisions sought additional areas of supply. The most successful such war-time development in the Robinson District was the leaching development at the Ruth ore dumps.

For years, these ore dumps, with quantities of copper in the waste material had continued to grow in size, and for years officials had sought the successful recovery of this copper. Leaching was first tried on the Keystone Dump in 1924 and 1925. A group of lessees headed by Ira B. Joraleman attempted to leach the dump using a system similar to the one used at Butte, Montana. The project was given up, when only 4,000 pounds of copper was obtained without showing any profit. A second attempt was made in 1933, 1934, and 1935. This time some 22,000 pounds of copper were recovered but at a cost of 25 cents a pound. Obviously, this kind of operation was

not warranted. In 1940, W. S. Boyd, then in charge of Kennecott's Western Divisions, suggested that water from the Star Pointer shaft be used in leaching thus saving a great deal in operating expenses. Following this suggestion, a pipeline from the Star Pointer to the top of the Mollie Gibson dump was completed in May 1942. Water was turned on the dump May 11 and copper sulphate solution was then run over scrap iron and detinned cans, the iron replacing the copper in solution. The results from the first year of operation showed 1,899,077 pounds of copper shipped at a total cost of \$.037 to \$.07. Leaching continued from these dumps through the second quarter of 1953 with a total copper output since inception of 37,070,282 pounds. (44)

In 1942, also, another attempt was made to leach the tailings from the concentrator. The leaching plant here was completed the latter part of July and operated intermittently until 1954. Most of the production from this operation, however, came between 1942 and 1945. During those years, 4,455,414 pounds of copper were recovered at a cost of \$.0575 per pound. (45)

With the exception of the copper recovered by leaching, the total production of the Nevada Mines Division during the war years continued to come from the pit and the Ruth mine. It should be remembered, however, that a great deal of the tonnage handled by the McGill Reduction Plant came from the mines of the Consolidated Coppermines Company. On February 1, 1940, Nevada Mines Division and Consolidated Copper signed an agreement whereby the former agreed to handle 9,000 tons daily of ore from the Coppermines Company. As usual, preceding the signing of this agreement, there had been some rumors in the communities to the effect that Consolidated was ready to build a mill. Whether or not these rumors had foundation, in fact, the agreement forestalled any such construction. (46) This very sizable tonnage constituted almost half of the capacity of the McGill concentrator, which was raised to 21,000 tons daily during the war. In 1944 the two companies agreed upon conditions for mining the ores in the western extension of the pit. It was this area which had caused the big law suit in the 1930s. Under the July 1, 1944 agreement, shovel operations in the Liberty Pit were to be extended to the west to extract the whole of Kennecott's ores in the Copper Flat area and a substantial tonnage from the adjoining area of Coppermines. (47)

Due to the continuing demand for copper during the war years and the obvious depletion of this country's reserves, an all-out effort was made by the Nevada Mines Division to seek additional supplies of copper ore in the district. Actually, this effort was a re-evaluation of ore bodies that already were known exist. They included the Veteran ore body, the Kimberly, and the Deep Ruth, as the latter came to be known.

The Veteran was an old property, developed by the Cumberland Ely Company. When the Nevada Consolidated purchased the interests of the former company, it continued to operate the Veteran mine until November 1, 1914. During that time some 641,169 tons of ore were produced which yielded 34,488,823 pounds of copper. (48) The richer ore body seemed to be nearly mined out by 1914 and when officials began new churn drill tests in 1942 they were generally pessimistic concerning possible results with the remaining pocket of low grade ore. As a matter

of fact, W. S. Boyd, Vice President of Kennecott, in a communication to J. C. Kinnear, Sr. in January 1941 suggested dropping the Veteran tonnage as a prospective ore body. (49) Churn drills results in 1942 with a total footage of 4,361, feet indicated, in Nevada Mines ground only, a block of about one million tons of 1.15 percent copper ore. Churn drilling was continued in 1943 in the same general area, resulting in an estimate of an additional two and one-half million tons of ore. The total result of these drillings were disappointing was considered inadvisable to mine the ore with the rather low copper then at 12 cents a pound, and production costs rather high. (50)

Kimberly ore body near Lane City had been known to exist for some time previous to the outbreak of the Second World War. Churn drilling began here September 27, 1943 to confirm earlier estimates of the ore body. The results were even more disappointing than those at the Veteran because they indicated an ore body of some 3,531,000 tons of ore at 1.09 percent, whereas the old estimate was for an ore body of 4,704,000 tons at 1.19 percent copper. (51)

The third area of exploration was the ore lying below the 11 level of the Ruth mine. On May 19, 1941, work began to sink the Star Pointer shaft to a deeper level to determine this deep level ore body. Work continued during 1942 and 1943 with results indicating that a sizeable ore body of over twelve million tons existed above the 16 level. Churn drill results indicated, more specifically, a body of 12,200,000 tons of 0.813 percent copper; diamond drills results indicated a body of 12,500,000 tons of 0.916 percent copper. (52) It was the same problem here as in the other-two explorations, neatly summarized in the Annual Report, as follows, "exploration is not warranted at present copper prices". (53)

Thus sizable copper ore bodies were available, but were of no immediate value because of their low copper content and difficulties of extraction which would cause operating costs to be too high for profitable production. To exploit these ore bodies, a higher copper price was necessary, and economies in production had to be found. Part of the answer to the problem showed itself when company officials in June 1944, contracted with Isbell Construction Company to remove stripping in the Pit Extension above the 2 level. The contract was made originally because of the labor shortage and the need for speed in removal of the overburden. (54) As it turned out, the construction company demonstrated that its earth-moving machinery might affect the economies necessary to production, at least at the Veteran and the Kimberly.

As during the First World War, labor disputes in the copper communities were held in abeyance most of the course of the second conflict. Two strikes threatened, between the switchmen and the company in February 1941, and between the enginemen and the company in October of the same year. Both of these were settled before a work stoppage could take place. (55) By the time the last threat had been settled, the government had established a rather elaborate set-up for handling disputes. This, plus higher war time wages and the attitude of the local public against any threat to interruption of the war effort, kept labor-management disagreements to a minimum at Ruth

and McGill until after V-J Day. Unfortunately, this was not true on the national level where a number" of work stoppages took place during the war.

During 1943, N. L. R. B. elections held at Ruth and McGill confirmed the C. I. O. as bargaining agent for twelve classes of employees at the Nevada Mines Division. The elections, held September 2 and 3, showed over a 2 to 1 ratio in favor of the C. I. O. over the A. F. of L. (56)

In spite of the lack of actual work stoppages, it was quite evident between 1940 and the end of 1945 that management (Kennecott) was spending a lot more time negotiating labor contracts than had been the case in the 1920s and 1930s. A good index of this change is the amount of space given to the topic "Labor" in the General Manager's Reports; not mentioned in the report of the 1920s, the subject took eight pages of the 1945 report.

Generally speaking, the reduction plant under the general superintendence of Leonard Larson, except for manpower difficulties, experienced no real difficulties in meeting the extra tonnage demands occasioned by the war. Because of the changes made at the mill and smelter during the 1930s, the reduction plant was in top condition when war broke out. Some minor changes were made at the mill during the war in order to increase capacity, and a Multiclone dust collecting system was installed for the Symons crushers and put in service December 9, 1943. (57) At the smelter, a Multiclone Unit system to recover converter dust was placed in operation November 23, 1942. Also, in that year, the first mechanical tuyere puncher was installed at the converter. The mechanical puncher was invented by Leonard Larson and Byron T. Berge of the McGill plant and was supposed to increase the production rate of each converter by about 20 percent. Its operation at McGill was followed closely throughout the industry for the punching operation to this date had proven to be one of the few areas of smelter operation where hand labor was essential. (50)

An important organizational change took place during the war when the Nevada Consolidated Copper Corporation, a wholly-owned subsidiary of Kennecott, was dissolved and a new Southwestern Division established within Kennecott December 31, 1942. Under this organizational set-up, W. S. Boyd was made Vice-President in charge of the Southwestern Division and the old Nevada Consolidated Corporation became, simply, the Nevada Mines Division of Kennecott Copper Corporation. (59)

A number of personnel changes were made in the Nevada Mines Division during the latter part of the war. Dr. W. H. Frolich was named Chief Surgeon at the Steptoe Valley Hospital after the death of Dr. Dawdle, October 30, 1943. (60) Effective May 1, 1945, J. C. Kinnear, Sr., was named Vice-President of Kennecott in charge of the Southwestern Division, succeeding W. S. Boyd. On June 1, 1945, W. S. Larch was moved up to General Manager of the Nevada Mines Division, and the following month Paul Hett was made general superintendent at Ruth. (61)

Meanwhile the Germans had been defeated in Europe, but news of the surrender on May 8, 1945 was met with little celebration in the copper district. The attitude generally encountered here was

that only half the battle had been won and celebrations should wait upon the defeat of the Japanese. The waiting period proved to be rather short, just three months and six days after the German defeat.

Shortly after 4 p.m. on Tuesday afternoon, August 14, the long awaited news reached the copper towns. Almost immediately, crowds began to gather in the streets, sirens sounded and cars began a parade through the streets with their horns blasting incessantly. The clubs at McGill and Ruth soon proved incapable of holding the mass of humanity who wanted to celebrate and within a short time half the population of these two towns moved to Ely to add to the general confusion there. The news of the surrender coming as it did in the early evening did not give proper time for the official celebration and speechmaking which had been in preparation the preceding days while negotiations were conducted between the United States and Japan. Thus, the "official" celebration in the district was scheduled for Wednesday at Ely. To mark this occasion, most of the local stores were closed. A parade led by the McGill-Ruth School Band and Ely School Band started festivities. Following the parade a number of speeches were made from a platform erected near the J. C. Penney store. In the afternoon, the children of the district were treated to a free movie, courtesy of the Lions Club and the Hull Brothers, and during the afternoon and evening hot dogs and ice cream were served to children and youths, and a few adults too, at the Youth Recreation Center. Later, the McGill-Ruth School Band gave concert at the Legion Hall; and still later, the main street was roped off and dancing followed during most of the evening. The clubs, as during the preview evening, did a land-office business. The crowds were remarkably well-behaved considering the length of time emotions had been kept under control. However, it was obvious that most celebrants would need a few days rest before being able to view soberly the prospects for the future. (62)

## CHAPTER XII

### POST-WAR DECADE, 1946-1956

The ten years from the end of the Second World War to the present has seen more fundamental changes at McGill and Ruth than any other decade since production started in 1908. During this period, a number of important operational and organizational changes took place, which, although aimed at obtaining more efficiency, also brought more centralization; relations between employer and employee demanded more and more attention; new mining developments were made; and patterns of company control of the towns, in effect since the development of the communities began to change dramatically.

The pattern of living which began to develop after the end of the Second World War bore many similarities to that which had followed that of the first war. First came a wave of strikes in the auto industry, steel industry, coal mines, and railroads. The main issue in most of these strikes was the workers' demands that management grant wage increases so that the "take home" pay after the return to a 40-hour week would be equal to that during the war work-week when weekly "take home" pay was bloated by overtime. The threat of a depression and, more particularly, the bogey of rising prices, were the two great fears of labor at the war's end.

The post-war depression, for one reason or another didn't materialize, either nationally or on the local level.

Production from the Nevada Mines Division for the year 1946, although nine million pounds less than for the previous years, returned a net settlement of some \$700,000 more than the previous year, due mainly to a 3 cents per pound raise in copper price. The next year, 1947, the price of copper advanced nearly 6 cents per pound which made possible a net settlement, for copper alone, of \$13,815,650.54. This was the largest net settlement for any year since 1929. With the price and demand for copper remaining fairly steady, the years 1948 and 1949 recorded net settlements of over 12 million dollars each. (1)

Thus, from the end of the Second World War until the outbreak of the Korean conflict, the Eastern Nevada copper district, far from experiencing a depression such as that which followed the First World War, moved into an inflationary period which saw a higher average net settlement than during the war years.

Although a post-war depression failed to develop, the bogey rising prices soon materialized into reality. President Truman and Congress could not agree on a bill to extend price controls, so the President allowed controls to end July 1. By the time Congress approved a new measure July 25, 1946, prices had soared dizzily in the worst inflation since 1942. The new bill was weak and after the Republican victory at the polls in November 1946, the President gave up the fight against inflation, ending all controls on wages and prices, except on rents, sugar, and rice. Then

trouble really started, for as prices went up, labor, in order to hold earlier gains, wanted more money.

Surprisingly, the copper industry did not become too involved in this first wave of post war strikes. However, the Nevada Mines Division escaped a strike only after numerous threats and near strikes had taken place.

In 1946, a strike threatened locally between the White Pine Metal Trades Council and the Nevada Mines Division but was settled before strike action occurred when a conciliator from the labor department arrived.

A much more definite threat took place in the summer of 1947. Threats of strikes in the copper industry this summer were rather general and followed a number of gains made by labor in the steel and automobile industries where a 15 cents hourly wage boost was granted. Kennecott resisted the first demands and a strike occurred in the Utah Division at Bingham. The strike threatened to spread to the Nevada Division. As a matter of record, a strike vote was taken at both Ruth and McGill July 28 resulting in favorable action for a strike. Before the local strike was called, however, settlement at Bingham caused a reopening of negotiations locally. The pattern of gains established at the Utah Division brought about settlement at Ruth and McGill on August 2, 1947. The agreement, retroactive to July, 1, 1947, called for a 12 cents per-hour wage increase, six paid holidays annually, and certain reclassifications to "eliminate intra-plant and inter-area inequities". (2)

When contract negotiations began in the summer of 1948 at the Nevada Mines Division, it was obvious that trouble was brewing. Not only did the C. I. O. unions want a 30 cents an hour increase in wages and certain other changes in the old contract but company officials refused to negotiate until union officials signed the anti-Communist affidavits required by the Taft-Hartley Act.

Both groups remained adamant in their positions during the early week of negotiations. A strike vote was taken the latter part of July with McGill members voting 256 to 23 for the strike and Ruth members voting 151 to 15 in favor of it. Before the strike took place, however, the company posted a 12 cents hourly increase. This broke the threatened strike and the C. I. O. union officials posted a notice August 9 postponing the strike indefinitely. No new contract was signed at this time, but by tacit agreement union members continued to work under the provisions of the old contract but with the increase in pay. (3)

In the summer of 1949, when contract negotiations got underway McGill and Ruth local C. I. O. unions joined Utah and New Mexico members of Kennecott council in presenting wage demands to J. C. Kinnear, Sr., who at the time was Vice-President in charge of Kennecott's Western Divisions. This attempt at industry wide bargaining should take place on the local level.

The situation in 1949 was complicated by the fact that the Nevada Mines Division had gone on a 40-hour week May 15 due to declines in metal prices and slumps in copper demands. With negotiations opened, the unions wanted increases that would bring workers 52 hours pay for 40 hours work.

When bargaining began, it did so as Kinnear suggested on the local level, although it was not to be many years before the unions were to succeed in obtaining industry-wide bargaining as a matter of procedure. Progress was slow, but no strike vote was taken while negotiations were in progress. The situation was relieved a bit in the middle of December 1949, when the company resumed a six-day work week. Actual signing of a contract did not take place until March 1950. The new contract provided for a 5 cents per-hour increase with retroactive provisions, and a number of other issues were clarified. The contract was to be in effect until June 30, 1951. (4)

It can be seen from the above results that labor at the Nevada Mines Division, in the period between the end of the Second World War and the Korean struggle, was able to maintain gains made previously and to win some new ones without resorting to costly strikes; although it was evident from the near strikes and continued threats that labor-management relations would continue to pose one of the major problems in post-war living in the copper camps.

A number of important personnel changes took place immediately after the war at the Nevada Mines Division. In 1948, two men who had been with the company most of their adult lives passed away, Frank Huffer, Plant Comptroller, and D. D. Layson, Assistant Purchasing Agent. In the same year, W. Inwood retired as Mechanical Superintendent, and on December 31, 1949, F. Jardine retired as Superintendent at the mill. Into these positions went Ralph Crosser as Plant Comptroller, W. K. Field as Assistant Purchasing Agent, W. K. Saunders as Mechanical-Electrical Superintendent, and L. Immonen as Mill Superintendent. John C. Kinnear, Jr. was transferred from the Chino Division to the Nevada Division, becoming Assistant to the General Manager April 1, 1948, advancing to Assistant General Manager November 1, 1949, and to General Manager October 1, 1950, with the retirement of W. S. Larsh. Paul Hett became Assistant General Manager at the same time and S. W. Smith was named Mine Superintendent. (5)

Organizational changes on the national level indicated Kennecott was moving toward more centralized control when the Korean conflict occurred. Thus, in 1949 a Western Mining Division was established which combined the Utah Division with the Southwestern Division. J. C. Kinnear, Sr. was made Vice-President in charge of the new Western Division. (6)

The promotion of the younger Kinnear to the top post at McGill in 1950 no doubt thrilled his father; but another event is probably remembered by the elder Kinnear with equally fond memories. This was the dedication at McGill of the Kinnear Public Library May 25, 1950. (7)

This beautiful little library, given to the people of the district by Kennecott Corporation and honoring the name of the man who for so many years had been associated with the welfare of these mining communities, added greatly to the cultural life of the community.

Actually, the library was the culmination of a dream held years before by a group of women in the community who had formed the Community Book Exchange at McGill in the 1920s. With a few hundred volumes, given mostly by donation, small rental fees, and membership dues; the Community Book Exchange had held together the nucleus of a library during the intervening years, operating first from the Community Church and later from the Club House. Their dream, whose fulfillment had been encouraged so much by Mr. Kinnear, came true as he presented the library to the people of the community. (8)

In the years before the outbreak of the Korean conflict, the Nevada Mines Division, in cooperation with the Community Leagues at Ruth and McGill, made a number of improvements in the youth recreational programs in the two towns.

Perhaps the most important of these was the establishment of Youth Centers in both communities. At McGill, the old grade school gymnasium was converted by the company into a recreation center and opened for use March 1, 1948. The center was known familiarly as "The Copper Kettle". (9) At Ruth, the "teenage" center, known as "The Roost", located on the second floor of the Employee's Club House, and which had been sponsored for many years by the Community League, was reorganized in September 1948, with the company sponsoring the center, paralleling the practice at McGill. (10)

The operating procedure for each center was placed under the direction of a Youth Center Committee composed of seven "teenagers". The personnel of the committee changed from time to time under the direction of the youths concerned. This committee, in each instance, supervised the recreational activities, including basketball, volleyball, tumbling, wrestling, boxing, table tennis, pool, shuffleboard, roller skating, and dancing. The centers were maintained by the company and the attendant's salary was paid by the Nevada Mines Division. Beginning in 1950, the company, as a part of the Youth Recreational program, hired summer-recreational directors in both communities to supervise an organized recreational program during the summer months. (11)

In 1949 and 1950, as part of its continuing interest in sports, the company made many improvements in the baseball facilities of the towns, particularly at McGill. In these years, the McGill Park was made into one of the finest ball fields in the State of Nevada. To accomplish this, the entire area was leveled by the Isbell Construction Company, a fire-proof grandstand was erected, a new fence built around the park, home plate placed in the southeastern part of the park instead of the northwest as it had been previously, a lighting system installed, and the area planted in grass. (12) Recognition of the excellence of the McGill field and the sports minded attitude of the company and community came in 1952 and 1954 when the McGill Ball Park was

chosen as the site of the regional playoffs of the American Legion Junior League Tournament the only times that such regional playoffs have been played in Nevada. (13)

In 1950, also, the company started a recreation and picnic area east of the swimming pool at McGill, planting a large area in grass and trees, providing a windbreak, and later adding a number of outdoor fireplaces. (14)

One of the most interesting of the company projects in the post-war era was the attempt to control the tailings dust at McGill. How many times since the 1920s had been heard the question, more an epithet, why in the world didn't those responsible for the choice of a smelter town site choose a point a mile or two to the southeast from the point selected? The reason for- the question was obvious to anyone who lived in McGill during these years and suffered through the numerous dust storms which swept through and over the town.

The whole thing started innocently enough when the decision was made to build the smelter above the McGill Ranch. No one, at the time, was much concerned about the problem of tailings interfering with community living.

The builders were much more worried about whether or not the mill and smelter-would work properly when finished. Obviously, some thought had been given to the problem of tailings disposal; that was one of the major reasons for the McGill Ranch site, where a tremendous acreage of land had been purchased. But the consideration here was whether the tailings might interfere with ranches in the area. Then, too, who in 1905 and 1906 could envision an area six miles square covered with tailings dust?

At first the water from the mill was sufficient to keep the tailings wet, but mill production climbed steadily and the tailings grew in-proportion. Dust clouds began to rise from the area but no one worried much because very little of the tailings dust blew over the town. When the tailings spread southward, the dust began to blanket the northern part of the town. Soon dust was blowing over much of middle town, and as the tailings approached the McGill Junction area, the dust often covered the entire town.

The problem had reached such proportions that something had to be done. Recreational activities, baseball, tennis, swimming; all were handicapped by the dust storms. Community living, housekeeping, particularly, became more than burdensome. Outside working conditions were slowed considerably and safety hazards created by the dust.

But what could be done? The company had tried to flood the southern tip of the tailings area but the problem of keeping an ever widening area wet enough to prevent dust from rising proved impossible. Dikes had been built to divert tailings and slag from the Nevada Northern tracks and to protect the dairy. It was thought that these dikes might help collect the water from the mill and minimize the dust conditions. However, when water enough to do any good in dust control had collected, it was sufficient usually to break the dike. Companies with similar tailings disposal

problems were contacted and many, different solutions were forthcoming. None of these, however, seemed feasible for the large tailings area at McGill.

Many people over the years had toyed with the idea of planting grass, trees, or some other vegetation in the tailings. But this seemed to be a fantastic idea, resorted to only at times when one's mouth, nose, hair, and body generally were covered with dust. How could anything survive in such unfavorable surroundings? Nevertheless, experiments were initiated along these lines first in 1947, when willows and poplars were planted. The willows started to grow, but continued blasting by the sand eventually killed them.

Then in 1949 more extensive tests were made under the direction of Fred Lawrence, Chief Chemist and Research Engineer of the Nevada Mines Division. A portion of the tailings area was diked off and thirty test plots planted with a variety of seeds and vegetable cuttings. The next year, more such test plots were planted. Results were encouraging; it was found that rye, barley, wheat, sweet clover, some wheat grasses, and Russian thistle grew without irrigation. The tests indicated that 400 pounds of fertilizer per acre was necessary to insure growth of these plants. After a few years, it appeared that Russian thistle, the lowly tumbleweed, thrived better than the other plantings. By 1955, Lawrence was convinced that the southern area of fine tailings had enough vegetation to keep it in place, and that this in effect eliminated a goodly portion of the dust that otherwise would have blown over the town. The wind still blows in McGill, but thanks to the work of Lawrence and his staff and the encouragement of the general manager, J. C. Kinnear, Jr., one of McGill's worst problems may be on the way to elimination. (15)

On June 24, 1950, North Korean forces crossed the 38th parallel into South Korea in what was to involve the United States in a "Police Action" lasting for three years.

The Korean conflict had an immediate effect upon production from the copper mines. The price of copper rose from 18-1/2 cents a pound at the beginning of 1950, to 24-1/2 cents by the end of the year. Production rose at the Nevada Mines Division from a net settlement of \$14,811,606.58 in 1950 to \$22,804,602.79 in 1951. (16) This latter figure was the highest net settlement in the history of the division. As a result of the demand for copper, the division moved to a seven day week with workers on a 48-hour basis. An all-time daily mill record was established November 14, 1950 when the crushing department handled 26,188 dry tons of copper ore. At the Smelter, three converters were placed in use; two of them equipped with "mechanical punchers". (17)

For the second time in a decade, the copper communities found themselves in a war economy and on the surface at least, making all the outward manifestations to indicate that we were engaged in a war. The people here, as elsewhere in the United States, had a difficult time trying to evaluate their collective and individual responsibilities in a "war that wasn't a war".

Police action or war, United States soldiers seemed to be necessary, and the Selective Service which had almost withered and died after the Second World War, moved again into high gear.

County Civil Defense units were organized again, with W. J. Hemingway as County Chairman; but elaborate training programs like those of the second war, were lacking.

There were few, if any, shortages in the district, and rationing was not necessary, although the entrance of the United Nations was the signal for a run on auto tires and tubes. Actually the Korean War boomed the American economy, and obviously this carried directly into the copper camps. Wages were high, production was steady, few were unemployed; it would have been a wonderful experience except for the dead, the wounded, and the missing.

With the outbreak of the Korean War and the subsequent rise in copper price and demand, it became feasible for the company to initiate exploitation of three of its marginal reserves, the Kimberly, the Deep Ruth, and the Veteran. Such exploitation was essential to the continued life of the communities for the reserves in the Copper Flat area were diminishing rapidly, and the Ruth mine had ceased production August 6, 1949. (18)

The first of these ore bodies to gain attention was the Kimberly, where test drilling in the 1940s had indicated an ore reserve of some 3 1/2 million tons of 1 percent copper ore. To get at this ore, located in Ingersoll Canyon near Lane City, a tremendous amount of waste had to be removed. Kennecott officials called in the Isbell Construction Company to do the job. On September 1, 1950, Nevada Mines Division and Isbell signed a contract for the removal of 15,098,000 tons of waste and 3,717,000 tons of ore. Removal of the waste, supposed to start November 1, but delayed until November 6, was to take two years. Within months, the huge earth moving machinery of the Isbell Company had created a tremendous dump at the head of Ingersoll Canyon that seemed ready at any moment to overflow onto the main highway nearby. The first ore from the Kimberly Pit was removed the latter part of 1952, although the pit was not scheduled to reach its daily production of about 5,000 tons until the middle of 1953. (19)

Another project in the district, which indirectly concerned the Nevada Mines Division, also got under way in 1950. This was the redevelopment of the Morris-Brooks claims by Consolidated Coppermines.

Forced by excessive production costs to close down their underground workings at the Morris shaft in 1949, this company, benefiting also from the rise in copper price as a result of the war, signed a contract with Isbell to remove three to three and one half millions of tons of ore. Ore shipments from the Morris Pit to the McGill concentrator began in November 1950, and the town of Kimberly had a new lease of life. (20)

The second major project to get under way in the Nevada Mines Division property, the so-called "Deep Ruth" was a much more extensive operation than the Kimberly and required a much greater expenditure of time and money before production could begin. However, the rewards would be greater, also, in that tests indicated an ore body of between 22 and 25 million tons of 0.8 percent copper ore.

The fulfillment of this project would have been rather difficult, if not impossible, without government assistance and steady increases in the price of copper.

In August 1950, Congress passed into law the Defense Production Act which had as one of its main objectives, the expansion of the sources of metals and minerals. Under the act, the President of the United States was authorized to carry out such functions, as making advance payment against production, the lending of money to construct facilities, the payment of subsidies, and authority to commit the government by contract for purchases, at prices above the market price, or anticipated loss on resale of such purchases.

Under this act, the Deep Ruth project was certified May 7, 1951, and the company immediately sent bids to thirteen firms on surface structures and underground development. (21)

In order to mine this large underground body of ore, company officials decided to sink a five-compartment vertical production shaft (Deep Ruth), to prepare a 55 degree ventilation shaft (Kellinske), and establish three haulage levels from production shaft to ore zone. The ore was to be mined by the block-caving system, using branch raises and scrams. (22)

Contract for sinking the Deep Ruth shaft was awarded to Foley Brothers Construction Company, a well-known excavating and tunneling firm, who began placing the collar set at the Kellinske shaft on June 25, 1951, and started sinking the Deep Ruth shaft, July 12 of the same year. (23)

Almost from the start, the project was plagued by water difficulties in both the Kellinske and Deep Ruth shafts so great as to prevent further drilling. Grouting overcame the water problem in the Kellinske shaft, but attempts to seal off the water in the Deep Ruth ended at first with tons of grout being washed away. On May 27, 1952, the inflow of water was estimated at 10,000 gallons per minute at a depth of 520 feet. At this point, Intrusion-Prepakt, Incorporated of Cleveland, Ohio, was engaged to shut off the large water inflow. The plug prepared by this company was successful in shutting off the major inflow so that drilling could resume. At the level of 605 feet a pump was established and pumping replaced grouting as a solution to lowering the water table in the Deep Ruth. By the end of 1957, the water problem seemed to be under control, but the expense involved caused the original project estimates to zoom skyward. (24)

With the water under control, both shafts were sunk to the F level, then drifts were made from each shaft to attempt a connection between the two. On March 24, 1955, at 4:50 a.m., the blast breaking the last barrier between the two shafts was set off. The drifts met perfectly, testimony to a surveying job well done. The 4:50 a.m., the exact moment of the blast, was important in the proceedings, for it determined that Charlie Gubler, an employee of Foley Brother, had won the \$300 pool which had been bet on the exact moment of breakthrough. After a clean-up period which ended April 1, Kennecott took over from Foley Brothers to do the work on the D level necessary for production. (25)

While the shaft-sinking work had been going on, continued exploratory drilling discovered a body of some 1,365,000 tons of 1.19 percent copper ore on the Minnesota Claim. The ore body lay above and partly within the expected caving area of the Deep Ruth mine, and was immediately labeled the Minnesota Hi. It was necessary to mine the Minnesota Hi before proceeding to the Deep Ruth ore body. To accomplish this, a new station and ore pocket were cut at the 820 elevation of the old Star Pointer shaft. Plans called for beginning production of the Minnesota Hi in December 1955, but it wasn't until February 24, 1956 that the first ore was taken from this area and shipped to the concentrator at McGill. Production of 4,000 tons a day was expected by August 1956. It was thought that this ore body would be exhausted by September 1957. (26)

To the people of Ruth, the most important part of the Deep Ruth project was to be the moving of the major portion of the town of Ruth to a site two miles to the north. This step was made necessary by the fact that the ore in the Deep Ruth lay almost directly under the old town site. Included in this project was the moving of nearly 200 buildings; the building of streets, alleys, sidewalks and gutters; construction of a sewerage system and a water system; the erection of a number of new buildings; the hauling of top soil for the yards; and, of course, the moving of employees and their families to the new site.

Under the time schedule determined by company officials, about half of the old town site was to be moved in 1952 and the rest during the following two years. On June 25, 1952, the company awarded two contracts for the completion of the project: one with the Isbell Construction Company for excavating, grading, and road-building; the other with the Utah Construction Company for the moving of the houses and the establishment of the necessary town facilities.

By September 1, Isbell had completed excavation and grading, and built the necessary service roads, streets and alleys. Paving had to wait until the following year. Meanwhile, the Utah Construction Company had begun moving the houses, completing the task by the end of 1953. (27)

For the people of the Ruth community, this was a unique experience. Often in the past inhabitants of Nevada mining communities had been forced by the sudden end of ore reserves to move suddenly from one site to another, leaving in their wake a ghost camp, and creating a new, bustling community elsewhere. Never before, in Nevada mining history, had such a planned removal as this taken place. Yet the results were somewhat the same. Within weeks, the grass, shrubs, and trees, left at Old Ruth had withered and died; weeds grew in the alleys and streets and soon almost obliterated the remaining cement foundations. A ghost town had been created over night.

A short distance to the northward, however, New Ruth was humming with activity. The company brought in top soil, provided lawn seed, and fencing materials, and employees started once again the fight with the Nevada elements to beautify their homes. There was a good deal of

gripping at first at being suddenly uprooted from homes and yards that in many cases had received years of loving care, yet there was a great deal of frontier enthusiasm in the manner in which the residents accommodated themselves to the new conditions.

Another effect of the Deep Ruth project was the development of an auxiliary water supply from the Deep Ruth mine. The water, coming from a fault zone on D level station at the Kellinske shaft, was to be pumped up the shaft to a storage tank and from there pumped some 5,100 feet through a pipeline to the 1,000,000 gallon steel water tanks located at Old Ruth. The water was to be used for domestic purposes, having been found chemically and bacteriologically safe. (28)

The third major ore reserve to be developed in the period after the outbreak of the Korean conflict, the Veteran, for all practical purposes had been written off the books in the 1940s. At that time, with the price of copper around 12 cents a pound, and an estimate of around 4,000,000 tons of less than 1 percent copper, it was not practical to mine the ore.

A series of events in the 1950s changed the earlier pessimism concerning the Veteran to optimism over the possible recoveries that could be made. The Korean War, as noted previously, jumped demand tremendously, and the price of copper soon rose above 20 cents a pound. Another series of test drill holes were made in 1951 and 1952, with gratifying results. In this series of tests, some 19 holes were drilled with a total footage of some 14,400 feet, indicating an ore body of 19,709,000 tons of 0.82 percent copper. About 20 percent of this total belonged to the Consolidated Coppermines Company. In order to recover the ore, some sixty million tons of waste would have to be removed.

On the basis of the above results and the fact that modern earth moving machinery could cut costs dramatically, J. C. Kinnear, Jr., on October 2, 1952, recommended to Louis Buchman, General Manager of Kennecott's Western Mining Divisions, that the project be undertaken. (29)

Contract for removal of the first 4,000,000 tons of waste was given to the Isbell Construction Company, October 26, 1953. By January 1, 1954, some 4,681,792 tons of waste had been removed and, subsequently, additional contracts were awarded to the company providing for the removal of over 12,000,000 more tons of waste by July 1, 1955, at which time Kennecott was scheduled to take over operation of the new pit area.

Nevada Mines Division plans to use modern earth moving machinery to remove the ore and trucks to transport the ore to the railroad ramp on the rim of the pit. To ship the ore to McGill, a railroad spur 2-1/4 miles in length was constructed to connect with the Nevada Northern main line near Kimberly. When constructed, the Veteran Pit was to be a cooperative affair between Kennecott and Consolidated Coppermines, with Kennecott receiving about 80 percent and Consolidated about 20 percent of production and with bills pro-rated on the same. (30)

As ores from these new ore bodies, the Kimberly, the Veteran, and the Morris-Brooks of the Consolidated Company, began to reach the reduction plant at McGill, it became apparent that

many changes would be necessary at the mill and smelter in order to insure maximum efficiency in concentration. The problem arose from the fact that these new ores, being higher in non-sulphides and more tarnished, were not as susceptible to flotation. Thus, the new developments forced a reappraisal of mining and concentrating methods in order to keep operating costs as low as possible. (31)

Perhaps the most important change in the reduction plant in the 1950s, resulting in part, at least, from the new mining developments, were those concerned with an expansion program at the McGill power plant.

Starting operations in 1907 with an electric generating capacity of 1500 kw., the power plant by 1931 had increased its capacity to 25,000 kw. The purpose of the new program initiated in the fall of 1950, was to double the output to 50,000 kw. Actual installation of equipment began in May 1953, and was completed and in service on February 11, 1954.

With completion of this program, the McGill power plant, one of the most important cogs in the entire operation of the Nevada Mines Division, was in excellent position to continue carrying forward its vital functions as follows: First, supplying electric energy for the mines and reduction plant of the Nevada Mines Division, the Consolidated Coppermines at Kimberly, and for the towns of McGill, Ruth, and Ely; and secondly, supplying low pressure air, high pressure air, and process steam, for operating needs of the division. (32)

The period from the beginning of the Korean War to the present has seen the development of increasing labor-management tensions in the copper industry nationally and these have been mirrored in the eastern Nevada copper camps. In the five years of contract negotiations, from July 1, 1951 to July 1, 1956, there have been three work stoppages of varying lengths of time, involving most of the employees of the Nevada Mines Division. In the other two years, major strikes were avoided only at the last minute.

The first major work stoppage at the Nevada Mines Division since the fall of 1919 took place August 27, 1951, when members of the International Union of Mine, Mill and Smelter Workers, this union now operating independently since being expelled from the C. I. O. in February 1950, went on strike for increased pay and other demands. The strike lasted five days. (33)

Strikes threatened again in 1952 and 1953 but failed to materialize when agreements were reached. (34)

Negotiations for changes in the 1953 contract began April 28, 1954 with the I. U. M. M. & S. W. requesting changes in the following items: seniorities and filling of vacancies, holidays, bonus, wages, vacations, shift premiums, pensions, and health and welfare plan. In spite of numerous collective bargaining sessions, labor and management failed to come to terms and the employees went out on strike August 16. Similar action was taken at the other Kennecott producers in Arizona, New Mexico, and Utah, and as the strike progressed, it became increasingly evident

that settlement on the top level of management and labor would have to come before local issues could be resolved. Sixteen days after the strike began; a settlement was reached when the company and the union signed a new contract on September 1, providing among other things for a wage increase of 5 cents an hour, adjustments in shift differentials, and a revised health and welfare program. This package deal actually represented a gain of 7.7 cents per hour per employee. (35)

On July 1, 1950 pickets were placed at all the main entrances at the mines and the reduction plant at Ruth and McGill, signifying that for the second consecutive year labor and management had been unable to reach agreement on contract negotiations.

As the strike got under way, it was evident that this labor dispute, more than any other in this district was to be a battle of giants. the Kennecott Company's domestic producers have been well organized in a single Western Division for years, and now as the result of an agreement reached at Salt Lake City, Utah, April 17, 1955, all the unions in Kennecott's four western divisions were agreed on a common plan of joint negotiations with the company. The clock had turned full around and the copper communities had a ringside seat in another demonstration of Big Labor drawn up in battle against Big Business.

Certainly the development of Big Labor was inevitable in the expanding capitalistic system of the United States, and it had been a long time in evolving. Starting in the industrial period after the Civil War, the movement gained momentum during the Progressive Era, aided by such contrasting figures as Robert LaFollette, Sr., Teddy Roosevelt, and Woodrow Wilson. Slowing somewhat in the 1920s, but not dying by any means, the movement sprung to life when the depression of the 1930s punctured the bubble of omniscient business. Nurtured and encouraged by the New Deal and successive Democratic administrations, the labor movement flowered into strength after the Second World War.

Now well organized, with high-powered lawyers and public relations directors of its own to match those of industry, and with well-filled treasuries to sustain lengthy strikes, labor began to flex its muscles in the post-war era in tests of strengths that ranged from one end of the United States to the other.

The 1955 strike at McGill and Ruth brought home to every family in the eastern Nevada copper district an awareness of these facts although some either couldn't understand or refused to understand the implications of these changes.

Many referred in their conversations to the "good old days" from 1919 on when no major strikes occurred, seeking the answer to the present disturbances in terms of personalities, not realizing that those "good old days" could never return, that the local company had been merged with a giant corporation and that local officials were but part of an intricate administrative machine neither being responsible individually for the strikes or able individually to stop them. (36) Neither did the average citizen realize just how powerful the union movement had become, nor

that the real solution to future labor-management relations in the last analysis would come from public's insistence that the leaders of both labor and management submerge their individual interests and desires for power to the interest of the general welfare.

On August 17, 1953, after 47 days of inactivity, the longest general strike in the history of the Nevada Mines Division came to a close. Although conducted in an orderly fashion, with no show of violence, it was not solved without bitter recriminations being charged by both sides, both during and after the strike settlement.

The labor unions accused the company of bad faith in waiting until the last minute to make acceptable settlement proposals and for refusing at first to give the same package deal to all four Western Divisions, after agreeing to such an arrangement. The unions maintained, also, that Attorney-General Brownell's petition of July 23, 1955, to the Subversive Activities Control Board to find the I. U. M. M. & S. W. a Communist infiltrated organization, was timed to be released to the papers in such a way as to weaken the bargaining power of the unions.

The company, on the other hand, maintained that the unions, contrary to usual practice, called the strike upon expiration of the contracts and would not continue negotiations with the men on the job. Company representatives also pointed out that their offer of a 12-1/2 cents package deal on June 30, the day before the strike, was better than that received by the workers in other domestic copper producers, and that their offer of 15.2 cents on July 25 was not accepted in good faith by the unions. The company also maintained that there was no collusion between the copper industry and the Attorney General, and as long as the I. U. M. M. & S. W. was the legal bargaining agent, Kennecott would respect it as such.

All of the above matters received wide publicity in the copper towns. Both sides made ample use of news releases, radio broadcasts, paid advertisements, and other publicity devices in this battle for the mind of the employee and of the public generally.

The final settlement provided for a 15-1/2 cents package deal which included 10 cents per hour wage increase, 2 cents per hour increase in increments between job grades, and 3.5 cents per hour for increased benefits on the pension plan. Labor considered the last item its most important gain. (37)

Some months before contract negotiations for 1956 were to begin, and obviously coming as a distinct surprise to most people in the district, 400 men walked-off their jobs, Thursday, February 9, in protest to a "Time Study" conducted by the company on better means of lubricating machinery. The strikers returned to their jobs Monday, February 13 when assured that any changes resulting from the study would be discussed fully with the union before being place in effect. (38)

Negotiations to provide changes in the 1955 labor contract were initiated at Salt Lake City May 21 and 22, 1956, between the negotiating team of Kennecott's Western Division and the

Kennecott Unity Council, the latter representing 10 international unions and 18 local unions. At the same time local negotiations were opened at McGill.

The demands asked for included a 20 cents an hour general wage increase plus much more emphasis than before on the so-called "fringe" benefits such as sick leave, vacations, paid holidays, and changes in the health and welfare plan. (39)

As these negotiations got under way, it was evident that the long work stoppage in July and August 1955 had a sobering effect on both sides during the 1956 talks. Thousands hoped that the results would indicate that the two opposing groups had finally achieved that mutual respect and accommodation so necessary to the continued success of our economic system.

Labor's insistent demand during these post-war years that it and not industry should bear general responsibility for determination of the welfare activities of the employees, while at the same time demanding that industry pay most of the cost for these "fringe" benefits, forced Kennecott, as well as many other large corporations, to modify its position in regard to "welfare" capitalism practices of the 1920s, and to add many new administrative departments to handle these activities. This evolution is readily traceable in the Nevada Mines Division at Ruth and McGill.

In April 1948, a department of employee relations was established at McGill, with Don Stark becoming its director September 1 of the same year. This department, at first, was a catch-all for the variety of activities concerning employee and public relations at both Ruth and McGill which had been handled previously by the Plant Comptroller. These included such things as employment, keeping personnel records, handling of employee housing, supervision of the club houses and public relations. (40)

In July 1952, a Training Department was established under the Employee Relations Department and Harold Adams obtained as the first training director. The training program established at first consisted of six branches: economics, apprentice training, on-the-job training, safety training, supervisory personnel training, and technical training. Training buildings were established at both Ruth and McGill and a training conference leader appointed for each area. (41)

In 1953 the public relations and training activities were taken from the Employee Relations Department and placed in the new department of Training and Public Relations. A. Todd Davis was made Director of this department August 1953. On April 1, 1954, the major part of labor relations was placed under the department of Training and Public Relations, whose title was then changed to Public and Labor Relations Department, a change in wording, by the way, which was much more significant than might appear on the surface. (42)

The labor relations functions of this department were concerned mainly with contract negotiations with the seven unions at the Nevada Mines Division. The public relations function expanded rapidly to include newspaper, magazine, school year book, and other types of advertisements and news releases, daily news broadcasts, sponsoring of sports broadcasts such as

the state basketball tournament, entering of floats in parades, providing exhibits for county fairs throughout Nevada, participation in civic organizations and cultural activities of the communities, conducting plant tours, donations, providing scholarships, and establishing grants-in-aid to colleges and universities, and publication of a division magazine, the *Kennevadan*.

Somewhere between public and employee relations should be mentioned the Annual 20-30 award banquets which began in 1950 to honor employees with 20 years of service by certificates and gold lapel pins, and employees with 30 years of service by certificates and gold watches.

Kennecott certainly was not an innovator in the above respect. All four types of programs, Training, Employee Relations, Labor Relations, and Public Relations, had been in effect in industrial concerns for varying periods. Their introduction at the Nevada Mines Division during these years represented yet another phase of the changing labor-management picture in the copper industry.

However, many old-time employees and other residents of the eastern Nevada copper communities couldn't understand why the company suddenly needed all these additional administrative departments. In the "good old days", no one had been needed to train employees, or to itemize the advantages of working at McGill or Ruth for Kennecott Corporation. News releases and radio broadcasts had not been necessary, either, to tell the communities about the benevolent activities of the company. Two factors should be kept in mind in attempting to analyze the necessity for a change. In the first place, the tremendous growth of Kennecott and the subsequent centralization within the organization gradually broke down autonomy that local officials had exercised under different organizational set-ups; and secondly, and perhaps more important, was the tremendous growth of organized labor and the resulting struggle between labor and capital for favorable public opinion. After the unfavorable publicity of the 1930s, industry now had to justify its position before the public mind.

Further evidence of the centralizing tendencies of the company was the combining of accounting functions of the mining department at Ruth with those of the reduction plant at McGill in 1953. Paralleling this change was the further separation of the accounting functions in each division from production functions. From 1950 on, division comptrollers moved more and more into a direct organizational line to the central accounting office and away from direct control by the general manager of the local division. To handle the increase in accounting functions brought on by these changes, a Machine Accounting Department was established January 1, 1954.

Organizational changes in 1954 saw the establishment of an Industrial Engineering Department in March. The objectives of the new department were to seek cooperation to effect improvements in operating procedures and costs based on better use of materials, tools, machines, and employee effort. The new department was composed of seven engineers divided into three sections, one for the mines, one for the smelter, and one for the mill. (43)

On July 1, 1954, the safety activities of the division, which had been under direction of the Training Department, were placed in a new Safety Department with Frank G. Woodruff as the first Safety Director. When Woodruff was moved up to General Superintendent of the Reduction Plant in the summer of 1955, his place as safety director was taken by Roger J. Howell. (44)

As pointed out in previous chapters, safety has been a continuing problem at the Nevada Mines Division demanding and receiving constant attention from company officials. Perhaps, at no previous period, has there been a more consistent and organized effort to improve the safety record than since 1950. Labor management committees and inspections, foreman group meetings, departmental awards, first-aid and rescue training programs, new safety first signs on the main highway, school essay contests, the awarding of two free theater tickets to each employee each month in which no lost time accidents were recorded, the awarding of a holiday turkey to each member of a department completing 500,000 man-hours, or one calendar year, without a lost-time accident, safety slogan contests among employees; all of these items and many more were used by the Safety Department during these years to develop safety-first awareness among employees and their families at Ruth and McGill.

One of the most interesting post-war developments at the Nevada Mines Division was the attempt of the company to divorce itself from all "paternalistic" activities.

Initiating this movement, the McGill Dairy was sold to outside interests, April 1, 1951. The herd was sold to the White River Dairymen's Association at Lund, Nevada, and the route and business were given to Marshall's Ely Ice Cream and Dairy Company. The company agreed to continue payroll deductions for milk delivered to employees. (45)

Following continued losses in operation, the McGill and Ruth cafeterias were leased to the Swafford Company of San Francisco, February 16, 1954. (46)

Then on July 1, 1955, the Ruth and McGill Commissaries closed their doors after over thirty years of operations. The company now was out of the dairy business and the store business.

Rumors began to circulate throughout the district that the company soon would be out of the housing business also. This seemed too fantastic an idea to be believed for why should the company after nearly fifty years of production suddenly decide to sell the company houses and lots?

But for once the rumors proved to be true. Official indication that Kennecott had sold its community town sites in four states to the John W. Galbreath and Company of Columbus, Ohio, came December 15, 1955, in release to the Associated Press. (47) The Galbreath Company was then to sell the houses individually on the following basis: first, to the occupants if they desired to buy; secondly, to other Kennecott employees; and thirdly, to the general public. Houses at Ruth and McGill were to be sold for \$1400 to \$4000, including lot. Down payment, in all instances, was to be \$400 and monthly payments extending over a 20-year contract would be

between \$26 and \$70. A number of houses at old Ruth, the Lonetree site, Tonopah Gulch, and Copper Flat were to be sold for removal only. Galbreath Company agreed to operate the water and sewerage systems, the boarding houses, club houses, and dormitories, until other arrangements might be decided upon by the citizens of the communities. (48)

Preparing the houses for sale proved to be a rather complicated task due to the problems of mapping and surveying. However, by June 1 plans were complete at McGill for the sale of the first houses to individuals. On that date, also, McGill residents were notified that a total charge of \$7.46 per month was to be charged for town site services including street lighting, garbage and trash collections, road maintenance, snow removal, and water and sewer charges. Electricity was to be furnished by the Nevada Mines Division. (49)

Most employees and their families were unprepared psychologically for the change from company owned towns to privately owned communities. In spite of the fact that many had previously condemned company ownership of the houses and company control of the communities, there was an initial feeling of opposition to the plan.

Some of this opposition, of course, was due to the unknown concerning prices to be charged for the houses, monthly payments that would be charged, et cetera. A certain amount of opposition came naturally from many who had become accustomed to company owned communities as their pattern of living and simply could not envision any other. Opposition also developed from the labor unions who felt that the company decision was based on the fact that employees owning their own homes would be less likely to strike. (50) Much of the griping over the change came simply from the fact that consummation of the sale to Galbreath demonstrated dramatically to employees the excellent financial arrangement they had enjoyed under company control. Perhaps no one thing tended more to confirm this fact than the notice from the Galbreath Company that beginning June 1, a monthly charge of \$7.46 would be charged for town site services that had been free of charge under company control.

Theories as to why the company had decided to give up the company owned and controlled towns, were as numerous as the dust storms at McGill. Some thought the decision due to economic considerations, forgetting that the ore reserves on January 1, 1955, were greater than when the first concrete houses were built at McGill in 1907. Some were convinced that the only reason the company wished to sell the houses was the fact that it was losing large sums of money trying to keep them in repair. That the company lost money on the houses was true, but it had been true for many years previously. Others saw in the sale simply an extension of the labor-management battle. Repercussions from the sale were certain to find their way into labor contract negotiations in the future for labor considered cheap company owned housing part of the differential between wages paid by the company and the higher wages paid outside the company facilities.

Perhaps all of these ideas and more went into the decision of Kennecott officials to sell its town sites. It seems, however, that the simplest explanation goes back to the post-war development of labor and industry, a development which frowns upon all outmoded forms of paternalism on the part of industry.

In short, we are in a new era of economic development. Whatever advantages accrued from company-owned communities, and there were many, should be more than duplicated in the challenging and possible achievements that now face the citizens of Ruth and McGill. (51)

[End]

## FOOTNOTES

### Chapter I - Discovery and Early Development of the Copper District

1. White Pine News, September 27, 1900; Interview, Dave Bartley, July 9, 1952, Carson City, Nevada.
2. Interview, Dave Bartley, July 9, 1952, Carson City, Nevada; White Pine News, Annual Edition, December 25, 1906; Sam. P. Davis, History of Nevada (2 volumes) (Reno, 1914), II, 1954.
3. White Pine News, August 11, 1887. According to the News, Robinson had located the first claim their in 1867, but the district was not organized until 1868.
4. White Pine News, August 11, 1888; B. F. Miller, "Nevada in the Making", in Nevada State Historical Society Papers. (Carson City, 1913-1926), IV, 397; Interview, W. Y. McGill, July 24, 1953, Ruth, Nevada. Mr. McGill, son of one of the pioneers of White Pine County, maintains that the copper furnace was built by a man named Thomas who was also connected with the Selby Company in these years. Thomas and Long worked together on later projects, so that it is quite probable that they did on this one, also.
5. White Pine News, files from 1887 to 1900; District Mining Recorder Records, Robinson District (Nevada), 1881-1895, in White Pine County Recorder's Office, Ely, Nevada.
6. B. F. Couch, and J. A. Carpenter, "Nevada's Metal and Mineral Production, 1859-1940", University of Nevada Bulletin, XXXVII, (November 1, 1943), 147.
7. Steptoe Valley was named for Colonel Steptoe who had been sent into the area in the 1860s to quell a threatened Indian uprising. The valley began to attract ranchers in the 1870s. Within a few years, a number of ranches were established in this valley stretching from a few miles north of the present town of McGill to about eight miles south of the present town Ely. These ranches included the Bassett, the Hanson, the Mollison, the Campbell, the Heusser, the Cowger (later the McGill), the McQuitty (later the Georgetown), and the Comins and Shallenberger ranches south of Ely. In Duck Creek Valley during this same period, there was the Freehill Ranch, the Bird Ranch, and the Kinsley Ranch. Below the gap in the mountains between Duck Creek Valley and Steptoe Valley, was located the W. C. Gallagher Ranch. The main product of these ranches in the early years was hay, although some produced in addition grain, potatoes, and in rare instances other vegetables. More and more during the years before the turn of the century the ranchers turned to cattle raising. (Interview, C. D. Gallagher, August 29, 1952, Ely, Nevada, and November 28, 1953, Ely, Nevada; White Pine News, 1st Annual Edition, December 25, 1906; Ely Record January 22, 1915; Miller, op. cit., 300, 394-396; Interview, W. Y. McGill, July 24, 1953, Ruth, Nevada.

8. There are two main versions of how Ely got its name. The most commonly accepted version at present is to the effect that the town was given the name of Ely by A. J. Underhill in honor of John Ely who had loaned him money with which to buy the land upon which the town was built. The second version, and the one which was accepted until more recent years, is to the effect that the town was given the name of Ely by Joseph Long in honor of Smith Ely, a long time friend and at the time one of the financial backers of the company which had sent Long and others to the area to construct a copper furnace. Three facts seem to this writer to support the second version. In the first place, Thomas Rockhill, who had been in the district before the town was named, stated in an interview in 1906, that Long named the town Ely in honor of the man who supplied the money for the copper smelter which was built in the early 1870s. (White Pine News, 1st Annual Edition, December 25, 1906, also in Ely Record June 11, 1909). In the second place, F. F. Thomas, in an article in the Mining and Scientific Press, corroborates this version as an eye witness to the event, stating that Mr. Selby, Joseph Long, Lewis Williams and himself, after purchasing the ground upon which Ely now stands, held a consultation as to a suitable name for the new place and post office, and decided to name the town Ely to compliment Smith Ely. (Letter written by F. F. Thomas in Mining and Scientific Press, XCVIII, (January 16, 1909), 114-115.) Thirdly, the White Pine News, in its first annual number supports the latter version, but what is perhaps more important, does not mention the Underhill story, The News does not mention a third version to the effect that Long named the town Ely in honor of his home town of Ely, Vermont. This same idea has other supporters, particularly W. Y. McGill, who in an interview with the author in the summer of 1953, indicated that this version was the accepted one in his family. To further footnote the Smith Ely version, it should be noted that the village was referred to as Ely City in the Ward Reflex for September 28, 1878, and again in the issue of March 1, 1879, both dates being prior to the Underhill purchase. (For the Underhill version, see Miller, op. cit., 346; Davis, Nevada, II, 1049-50; Nevada: A Guide to the Silver State. Writer's Program, Nevada. (Portland, 1940), 249-250.

9. White Pine News, July 9, 1887; Journal of the Assembly (Nevada), 13th session, (1887), 112.

10. Ely Record, January 2, 1954; White Pine News, April 14, April 23, 1887.

11. Davis, Nevada, II, 1050; C. W. Torrence, History of Masonry in Nevada, (Reno, 1944), 246.

12. White Pine News, April 16, April 23, 1887. (Among the first purchasers were: T. R. O'Neil, Neil Munro, W. R. Bassett, Sol Hilp, W. N. McGill, and A. Heusser).

13. District Mining Recorder Records, Robinson District, (White Pine County, Nevada), 352.

14. Couch and Carpenter, op. cit., 147.

15. White Pine News, August 4, 1894.

16. Miller, op. cit., 400-401; Davis, Nevada, II, 1053.

17. White Pine News, July 19, 1900; Davis, Nevada, II, 1054.
18. Mining Locations, White Pine County, Nevada, (White Pine County Recorder's Office, Ely, Nevada), Book 4, 610-611; White Pine News, December 25, 27, 1906; Miller, op. cit., 401-402; Davis, Nevada, II, 1054.
19. Mining Locations, White Pine County, Nevada, Books 4 & 5; White Pine News, March 22, 1900.
20. District Mining Recorders Records, Robinson District, 5.
21. White Pine News, August 23, November 15, December 27, 1900, May 23, 1901: Miller, op. cit., 401-402.
22. Interview, Dave Bartley, July 9, 1952, Carson City, Nevada; White Pine News, June 27, 1901; A. B. Parsons "Nevada Consolidated Copper Company", Mining and Scientific Press, CXXII, (March 5, 1921) 325-335
23. White Pine News, July 24, 1902.
24. Ely Record, October 17, 1930.
25. Amy Requa Russell, A Sagebrush Heritage, (Unpublished manuscript in the possession of the Nevada State Historical Society, Reno, Nevada); 2; A. B. Parsons, The Porphyry Coppers, (New York, 1933), 117.
26. White Pine News, October 9, 1902; A. B. Parsons, "Nevada-Consolidated Copper Company", Mining and Scientific Press, CXXII, (March 5, 1921), 320-329; F. Sommer Schmidt, Early Days at the Nevada Consolidated Copper Co., Ely, Nevada, (Unpublished Manuscript - Los Angeles, no date. Copy on file Public Relations Office, McGill, Nevada), 1.
27. Horace J. Stevens (compiler), The Copper Handbook, (Houghton, Michigan, 1905), V, 825; Parsons, Porphyry Coppers, 118-120; White Pine News, March 5, 1903.
28. White Pine News, June 16, 1904; Mark Requa, Driving the Last Spike at Ely, Nevada, September 29, 1906, (Printed pamphlet, 7 pp., n.d., n.p.. Copy in Nevada State Historical Society Files), 3-5.
29. Articles of Incorporation, Office of the Secretary of State (Nevada), (Carson City, Nevada), January 19, 1903; Stevens, The Copper Handbook (1903), III, 421-422; White Pine News, January 16, 1902; Parsons, Porphyry Coppers, 116.
30. White Pine News, July 3, 31, November 20, 1902. The Mormons had established a Mormon colony here on the old McQuitty Ranch. The decision to move to the White River Valley, some fifty miles distant, occasioned the sale to the copper company at this time.

31. Stevens, The Copper Handbook, (1903), III, 421-422.
32. White Pine News, March 10, March 24, April 28, 1904; Parsons, Porphyry Coppers, 120.
33. F. Sommer Schmidt, op. cit., 6-7; Andrew C. Lawson, "The Copper Deposits of the Robinson Mining District", Bulletin of the Department of Geology, University of California, IV, (May 1906), 304, 332.
34. Stevens, The Copper Handbook, (1908), VIII, 1017-1020; Moody's Manual of Industrials, (1927), 2462-2463; White Pine News, January 12, 1905, December 25, 1906; Parsons, Porphyry Coppers, 120-121.
35. Parsons, Porphyry Coppers, 121; "Special Correspondence", Mining and Scientific Press, CXXIII, (March 5, 1921), 330; Davis, Nevada, II, 1055
37. Schmidt, op. cit., 6.
38. Parsons, Porphyry Coppers, 127; Harvey O'Connor, The Guggenheims, (New York, 1937), 283-284; White Pine News, March 23, 1906; Parsons, "Nevada Consolidated...", Mining and Scientific Press, CXXII, (March 5, 1921),
39. Stevens, The Copper Handbook, (1907), VII, 548-549, and (1900), VIII, 610-611; Ely Mining Record, September 7, 1907.; Frank H Adams, Ely and Her Mines, (Salt Lake City, 1907); White Pine News, December 21, 25, 1905, and January 4, 1906.
40. Miscellaneous Records (White Pine County, Nevada), Real Estate Deeds, Old D, 31: Schmidt, op. cit., 13. Schmidt, who was an engineer for Requa in these years, says that Gunn.'s actions were due to the fact that Requa had refused him admission to the mines.
41. Lawson, op. cit., 287-357
42. White Pine News, June 18, 1903; Moody's Manual, (1927), 1813.
43. Stevens, The Copper Handbook, (1904), IV, 391.

## Chapter II - Mining and Transportation Development

1. White Pine News, October 27, 1904; M. L. Requa, op. cit., 4; Adolph Judell and E. E. Carpenter, Report to M. L. Requa, San Francisco, California, February 10, 1905. (Pope Yeatman File, General Office, Nevada Mines Division, Kennecott Corporation, McGill, Nevada).
2. Moody's Manual of Investments - Steam Railroads (1926), 192-193; Davis, Nevada, I, 593-595. This writer states that Requa presented his problem first to the Guggenheim Exploration Company and that it was this organization which sponsored the building of the railroad.
3. White Pine News, September 14, 1905; Parsons, Porphyry Coppers, 123-125; Railroad Day, Ely, Nevada September 29, 1906, (Houlder and Hudgins, publishers, Salt Lake City, 1906), 1.
4. White Pine News, May 29, 1906.
5. Ibid., July, 20, 1906.
6. Ibid., September 18, 1906.
7. Ibid., October 2, 1906; Requa, op. cit., 1-7; Houlder & Hudgins, Railroad Day, 1-33.
8. Davis, Nevada, I, 595.
9. "News", Engineering and Mining Journal, XXCIV, (October 5, 1907), 646-647.
10. Nevada Northern Railroad, Office of Auditor, Ely City, Nevada, June 29, 1908. Pope Yeatman file.
11. White Pine News, June 29, 1905. Where present Baltimore-Camas mill is located.
12. White Pine News, March 6, 1906; Contracts-Miscellaneous, Pope Yeatman File.
13. White Pine News, May 4, 1906.
14. Ibid., February 1, 1906; Parsons, Porphyry Coppers, 127; W. R. Ingalls, "The Copper Mines of Ely, Nevada", Engineering and Mining Journal, XXCIV, (October 19, 1907), 719-723.
15. White Pine News, March 23, 1906; Ingalls, op. cit., 719-723.
16. A. Chester Beatty to Pope Yeatman, New York, June 5, 1906, Telegram in Pope Yeatman File no. 36.
17. M. L. Requa and F. W. Bradley to Dan Guggenheim, New York, October 8, 1906, Pope Yeatman File no. 1.
18. Parsons, Porphyry Coppers, 127-129; White Pine News, 1st Annual Edition, December 25, 1906.

19. Contracts-Miscellaneous, Popo Yeatman File. Memo agreement made April 24, 1906 and agreed to by Phillips, Eccles, and Thompson on May 2, 1906.

20. White Pine News, October 26, 1906; Parsons, Porphyry Coppers, 129; Stevens, Copper Handbook, VIII, (1908), 1269-1277; Articles of Incorporation, Office of Secretary of State, Carson City, Nevada, February 1, 1907; Contracts-Miscellaneous, October 10, 1906 Pope Yeatman File.

21. White Pine News, November 23, 1906.

22. Requa's vision and general ability have not been generally appreciated. Perhaps the best summary of the problems which confronted him in 1902 is to be found in the so-called Schmidt Report, p. 2, previously cited under F. Sommer Schmidt. Requa was not bitter toward the new manager, Pope Yeatman, and corresponded with him frequently during the months immediately after his retirement. In one of these letters we find Requa striking out sharply against W. B. Thompson and the Cumberland-Ely. He criticized specifically the sale of the Georgetown site and the Murry Creek water rights to Thompson for \$105,000 when they "were worth five times as much". He went on, "I think you know, Mr. Yeatman, as well as I do, that an expose of this business, signed by all of us in the West, would not be pleasant reading to your people. As compared with Nipissing, I think Nipissing would be a summer zephyr..." (M. L. Requa to Pope Yeatman, San Francisco, August 8, 1907, Pope Yeatman File.)

23. The McGill Ranch was an old property having been homesteaded in the 1870s mainly because of the numerous springs on the property. These springs were early known as the Monitor Springs and soon the ranch became known as the Monitor Ranch. Eventually J. B. Cowger came into possession of the property and the ranch then was known generally as the Cowger Ranch until it was sold to W. N. McGill and W. G. Lyons in 1885. Later McGill, in 1886, bought out Lyons and in the same year enlarged the acreage and the water rights by purchase of the Horton Ranch to the north. It was this latter purchase which gave McGill possession of additional water rights to the waters of Duck Creek. (Interview, W. Y. McGill, July 24, 1953, Ruth, Nevada; Real Estate Deeds, White Pine County, Old A (28), 77, 195; White Pine News, January 1, 1927; Miller, op. cit., 409.

24. Charles S. Vail to George Gunn, Ely, Nevada, November 30, 1906, in Pope Yeatman File.

25. S. W. Eccles to Pope Yeatman, November 21, 1906, New York, Pope Yeatman File. (Requa had recommended a cement ditch for the carrying of the water; however, he was outvoted by the Guggenheims who accepted Mr. Jackling's recommendation that wooden stave pipes, 43 to 50 inches in diameter, should be used.

26. White Pine News, November 2, 1906; Copper Ore (McGill), January 20, 1910; Lindsay Duncan, "The Water Supply of the Nevada Consolidated", Engineering and Mining Journal, CIX, (April 10, 1920), 957.

27. Pope Yeatman to Judge C. Lindley, Ely, Nevada, May 1, 1907, Pope Yeatman File; Ely Daily Mining Expositor, December 25, 1907; White Pine News, August 27, 1909.
29. Probably the reason for the discontinuance of the tunnel idea as a power supplement was the fact that waste heat from the reverberatories had proven sufficient to develop all necessary power in the power house. (Pope Yeatman to F. E. Trask, McGill, Nevada, December 1, 1908, Pope Yeatman File).
29. Lindsay Duncan to C. B. Lakenan, McGill, Nevada, July. 7, 1910, Pope Yeatman File.
30. White Pine News, October 16, November 2, 1906.
31. Ibid., November 20 1906,.
32. Contract's - Ely Construction Company and Nevada Consolidated, entered into November 27, 1906 and executed December 6, 1906, Pope Yeatman File.
33. Contracts - Pope Yeatman File no. 48.
34. Pope Yeatman to S. W. Eccles, McGill, Nevada, December 8, 1906, Pope Yeatman File. Some thought was given at this time to a brickmaking plant which was to be located near the Georgetown Ranch. A brickmaker named James Maxwell surveyed the site in December 1906, and indicated that there was about 40 acres of clay available. However, the cost was prohibitive and so nothing was done. (S. W. Eccles to Pope Yeatman, New York, December 22, 1906, Pope Yeatman File.)
35. Parsons, Porphyry Coppers, 129-130; Stevens, The Copper Handbook, VIII, (1908), 1269-1272. For the Gazzam resignation, J. P. Gazzam to H. J. Douglas, Ely, Nevada, June 5, 1907, and Pope Yeatman to J. P. Gazzam, New York, May 31, 1907, in Yeatman File.
36. Pope Yeatman to S. W. Eccles, McGill, Nevada, June 5, 1907, Pope Yeatman File.
37. Report of Pope Yeatman to S. W. Eccles, October 1, 1907, 33-35, Yeatman File.
38. C. B. Lakenan to J. H. White, McGill, Nevada, October 6, 1907, Yeatman File.
39. Pope Yeatman to S. W. Eccles, November 7, 1907, McGill, Nevada, Yeatman File.
40. White Pine News, April 16, 1908.
41. Ibid., April 18, November 4, 1908; 2nd Annual Stockholder's Report, Nevada Consolidated Copper Company, November 4, 1908.
42. White Pine News, June 27, July 12, August 6, 1908; 2nd Annual Stockholder's Report, Nevada Cons., November 4, 1908. (Previously, March 9, 1908, The Steptoe Company had entered into a 15-year contract with the American Smelting Company to sell and deliver its

entire output of blister copper at the latter's Perth Amboy Refinery. (Contracts-Steptoe Valley Smelting and Mining Company and American Smelting, March 9, 1908), Yeatman File.

43. Couch and Carpenter, *op. cit.*, 147.

44. A. Chester Beatty to Pope Yeatman, New York, February 5, 1907, Yeatman File; Pope Yeatman to J. Hays Hammond, McGill, Nevada, April 17, 1907, Yeatman file.

45. W. S. Morse to Joseph Clendanin, Salt Lake City, Utah, May 18, 1908, Yeatman File.

46. "Report on Giroux Properties, September 25, 1908, McGill, Nevada," Yeatman File.

47. Stevens, *The Copper Handbook*, VIII, (1908), 581; (1910-11), 676.

### Chapter - III The Boom Copper Towns, 1900-1908

1. Miller, op. cit., 400-401; Davis, Nevada, II, 1053.
2. Ely Mining Record, June 8, 1907.
3. Couch and Carpenter, op. cit., 50, 115, and 147.
4. White Pine News, June 1905, and August 24, 1906.
5. Interview, W. Y. McGill, July 24, 1953, Ruth, Nevada; Miscellaneous Records, White Pine County, Nevada, Old C (36), 610-623.
6. Davis, Nevada, II, 1056; White Pine News, February 8, 23, October 5, 1906; Adams, Ely and Her Mines, 27; A. H. Halloran, "Ely, Nevada", Mining and Scientific Press, XCIII, (July 7, 1906), 11-13.
7. Ely Mining Record, June 8, 1907.
8. Adams, Ely and Her Mines, 4; E. W. Ralph, "Mining Conditions at Ely, Nevada", Mining and Scientific Press, XCIV, (January 26, 1907), 120-121.
9. Miller, op. cit., 432-435.
10. Ibid., 304-305.
11. White Pine News, April 6, May 4, 1905 April 24, 1906, November 13, 1909; Ely Mining Record, September 21, 1907; Davis, Nevada, I, 637.
12. White Pine News, October 9, 1906.
13. Ely Record, April 30, 1909.
14. Contracts, Miscellaneous, May 2, 1906. Pope Yeatman File.
15. A. B. Parsons, "Nevada Consolidated...", Mining and Scientific Press, CXXII, (March 5, 1921), 333; "Biennial Report of the Secretary of State, 1905-1906, "in Appendix to Journal of Senate and Assembly, (Nevada), 100.
16. White Pine News, August 24, 1906.
17. Miscellaneous Records, White Pine County, Nevada, Book D (38), 176; White Pine News, 1st Annual Edition, December 25, 1906.
18. Contracts, Miscellaneous, December 21, 1906, Yeatman File. (The diversion of Murry Creek to the town site company angered Mark Requa who felt that the whole town site plan was a big

stock-jobbing proposition by Thompson. His opposition, however, was to no avail. Mr. Requa to S. W. Eccles, New York, October 10, 1906, Yeatman File).

19. White Pine News, November 9, 1906.

20. White Pine News, August 24, December 31, 1906.

21. Davis, Nevada, I, 502.

22. Interview, Tom Smith, August 17, 1955, East Ely, Nevada; Nevada Statutes, 23rd session, (1907), 43.

23. Pope Yeatman to W. B. Thompson, McGill, Nevada, January 30, 1908, Yeatman File.

24. White Pine News, March 10, 1908.

25. Ely Daily Times, March 5, 1955, (article on the history of East Ely by Tom Smith); White Pine News, April 20, 1908.

26. White Pine News, April 20, 1908.

27. Ibid., September 17, 1909.'

28. C. B. Lakenan to S. W. Eccles, McGill, Nevada, November 9, 1909, Yeatman File.

29. Miscellaneous Records, White Pine County, Nevada, Book D (38), 655-657.

30. Ely Mining Record, October 26, 1907.

31. Ely Daily Mining Expositor, November 2, 1907.

32. Copper Ore (McGill), March 25, 1909.

33. Miscellaneous Records, White Pine County, Nevada, Book D (38), 30-31, 432- 435, 644.

34. Pope Yeatman to S. W. Eccles, McGill, Nevada, December 8, 1906, Yeatman File.

35. Interview, W. Y. McGill, July 24, 1953, Ruth, Nevada; Interview, Mrs. G. Robertson, August 18, 1955, McGill, Nevada. (According to Mrs. Robertson the McGill Ranch House was an integral part of the company town in the early years. It was a 13-room building with its entrance road lined with trees on either side, making it the showplace of the valley. The 1st general manager, Joseph Gazzam, lived there while the general manager's residence was being completed. Later the house was used as an annex to the Staff Quarters until destroyed by fire in 1912).

36. Pope Yeatman to Executive Committee, American Smelting Company, McGill, Nevada, October 6, 1907, Yeatman File; White Pine News, October 28, December 6, 1908.

37. These houses were built below the mill trestle. Nine were occupied in November 1907; the rest in the spring of 1908. They were well constructed houses, with running water furnished by the company free of charge, and electrically lighted from power furnished by the hydro-electric plant at the ranch. (Pope Yeatman to S. W. Eccles, McGill, Nevada February 18, 1908, Yeatman File.) The company also-built a number of frame structures at Star Pointer and Veteran Village in 1907. These included besides a mess house and bunk houses, an 8 room house at Veteran, and a 6-room house at Star Pointer for the respective mine superintendents.
38. White Pine News, March 10, 1908.
39. Pope Yeatman to E. W. Eccles, McGill, Nevada, September 23, 1908, Yeatman File.
40. The policy of renting the houses at low rates appears to have been made by officials of the company in New York City. Yeatman had suggested to Eccles in May 1907 that employees be allowed to purchase their own homes, arguing that this would insure a more stable labor supply and prevent strikes. This suggestion was overruled although he mentioned the subject on other occasions. (Pope Yeatman to J. P. Gazzam, n.p., May 23, 1907, Yeatman File.)
41. S. W. Eccles to Chandler and Quayle, New York City, December 29, 1906, Yeatman File.
42. Pope Yeatman to W. N. McGill, McGill, Nevada, February 5, 1908, Yeatman File.
43. Interview, Stanley Draper, November 28, 1953, McGill, Nevada.
44. S. W. Eccles to Pope Yeatman, Cobre, Nevada, April 21, 1907, Yeatman File.
45. Pope Yeatman to S. W. Eccles, McGill, Nevada, May 1, 1907; S. W. Eccles to Pope Yeatman, New York City, May 21, 1907, Yeatman File.
46. Three of the first of these were general merchandise stores, the American Commercial and Trading Company, the Graham Mercantile, and the Grecian Store (later Louis Cononelos). Later other stores were added, The Leader Clothing Store run by S. Appelman and S. Bernstein, Nye Brothers Men's Shop, Holt's Jewelry Store, and George and Jim Gianopoulos' Butcher Shop. (Interview Louis Cononelos, August 16, 1955, McGill, Nevada.)
47. Interview, Mr. and Mrs. Frank Jameson, Carson City, Nevada, October 24, 1953.
48. Copper Ore (McGill), files from 1909-1914.
49. Ely Record, November 19, 1909; Copper Ore November 25, 1909.
50. Copper Ore (McGill), June 23, 1910. The Ely-McGill telephone line was completed May 26, 1909. The town that year also boasted of a Lake Leak, the result of the company's attempt to keep slag from the concentrator from flowing into Steptoe Creek.
51. Pope Yeatman to C. B. Lakenan, Grand Island, Nebraska, December 14, 1908, Yeatman File.

52. C. B. Lakenan to Pope Yeatman, McGill, Nevada, December 17, 1908, Yeatman File.
53. The present Mrs. Harry Marcotte who resides in Ely. White Pine News, 1st Annual Edition, December 25, 1906.
54. Russell, Sagebrush Heritage, 9-11.
55. White Pine News, April 13, 1905.
56. Report, Pope Yeatman to S. W. Eccles, McGill, Nevada, October 1, 1907, 17, Yeatman File; James Anderson to C. B. Lakenan, McGill Nevada, October 1, 1907, Yeatman File.
57. 14th Census of the United States, I, (1920), 520.
58. Company policy in regard to rentals was as follows: at Star Pointer Village and Veteran. Village, single men in bunkhouses were allowed quarters free, married quarters were charged for at the rate of \$3.00 per room. The mine superintendents, and those living in the "Circle" at McGill, were allowed quarters rent free, with lights and water also furnished by the company. (James Anderson, to C. B. Lakenan, McGill, Nevada, October 7, 1907; Pope Yeatman to S. W. Eccles, McGill, Nevada, October 7, 1907, Yeatman file).
59. Ely Record, June 25, 1909.
60. Ibid., files, .1908 to 1916.
61. The problems of the above communities and the governments established to cope with them will be discussed more fully in the next chapter.
62. Ely Mining Record, November 2, 1907,
63. Ibid., November 23, 1907.
64. Ely Daily Mining Expositor, November 4, 1907.
65. Davis, Nevada, I, 595; White Pine News, May 11, 1908. (There were a few scheduled trains between Ely City and McGill in the latter part of 1907, but the suburban network, as noted, was not under way until May 1908).
66. White Pine News, March 24, 1908.
67. Ely Daily Mining Expositor, November 6, 1907; Interview, C. D. Gallagher, November 28, 1953, Ely, Nevada.
69. White Pine News, June 8, 1905; April 24, 1909.
69. White Pine News, March 30, 1909; Copper Ore (McGill) March 18, May 20, 1909. (Menu for one such dinner was as follows: Smelter Olives, Sagebrush Celery, Sluice-Way Consomme,

Gold Fish Roasted, Sauce Sulphide, Real Lobster-a-la-Ely, Nevada Nuts (Salted), Coffee Tailings, and Keystone and Dinkie Trophies).

70. Interview, Stanley Draper, November 29, 1953, McGill, Nevada. The Copper Saloon or Club was the first and only saloon in McGill. It was established in 1907 and passed out of the picture with the coming of prohibition. According to Mr. Draper, the saloon was started in a tent almost directly opposite the post office which at the time was located in a dry goods store on the eastern side of the only street. One of the most interesting sights of that early period was to watch the almost continuous line of men coming from work, moving first to the post office and across the street to the saloon. The first pool hall was established in 1907 under the proprietorship of a man named Davis. It was located at first where the present McGill Theater stands, but was moved into the old American Trading Company store after a fire destroyed the original building. It was known as the McGill Pool Hall until 1922 when the present name, the McGill Club, was adopted. A second pool hall, the Brunswick, was established in 1919 under the management of Jack Long.

71. Gambling was outlawed in Nevada after 1910, and of course, the Volstead Act put an end, legally, at least, to the sale of liquor.

72. White Pine News, July 7, 1904.

73. Copper Ore (McGill), November 4, 1909.

74. Ibid., April 6, 1912.

75. White Pine News, July 7, September 8, 1904, July 4, 1908; Copper Ore (McGill), July 1910.

76. Copper Ore (McGill), April 6, 1911, April 11, 1912.

77. Interview, Staley Draper, November 28, 1953, McGill, Nevada.

78. Ibid., The first show house in McGill was Stone's Amusement Hall.

79. White Pine News, March 12, 1903.

80. Ibid., June 25, 1903.

81. Ibid., May 4, 1906.

82. Ely Mining Record, May 11, 1907.

83. Ely Record, June 21, 1912.

84. Ibid., December 4, 1914.

95. Ibid., January 28, 1916.

86. Davis, Nevada, II, 679; Torrence, op. cit., 249.
97. Davis, Nevada, II, 697.
88. Copper Ore (McGill), April 11, 1912.
09. Davis, Nevada, I, 561; Ely Mining Record, September 21, 1907.
90. White Pine News, June 12, 1906.
91. Davis, Nevada, I, 562.
92. "Biennial Report of the Secretary of State, 1909-1910", in Appendix to Journal of Senate and Assembly, (Nevada, 1911), 54-55.
93. Copper Ore (McGill), February 11, November 25, 1909; Davis, Nevada, I, 586.
94. Ely Daily Times, August 20, 1953.
95. Copper Ore (McGill), October 12, 1911.
96. Ibid., February 29, 1912.
97. 14th Census of the United States (1920), I, 520. (Ely from 520 in 1900 to 2,090 in 1920; McGill from nothing in 1900 to 2,946 in 1920; Ruth from nothing in 1900 to 1,312 in 1920; Kimberly from nothing in 1900 to 459 in 1920; . and East Ely from nothing in 1900 to 699 in 1920).

#### Chapter IV - Publicity and Speculation ,in the Copper

1. Walter Walter R. Ingalls, "The Copper Mines of Ely, Nevada, Engineering and Mining Journal, XXCIV, (October 12, 1907), 675-683.
2. White Pine News, July 6, 1905.
3. Russell R. Elliott, "The Early History of White Pine County, Nevada, 1865- 1887", Pacific Northwest Quarterly, XXX, (April 1939), 165.
4. Files of the Ely Record, 1905-1920.
5. Files of the Ely Record and the Ely Daily Mining Expositor, 1906-1915.
6. Files of Copper Ore (McGill), February 1909 to 1914.
7. White Pine News, October 23, 1906.
8. Ely Mining Record, July 18, 1908.
9. White Pine News, July 23, 1908.
10. Ibid., July 28, 1908.
11. Adams, Ely and Her Mines, 10; White Pine News, May 25, 1906.
12. Ely Record, July 11, 1909.
13. "Editorial", Engineering and Mining Journal, XXCVIII, (October 9, 1909), 739.
14. Ibid., and "Editorial" same magazine (October 30, 1909), 883.
15. Ely Record, August 20, 1909.
16. William A. Farish, "Report on the property of the Ely Central Copper Company", in Ely Central Copper Company in the Robinson Mining District, (A prospectus - Scheftels and Company, New York, 1909), 6-9. Underlining by the author.
17. Farish, loc. cit.
18. "Editorial", Engineering and Mining Journal, XXCVITI, (November 6, 1909) 931-935.
19. Ibid., (November 13, 1909), 988.
20. Ely Record, November 12, 1909.
21. "Editorial", Engineering and Mining Journal, XC, (October 0, 1910), 709- 710.
22. Ely Record, October 7, 1910.

23. Ely Record, March 10, 1911; White Pine News, March 12, 1911. These "Adventures" were later published in book form in, George Graham Rice, My Adventures with Your Money, (Boston, 1911-17). Rice's personal story in this book is that Scheftels and himself were honest brokers pitted against the bad wall street financiers, that is, the Guggenheims. Their story might arouse more sympathy from the reader except for the known reputation of Rice and his followers.

24. Ely Record, March 15, 1912; "Editorial", Engineering and Mining Journal, XCIII, (March 16, 1912), 542.

25. "Special Correspondence", Mining and Scientific press, CVII, (November 8, 1913), 741.

26. Ely Record, March 14, 1919.

## Chapter V - Copper Production, 1908 to the First World War

1. Pope Yeatman to J. P. Gazzam, New York City, May ,31, 1907, Yeatman File.
2. Parsons, Porphyry- Coppers, 338-340.
3. J. Parke Channing, Report on the Nevada Consolidated Company, (August 3, 1905), 7.
4. A. B. Parsons, "Nevada Consolidated Copper Company", Mining and Scientific Press, CXXII, (April 16, 1921), 525-526. (This pit, more recently, has been designated officially the Liberty Pit.)
5. Ibid., (March 5, 1921), 332.
6. 14th Annual Report of the Nevada Consolidated Copper Company, (1920). The Ruth or Liberty Pit had produced, as of the end of 1913 2,490,000,000 pounds of copper. In the process, 120,954,240 tons of ore and 179,132,865 tons of waste have been removed. (Reno Evening Gazette, January 20, 1954).
7. Parsons, Porphyry Coppers, 400-406; 14th Annual Report - Nevada Consolidated Copper Company, (1920).
8. Robert Marsh, Jr. to Pope Yeatman, New York City, July 22, 1915, Yeatman File.
9. Walter Weed (editor), The Mines Handbook, (New York City, 1922), XV, (1922 1271. As noted previously, Thomas Cox was in charge of construction of the mill until the early part of 1907 when difficulties with Gazzam and others led to his resignation. His successor as Chief Engineer was S. S. Sorenson; the first concentrator superintendent, not basically concerned with construction, was William Nicholls who was appointed in October 1907. He resigned in June 1909, and was replaced by George Waddell, who was loaned to the Nevada Consolidated Company by Utah Copper on a temporary basis, but which proved, actually, to be rather permanent. (Pope Yeatman to Executive Committee, American Smelting Company, McGill, Nevada, October 6, 1907; C. B. Lakenan to Pope Yeatman, McGill; Nevada, June 3, 1908, Yeatman File).
10. Parsons, Porphyry Coppers, 441 447.
11. Inception Report, Nevada Mines Division, Kennecott Corporation, (1954), 3.
12. Parsons, Porphyry Coppers, 454-480.
13. Walter G. Perkins, the first smelter superintendent and under whose direction the first smelter buildings were built resigned the early part of 1909, his place being taken February 12, 1909, by S. S. Sorenson. (C. B. Lakenan to S. S. Sorenson, McGill, Nevada, February 11, 1909).
14. S. S. Sorenson to C. B. Lakenan, McGill, Nevada, May 16, 1910, Smelter Files.

15. S. S. Sorenson to C. B. Lakenan, McGill, Nevada, April 26, 1910, Smelter Files.
16. Inception Report, Nevada Mines Division (1954), 18.
17. S. S. Sorenson to C. B. Lakenan, McGill, Nevada, September 30, 1910, Smelter Files.
18. 5th Annual Stockholders Report....Nevada Consolidated (1911), 10; Leonard Larson, Report of Smelting Operations April 2, 1926, Smelter Files.
19. Sorenson resigned August 1, 1913. (S. S. Sorenson to C. B. Lakenan, McGill, Nevada, August 10, 1913, Smelter Files.) Larson, op. cit.; 12th Annual Report...Nevada Consolidated (1918), 14-15.
20. Copper Ore (McGill), March 5, 1914; "News" Mining and Scientific Press, CVIII, (April 25, 1914), 694-695.
21. Ely Record, July 12, 1914; "Annual Report of State Inspector of Mines", in Appendix to Journal of Senate and Assembly (1912), 67-68.
22. "News", Engineering and Mining Journal, XCVII, (January 17, 1914). 199, 1014.
23. A number of these are to be found in the Yeatman File, no. 51, General Office McGill, Nevada.
24. "News", Engineering and Mining Journal, XCVII, (March 21, 1914), 629.
25. Lindsay Duncan, "Accident Prevention at Nevada Consolidated", Mining and Scientific Press, CVIII, (February 14, 1914), 288-290.
26. Couch and Carpenter, op. cit., 50, 115, 147. Total production at Tonopah through 1940 was \$146,336,102; for Goldfield, \$86,765,044; and for the Ely District, \$782,464,292. This reference rather than the Inception Report is necessary to show this comparison.
27. Ibid., 147. These figures are for the entire Robinson District, not just Nevada Consolidated properties. The Ruth Pit alone has produced, as of January 1954, 2,490,000,000 pounds of copper valued at \$387,690,000. (Reno Evening Gazette, January 20, 1954.)
29. Stevens, The Copper Handbook, X, (1910-1911), 1264; 4th Annual Report - Nevada Consolidated, (1910), 6; White Pine News, October 23, 1909.
29. White Pine News, January 29, 1910.
30. "Editorial", Engineering and Mining Journal, XXCVIII, (December 25, 1909), 275-276.
71. Ely Record, January 28, 1910.
32. Ibid., February 11, 1910.

33. W. E. Sennett to Pope Yeatman, New York City, April 22, 1910, Yeatman File
34. 8th Annual Report - Nevada Consolidated, (1914), 7.
35. Stevens, The Copper Handbook, VIII, (1908), 716-719 and X, (1910-1911), 859.
36. Ely Record, February 5, 1909.
37. Ibid., January 28, 1910.
38. Ibid., August 6, 1909.
39. White Pine News, October 29, 1911.
40. Ely Record-, February 9 May 151:24copoei- Ore (McGill), February 8, 1912.
41. Weed, The Copper Handbook, XI, (1912-1913), 254-258; Ely Record, May 23, 1913. The basis of stock exchange was 1 share of new stock for 2 1/4 of Giroux, or 6 1/4 of Butte and Ely, or 3 1/8 of Coppermines, or 25 of Chainman Consolidated.
42. Ely Record, November 7, 1913. One share of Consolidated for 20 of Ely Central.
43. Ibid., September 12, 1913.
44. C. B. Lakenan to S. W. Eccles, McGill, Nevada, June 7, 1913, Yeatman File.
45. As noted before, such rumors of merger had been constant from the organization of the Nevada Consolidated. The most important previous rumor came in the spring of 1911 when the Boston News Bureau and the Copper Curb and Mining Outlook of New York City, announced that the Cole-Ryan interests were about to purchase the Nevada Consolidated Company from Utah Copper. (Ely Record, March 17, 1911; White Pine News, March 19, 1911.)
46. D. C. Jackling to Charles Hayden, Island Park Ranch, September 2, 1913, Yeatman File.
47. C. B. Lakenan to E. S. Berry, McGill, Nevada, February 25, 1915, Yeatman File.
48. C. 2. Lakenan to Pope Yeatman, New York City, July 21, 1915, Yeatman File. The reason the Consolidated Company insisted on the \$1,000,000 price was a recommendation by one of its consulting engineers in September 1913, that not less than that Westphalia claim and dumping privileges. (R. H. Channing, Jr. to Charles Boynton, President, Consolidated Copper Company, New York City, September 9, 1913, Yeatman File).
49. C. B. Lakenan to S. W. Eccles, McGill, Nevada, June 25, 1915, Yeatman File
50. Ely Record, January 26, 1917.

## Chapter VI - Labor Troubles in the Copper Camps

1. White Pine News, January 1903; Samuel W. Traylor, Out of the South West, (Allentown, Pennsylvania, 4936), 155-173. (Unfortunately this work by John Traylor's brother is marred by almost unbelievable errors, for instance, when he mentions that the foreman of the Grand Jury was a man named Cleveland who Traylor states was a former governor of Nevada.)
2. White Pine News, February 5, 1903. (The charges against Lloyd later were dropped and a simple assault charge substituted to which he pleaded guilty).
3. "2nd Biennial Report of the Commissioner of Labor, 1917-1918", in Appendix to Journal of Senate and Assembly, (Nevada, 1919), 29-29.
4. Harold Sanderson to Russell Elliott, Denver, Colorado, December 24, 1953. (Mr. Sanderson at the time was Assistant to the President of the International Union of Mine, Mill and Smelter Workers.)
5. Ely Daily Mining Expositor, December 25, 1907.
8. Ibid., January 22, 1909.
7. White Pine News, March 11, 1900. Author's underlining.
8. Ely Mining Record, March 21, 1908.
9. Ibid., April 18, 1908.
10. Pope Yeatman to S. W. Eccles, McGill, Nevada, May 11, 1908, Yeatman File.
11. C. B. Lakenan to Pope Yeatman, McGill, Nevada, August 1908; Pope Yeatman to S. W. Eccles, McGill, Nevada, November 23, 1900, Yeatman File.
12. Ely Daily Mining Expositor, December 15, 1909; Ely Record, January 8, January 22, 1909.
17. This reduction in hours of work was forced by a law passed by the Nevada State Legislature in 1907, but not strictly adhered to by company officials until state officers in 1908 and 1909 began to bring pressure to bear.
14. White Pine News, January 19, 1909; C. B. Lakenan to Pope Yeatman, McGill, Nevada, January 19, 1909, Yeatman File.
15. CT White Pine New January 22, 1909.
18. Ely Record, July 2, 1909.
17. C. B. Lakenan to S. W. Eccles, McGill, Nevada, July 26, 1909, Yeatman File.

18. Letters between Belford and Lakenan, May to October 1911 in the Yeatman File; Ely Record, October 6, 1911.
19. Ely Record, August 13, 1909; Copper Ore (McGill), March 4, 1910. (The union had met previously at Smeltonville.)
20. Copper Ore (McGill), September 29, 1910.
21. Ely Record, September 20, 1910.
22. Copper Ore (McGill), September 26, 1912
23. Interviews: Frank Jameson, October 24, 1953, Carson City, Nevada; Stanley Draper, November 28, 1953, McGill, Nevada; William Merrill, November 28, 1953, East Ely, Nevada; Pete Assuras, August 27, 1952, McGill, Nevada. (Also the files of the local newspapers during this period fail to reveal any outstanding grievances between the two groups at this time.)
24. Ely Record, September 27, 1912; Pope Yeatman to C. B. Lakenan, Evanston, Illinois, September 29, 1912, Yeatman File.
25. Copper Ore (McGill), October 3, 1912.
26. Interview, Frank Jameson, October 24, 1953, Carson City, Nevada.
27. Ely Daily Mining Expositor, October 2, 1912.
28. Copper Ore (McGill), October 3, 1912.
29. C. B. Lakenan to S. W. Eccles, McGill, Nevada, October 9, 1912, Yeatman File.
30. Ely Record, October 18, 1912; White Pine News, October 20, 1912. (Nevertheless, a sizeable opinion at the time and later held that it was Greek element, manipulated and controlled by the union, which caused the strike. Engineering and Mining Journal, XCV, (May 24, 1913), 1065.
31. C. B. Lakenan to S. W. Eccles, McGill, Nevada, November 4, 1912, Yeatman File.
32. White Pine News, October 20, 1912.
33. That there was a sizeable foreign element engaged in the strike is evident by the fact that an interpreter was used during this address by the governor. (Interviews, McGill, Nevada: Pete Assuras, August 27, 1952; Stanley Draper, November -78, 1953.)
34. Ely Record, October 18, 1912; White Pine News, October 20, 1912. Both of these papers have good summaries of the strike: "Editorial", Engineering and Mining Journal, XCIV, (November 9, 1912), 977-978.

35. "2nd Biennial Report of the Nevada State Police, 1911-1912, in Appendix to Journal of Senate and Assembly, (Nevada, 1913), 9-10.
36. Ely Record October 25, November 1, 1912.
37. As quoted in Vernon H. Jensen, Heritage of Conflict, (Cornell, 1950), 270.
38. C. B. Lakenan to Pope Yeatman, McGill, Nevada, November 9, 1912, Yeatman File.
39. Transcript of Testimony - Coroner's Inquest, October 18, 1912, Ely, Nevada; Ely Record, November 15, 1912; White Pine News, November 17, 1912.
40. White Pine News, December 1, 1912.
41. Ely Record, March 21, 1913.

## Chapter VII - The Copper Towns, the Pattern of Town Government

1. Commissioners' Records, White Pine County, Nevada, (April 7, 1903), II, Part 26-28.
2. Ibid., 31-33; White Pine News, April 23, 1903. 3, White Pine News, June 23, 1904.
4. Ibid., May 4, 1905.
5. Ibid., May 6, 1906.
6. Ibid., October 9, 1906.
7. Ibid., March 2, 1906.
8. Davis, Nevada, II, 1051-1052. (The problem of redemption of scrip was not solved until 1909 when Judge George S. Brown issued a writ of mandate compelling the Commissioners to issue bonds at 5 percent interest to pay off the scrip. White Pine County during these years was plagued with financial troubles. Such difficulties were increased when Sheriff Al Butler absconded with \$5,000 in 1911. Butler left on May 11, on the trail of two Frenchmen. He never returned and attempts to capture him failed. Ely Record, May 26, 1911.
9. White Pine News, May 8, 1906.
10. Commissioners' Records, White Pine County, Nevada, (May 6, 1907), II, Part 2, 266-269. Between the date of incorporation and the time necessary to get the new government under way, another unofficial organization, the Commercial Club, moved into the governmental picture promoting many civic activities and even going so far as to employ a Sanitation Officer for the town at a salary of \$150 a month until the new city government could begin to function. Ely Mining Record, May 11, 18, 1907.
11. Ely Record, April 16, May 7, 1909.
12. Ibid., May 21, May 28, 1909; Commissioners' Records, White Pine County, Nevada, (July 14, 1909), II, Part 3, 578.
13. Ely Record, May 21, 1909.
14. Files of the Ely Record, White Pine News, and Ely Daily Mining Expositor from 1908 to 1920.
15. Copper Ore (McGill), June 6, 1912; Ely Record, March 21, 1913, March 6, 1914.
16. Ely Record, June 25, 1920.
17. Miscellaneous Records, White Pine County, Nevada, Book (38), 100-102.

18. Interview, Stanley Draper, November 29, 1953, McGill, Nevada. The term "dance hall" as used in this era was usually simply a cover for a house of prostitution.
19. White Pine News, June 25, 1909.
20. Ely Record, August 21, September 11, 1914. 136
21. During the period of the 1920s a parody of popular song was often heard in the neighboring communities which attested to this fact. The parody was sung to the tune of "Let the Rest of the World Go By" - part of the chorus of the parody went, "I'll build a little still somewhere on Steptoe Hill, and let the rest of the world go dry".
22. Miscellaneous Records, White Pine County, Nevada, Book D (37), 582.
23. Commissioners' Records, White Pine County, Nevada, (September 4, 1908), II, Part 2, 408-409.
24. Ely Record, February 5, 1909.
25. Loc. cit.
26. White Pine News, March 4, 5, 1909.
27. Ibid., June 25, 1909. 29. Ely Record, June 25, 1909.
29. Ibid., February 9, 1912.
30. Ibid., June 15, 1917.
31. Ibid., July 13, 1917.
32. Ibid., July 20, 1917.
33. Ibid., February 1, 8, 1919.
34. Interview, Mr. and Mrs. A. J. Proctor, July 24, 1953, Kimberly, Nevada.
35. Ely Record, March 15, 1919, and succeeding issues in 1918.
36. Ibid., May 9, 1919.
37. Interview, F. D. Oldfield, July 21, 1953, Ely, Nevada.
79. A good example of continuous operation in such a company town is the case of Louis Cononelos in McGill, who established his first store in the community in 1907 and has operated continuously ever since. Interview, Louis Cononelos, August 27, 1952.
39. Commissioners' Records, White Pine County, Nevada, (April 6, 1909), II, Part 3, 547.

40. At an even later date most of the streets were oiled causing many housewives to believe that the dust problem was thereby settled. By that time, however, the tailings from the mill had created a large area known as the "white sands" and when the wind blew as it did most of the time dust from this area came up over the community and into the houses, an unwelcome substitute for the dust which had blown in from the streets.

41. Interview, Mr. and Mrs. Frank Jameson, October 24, 1953, Carson City, Nevada.

42. Numerous fires occurred which destroyed single residences, and the old McGill Ranch House was destroyed by fire August 29, 1912. (Copper Ore, August 29, 1912).

43. E. L. R. Wallace to Pope Yeatman, Ely Nevada, January 1, 1907, Yeatman File.

44. For instance, the tax rate for the two communities in 1915 was as follows: McGill, \$2.45 per \$100 of assessed valuation, and Ely, \$4.05 per \$100. (Ely Record, March 5, 1915.).

45. Much more study is needed here and in numerous other areas where company control existed, in order to indicate the real impact of such control on the social, economic, and political lives of the people within company towns.

46. Such delineations in United States cities is not unusual, with racial groups tending to hold together, or being forced by economic circumstances to live in certain areas of the city. However, the delineation was rather sharply marked at first in McGill.

47. There was some antagonism between the Greeks and the so-called Austrians, who were not Austrians at all, but former member of the Austrian-Hungarian empire, mostly Czechs, Slovaks, Croats, Serbs, et cetera. This antagonism led eventually to a company decision to divide the two racial groups, thus the rise of separate towns, Greek town and Austrian town.

48. One might well cite here Professor Baldwin's statement in regard to the Negro and the democratic process. "The democratic process has never envisioned the award of democratic privileges to any class which has not earned it by showing an earnest and determined intention to measure up to standards of courage and self-restraint perhaps even higher that is required of those who have already arrived". Leland Baldwin, *The Stream of American History*, (New York, 1952), I, 928.

49. By the 1930s numerous second generation Greeks, Serbs, and others with grade and/or high schools educations were being apprenticed as carpenters, plumbers, electricians, bricklayers, et cetera, and thus moving into the category of skilled worker. Once this economic barrier was breached, and after years of common participation in the public schools, the barriers to intermarriage were broken.

50. It should be noted again that antagonism of the local citizenry against these "foreigners" was quite intense at first, and that company control was made easier and more effective by such

separation. During the course of this investigation, the author has talked to numerous persons concerning this segregation pattern. The main criticisms which have been voiced are: first, that it placed stigmas on certain racial groups within a democratic society; and second, that assimilation would have been speeded if these various immigrant groups had been allowed to scatter throughout the community. On the other hand, supporters of the system point out that opportunity to rise economically was always present and that the company looked for competent men, regardless of racial origins, and that the segregation pattern was the most logical solution to insure an orderly transition of the immigrants to citizens of the United State, in fact, as well as in name.

51. Ely Record, May 29, 1914,

52. "Editorial", Engineering and Mining Journal, XCVII, (January 17, 1914), 199; Albert G. Wolf, "Important Nevada Mining Legislation", Engineering and Mining Journal, XCVII, (May 16, 1914), 1014.

## Chapter VIII - The First World War and its Aftermath

1. Ely Record, August 14, 1914.
2. Ibid., October 9, 1914.
- 3., Inception Report, Nevada Mines Division, (1954), 7-8; 8th Annual Report - Nevada Consolidated Company, (1914), 5.
4. Inception Report, (1954), 7-8.
5. 10th Annual Report - Nevada Consolidated Company, (1916), 5.
6. Ibid., 11; 11th Annual Report - Nevada Consolidated Company, (1917), 11.
7. 12th Annual Report - Nevada Consolidated Company, (1918), 14-15.
8. Inception Report, Nevada Mines Division, (1954), 15; 9th Annual Report - Nevada Consolidated Company, (1915), 13; C. B. Lakenan to S. W. Eccles, McGill, Nevada, March 30, 1915, Yeatman File.
9. Loc. cit.
10. Inception Report, Nevada Mines Division, (1954), 14.
11. Ely Record, May 11, 1917; White Pine News, May 6, 13, 1917.
12. Ely Record, May 25, 1917.
13. Ibid., December 29, 1917.
14. Ibid., June 14, 1918.
- 17, White Pine News, April 29, 1917.
16. Ibid., May 6, 1917.
17. June 3, 17, July 8, 1917.
18. Ibid., June 7, 10, 1917.
19. Ibid., September 23, 1917.
20. Ibid., March 3, 1918.
21. Ely Record, April 12, July 12, 1918. At least one man, C. J. Summerfield was found guilty of seditious utterances at Ely in March in 1918.

22. Statutes of the State of Nevada, (1919), (Carson City, 1919), 1-2; Ely Record, December 20, 1918.
23. "Official Returns of Election of November 1918", in Appendix to the Journal of Senate and Assembly, 29th session, 1919, (Nevada, 1919), II, 23-33.
24. Ely Record, February 7, 1919.
25. Ibid., May 30, 1919.
26. Ibid., October 18, November 1, 1918.
27. Ibid., December 27, 1918.
28. White Pine News, April 27, 1919.
29. Ely Record, August 29, 1919.
30. The strike at Tonopah, which attracted more attention than that at the copper camps, was that town's first major labor disturbance. Breaking out in August 1919, the strike was tentatively settled October 4, 1919. Here the I. W. M. was much stronger than in the copper camps and it was only with some difficulty and a great deal of patience that the strike was finally settled.
31. Ely Record, August 1, 1919: "News", Engineering and Mining Journal, CVIII (September 13, 1919), 485; "4th Biennial Report of the Commissioner of Labor, 1921-22", in Appendix to Journal of Senate and Assembly, (Nevada, 1923), I, 67.
32. Ely Record, August 15, 22, 29, 1919.
33. The "foreign" labor force had little opportunity to demonstrate this effectiveness in the years after 1919, for labor union activity and membership decreased rapidly after 1920 in line with the development of "welfare" capitalism. (4th Biennial Report of the Commissioner of Labor, 1921-22", in Appendix to Journal of Senate and Assembly, (Nevada, 1923), I, 21.
34. Inception Report, Nevada Mines Division, (1954), 7-8.
35. 14th Annual Report - Nevada Consolidated Company (1920), 6.
36. Ibid., 5.
37. 15th Annual Report - Nevada Consolidated Company (1921), 5; Ely Record, April 1, 1921.
38. "News", Engineering and Mining Journal, CXII, (October 8, 1921), • 592.
39. Ely Record, April 28, 1922.

## Chapter IX - Boom Years, 1922-1930

1. 16th Annual Report - Nevada Consolidated Company (1922), 11-12; Ely Record, July 14, 1922.
2. C. B. Lakepan to Charles Hayden, McGill, Nevada, February 2, 1923; 16th Annual Report - Nevada Consolidated (1922), 11-12.
3. Interview, Dom Detomasi, February 18, 1955, Reno, Nevada.
4. A. B. Parsons, "The Rejuvenation of Nevada Consolidated", Engineering and Mining Journal, CXX, (November 7, 1925), 725-731; 17th Annual Report - Nevada Consolidated (1923), 10-11; 19th Annual Report - Nevada Consolidated (1925), 10; 20th Annual Report - Nevada Consolidated (1926), 9; General Manager's Report, Nevada Consolidated Company. (1930), 19.
5. Parsons, op. cit., 725-731.
6. 19th Annual Report - Nevada Consolidated (1925), 5.
7. 23rd Annual Report - Nevada Consolidated (1929), 9.
8. Larson, op. cit., April 2, 1926.
9. "Carson Investment Company", Nevada Consolidated Company Files; 4 Fed (2 ser), 469.
10. J. C. Kinnear, Sr. to D. C. Jackling, McGill, Nevada, February 14, 1928; J. C. Kinnear, Sr., to D. C. Jackling, McGill, Nevada, May 16, 1928.
11. J. C. Kinnear, Sr. to D. C. Jackling, McGill, Nevada, November 12, 1928; also, letter of January 12, 1929.
12. "News", Engineering and Mining Journal, CXXVIII, (December 21, 1929), 983.
13. General Manager's Report, Nevada Consolidated Company (1929), 031; Ken-Nevadan, (April 1955), cover page.
14. General Manager's Report, Nevada Consolidated Company (1929), 14; also (1930), 16; J. Young, "Maintenance at Nevada Consolidated", Engineering and Mining Journal, CXXIX, (March 9, 1930), 230-231.
15. 20th Annual Report - Nevada Consolidated (1926), The Mines Handbook (1926), XVII, 1241-1250; "News", Engineering and Mining Journal, CXX, (November 21, 1925), 936, and CXXI, (June 12, 1926), 977.
16. 20th Annual Report - Nevada Consolidated (1929), 3-7.

17. Local personnel changes during the 1920s besides the movement of Mr. Kinnear to Assistant General Manager in 1925, included: Mr. Kinnear to Acting General Manager in 1927 and to General Manager in 1928; F. M. Jardine became superintendent of the mill in 1929, replacing George Riser who died the previous year; in 1929, also, W. S. Larch was raised to Assistant General Manager, and Leonard Larson to the newly created post of General Superintendent of the Reduction Plant. (See Annual Reports of Nevada Consolidated for the years 1925, 1928, and 1929. The retirement of C. B. Lakenan from the general manager of the Nevada Consolidated Company in 1928 brought to a close a distinguished career as head of this company locally since September 1, 1907. Hired as an engineer by the Steptoe Valley Smelting and Mining Company in 1906, he was recommended for the post of general manager by Pope Yeatman, in spite of the fact that he was at the time only thirty-eight years of age. A very capable administrator, Lakenan was responsible for many of the important changes in operation which made the Nevada Consolidated Company one of the most efficient domestic producers of copper during these years. He is still (1956) living in Los Angeles, California.
18. Taken from an article in *The Nation's Business* (July 1955), 58-62.
19. 19th Annual Report - Nevada Consolidated (1925), 5-6; *Ely Record*, December 11, 1925.
20. Inception Report - Nevada Mines Division (1954), 8.
21. "Biennial Reports of the Commissioner of Labor", in Appendices to Journals of State and Assembly for the years 1921 to 1933.
22. Constitution and By-Laws of the McGill Community League, McGill, Nevada, 1925; "Planned Recreation for All", *Kennevadan*, (February 1955), 12.
23. General Manager's Report, Nevada Consolidated Company (1929), (Report of F. E. Huffer to J. C. Kinnear, Sr., on welfare department.)
24. *Ely Record*, December 11, 1925; General Manager's Report (1929), Nevada Consolidated Company (1929), (supplementary report of Mr. Huffer to Mr. Kinnear).
25. General Manager's Report (1929), (supplementary report of Mr. Huffer to Kinnear).
26. *Loc. Cit.*
27. *Ely Record*, December 15, 1922.
28. *Ibid.*, for the years 1923-1928.
29. *Ibid.*, January 16, 1925.

## Chapter X - Depression Years

1. Ely Record, January 17, 1930; 25th Annual Report, Nevada Consolidated Company (1913), 3-9.
2. Ely Record, December 25, 1931.
3. Ibid., March 24, 1932.
4. General Manager's Report, Nevada Consolidated Company (1932), 43; 26th Annual Report, Nevada Consolidated Company (1932), 2.
5. 20th Annual Report - Kennecott Copper Corporation (1974), 7; "News", Engineering and Mining Journal, CXXXVIII, (January 1937)., 37.
6. Inception Report, Nevada Mines Division, (1954), 8.
7. 19th Annual Report, Kennecott Copper Corporation (1933), 3.
2. Loc. cit.; Joseph Zimmerman (editor), Mines Register, (formerly the Mines Handbook), XIX, (1937), 470-471.
9. Henry DeWitt Smith, "Early Days of Kennecott Copper Corporation", reprint of a speech before the Intermountain Regional AIME meeting in Salt Lake City, Utah, in the summer of 1954; Ely Record, July 1a, 1941.
10. General Manager's Report, Nevada Consolidated Company (1931), 7-8. (Results of the initial tests were as follows: electric shovels, cost per hour shift, \$29.53; and steam shovels, cost per 2 hour shift, \$122.97.
11. Ibid., (1932), 7-9.
12. Ibid., 15-1.13 R. R. Leveille to W. J. Akert, "Re: Concentrator History", (December 1, 1954), 1-2; Ely Record, August 19, 1932.
13. Leveille, op. cit., 2; General Manager's report, Nevada Consolidated Corporation (1937), 32.
14. General Manager's Report, Nevada Consolidated (1931), 27-29.
15. Ibid., (1933), 22.
16. Ibid., 35-36.
17. Ibid., (1934), 38-39; E. Pesout to-Fred Lawrence, "Re: Parsons", (January 11, 1955), 1, in Parsons File - General Office.
18. General. Manager's Report, Nevada Consolidated (1935), 47.

19. Ibid., 44; Pesout, op. cit., 1.
20. Arthur S. Link, American Epoch, (New York, 1955), • 390-391.
21. The Ely Record, April 27, 1934.
22. Ely Daily Times, August 24, 1934, September 5, 1933.
23. Ely Record, April 27, 1974. (Kennecott domestically was allowed a monthly output representing about 20 percent of capacity.)
24. General Manager's Report, Nevada Consolidated, (1934), 1, 31 31; Inception Report, Nevada Mines Division (1954), 8.
25. Inception Report, Nevada Mines Division (1954), 8; General Manager's Reports for 1935, 1936, 1937.
26. Ely Record, June 3, July 15, 1938; General Manager's Report, Nevada Consolidated (1938), 1.
27. General Manager's Report, Nevada Consolidated, (1939), 1 and 115;
28. Ely Record, September 1, 1933; Jensen, Heritage of Conflict, 377.
29. Ely Record, September 1, 1933.
30. "Reports of Commissioner of Labor, 1931 and 1932 and 1935 and 1936", in Appendices to Journals of Senate and Assembly (1933), I, 28-33; and (1937) II, 11-16.
31. General Manager's Report, Nevada Consolidated (1938), 54; Leveille, op. cit., 1 and 2 of "Molybdenite History".
32. Inception Report, Nevada Mines Division (1954), 2.
33. Ely Record, February 8, 1929.
34. General Manager's Report, Nevada Consolidated (1929), 26-27. 75. Ely Record, April 10, 17, 1931.
36. General Manager's Report, Nevada Consolidated (1971), 76.
37. Ely Daily Times, October 2, 1933.
38. Ely Record, May 8, 1936.
39. General Manager's Report, Nevada Consolidated (1933), 1; also that for (1934), 1, 3, and 31.
40. Ely Record, February 17, 1933.

41. Ely Daily Times, April 28, 1933.
42. Ibid., September 6, November 2, 1933.
43. Ibid., April 7, 8, 1933.
44. "Proceedings of the Nevada Repeal Convention, September 5, 1933", in Appendix to Journal of Senate and Assembly (Nevada, 1935), 15 pp.
45. Ely Daily Times, December 9, 1933.
46. "News", Engineering and Mining Journal, CXXVIII, (October 26, 1929), 673; The Mines Handbook, XVIII, (1931), 1521.
47. 44 Fed (2 ser), 192-205.
48. 64 Fed (2 ser), 440-449; Ely Record, April 15, 1932, April 7, 1933.
49. Ely Record, January 27, 1933.
50. Ibid., October 19, 26, 1934.
51. Ibid., September 25, 1936; Reno Evening Gazette, September 22, 1936.
52. Ely Record, July 23, 1937; "News", Engineering and Mining Journal, CXXXVIII, (August 1937), 425; The Mines Register, XIX, (1937), 471.
53. Ely Record, July 23, 1937.
54. General Manager's Report, Nevada Consolidated, (1935), 66-67.
55. Ibid., for the year 1936.
56. See the General Manager's Reports for the years 1937, 1938, and 1939.
57. Ibid., (1939), 109-111.
58. Ibid., (1940), 134-135.
59. See the reports for 1939 and 1940.

Chapter XI - The Copper Camps ,and the Second World War.

1. Inception Report, Nevada Mines Division, (1954), 8.
2. Ely Record, October 18, 1940.
3. Ibid., October 11, 18, 1940.
4. Ibid., October 11, 1940.
5. Ibid., May. 2, 9, 1941. (The 4 cents per pound tariff on copper which had been in effect since 1932 was an important item on this prosperity.)
6. Ibid., July 25, 1941.
7. Ibid., July 18, August 1, 8, 1941.
8. Ibid., August 1941.
9. Ibid., October 24, 1941.
10. Ibid., October 31, 1941.
11. Ely Daily Times, December 9, 10, 1941.
12. Ibid., December 8, 9, 1941.
13. Ibid., December 23, 1941.
14. Ely Record, January 2, 1942. 15.. Ibid., May 8, 1942.
- 16 Ibid., January 23, 1948. (Young Fred died the day after his marriage to Miyoko Sada Hiro, from a kidney ailment.)
17. Ibid., December 19, 1941.
18. Loc. Cit.
19. Loc. Cit.
20. Ely Record, January 2, 1942.
21. Loc. Cit.
22. Ely Record, January 9, 23, 1942.
23. Ibid., January 23, 1942.
24. Ibid., February 20, 1942.

25. Ely Record, April 4, July 12, August 1, 1941. (The train crew for the memorable event was as follows: William Padden, conductor; William Young, engineer; Phil Bennett, brakeman; L. Labate, fireman; and Val Walker, mail clerk. The last round-trip ticket Ely to East Ely was purchased by N. W. Fay. The following day, Nevada Northern buses began to operate between Ely and Wells. The train, of course, continued to carry freight into and out of the district.)
26. Ely Record, March 27, 1942
27. Ibid., April 24, May 8, 1942.
28. Ibid., October 9, 16, 1942; Conversation, A., Todd Davis with the author, Reno, Nevada, April 21, 1956.
29. Ely Record, June 7, 1946.
30. Ibid., February 1943;
31. Ibid., October 2, 1942.
32. Ibid., October 23, 1942, January 29, February 19, 1943.
33. Ibid., August 6, 1943.
34. Ibid., November 23, 1945.
35. Inception Report, Nevada Mines Division (1954), 8. Production did not reach the peak levels of the First World War or of the prosperity years of the 1920s.
36. Ely Record, September 4, 1942.
37. Ibid., February 26, 1943.
38. General Manager's Report, Nevada Mines Division, Kennecott, (1943), 151.
39. Interview, W. Knight, Sr., February 15, 1956, Reno, Nevada.
40. Ely Record, March 17, 1944.
41. Ibid., February 18, April 14, 1944.
42. Ely Record, July 28, 1944.
43. Ely Record, April 4, 1942; General Manager's Report, Nevada (1937-1935); Ely Record, July 2, 1943 - Address before Nevada section of AIME by Walter Larsh; General Manager's Report, Nevada Mines Division, (1941), 30-31

44. General Manager's Report (1945), 29-39; S. W. Smith to Fred Lawrence, McGill, Nevada, November 27, 1954; Parson File, 4.
45. General Manager's Report, Nevada Mines Division, (1942-1954). Earlier attempts had been made to treat these tailings, the first attempt noted being in the latter part of 1908 and early part of 1909. None of these early experiments reached the state of real leaching operations.
46. "News", Engineering and Mining Journal, CXL, (February 1940), 108.
47. 30th Annual Report, Kennecott Corporation (1944), 4.
48. Inception Report, Nevada Mines Division, (1954), 15; "Kennecott's Newest Pit", Kennevadan, (June 1955), 12-13; Nevada State Journal, November 1, 1953.
49. W. S. Boyd to J. C. Kinnear, Sr., San Francisco, January 21, 1941.
50. General Manager's Report, (1942), 7-4; also for (1943), 1-4. 147
51. General Manager's Report, (1943), 4-5; also (1944), 4-11.
52. Ibid., (1941), 15; also for (1944), 4.
53. 30th Annual Report, Kennecott (1944), 4.
54. General Manager's Report, Nevada Mines Division, (1944), 11.
55. Ibid., (1941), 132-133; Ely Record, October 24, 1941.
56. Ely Record, September 10, 1943.
57. Leveille, op. cit., 3.
58. Leonard Larson, "Multiclone Units Recover Converter Dust Successfully", Engineering and Mining Journal, CXLVII, (January 1946), 71-77; General Manager's Report, Nevada Mines Division, (1942), 108; John Huttle, "Mechanical Converter Tuyere Punching at the McGill Smelter", Engineering and Mining Journal, CLI, (August 1950), 84-87.
59. 28th Annual Report, Kennecott, (1942), 4-12.
60. Ely Record, November 12, 1943.
61. Ibid., May 18, June 1, 1945; General Manager's Report, Nevada Mines Division, (1945), 141-142. Mr. Kinnear's advancement to Vice-President was in recognition of an outstanding performance as general manager of the Nevada Mines Division. Coming to work for the Nevada Consolidated Company in 1910 as a smelter laborer, J. C. Kinnear, Sr. had worked his way to the top. A man of vision, Mr. Kinnear directed a good deal of his energy to beautifying the mines

and smelter communities and in promoting sports and cultural activities. Active in community and state educational matters, Kinnear was awarded the degree of Doctor of Laws, June 1949.

62. Ely Record, August 17, 1945.

## Chapter XII - Post-War Decade, 1946-1956

1. Inception Report, Nevada Mines Division (1954), 8. (These figures are for copper alone. It should be pointed out that the Government Stockpile Act, passed during the war, was still in effect but to 1953 agencies involved favored the stockpiling of materials of foreign origin.
2. Ely Record, August 1, 8, 1947; General Manager's Report, Nevada Mines Division (1947), 151-169.
3. General Manager's Report, Nevada Mines Division (1948), 1 and 164; Ely Record, July 30, August 6, 13, 1948.
4. General Manager's Report, Nevada Mines Division (1949), W. S. Larsh to J. C. Kinnear, Sr., McGill, Nevada, January 6, 1950; Ely Record, August 12, December 13, 1949, and March 3, 1950.
5. General Manager's Report, Nevada Mines Division (1948), 215-216; also the reports for 1949 and 1950. Walter S. Larsh, who retired as General Manager of the Nevada Mines Division, Kennecott Corporation, on October 1, 1950, came first to the Ely district in 1905 as a young man of 22 years of age. Employed by the Cumberland-Ely Company as an engineer until 1908 when he quit his job and prospected on his own for three years. In 1911 he went to South America where he was employed by the Braden Copper Company in Chile. In 1915, he returned to the Robinson District, this time as a superintendent of the Ruth mine which at the time was being placed in production. He made an enviable record as superintendent of this mine, introducing many new ideas in the block-caving system of mining. Promoted to Assistant General Manager in 1930, he took over as General Manager when J. C. Kinnear, Sr. moved up to become Vice-President of Kennecott in 1945. His career was climaxed by outstanding success as general manager until his retirement in 1950.
6. 35th Annual Report, Kennecott Corporation, (1949), 15.
7. Ely Record, June 2, 1950.
8. Interview, Mrs. G. Robertson, McGill, Nevada, August 16, 1955; General Manager's Report, Nevada Mines Division (1950), 150-184. (The library is operated by Kennecott under the Employee Relations Department and with a librarian paid by the company.)
9. General Manager's Report, Nevada Mines Division (1948), 117.
10. Ibid., 162.
11. General Manager's Reports, Nevada Mines Division, for the years 1948, 1949 and 1950; Ely Record, January 23, 1948. (The youth centers, from a physical maintenance aspect, are under the direct supervision of the Construction Department headed by "Buck" Jones.)

12. General Manager's Report, Nevada Mines Division (1949), 178; and (1950), 151.
13. Ibid., for the years 1952 and 1954.
14. Ibid., (1950), 185.
15. General Manager's Reports, Nevada Mines Division, for the years 1936, 1942, 1946, 1948-1953; Fred Lawrence, "Planting for Dust Control", (1957) in Parsons File; "Tumbleweeds may end Tailings Dust", Kennevadan, (February, 1955), 4-5. (It should be added that hundreds of employees and house wives in the community do not share the enthusiasm of the officials.)
16. Inception Report, Nevada Mines Division, (1954), 8. (These figures are for copper alone and do not include an average annual income from gold and silver of some million dollars.)
17. Ely Record, February 16, 1951.
18. General Manager's Report, Nevada Mines Division, (1949), 29-30, and 210.
19. General Manager's Report, Nevada Mines Division, (1950), 40; Ely Record, October 6, 1950; 36th Annual Report, Kennecott, (1950), 5; General Manager's Report, Nevada Mines Division (1952), 12.
20. Ely Record, July 28, October 6, 1950; J. C. Kinnear, Jr. to Louis Buchman McGill, Nevada (January 6, 1951), 5.
21. J. C. Kinnear, Jr. to Louis Buchman, McGill, Nevada, May 15, 1951.
22. John Huttli, "New Copper Projects in Nevada will open more ore for Kennecott", Engineering and Mining Journal, CLIII, (October 1952), 92-93; S. W. Smith to Fred Lawrence, November 27, 1954; in Parson File, 5-6.
24. General Manager's Report, Nevada Mines Division (1952), 16-17; and (1953) 16-19. (Some 43,000 cu. ft. of grout material was necessary around the Kellinske and 100,000 cubic ft. was necessary to control the water in the Deep Ruth.
25. "Kellinske, Deep Ruth Drifts Joined", Kennevadan, (April 1955), 2-3.
26. General Manager's Report, Nevada Mines Division, (1954), 17-18; 40th Annual Report, Kennecott Corporation, (1954), 7-8; "Minnesota Hi Production Set at 4,000 tons per day", Kennevadan, (May 1956), 17.
27. General Manager's Report, Nevada Mines Division (1952), 23; also for (1953), 29, 59-61; S. W. Smith to Fred Lawrence, November 27, 1954, in Parsons File, 6.
28. "Mine Water Piped for Ruth Supply", Kennevadan, December 1955), 5.

29. General Manager's Report, Nevada Mines Division, (1952), 15; "Kennecott's Newest Pit", Kennevadan (June 1955), 10-13.
30. General Manager's Report, Nevada Mines Division, (1953), 14-15; and for (1954), 11; Ely Record, October 31, 1953; "Kennecott's Newest Pit", Kennevadan (June 1955), 10-17.
31. Ely Record, April 14, 1956.
32. "McGill Power Plant - History", (1954), in Parsons File.
33. J. C. Kinnear, Jr., to Louis Buchman, McGill, Nevada, September 1951.
34. General Manager's Report, Nevada Mines Division (1952), 54; and for (1953), 82.
35. Ibid., (1954), 68-73; 40th Annual Report, Kennecott Corporation (1954), 16-17.
36. An interesting incident illustrative of this attitude occurred in the early part of August 1955 when J. C. Kinnear, Sr., visited the area. Although retired from active participation in the affairs of Kennecott and at the time making a social call on his son and family, the elder Kinnear's arrival seemed to kindle fond memories of the past and soon rumors began to the effect that the strike soon would be over. (Interview, J. C. Kinnear, Sr., August 8, 1955, McGill, Nevada.)
37. Files of the Ely Daily Times and the Ely Record for the months of July and August 1955; "Editorial", Kennevadan, (August 1955), 16; "Open. Letter to J. C. Kinnear, Jr.", Kennevadan, (February 1956), 15.
39. Ely Record, February 18, 1956.
39. Ibid., May 26, 1956; "Opinions", Kennevadan (May 1956), 1.
40. "Establishment of Employees Relations Department", in Parsons File; General Manager's Report, Nevada Mines Division (1940), 160.
41. General Manager's Report, Nevada Mines Division, (1952), 44-45; "Introduction of Training Department", (1954), in Parsons File.
42. General Manager's Report, Nevada Mines Division, (1953), 92; and (1954), 62-68; "Establishment of Public Relations Department", (1954) in Parsons File.
43. General Manager's Report, Nevada Mines Division (1954), 77-00.
44. Ibid., 80; "Assistant General Manager Named, 3 Other Major Appointments Made", Kennevadan, (June 1955), 9. (Appointed Assistant General Manager following the resignation of Paul Hett was M. J. O'Shaughnessy. Frank Quilici, at the same time, was appointed Pit Superintendent in charge of the Veteran and Liberty Pits). For Mr. Howell's appointment, see Kennevadan, (October 1955), 12.

45. J. C. Kinnear, Jr. to Louis Buehman, February 7, 1951, McGill, Nevada; Ely Record, March 30, 1951.

46. General Manager's Report, Nevada Mines Division, (1953), 60.

47. Reno Evening Gazette, December 15, 1955.

48. Ely Record, January 7, May 19, 1956; "A Report on Housing", Kennevadan, (April 1956), 13. (Land upon which the various churches in the community had been built was to be deeded by the company to the various churches involved.)

49. Ely Record, May 19, 1956.

50. It is interesting to recall that Pope Yeatman, Consulting Engineer in the early years of the company, in 1907 (see Chapter III, footnote 40) favored selling homes to employees on the basis that if they owned their homes they would be less likely to strike or to move on to other areas.

51. The tremendous changes which have taken place at the Nevada Mines Division since 1950 have been under the supervision of J. C. Kinnear, Jr. as general manager. Born and reared at McGill, the younger Kinnear received his advanced education at Pomona and Massachusetts Institute of Technology. After a number of years at the Chino Division of Kennecott, he was transferred to McGill as Assistant to the General Manager, April 1, 1948. On November 1, 1949, he became Assistant General Manager and in October 1950 was made General Manager. His success in solving the problems faced in these years bodes well for his future. His real dilemma as general manager at McGill had been in trying to live up to the record and reputation left there by his father.

[End]