The Copper Queen Consolidated Mining Company 1885-1917

A History of the Company and its Employees

Richard W. Graeme

he Copper Queen Consolidated Mining Company was a closely held company largely controlled by interest favorable to Phelps, Dodge & Company, an old line New York mercantile firm. It was formed in 1885 by the merger of the Copper Queen and Atlanta Mining companies, in part to preclude litigation over rich ores that continued from one property to the next and also because the owners of the Copper Queen had little faith in the district's future.

By the end of the 1880's, the Copper Queen mine at Bisbee, Arizona Territory was known throughout the mining world as an exceptional operation. There is little doubt that the high grade orebodies played a role in its well-deserved fame, but it was the management practices that made the "Copper Queen" a truly great mine not only for the very limited number of shareholders, but also for the many who worked in the mines.

Men of uncommon integrity and vision took a small mine in a remote, desolate and often dangerous part of the desert southwest and developed it into a great mine. To do this, substantial amounts of capital were invested, often at the darkest hour of low copper prices. Investments were made for improvements of all kinds including new smelting works and railroad construction.

Wages and working conditions were as good as any mine anywhere. So much so that unions were unable to organize the workers despite numerous efforts. Corporate paternalism was very much a part of the management approach used by the Copper Queen to the great benefit of the employees and their families.

The Two Companies

Even though the ore deposit that became the Copper Queen was first discovered in 1877, it was not until 1880 that mining began in earnest. The first smelting furnace was blown in August 20th of that year.\(^1\) Then the Copper Queen Mining Company was formed in April of 1881. Its sole asset was property in the Warren mining district that consisted of a group of five contiguous claims, the Copper Queen, Copper Jack, Copper Czar, Iron Monster and Rucker. But what an asset it was\(^1\) Few copper mines gained legitimate fame during the very early 1880's as quickly as did this. The incredible Copper Queen was called "one of the best American copper mines" by no less a publication then the prestigious Engineering \(^2\) Mining Journal.\(^2\)

In spite of its remote location and the adverse, even hostile conditions, the rich ores from the Queen orebody produced 34,536,000 pounds of copper3 and had provided a handsome return to the owners. Some \$1,350,000 in dividends had been paid through the end of 1884.4 However, the principals William Martin, John Ballard and Edward Reilly, had but one desire and that was to sell the property.5 A lack of faith in the ore deposit was the underlying reason, but their lack of personal faith did not preclude them from developing a prospectus that greatly overstated the remaining ore and its value. In a scathing editorial, the February 28, 1885 issue of The Engineering and Mining Journal contained portions of this "inflated" prospectus.6 The reserve was projected to continue down 2000 feet and contain

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more than a million tons of ore that was projected to yield a profit of \$10,000,000. Interestingly, this was not long after the company's own engineers had indicated that just a few months of ore remained in sight as the only known ore body had bottomed out at the 400 foot level. In the finest of western mining tradition, the owners of the Copper Queen did not allow a few facts to interfere with this great prospectus. The Atlanta Mining Company owned three claims, the Ellia, the Belle Isle and the Atlanta. This later claim was the first purchased. It shared a sideline with and was to the south of the Copper Queen claim and lay somewhat higher on the hill. While no ore was known to exist on the Atlanta, development of the ore in the Queen was nearing the Atlanta sideline. Dr. James Douglas had recommended to the partners of Phelps Dodge & Co. that they purchase the Atlanta. A caveat, however, was added by Douglas that if the ore did pass on to the Atlanta their first "asset" may well be a lawsuit. The question of ownership of the ore would arise and "that the risk were too great to be taken by a purchaser who was not able and prepared to lose all that he invested."8 The risk was accepted and the property purchased.

For the next two years an expensive, frustrating search for ore was carried out under the direction of Dr. Douglas. Over \$60,000 was spent on exploration to no avail, not a single car of ore had been found. Messers. Dodge and James, the principals of Phelps Dodge & Co., had become thoroughly disheartened yet Douglas was able to secure a commitment to invest a last \$15,000 in the property. This final commitment resulted in the discovery of the Atlanta ore body, which was hit almost simultaneously by the Queen.⁹

A Merger is Effected

In reality the formation of the Copper Queen Consolidated Mining Company (C.Q.C.M.Co.) was more a marriage of convenience than one of true business design. The insidious "law of the apex" litigation was once again threatening to rear its ugly, cash-devouring head.

The Copper Queen Mining Company was being and had been tormented for several years with apex litigation by the Arizona Copper Prince Mining Company. It owned property adjoining the Queen ground to the west.¹⁰

To make matters worse the end of the fabulous Queen orebody had been in sight for some time forcing a desperate search for additional ores. Now after months of aimlessly searching, new ores were found but, they quickly passed beyond the property boundary to the south onto the Atlanta Mining Company's property. This unfortunate trick of nature virtually guaranteed a fight over ownership of ore. The Atlanta had spent several frustrating years and a substantial amount of money before finding the very same orebody just ahead of the Queen, but on their own ground. It was a certainty that the Atlanta would pursue its claim to the ore.

However, fate was not particularly kind to the Atlanta either. After sinking 210 feet through ore in the newly found Atlanta orebody, a drift was ran on the 400-foot level through the heart of the orebody only to find it almost barren.¹¹ Experience would later show that the great majority of orebodies in the district had very low-grade cores.¹² The consequence of this was that the true value of the ore was not apparent giving the Atlanta a far less favorable position in negotiating the terms of the consolidation. But, as Douglas realized "... a decision had to be reached whether litigation or mining would be the principle industry of the Warren district."¹³ So the negotiations were carried on in earnest.

By August of 1885 the formation the Copper Queen Consolidated Mining Company had been effected following nearly eight months of negotiations. The shareholders of the Copper Queen received five sevenths of the stock of the new company and the Atlanta owners ended up with two sevenths. A dispute over ownership of the ores that would have only hurt both parties was wisely avoided by this union. Now the business of mining could be pursued.

Soon after consolidation, copper prices fell from an already low 12 cents per pound to less than 8 cents. Martin quickly lost what little faith that remained and sold his interest to the Atlanta owners thereby giving them a majority. They then appointed Dr. Douglas manager of the operation. These low copper price also inspired most of the remaining Copper Queen stockholders to sell their shares of the new company to the Atlanta owners on very reasonable terms ultimately bringing their ownership to 90%.¹⁵

The Early Years

While falling metal prices may have allowed the partners of Phelps Dodge & Co. to increase their interest in the mine at a reasonable cost, any potential for profit from the operation as it then existed was lost. However, numerous cost saving efforts were employed allowing the Queen to remain open when many other mines were forced to close.

Correctly believing that the economics of scale could return the mine to profitability, Douglas proposed to Phelps Dodge & Co. that they advance \$100,000 to the Queen. It would be used to replace the two small furnaces with a larger smelting plant while maintaining the mine and conducting further exploration. The partners agreed to finance the improvements. Unfortunately, the estimates fell far short of what was required and \$300,000 was actually spent on the changes. Yet their faith in the Queen was well placed as several new, very fine orebodies were found and feed for the furnaces was assured for several years. 16

Providence now intervened in a most pleasant way. While the new works allowed for a modest profit at 8 cent copper, a French syndicate attempting to control the copper market, entered into an agreement to buy all of the Queen's production at 13-1/2 cents per pound. With this contract in place Douglas said "the \$300,000 debt evaporated like the dew." The future of the mine was assured for years to come on a monthly production of 1,250,000 pounds. Dividends of \$100,000 were paid in 1887 and \$300,000 in 1888 and every year thereafter until 1909 when the company structure was changed.

The Copper Queen Grows and Prospers

The properties immediately surrounding those held by the Queen were soon acquired either by Copper Queen, largely through issuance of stock¹⁸ or by the partners of Phelps Dodge & Co. until it was the only producer in the district. In two cases, the purchase of property was from individuals who had made substantial investments trying to find ore but had given up too soon. The Holbrook and Cave claims were acquired from a Mr. J. W. Goddard of

New York by Messers. James and Dodge in 1888. After sinking just a few more feet in what was to be called the Holbrook shaft, ore was found and this mine soon became the most productive of the mines. ¹⁹ A similar bit of luck came with the purchase of the Lowell claim group from W. A. Clark of Montana fame in 1906. The Lowell shaft had been sunk to more than a thousand feet with little to show for the effort so Mr. Clark elected to dispose of it for the very substantial sum of \$500,000. After sinking less than 150 additional feet, fine ores were found by the Queen.

A number of other properties were added to the holdings of either the company or the partners. These included the seven claim Neptune group, purchased at a sheriff's sale as well as the Gardener group, Cuprite and White Tailed Deer. All of these became important producers forcing the expansion of the already cramped smelting works. Also, with depth came changes in the ore that put additional pressure on the smelter. The early, near surface ores were highly oxidized and easily smelted, but with increasing depth the degree of oxidation diminished. Sulfides became increasingly more common. Historically, these copper-iron-sulfur containing ores were difficult to reduce at best. Recoveries were typically unacceptably low and the copper produced was lower in value because of a greater amount of included impurities.

Many engineers around the world had tried to develop a technique to handle these difficult ores but all had faded to satisfactorily resolve the issue though a few had come quite close. Dr. Douglas was faced with the dilemma of either finding a way to solve this problem or accept that the end of the Copper Queen mine was near at hand. So in the early 1890's he traveled throughout Europe and the western U.S. investigating the smelting methods used wherever copper sulfides were mined. Individually, none of the approaches were truly efficient and while a few of the failed experiments were promising nothing concrete had come from them.

Using the practical genius that was so much a part of him, Douglas took ideas and approaches from several different sources. With these, he ultimately developed a process that not only solved the problem of the Bisbee ores, but changed the way that most of the world's copper would be smelted for the next

century. A new converter was blown in early in 1893 with a substantial improvement in recovery immediate. The Queen could now continue to produce for many more years.

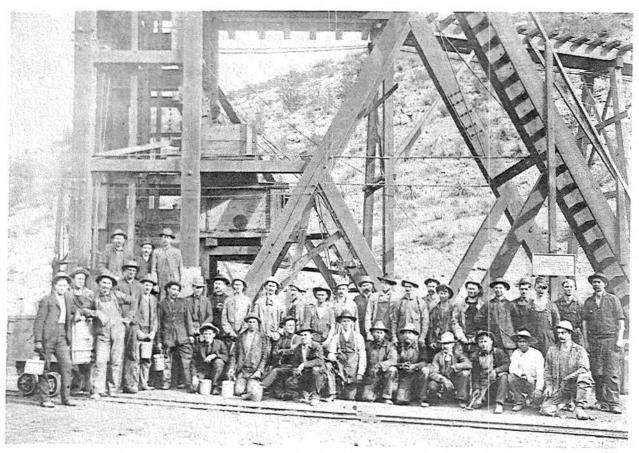
Unfortunately, this change put additional pressures on the existing smelter site next to the Czar shaft. No room to expand the facility remained, a new smelter site must be found. Abundant space, water and proximity to the company's new operation at Nacozari, located in northwestern Sonora, Mexico all were to be found in the nearby Sulphur Springs valley. A site very close to the international boarder was chosen. A new smelter near what became the town of Douglas was blown in on March 23, 1904. 20 The old works in Bisbee were shut down and largely scrapped. This very much improved the quality of life in the narrow canyons with the sulfur smoke now gone.

While the Copper Queen sought to acquire all

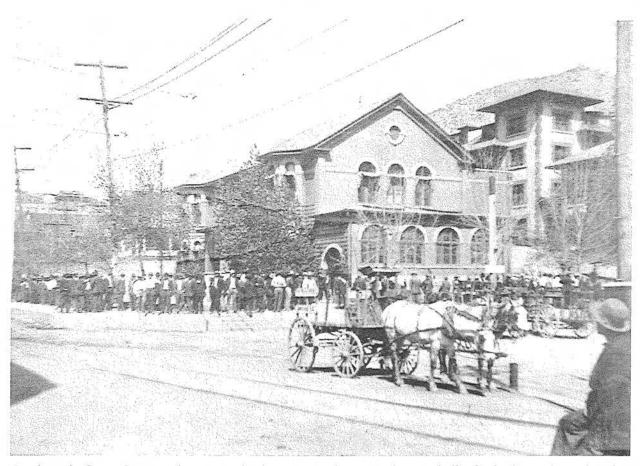
the promising property in the district, one very significant opportunity was lost though under peculiar circumstances. In 1899, a group from Michigan secured the Irish Mag claim that had once belonged to a crazed man named Daly. This claim had been offered to Douglas, but he deferred as Daly had threatened the life of Ben Williams who promised to resign if the purchase was made. This property proved to be exceedingly rich and served to birth the Calumet & Arizona Mining Company. Soon, the Copper Queen would no longer be the only producer, much to the ultimate benefit of the district. In fact, the C&A quickly surrounded the Copper Queen positioning itself to become the largest producer in the district.

A Railroad is Built

No heavy industry such as copper mining can



Portrait of a shift of miners at the Lowell shaft C-1906. The Copper Queen Consolidated purchased the Lowell from W.A. Clark of Jerome, Arizona and Butte, Montana fame. Clark sold too soon! A small amount of additional work exposed substantial orebodies in this mine. Courtesy of the Bisbee Mining & Historical Museum.



Pay day at the Copper Queen 1914. Miners are lined up to receive their pay at the general office for the Copper Queen Consolidated Mining Company. As was the practice for many years, these men were paid in cash. This building now houses the Bisbee Mining and Historical Museum. Courtesy of the Bisbee Mining & Historical Museum.

long survive without reasonably inexpensive transportation. The Copper Queen was no exception. Black copper bars had to be sent east to market, some 5,000 to 7,000 ton per year and too, supplies for the mine as well as the smelter had to be brought into Bisbee. These included thousands of board feet of timber, many tons of coke and coal each month and, of course, the numerous other materials needed to run the operation.

At first, Dr. Douglas approached the Santa Fe Railroad backers in the hope of persuading them to build a road they had proposed into Mexico by way of Bisbee. But, as he put it, he was treated with "supreme indifference." The Queen had but one option — to build its own railroad to connect with the Santa Fe at Fairbank, some 37 miles away. Three months after the rebuff by the Santa Fe officials, construction on the road was started. It was well within the Bisbee canyon in less than 8 more months and to

the depot site in downtown just a few months later.

The expected savings on freight were quickly realized on the mine and smelter supplies. Everyone in Bisbee greatly benefited from the improved transportation as well. Prices dropped on almost everything and many new items became available, improving the quality of life in this still somewhat rough environment.

A further dispute with the Santa Fe over freight rates in 1894 pushed the railroad to Benson and a connection with the Southern Pacific. Later, business decisions, and more disagreements with other connecting railroads brought additional construction first to Douglas then on to Deming, New Mexico. The need to ensure dependable rail service to the company's other mining operations caused the purchase of several existing short line roads, all of which were folded into the main company.

Also, it was important to make the railroad a self

sustaining, profit center ultimately pushed it to El Paso, northern New Mexico, northern Sonora and then, finally, to Tucson. The El Paso & Southwestern, as it was now known, had a total trackage of more than 1,300 miles. This line remained an important part of the enterprise until it was sold to the Southern Pacific in 1924.²³

The Leadership of the Queen

The force behind the Copper Queen was the partners of Phelps Dodge & Co., William Dodge and D. Willis James. They were men of strong Christian beliefs – beliefs that played a dominant role in every aspect of their lives. By way of example, D. Willis James asked if work on Sunday was so important to the company's welfare that it should be continued.²⁴It was not, so with the concurrence of Dr. Douglas work in the mines on Sundays was discontinued in 1887 much to the benefit of the employees.

As a result of these high standards, the dealings of the company were always above reproach. Woodbridge in 1906 speaking of both the Copper Queen and Phelps Dodge, said "... no breath of scandal, no whisper of manipulation, no taint of dishonest method has ever been connected with these companies."²⁵

Dr. James Douglas shared the same values and high personal integrity of these men. Thus their relationship was one of ". . . most absolute "confidence."26 Douglas, a Canadian by birth, was educated in Scotland as a minister, yet, by his own choice, never ordained. He studied medicine, but never practiced except to work with his father at an insane asylum.27 Ira Joralemon,28 suggested that it was this experience with the inmates of the asylum that prepared Douglas so well for his association with the western miners. His mining and metallurgical experiences were at best marginally successful. Yet once with the Copper Queen it seemed that he could do little wrong, that is after he found ore. He guided the company to sustained profitability by way of innovation, seeming to always recognize problems before they arose. Douglas also knew the importance of a loyal, motivated workforce.

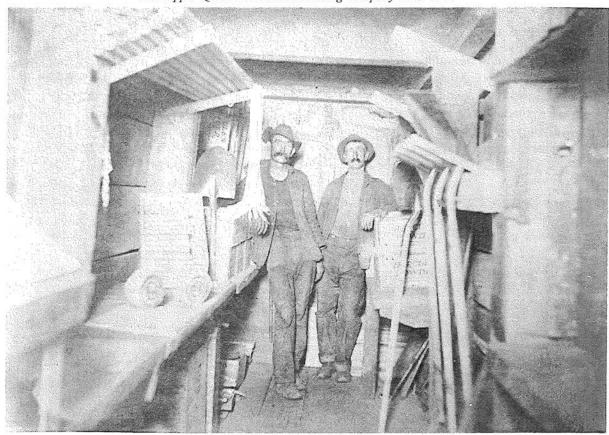
The concern that Dr. Douglas had for the welfare of the miners went well beyond his shared desire to provide them the time to worship on Sunday, if they chose. In a probably vain attempt to teach thrift, he announced a measure to discourage gambling by the employees. Regular paydays were suspended and the miners could draw their money at will or allow it to stay with the company.²⁹ Later, the company instituted a policy whereby any employee found gambling or drunk was immediately discharged. This was not an effort to stop drinking, but drunkenness.³⁰

The eight-hour shift for underground workers was implemented more than a dozen years before it became the law in Arizona. He frequently gave public lectures using lantern slides to educate the residents on matters of public health, hoping to encourage a cleaner community.³¹ The many, many amenities provided to the employees and the community by the C.Q.C.M.Co. were at the behest of Dr. Douglas.

Douglas was a man well ahead of his times in many ways. He spoke and wrote extensively on the preservation of natural resources, 32,33 often taking his own industry to task for their less than efficient practices. 4 Douglas argued against the "law of the apex" as an inhibitor to productive commerce and as an endless source of income for predatory lawyers. 5 To the very real benefit of the district he abolished this insidious practice at Bisbee. The Copper Queen could have claimed all of the ore found by the Calumet & Arizona had it chosen to wage the battle, but that would have been fundamentally wrong and against the cherished beliefs of both himself and the partners of Phelps Dodge & Co.

At the operation that reported to him in Sonora, he replaced American engineers and managers with Mexicans, bringing an uncommon stability to this foreign operation during difficult times. This wise practice has yet to be implemented by some companies even today. But perhaps the most significant contribution Dr. James Douglas made to his industry, and thereby benefiting society as a whole, was to bring an end to the long held practices of keeping every improvement or discovery secret. In tribute to him after his death, in 1918, the *Engineering & Mining Journal* said:

It was he who led in tearing away the veil of secrecy that formally shrouded and hampered mining technology. Our marvelous progress during the last 20 years has been based



A powder magazine on the 600' level of the Spray mine. Loading sticks used to tamp the dynamite in the drilled holes are in the upper left while rolls of fire fuse and boxes of blasting caps are below. The miner on the right is leaning on fifty-pound boxes of Hercules dynamite. Courtesy of the Bisbee Mining & Historical Museum.

on the general and generous exchange of knowledge and information more than upon anything else. In permitting that great philosophy Dr. Douglas led the way and exhibited a spirit that spread widely and prevailingly.³⁶

We in the industry today still greatly benefit from this selfless effort.

With the merger of the Copper Queen and Atlanta came another asset, the William brothers, Ben and Lewis. Formally of the mining firm of Bisbee, Williams & Co., they had brokered the interest in the Copper Queen property to Messers. Martin and Ballard for Wm. Reilly. Ben had been the superintendent while Lewis served as assistant superintendent for the original Copper Queen from the very earliest years. Ben handled the underground while Lewis was in charge of the smelter and other surface works. Unlike the original owners of the Queen (Martin & Ballard), they were men of the highest integrity, to the point of refusing to follow orders

that would have compromised their values.³⁷

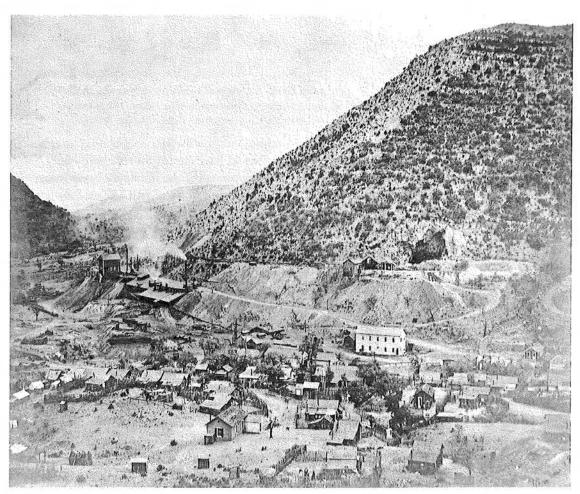
Professionally, the Williams were most capable. Wendt writing of them in 1887 and their role in the Copper Queen stated ". . . . and to whose management the success of the enterprise is largely due. 38 Dr. Douglas had long before established a strong friendship with these able gentlemen and trusted them completely with the operation of the mine and smelting works. He knew full well that he would personally be responsible to the owners for any problems. Few were to come. Later Lewis Williams' daughter married Dr. Douglas' son further cementing this already strong relationship.

Both men were highly regarded by those who worked for them as well as those mining professionals who came into contact with them. Ben was widely noted for making every effort for the safety and comfort of those who worked for him.³⁹ In 1884, wages were reduced for those miners working above the water level to \$3.50 from \$4.00 per day while those working below the water level continued to receive \$4.00. A strike was threatened, but Ben Wil-

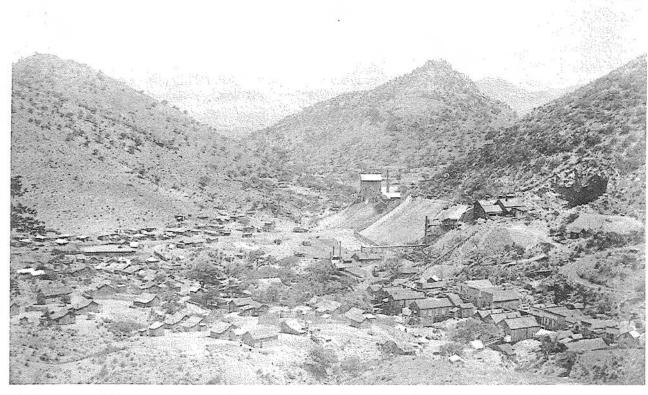
liams was able to maintain tranquillity. He discussed the lower ore grades, near exhaustion of the ores and the more difficult working conditions below the water level as well as the terribly low copper price. All of these were, of course, obvious to the miners, but it was Ben's unabated candor and character that prevailed. There would be no strike. A similar situation occurred in 1886 when copper dropped even more – to 8 cents a pound and wages were further reduced to \$3.00 per day for all men. Again, because of Ben there were no labor troubles.

Ben Williams quickly implemented square set timbering in the mine to safely control the soft, ever shifting ground. This expensive timbering approach was used almost exclusively for the next 30 years. Some 30 board feet of wood were required for every ton of ore mined.⁴¹ Lewis William was equally well regarded, particularly by his Mexican employees. In spite of Bisbee's proximity to the Mexican border, during the early years few Mexicans were employed at the Copper Queen and none worked underground. Mexicans did however, find employment in the smelter albeit at a wage of \$2.50 per day while Americans (or whites of European origin) received \$3.50 for the same day's work. Lewis strove to mitigate this disparity through fair treatment of these hard working men, something not altogether common in the American west of the late 19th century. They showed their appreciation by naming one of their small town sites "Don Luis" in his honor. 43

In 1899, both men left the Queen moving on to a small copper operation in California. History has not provided a reason for their departure. Possibly the loss of the Irish Mag property was the cause. Its



Open cut of the Copper Queen mine 1887. The original ores were mined from here with later mining conducted through an adjacent 400' inclined shaft. The building to the left of the open cut contains the hoisting facilities for the shaft. Courtesy of the Bisbee Mining & Historical Museum.



Czar Mine 1886. This was the first vertical shaft in the district. Sunk by the Copper Queen Consolidated Mining Company in 1885-86, the Copper Czar, as it was originally called was one of the most important mines in the district. Courtesy of the Bisbee Mining & Historical Museum.

loss to the C & A was due, at least in part, to Ben's refusal to purchase the property. Walter Douglas, the son of Dr. Douglas, then replaced Ben as superintendent of the Copper Queen at the young age of 29.

Walter Douglas had attended Columbia University studying mining. Following this he became an assayer at the Copper Queen for part of a year then he moved to a sister operation at Morenci. His return to Bisbee in 1899 as superintendent was the start of a spectacular career. He advanced to the position of manager of the Queen in 1902 and then general manager of all the related mining companies in 1910. By 1916 Walter was vice-president of the Copper Queen and related companies. Then, in the following year he became president of Phelps Dodge when his father retired. He remained in this position until ill health forced his retirement in 1930.44

To be certain, he did not appear to be the compassionate manager that his father had been, but then things in the mines had changed dramatically. And too, the social climate had evolved in an unexpected way. The value of the many services and benefits provided to the employees as well as the community had been discounted by some. Many were now cast in the light of corporate control of peoples' lives. Yet Walter Douglas was the perfect man to lead the company through these changing times. His skill as an effective manager was renowned. Much like his father, he surrounded himself with the most capable of men thus assuring that every chance for success of the operations was present.

Lower grade ores were now, by necessity, being mined – costs had to be contained. Also, he had the challenges of additional costs brought on by a less skilled, often itinerant workforce that was so common in the early years of this century. These were met through innovation, mechanization and effective planning, largely brought forth by the highly experienced staff he had put in place to run the operations.

Among the changes were: a centralized ore handling was implemented with conveyors used to load

railroad cars; concrete was used to line the Sacramento shaft; a trolley system was developed to haul ores underground; a precipitation plant was built to recover copper from mine waters; early tests on dump leaching of low grade copper ores were made and implemented. A first class geology department was established as well to aid in the search for ore. This included close geologic mapping on the long existing 50 scale maps and building detailed mine models. Also, the porphyry deposits of Sacramento hill were identified as to their open pit potential.45 As a result, the Queen became a more efficient producer of copper than ever before. In 1903, the Queen was one of the best equipped, most modern and efficient copper mines in the world.46 The technical journals of the time solicited articles on the changes at the Copper Queen from her engineers because of the innovative nature of the work.

Under Walter Douglas the company continued its long held policy of paying fair wages, now tied to the price of copper, and constantly sought to improve working conditions. Benefits new to all such as a retirement program and an association to provide for wage continuation in the case of accident or illnesses were put in place by the younger Douglas.⁴⁷ A safety department was established in 1912 in a concerted effort to protect workers as well as educate them to protect themselves. In spite of his progressive approach to employee relations, history has not necessarily been too kind to him. Most recently, James Byrkit vilified him in his cleverly crafted Forging the Copper Collar, a most unfair treatment.⁴⁸

A Contented Workforce

Those who worked at the Queen were a well paid lot working under conditions as good as any mine anywhere. Robert Cleland in his *A History of Phelps Dodge*, quotes *The Bisbee Daily Review* in 1903 as having written:

. . . the year around, 3 shifts of men, working 8 hours per day receiving the highest wages paid in the country, go down into the Copper Queen, and rarely do the names on the payroll change, as long as good men wish to remain in the company's employ, and a more contented, money saving, industrious, sober and thrifty list of employees can not be found anywhere upon the face of the globe.⁴⁹

This contentment, while good for the company and the employees was most nettlesome for the unions. The late 1890's and early 1900's saw effort after effort by the Western Federation of Miners (WFM) to organize the workers in Bisbee. In 1904, The *Engineering and Mining Journal* noted that:

Labor leaders have long covetously eyed Bisbee and put forth every effort – yet not a dollar finds its' way into the pockets of the union leaders. [This] comes from a mutual confidence between employer and employee and is full of a significance that scarcely be bought by union propaganda.⁵⁰

In 1906, the WFM tried again and spent three months seeking to enlist men into the union using every tactic available, included intimidation.⁵¹ Of the approximately 4,000 men employed at the mines, 2,700 voted in an election in which the union received a scant 15%.⁵² The financial panic of 1907 caused copper to drop in price and wages were reduced. This looked like an opportunity to the WFM, but the mining companies move quickly to control the strike called by the union and it soon died. The humiliation was enough, the union officially gave up at Bisbee. That is until 1916 when another failed effort was tried.⁵³ It is interesting to note that despite numerous additional efforts at organization, the mines at Bisbee were union free until July of 1941.

The Copper Queen Gives Back to the Community

Long before the perceived need for companies to "give back to the community" the Copper Queen was doing so in a very real and important way. Dr. James Douglas was, of course, largely the impetus for the benevolent approach of the company toward its employees and the townspeople as well.

First, the Copper Queen Consolidated Mining Company built a hospital in 1886 and brought in a physician to run it for all, not just the company employees. Several times over the ensuing years, new, up to date facilities were built and kept well staffed

by the company. A library for all to use was established in 1887 with the company providing the books and a staff to look after the needs of the users. This facility was later expanded to include a reading room where papers from a number of cities as well as countries kept the townspeople informed. As the needs of the community grew, so did the library. Both the hospital and the library were to be fully company owned, staffed and supported for nearly 90 years in all.

The basic necessitates of life – food, clothing, etc. were always expensive and often of poor quality on frontier America. Douglas recommended to his superiors that the small store in Bisbee be purchased and run to the mutual benefit of the employees and the owners. His recommendation was accepted and what was to become one of the Southwest most prominent retail firms, Phelps Dodge Mercantile, was born. While it was a "company store," it truly did provide employees and townspeople alike, quality goods at a reasonable price. Employees were not required to trade at the store and it did not use its dominant position to prevent competition.55 It bore no resemblance to the company store as known in the east and south.56 Additionally, the company through the Copper Queen store provided all the banking services for the community until 1900 when the Bank of Bisbee was formed.57

Typhoid had long reaped a grim harvest through the contaminated waters of this closely packed community. More man shifts were lost to this disease than to all other illnesses and accidents in the mines combined.58 In 1901 the Copper Queen brought clean water, and with it vastly improved health, to the community from a well field some nine miles away thus ending the terrible summer plagues. Additional services were still needed to help make Bisbee more livable. Formation of the Bisbee Improvement Company was spearheaded by the Copper Queen to provide other services. It provided ice to the community for food preservation. Telephones came in 1902 and electrical service soon thereafter followed by natural gas service, all through the Bisbee Improvement Company. Other contributions to benefit both the employees and the community were a wellequipped gymnasium (later the YMCA), a fine hotel and through the families of the partners, the YWCA facility. The construction of several churches also received substantial support from the company. A newspaper, the *Bisbee Daily Review* was purchased by the Copper Queen in 1910 and kept a local paper alive. While arguably controlled by the company and it may have reflected a particular point of view, it did fill an important need for the community.

Dr. Douglas was a tireless advocate of separate statehood for Arizona, free from New Mexico. He clearly saw the advantages for mineral rich Arizona to enter the Union unencumbered by the larger population of agricultural New Mexico. 59 It must be remembered that he was also responsible for mining and railroad operations in New Mexico as well. His reasons were truly what he saw as best for Arizona and the Bisbee miners, not racism as has been suggested by Byrkit. 60

Arizona's quest for statehood was a long, often frustrating one. Eastern critics contended that if admitted, Arizona would, among other things, soon become a financial burden to the rest of the country. This misconception could only be dispelled by convincing the rest of the country that Arizona was able to support itself. Displays of the immense natural wealth of the Territory were one way to do so.

To this end, the Copper Queen helped by providing displays of the incredible minerals for the many "Worlds Fairs" and expositions that were so popular from the mid-1800's until the World War. Some 50,000 mineral specimens, many from Bisbee including a piece of azurite and malachite weighing 7,300 pounds were displayed in New Orleans in 1884-85.61 The Colombian Exposition of 1893 in Chicago saw another astonishing display of the mineral wealth from Arizona along with a 4 ton block of colorful Bisbee ore as the centerpiece.62 This wonderful specimen is still a centerpiece, but now of the mineral hall at the American Museum. From the outset Dr. Douglas realized that these magnificent minerals were truly natural treasures that must be preserved.

Accordingly, he saw to it that these wonderful treasures were saved at the expense of the company and distributed as gifts to museums everywhere. Blake in 1910, while referring to Bisbee minerals in both private and museum collections, wrote "Fortunately for such collections, and science, the management of the mine under Dr. James Douglas has ever been an appreciate [sic] conserver and distributor of gems of the mine."63

The American Museum was the primary recipient of the mineral specimens from the Copper Queen and among the gifts was a complete, very colorful cave. ⁶⁴ Many other museums as well as universities around the world were also presented with fine mineral specimens by the Copper Queen.

The End of the Copper Queen Consolidated Mining Company

In 1908 Phelps Dodge & Co. had less than a dozen shareholders and the Copper Queen Consolidated Mining Company was far and away the most important of the assets that it held. By reorganizing the company structure, each of the six, individual controlled companies became wholly owned subsidiaries. At the end of 1909 there were some 133 stockholders in the new Phelps Dodge & Co., Inc. 65

However, in just a few years the changing corporate climate caused the still small group of shareowners to re-evaluate their position. Clearly, by bringing

all of the subsidiaries into the parent, the value and thereby the capitalization of the company could be increased. The risk as well as the cost of financing new operations such as the Sacramento pit was very very high, potentially beyond the ability of the current company to finance. But, by selling additional stock both the risk and the expense of the new projects could be spread out among many others.

In March of 1917, the Copper Queen Consolidated Mining Company ceased to exist when it became the Copper Queen Branch of Phelps Dodge Corporation. 66 Yet, for the next 58 years the Copper Queen Branch remained a major producer of copper, filling one of the most important needs of our society. Allowing, in no small way, all of us to achieve the living standards we now enjoy. There is still the very real hope that copper will once again flow from the hills that surround Bisbee in the near future. The Queen may well live again to the great benefit of us all.

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