

DEVELOPMENT OF COAL MINING IN OKLAHOMA

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IF THE DEVELOPMENT of Oklahoma's coal mining industry can be attributed to a single person, that person is certainly J. J. McAlester. Folklore surrounding McAlester and his role in the origins of Oklahoma's coal industry is present in much of the literature on the topic. Early histories of the state successfully turned McAlester into a nearly mythical character. After the Civil War, McAlester acquired a map revealing the location of valuable coal deposits in the Choctaw Nation. After marrying into the tribe in order to gain legal access to the deposits, McAlester eventually parlayed his good luck and business acumen in the mercantile trade into a fortune. Although the presence of coal in the region had been known for decades, McAlester's contribution was that he was the first to find commercial markets for the product.¹

Commercial exploitation began with the arrival of railroads in Indian Territory. When McAlester learned that the Missouri, Kansas, and Texas Railroad, a southern branch of the Union Pacific, was contemplating building a track through "Cross-Roads," where the California Trail crossed the Texas Road, he promptly displayed a wagon load of the area's coal to officials of the railroad at Parsons, Kansas. "Cross-Roads," which was later to become McAlester, was where the rising entrepreneur had considerable investments. McAlester planned to convince the railroad's management of the superior nature of the region's coal, hoping it would weigh the scales to his advantage. Congressional railroad subsidies and McAlester's alluring offer of high-quality steam coal made the decision easy for the company's officials.²

First to penetrate the region, the M.K.&T. (Missouri, Kansas & Texas Railroad) quickly came to dominate the Indian Territory coal industry. The M.K.&T. was part of a complex web of railroads controlled by Jay Gould. In fact, Gould's domination of the

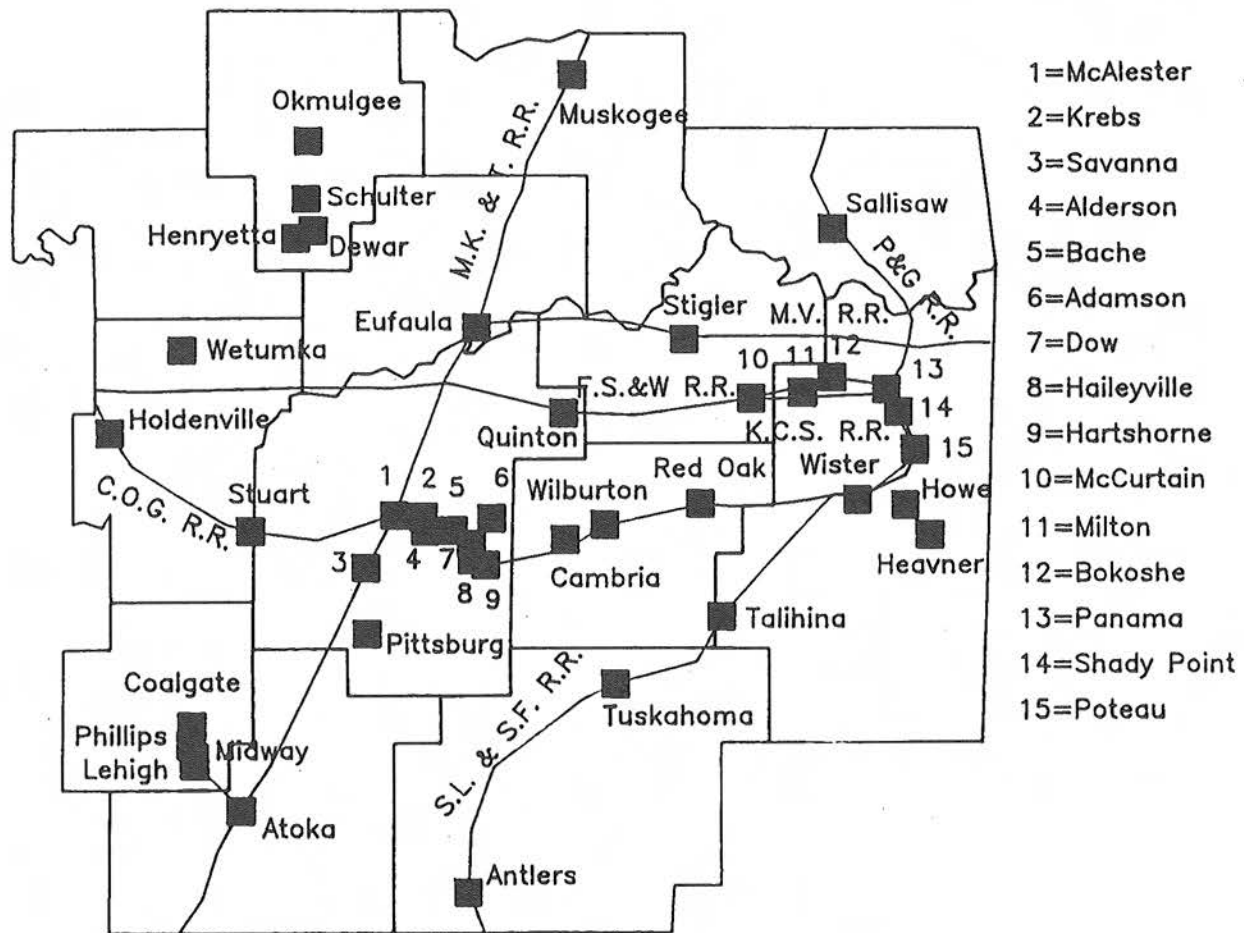
Indian Territory coal industry was so complete that a joke circulating around Wall Street at the time referred to "Jay Gould's railroad, his Territory, and his Indians." Loosely allied with Francis Gowen's Choctaw, Oklahoma, and Gulf Railway, which opened up the coal fields between McAlester and Ft. Smith, Gould and Gowen were a potent force in the regional coal industry. But their dominance was not absolute. The Choctaw Nation's financial records indicate that by 1883 at least six railroads were doing business in Indian Territory.³

The M.K.&T. railroad controlled the two largest mining companies in the Indian Territory coal industry. In the early 1870s McAlester sold his Oklahoma Mining Company to a larger concern that he and several partners had just founded, the Osage Coal and Mining Company. Soon thereafter the Katy acquired an interest in the firm and by 1888 owned it outright. The Osage Coal and Mining Company developed mines at Krebs and McAlester. The company sold its product to the Katy and had a virtual monopoly on commercial coal mining in Indian Territory until 1881.⁴

The second major producer during the 1880s was the Atoka Coal and Mining Company (AC&MC). Also owned by Gould's Katy Railroad, AC&MC operated mines at Savanna and Lehigh, supplying locomotive fuel to Texas railroads that Gould also owned. The company's operations at Savanna ceased after an explosion there killed eighteen miners. The company moved its entire operation at Savanna, including 135 company houses, to Lehigh.⁵

Indian Territory coal production mushroomed in the 1880s. In 1881, when AC&MC was established, an estimated 150,000 tons were produced. By 1887, mines in the Choctaw Nation were producing over 600,000

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Map 1. Oklahoma's Southeastern Coal Districts

tons annually. Production totalled over three-quarters of a million tons annually by the end of the decade, a five-fold increase. Development of the Indian Territory coal industry continued on into the 1890s at a rapid pace.⁶

In 1885, after a field survey disguised as turkey hunt, Edward D. Chadrick, a capitalist from Minneapolis, persuaded another titan of the railroad industry, the Lehigh Valley Railroad, to build a line that would tap the coal fields around Wilburton. The result was the incorporation of the Choctaw, Coal and Railway Company in 1887 and the construction of a sixty-seven mile line between Wister and South McAlester that was completed in 1890. This road permitted development of the coal fields at Wilburton, Alderson, and Hartshorne. Financial trouble due to land speculation and poor management put the firm into receivership in 1891, and the railroad was reorganized as the Choctaw, Oklahoma, and Gulf in 1894. Francis Gowen, appointed as the firm's receiver during its financial trouble in 1891, became president of the reorganized C.O.&G. in 1894. Gowen of Philadelphia drew from his experiences in the Pennsylvania coal industry, where the Gowens brought

in the infamous Pinkertons to infiltrate the Molly Maguires in the 1870s. The C.O.&G. remained the territory's largest producer until acquired by the Rock Island Railroad in 1902. Its mining subsidiary, the Rock Island Coal and Mining Company, continued to be one of the most powerful entities in Oklahoma's coal industry until the Depression. Other important railroads that entered Indian Territory and its coal industry during this period were the Kansas City Southern, the Midland Valley, the Frisco, and the St. Louis & San Francisco.⁷

By the turn of the century a well-developed railroad network criss-crossed Indian Territory. The Fort Smith & Western, associated with Henry C. Frick, entered Indian Territory from Fort Smith shortly after 1900. The railroad's subsidiary, the San Bois Coal and Mining Company, operated mines at McCurtain, first known as Chant. When the Denison and Washita Valley Railway Company completed a spur between Lehigh and Coalgate in 1889, it allowed the Southwestern Coal and Improvement Company to develop coal properties at Coalgate and Midway. Later, the Santa Fe extended its lines to Lehigh and acquired an interest in the Coalgate field, one of the most important in the state.

One smaller-scale line was the Split Log Railroad, which ran from Siloam Springs, Arkansas to the Indian Territory coal mining communities of Panama, Poteau, Howe, and Heavener. The railroad traversed a wooded region that supplied lumber for use in the coal industry as timbering material and railroad ties. While local Indians refused to work in the mines, they supplied much of the timber used in the mines.⁸

Smaller-scale independents operated among the huge railroad-associated mining companies. One of the most successful was Dr. D. M. Hailey, who owned and operated mines at Wilburton and Haileyville. Naming communities after themselves never troubled the coal barons, for they had few inhibitions about trumpeting to the world their role in the development of the region's coal industry.⁹

Many Indian Territory coal towns were named after the owner or operator of the local mine. Haileyville, Dow, Wilburton, Adamson, Alderson, and Phillips are only a few examples. Located on lands leased from the Choctaws, these towns were beyond the reach of government in many respects. One source agrees that "these towns were entirely without civil government." In Indian Territory coal towns, the coal barons were the law.¹⁰

Oklahoma's coal belt stretches in an arc across the southeastern part of the state. The center of mining activity ran from Lehigh to McAlester, then turned northeast to McCurtain. With few exceptions, the most notable being the Henryetta district, the lion's share of production came from this region.¹¹

Oklahoma's coal miners worked in three main types of mines. They worked in strip mines when the coal seam lay just below the surface. Plows and scrapers first removed the overburden, exposing the coal. Miners then broke up the coal with picks and shovels. Then they loaded the coal into railroad cars if it was for industrial use or onto wagons if the coal was for local consumption. If the coal was too far beneath the surface for strip mining, mine engineers sank a shaft to reach the coal seam. Sometimes shaft mines reached 600' underground. If the coal outcropped on a hillside, miners reached the coal with a slope mine, following the coal seam as it went down and into the hill. Slope mines dominated in Oklahoma's coal belt. This was largely due to the hilly nature of the region, but it was a bonus for the account books, because slope mines required far less capital investment than shaft mines and their expensive haulage systems.¹²

The miners began by driving a "main entry" to reach the coal seam. Employing the room-and-pillar system, miners opened up side tunnels that veered off the main entry at right angles. They then cut rooms into the coal seam. Huge pillars of coal remained standing between rooms to provide roof support. Miners, typi-

cally two to a room, then began the process of blasting down and loading the coal into cars for transport to the surface. The miner began by undercutting the coal using a pick. Because of Oklahoma's relatively thin coal seams, this practice forced the miner to work while virtually lying on his side, often in standing water. Undercutting was a time-consuming process that often took two or three hours. After completing undercutting, the miner hand-drilled a powder-hole.¹³

Miners prepared a shot-cartridge by wrapping a stick with pieces of newspaper, then withdrawing the stick and filling the paper tube with black powder. After placing the shot-cartridge on the end of a five-foot iron "miners needle," he inserted the shot-cartridge into the mouth of the charge-hole. This was a dangerous step, because sometimes gas collected in the charge-hole and the act of inserting the cartridge drove the gas out of the hole and into contact with the miner's open-flame lamp, igniting it. If everything went according to plan, the miner would then tamp in the cartridge with clay, sometimes in the early years with bits of coal, a very dangerous practice. Finally the miner would remove the needle and insert the squib, a portion of wax paper with a small amount of powder at its end that served as a fuse. After lighting the squib, the miner immediately departed for safer regions of the mine. The blast that followed routinely brought down a ton of coal.¹⁴

After the blast, the miner cleared away any rock and placed it in "gob" piles along the sides of the tunnels and in worked-out areas of the mine. Then the miner laid rails to his room and up to the face of the coal seam. Only then could the miner load lump coal into the coal cars, placing a metal tag on the car to inform the weighman aboveground who was to be credited for the load. The coal companies paid only for lump coal, sifting it through screens before weighing. The practice of paying only for lump coal became a central grievance of the miners' strike of 1899-1903.¹⁵

Until 1900 Oklahoma's miners worked an average of nine-and-a-half hours daily, 250-300 days annually. Wages amounted to around \$2.50 per day. Most miners worked on a tonnage-rate basis. Here lay a core problem that led to many accidents. Miners often ignored safety precautions because the tonnage rate was the basis of the wage system. This compounded an already dangerous situation. Eventually operators began hiring men as "day miners." They earned a flat daily rate. "Day miners" took care of many of the "dead work" tasks in the mine. These included laying of rails, timbering, and haulage, among many other tasks. Miners had long protested performing such jobs when they received no pay for them.¹⁶

Oklahoma's coal mines during the early years of development had the highest death rate in the nation per million tons produced. There were ten major dis-

asters prior to 1914 that claimed a total of 300 lives. This figure is deceiving, as actually over 700 miners died in the mines of the district prior to 1914. This is because the term "disaster" is misleading as at least five miners had to die in an accident before it qualified as a "disaster." Most miners died alone or in small groups of two or three.¹⁷

On January 3, 1910, John Wollock arrived for his shift at the Rock Island Coal Mining Company's Mine Number Five at Alderson. He never finished the shift. According to the State Mine Inspector's report, Wollock died when he "was suffocated by afterdamp from an explosion caused by a windy shot." Almost as an afterthought, the three-line accident report noted that Wollock left a wife and six children. Wollock's death was just one of many that occurred during the early days of the coal industry in Oklahoma.¹⁸ Death or injury could come from a multitude of causes and occur literally in a flash.

In the early years of the coal industry in Oklahoma, ignorance created almost carefree attitudes in the mines. Blasting went on throughout the day, leaving the mines filled with coal dust and powder-smoke. During the 1870s and into the 1880s, miners prepared and fired their own shots.¹⁹ When the procedure did not go as planned, miners resorted to holding "on to the props and rails to keep from being blown away by windy shots at firing time." Miners coined the term "windy shot" to describe an explosion gone awry. Peter Hanraty, one of the first miners in Oklahoma and later a union leader and the state's first mine inspector, recalled that miners would laugh as coal dust from windy shots enveloped them.²⁰

"Windy shots" occurred when the explosive charge was either under- or over-sized. Improper tamping had the same result. Too often sparks from the blast would ignite "firedamp," a combination of methane gas and oxygen.²¹ This led to a far larger and uncontrolled explosion. "Blown-out shots" caused many accidents and were especially severe when they touched off a secondary explosion of the surrounding coal dust.²²

Many accidents occurred during shot firing. This was an extremely dangerous vocation, simply the most perilous job in the mines.²³ During a three-year period in the early 1880s, Pete Hanraty was the only individual among a group of twenty shot firers in the McAlester district lived to tell about his experiences.²⁴ The United States Bureau of Mines considered the job so hazardous that "only the most reckless men are willing to act as shot firers."²⁵

A series of disasters of this type plagued Indian Territory's coal industry in the 1880s and 1890s. In 1885 an explosion at an Osage Coal and Mine Company mine near Krebs killed thirteen men. At Savanna in 1887 a windy shot touched off an explosion that killed

eighteen men. Only six died in the initial accident, but afterdamp suffocated twelve would-be rescuers when they entered the mine. Large-scale mining at Savanna ceased after the explosion.²⁶ A local poet penned "The Explosion" to document the tragedy.

It was ten o'clock at night
When this dreadful thing befell
The camp was wrapped in slumber
When there came that blast of hell.
We knew 'twas an explosion
Oh, Heaven, 'tis No. 2;
And men were buried there alive
Oh, God, what can we do? ...
Ten men, whom we should honor
While heros we admire;
Unheeding danger's warning
The deadly damp and fire.²⁷

On January 7, 1892 one of the worst accidents to occur in Oklahoma's coal mines struck at the Osage Coal and Mining Company's Mine Number Eleven at Krebs. In his haste to begin his duties, a shot firer began work while the men of the preceding shift were still in the mine, a violation of guidelines. The subsequent "windy shot" ignited the surrounding gas and coal dust, leading to an explosion that swept the entire mine. One hundred men lost their lives, and injuries crippled another 200. The disaster was the third worst mining accident in the United States prior to 1900.²⁸

The scene left by the blast was hellish. Among the first to view the gory results of the explosion was Peter Hanraty.²⁹ Three hundred and fifty men had been in the mine at the time of the explosion, most congregated at the bottom of the shaft, waiting for the cage to lift them to the surface. One report stated that "the foot of the shaft is one mass of dead bodies." The *Kingfisher Free Press* noted that "limbs, arms and headless bodies were stacked in a pile and only five out of twenty-four [found up to that point] could be identified. Six small boys who attended the fans were mutilated so badly that their own parents could not recognize them and they will be buried side by side."³⁰ Miners came from as far as Lehigh, fifty miles away, to act as emergency workers. They carried the injured to company houses and private residences that served as makeshift hospitals.³¹

A local songwriter commemorated the Krebs disaster with the following:

'Neath the ground in the coal mines,
In damp and darkness drear,
Where God's sunlight never shines,
Grim death is watching there.
But duck diamonds we must dig,
To buy the children bread,

In danger work, we cannot beg,
And work is poorly paid.
Death watches for a careless hand,
To light a fatal blast,
He crouches in the crumbling roof
And fires the dreadful gas. ...

Pity the ones left desolate
The children and the wife.³²

Following the Krebs disaster the residents of Indian Territory demanded appointment of a federal mine inspector. Congress had passed an act in 1891 that created the post, but the Harrison administration never filled the position. John Mitchell, president of the United Mine Workers of America by the end of the decade, applied for the position, but Harrison selected Luke Bryan, who both the Grover Cleveland and William McKinley administrations retained. With support from Choctaw Chief Green McCurtin, Bryan remained the mine inspector for Indian Territory until 1901 when he entered private business.³³

The effectiveness of the office of federal mine inspector for Indian Territory was questionable. The position produced few concrete results. The inspector's duties were more as a chronicler than as an inspector. The mine inspector annually sent a comprehensive report to the Secretary of the Interior, but it was little more than a listing of the previous year's accidents and production figures. During this period accidents continued to increase.³⁴

Despite resistance from the operators, changes did occur in the shot firing process in Indian Territory mines. Miners had fired their own shots in shaft mines until 1885 and in slope mines as late as 1892, but by 1897 operators employed men specifically as shot firers "in most of the mines that were dusty."³⁵ Still, in 1902, *The South McAlester Capital* reported that operators "do not regard the firing of shots during the day as dangerous to the men at work below."³⁶ Despite some operators' views on the subject, they met with the federal mine inspector and the miners on December 1, 1904. In this meeting the operators adopted guidelines regulating shot firing, but for the most part they disregarded these rules due to a lack of an enforcement mechanism.³⁷ Strict regulation would come only with statehood.

Explosions in Oklahoma's coal mines often were the result of igniting the various gases or damp that were released during the mining process. The term "damp" probably derived from the German word *dampf*, meaning vapors or gases.³⁸ Methane was a constant threat. Trapped in pockets, methane seeps into mines, occasionally under great pressure. Methane burns with a blue flame. Alone it will not support

combustion, but when mixed with oxygen it became "firedamp," a highly-explosive mixture that ignited with the slightest spark. "Firedamp" collected near the roof at the face of the coal seam. Miners detected "firedamp" with safety lamps that flared harmlessly when gas was present.³⁹

Another gaseous threat was "white damp." Created in "firedamp" explosions but also during routine blasting, "white damp" was a noxious mix of gases composed mostly of carbon monoxide. "White damp" causes drowsiness, stupor, and acute back pains followed by delirium. A concentration of 1% will cause instant death. Miners discovered its presence by the faint smell of violets. When ignited "white damp" also burned with a blue flame.⁴⁰

More common was "black damp," also known as "choke-damp." Actually carbon dioxide, "black damp" in small doses causes numbness, joint aches, nausea, headache, and choking; greater amounts cause death by suffocation. While colorless and odorless, miners detected it by its "peculiar sweetish taste," but only "when inhaled in large quantities."⁴¹

Miners used the term "afterdamp" to describe the combination of "white" and "black" damp left in a mine after an explosion. "Afterdamp" caused unconsciousness in seconds and death so suddenly that men died still clutching their tools, even their lunch.⁴² It was one of the greatest threats miners faced. Chief Mine Inspector Hanraty estimated "that fifty percent of the shot-firers" killed in accidents died "from the effects of afterdamp."⁴³

Miners surrounded by these gases commented later that they were "amongst the damp." Miners referred to these various "damps" in an almost mystical, spiritual manner. To be "amongst the damp" was to experience something only a miner could. Coupled with the strong, skilled artisanal attitudes miners held about their craft, these beliefs led to a certain aura around the profession of coal mining. Many old miners noted that although they would never want their sons to find employment in the mines, they were proud to have been miners.⁴⁴

Oklahoma's coal mines were notorious for their high concentrations of explosive methane--so high that many mines often had to be closed due to presence of the gas. One of the most infamous was Rock Island's Mine Number Eight near Hartshorne. The State Mine Inspector's reports referred to the mine as "one of the largest mines in the district," but also "one of the most gaseous." Year after year the mine inspectors referred to the mine as "very gaseous." With this omnipresent danger, it was only a matter of time before an accident occurred. In 1910 a methane gas explosion there killed ten men.⁴⁵ Finally, after repeated accidents, the operators abandoned the mine, unable to overcome the problem of inadequate ventilation. One miner recalled that

those who worked at the mine did it at great risk as "it was full of gas."⁴⁶ One mine superintendent simply noted, "ventilation was always a problem."⁴⁷

In those early years ventilation was rudimentary. Some mines had only "natural" ventilation. Other mines had a furnace at the bottom of the shaft that created an updraft that pulled dangerous gases out of the mine, but a burning furnace in a coal mine was an obvious fire hazard. When a miner detected gas in a particular room, the miner fanned out the gas with his coat or a piece of canvas. But most often the remedy was simply to mark off the area as "gassy."⁴⁸

Many miners believed that proper ventilation with large exhaust fans would reduce the possibility of gas explosions in the mines. They noted the relationship between poor ventilation and explosions.⁴⁹ The sound of the exhaust fans, which could be heard twenty-four hours a day in the coal towns, provided "constant assurance" to the miners' families.⁵⁰ Many miners contended that many operators were reluctant to invest in ventilation systems, ignoring one mine engineer's argument that "the safest mine is the cheapest."⁵¹

Mine inspectors' reports corroborated this opinion. They were littered with references to inadequate investment in ventilation. In 1909 the Chief Mine Inspector's report on the Adamson Coal and Mining Company's Mine Number Three noted that "the condition of this mine is bad. There appears to be no effort made to conduct the air to the working faces.... The whole mine shows that the management has been very careless or utterly incompetent." All too common in the Mine Inspectors' reports were comments such as "ventilation bad in this place" and "bad condition, not sufficient ventilation." One mine in Henryetta had "no ventilating system" as late as 1910.⁵² Mine inspectors had the authority to levy fines, but penalties for violating federal ventilation regulations certainly provided little incentive for mine operators to comply with the law. The fine for such a violation was "not to exceed five hundred dollars."⁵³ With fines so light, operators had little compulsion to adhere to regulations.

Insufficient ventilation led to disastrous methane gas explosions. One of the worst occurred at McCurtain on March 20, 1912. On that day a blast ripped through the San Bois Coal Company's Mine Number Two, the seventh explosion at the mine in the decade since it opened. Each resulted in fatalities.⁵⁴ Witnesses reported that a fifty-foot tongue of fire and smoke erupted from the mine's entrance. Miraculously, several miners survived by jumping into a side-room as the explosions rumbled by.⁵⁵ *The Oklahoma Miner* reported: "At 9:05 o'clock a.m. without a moments warning, and in the winking of an eye, 73 sturdy men were swept into eternity by the awful explosion."⁵⁶ *The McAlester Democrat* noted that the "disaster whiffed out the life

lamps of seventy-five miners." Somehow twenty-five lucky survivors "were rescued from the black pit of death."⁵⁷ One, a sixteen-year-old boy, began to recount the experience to his rescuers when abruptly "a pallor spread over his face" as he fell dead.⁵⁸

Rescuers found nightmarish scenes as they entered the mine. Twenty bodies, "blackened and mutilated almost beyond recognition," were brought past "rows of grief stricken relatives, who clamored for a view of the dead." As the rescue operation stretched into the following day, those involved discovered much to their own distress that they had been "trampling over the mangled forms of three men since yesterday without knowing it."⁵⁹

The San Bois disaster left McCurtain "in mourning, there is scarcely a home that some relative was not a victim of the disaster, the most appalling in the history of the southwest." With their men dead, over three hundred women and children became homeless, evicted from company housing. Towns in the McCurtain vicinity responded to the tragedy by collecting money for a disaster fund.⁶⁰ Local sources raised \$38,000, including \$15,000 from the Carnegie Hero Fund. The San Bois Coal Mining Company wrote checks to the survivors the same day as the disaster, then declared bankruptcy.⁶¹

Eventually government regulations and union pressure forced mine operators to install exhaust fans. Though exhaust fans greatly improved ventilation and reduced the likelihood of explosions in the mines, they never completely eliminated the danger. The inherent dangers of coal mining precluded this objective from ever being obtained.

Oklahoma's coal mines had the reputation as the most dangerous in the United States, partially due to certain practices of both the operators and miners. Fierce competition in the regional coal market led operators to redouble their efforts to reduce costs, often ignoring safety concerns in the process. The result was a wage system that promoted production at the expense of safety. Wages based on a tonnage rate adversely affected safety. Miners had little incentive to spend time engaged in "dead work" such as timbering and undercutting of the coal seam, both vital safety precautions for which they received no pay. The policy of "robbing" the mine's support pillars to fill rush orders worsened an already-dangerous situation.⁶²

Nonpayment for "dead work" led to a practice called "shooting from the solid." The only preparation for blasting the coal down was to drill holes for the explosive charge. No effort was made to undercut the coal to enhance the effectiveness of the charge. Often instead, "unusual charges of powder [would] weaken the roof and pillars" in the mines. This led to an abnormally high number of cave-ins and rock falls, the lead-

ing causes of death in the mines. In one of the worst accidents of this type, a cave-in at Adamson in 1914 killed thirteen men, "permanently entombing" them.⁶³ The United States Bureau of Mines reported in 1911 that "shooting off the solid...has been responsible for more accidents to miners and more loss of property than almost any other mining practice."⁶⁴

An additional drawback of "shooting from the solid" was that it pulverized a large part of the coal. This greatly increased the possibility of coal dust explosions. By the turn-of-the-century the dangers of "shooting from the solid" became recognized nationwide, and the practice fell into disuse. Still, as late as 1913, eighty percent of Oklahoma's coal was "shot off the solid." By 1929 production by this technique amounted to only about twenty percent of the state's output.⁶⁵

All too often planned explosions in the mines went awry and ignited coal dust near the charge-hole. This was far worse than a firedamp explosion, which normally only affected a localized area in the mine. Coal dust explosions created a rolling explosion effect. The initial blast lifted great clouds of coal dust. The explosion would feed upon this dust as it continued along the mine's tunnels, preceded by a shock wave that warned miners to dive into an opening before the flame swept by. Coal dust explosions traversed "miles of rooms and entries," and often "wreck[ed] structures at the entrance to the mine."⁶⁶ In an accident at Wilburton in 1904, "a sheet of flame was seen to shoot out of the mouth of the slope to a height of over a hundred feet." The explosions hurled two 100 pound blocks of coal 300 feet from the mine's entrance.⁶⁷

Miners could be far from the starting point of an explosion and still feel its terrible effects. On March 12, 1903, W. S. Burgess and his son Jess prepared a shot charge in Great Western Coal and Coke Company's Slope Mine Number Two. They were over 1000 feet away from the charge when an explosion ignited by a "windy shot" outran them. "The force of the explosion threw both men with such force that Jess was killed instantly," his "head crushed to jelly." His father fared little better, so severely injured that he died two hours later.⁶⁸

Spectacular explosions that took many lives captures newspaper headlines, but accidents that resulted in the death of an individual or a small group were more common. In one example from 1909, William Hutchinson, a fifty-three year-old Scotsman, prepared a shot-charge in the McAlester Coal Mining Company's Mine Number Six. After lighting the fuse, Hutchinson moved on to the next room to prepare a charge there. Unfortunately for Hutcheson, the coal pillar between him and the first charge was inadequate for protection from the blast. The shot blew through the pillar and the flying coal hit Hutchinson with such force that he was

thrown across the room and "almost completely disembowelled."⁶⁹

Carelessness caused many accidents. One engineer survived a trip into a mine in 1910, but in the process of examining the machinery that lowered men down the shaft, he leaned forward just as miners below called for the cage to be lowered. It was, "catching Mr. Greene's head and killing him instantly."⁷⁰ In another accident in 1910, Hugh McLary was preparing a shot-cartridge when a spark from his open flame lamp ignited the powder. The Mine Inspector's report noted that "it is almost useless to moralize on this accident, as it has occurred so often in the past in different places, and I wonder why men grown old in the mines will still insist on making up the cartridges with a flaming torch on their head, but such is the fact."⁷¹

In the mines a moment of thoughtlessness could result in instant death. This occurred at the Milby and Dow Coal Company's Mining Number Nine in November, 1911. While sinking a new shaft, two men died when they connected a shot-charge to electrical wires still attached to a battery. The Superintendent of the Mine noted that "the accident was a strange one...the engineer...must not have disconnected the wires from the switch."⁷²

Statehood and the poor safety record of Oklahoma's coal mines led to the establishment of a Chief Inspector of Mines in 1907. The first individual to occupy this office was the long-time Oklahoma labor leader and miner, Peter Hanraty. But establishment of the position did little to improve safety conditions in the mines. In the year ending on June 30, 1912, there were 103 fatalities in Oklahoma's coal mines. The result was 30,610 tons of coal mined "for every man killed."⁷³ The President of the Oklahoma School of Mines lamented that "one man is killed on the average, in the Oklahoma Coal Fields, every week, and one man is crippled every day that the mines operate! The number of widows and orphans and cripples in this district would make an army."⁷⁴

Eventually strict enforcement of mining laws lessened the dangers of the occupation. At the same time, the United Mine Workers continued to press for improved safety in the mines. Under pressure, the operators came around to the view that "the safest mine is the cheapest." "Shooting off the solid" fell into disuse. Slowly mine operators improved ventilation, installed water sprinklers, and implemented the practice of spreading inert rock dust throughout the mine, all of which reduced the likelihood of disastrous explosions. Mining officials found shale dust an especially effective fire retardant. Piled upon elevated planks in the mine, an explosion's shock wave knocked the dust into the air, stopping the advancing flame that followed. A Bureau of Mines inspector, writing in the mid-1920s, noted that

although the value of "rock dusting" had been documented for at least ten years, the "coal-mining industry of this country did not seek to adopt the practice until recently."⁷⁵

From its beginnings in the 1870s, Oklahoma's coal mining operations employed thousands of men by the turn-of-the-century. Production increased steadily during this period. As production increased, so tragically did the number of accidents. Slowly over the years new technology, improved training, and government regulation all reduced accidents. While improvements in safety did occur, they came too late for the thousands killed and maimed while "amongst the damp" in Oklahoma's coal mines.

ENDNOTES

- ¹Paul Nesbitt, "J. J. McAlester," *Chronicles of Oklahoma* 11(June 1933): 758-64; James F. Holden, "The B.I.T." The Story of an Adventure in Railroad Building," *Chronicles of Oklahoma* 11(March 1933): 637-66; *Star-Vindicator* [McAlester], 3 February 1877.
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