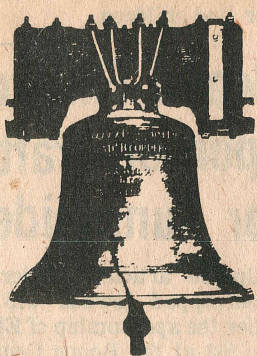


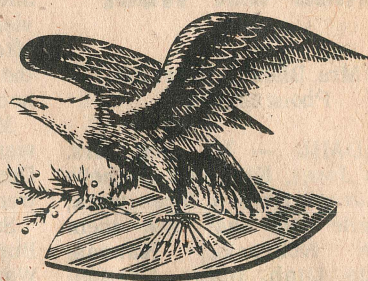
MADRID

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BICENTENNIAL

1776-1976



"Rememberances of Days Gone By"

Boone Co. Coal Mining Began in Early 1800's

One of the most useful rocks dug from the ground is coal. It is usually a soft black or brown in color and, its ability to burn makes it very important in providing heat for steam in generating electricity. Baked coal, called coke is used in blast furnaces to produce steel and coal can be made into other kinds of fuel and hundreds of useful chemical products.

The use of coal dates back to the Bronze Age, 3-4000 years ago where it was used by the Welsh and Chinese to burn their dead.

Coal, coupled with iron ore and petroleum helps make the United States one of the top industrial nations in the world. It ranks second, only to Russia, in total world production, producing 563 million tons according to 1972 figures.

Two general methods are used in mining coal: 1) strip (surface) mining and 2) underground (deep) mining.

An underground mine is a system of underground workings for removing the coal from sometimes extreme depths to the surface. This task usually involves the deployment of men and machinery.

There are several basic physical elements in underground mining systems. The passageways or openings in the mines are called drifts if they run parallel to the geologic structure, slopes, if they run vertically and cross-cuts if they criss-cross. They range in size from 60-200 feet square in a cross-section depending on their specific function.

joined with those on another level by passageways of similar cross section, called raises if they are driven upward and wings if driven downward to connect. These passageways give access to and provide transportation routes from the slopes which are the excavations where the ore is mined.

When the coal seam has been reached in an underground mine, two methods can be used in removing it—longwall or room-and-pillar method. The method used depends on the thickness of the seam, depth of the coal, and type of rock forming the roof of the mine.

In the room-and-pillar system, tunnels are carved into the seam, leaving pillars of coal for support. In some mining operations, the pillars are removed allowing the overlying strata to collapse while in others, the pillars are not recovered. In longwall mining, widely spaced tunnels are driven, saving large blocks of coal. These blocks are later extracted, allowing roof material to collapse behind the coal face as it is removed. These processes were both used in the Madrid and Boone County areas.

Iowa Coal Mining

The earliest record of coal mining in Iowa dates back to 1840 when, according to U.S. Census reports, 400 tons were extracted. It is also reported that these early operations were in Jefferson county and that Fairfield coal was hauled by wagon to blacksmiths in Mississippi River towns years before any railroad reached into Iowa. The first mines opened in the state were near Farmington and Douds in Van Buren County and near Jamestown in Scott County.

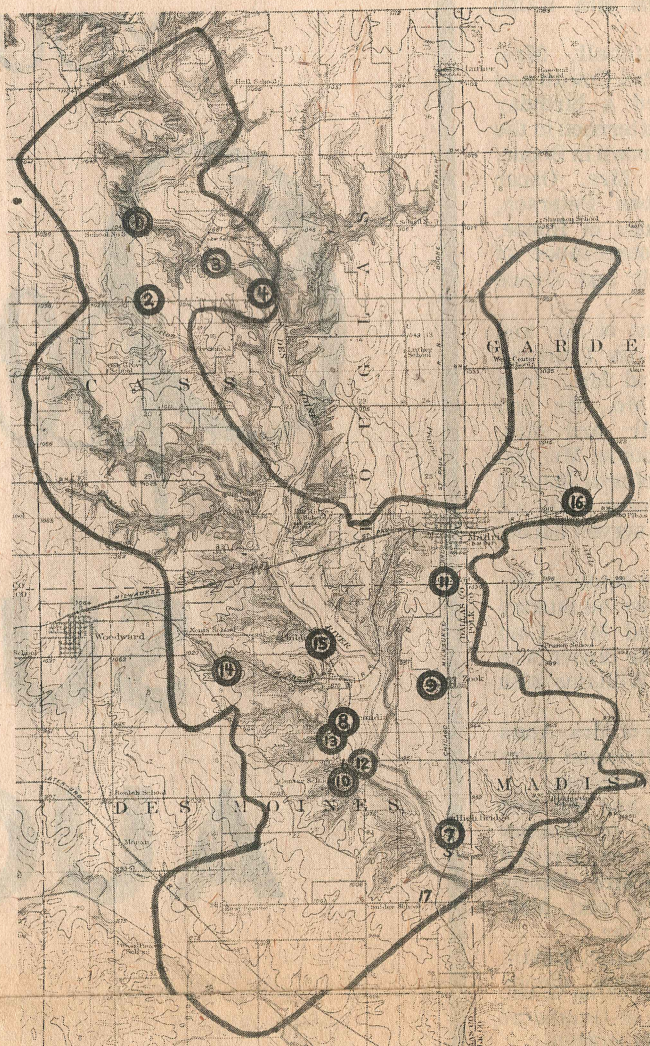
The State Mine Inspection Department was created in 1880, with Parks Wilson appointed mine inspector until 1886. At this time, the law was changed creating three inspection districts and by 1949, this again had been changed to two districts.

It was 1934 when the number of Iowa mines reached its peak at 510. Miners, unable to gain employment in larger companies grouped together organizing smaller companies. Employment reached its peak in 1909 and 1910. The mines employed 18,002 in 1909 and 18,005 in 1910. Employment steadily declined from that point on until in 1943, when 2821 miners were employed.

Mining was a job not without injuries or fatalities and this was shown in 1902, when 55 deaths were recorded, 20 of which occurred in a mine explosion at Lost Creek near Oskaloosa on January 24, 1902. This was classified as the worst catastrophe in the annals of the Iowa Mines.

A state-wide mine safety contest was sponsored by the State Council in 1933 and the Madrid Safety Chapter of the Scandia Coal Company earned the safety trophy for the lowest accident frequency rate.

Boone County coal is of low-grade bituminous quality and was sold to local trade.



This is a geological map of the Boone County area in 1911. The blue outline shows the major coal area in the county and the different numbers marked show the different mines located around the Madrid community. 1. Blythe Mine or Driscoll Mine. 2. Robert Porter Mine. 3. Wisecup Bank Mine. 4. Knox Bank Mine. 5. Reese Brothers Coal Company. 6. Lincoln and Sons Coal Mine. 7. High Bridge Coal Company or Scandia Mine Number 5. 8. Scandia Mine Number 1. 9. Scandia Mine Number 2 or the Zook Spur Mine. 10. Scandia Mine Number 3. 11. Scandia Mine Number 4. 12. J. R. Strange and Sons Coal Company. 13. Chestnut Valley Coal Mine. 14. Carpenter Coal Company. 15. Phillips Fuel Company. 16. Scandia Coal Company Mine Number 6. 17. Dallas Fuel Company.

Boone County Mines

Mining in Boone County began in the early 1800's and by the 1870's, mines in the vicinity of Angus assumed statewide leadership in the production of coal. Veins averaged from four to six feet in thickness, but due to excessive amounts of sand and water overlying a thin strata of slate, mining became very expensive and all mines in Angus were abandoned by 1910. Up to the discovery of coal in the Madrid vicinity in the early 1900's, the majority was done around Boonesboro, one-half mile west of Boone.

There were two main seams in Boone County that extended, north and south across most of the entire county, situated along the Des Moines River. The "upper" coal bed was approximately 225 feet below the surface while the "lower" bed was approximately 275 feet beneath the surface.

Local mines were opened around 1870 along the river, south and west of town. All the mines operated intermittently and only supplied the immediate area during the winter months. Virtually no coal mining was done in Dallas County until 1906 when coal was discovered at Scandia, two miles east of town.

Mining in Madrid

The Madrid coal fields were situated in the southern portion of Boone County and extended into north-eastern Dallas County as well as northwest Polk County. Most of the mining however occurred along the Des Moines River in Boone and Dallas counties.

Mining in the Madrid area before the 1880's was on a small scale with usually no more than three men working at a mine. Greatest production occurred usually in the fall and winter seasons, but tonage varied with different seasonal periods.

It was not until August 18, 1881 that mine inspection began but it was the duty of one inspector to comb the entire state. The law at this time did not require inspections where less than 15 miners were employed. Madrid mines weren't checked because of this small number employed.

Madrid was in the third inspection district and it wasn't till the late 1880's that the following laws were adopted: Sec. 7 — Owner or agent of mines shall make

a map or plan of same; Sec. 8 — There shall be two separate outlets to every seam of coal worked; Sec. 9 — Owner or agent of mine shall provide ventilation of not less than 100 cubic feet of air per minute for each miner; Sec. 10 — A metal tube shall be put in shaft for communication from top to bottom. Sec. 11 — Engineers must be experienced, competent and sober; Sec. 12 — Number of persons on cages to be determined by Inspector; Sec. 13 — No boy under 12 years of age permitted to work in mines; Sec. 14 — Owner or agent liable for damages in case of negligence; Sec. 15 — Misdemeanor for miners to neglect to prop the roof of rooms in their charge; Sec. 16 — Inspector may be removed for malfeasance in office or incompetency; Sec. 17 — Owner or agents shall furnish timber for props whenever required; Sec. 18 — The Executive Council shall appoint a board of examiners; Sec. 19 — Labor performed in opening and developing mines a line upon the property.

The Driscoll Mine — Located at the base of a steep bluff four miles north of Madrid along the Des Moines River, this mine was apparently in existence for some time before it was included in a mine report in 1906. The second horizon (layer) of coal was worked, and it outcropped at nearly the same level as the water in the Des Moines River. A tramway was built to haul the coal from the mouth of the mine to the top the bluff and the power was provided by a small steam engine. The slope was 100 feet long by 1907 and reached the three foot average coal bed three feet beneath the river level. The mine does not appear after the 1907 report.

The Wisecup Bank — A drift mine (almost horizontal passageway in a mine along a vein of coal, ore, etc.) located in the same area as the Driscoll mine. The passageway measured 300 feet by 1907 and a tramway system pulled by horses was used to haul coal from the mine to the top of the bluff. The mine apparently ceased operation by 1900.

The Knox Brothers Mine or Knox Bank — located in the same vicinity of the above two mentioned existed as early as 1888.

The coal bed was exposed on the side of a bluff 75 feet above the Des Moines River with horses providing the necessary power to haul the loads up the bluffs. The name was changed to the William Knox Coal Company around 1900 and William Knox was named mine superintendent.

A new mine was opened shortly after and utilized the room and pillar plan of working. All coal was sold locally and the mines were apparently abandoned by 1907.

The Robert Porter Mine — The Robert Porter drift mine operated one mile west of the Knox mine in northern Cass township until 1894. This mine, along with the one owned by the Knox Brothers was one of the earliest in the area. Both mines were opened only during the winter months and employed about six men.

Another equally important mine was the Cork Mine on Cork Bank located North of Madrid around 1900. Its exact location is not known but it was on the east side of the stream below the Ledges State Park. A shaft of 52 feet and the longwall plan of working were used in mining the coal. A furnace warmed the air at one end to provide a means of air circulation. All coal was sold to local residents.

The Carpenter Coal Company — This mine was the largest found in Dallas County in terms of coal tonnage at the turn of the century. It was the first shipping mine in Dallas County and was owned and operated by two Carpenter brothers. It was located on the old Chicago, Milwaukee and St. Paul railroad between Madrid and Woodward and was one mile north of Scandia.

Like so many others, it was a shaft mine using the longwall plan of working and used steam power to ventilate the fan and raise the hoist. Mining at this particular mine lasted only from 1899-1900 but these same two brothers sank shafts under the trade name of Scandia Coal Company and it became the most influential mine in either Boone or Dallas counties.

The Reese Brothers Coal Company was the second largest mine in Dallas County at the turn of the century and had two shafts in production using the longwall plan like so many other mines in the area. A Des Moines firm acquired the company in 1907 and renamed it High Bridge Coal Company.

The J. R. Strange and Sons Coal Mine was the third largest mining operation in the Madrid area around the turn of the century. Originally named the Tabor Shaft, the mine had a shaft depth of 43 feet and a coal bed average thickness of 2½ feet. Using the longwall mining method, a furnace provided ventilation and horses were used in hauling coal. Fifteen men were employed during the winter months of 1899 and this was the last year of its operation. The J. R. Strange and Sons Coal Mine was located on the west side of the Des Moines River near Chestnut Ford, a mining town from 1885-1898, 2½ miles southwest of Madrid.

The Chestnut Valley Mine — owned and operated by Ole Olson was in operation from 1901-1904. A shaft mine of 112 feet deep, the coal bed was located one-half mile north of the Strange mine and worked the same coal bed. The drill for the Chestnut Valley mine was discovered a coal vein four feet thick at a depth of 171 feet, that became known as the "lower" horizontal coal bed of central Iowa, but coal was never exploited from this mine.

Scandia Coal Company, Mine Number One — was owned by the Carpenter Brothers in 1906 but at that time a shaft was driven into the "lower" horizon coal bed under the supervision of H. Zook. Scandia acquired the mineral rights for 1400 acres, marking the beginning of the largest scale coal mining in the Madrid area. Operating under the room and pillar plan, a steam engine provided the power for the lifting elevator and ventilating fan. Coal was then shipped on a spur line from the old Chicago, Milwaukee and St. Paul railroad line between Madrid and Woodward. The mine was apparently abandoned in 1917.

High Bridge Coal Company began operation in 1907 with the sinking of a new 220 foot shaft to the "lower" horizon coal bed 200 yards from the abandoned Reese Brothers Coal Mine Number One which exploited the "upper" horizon coal bed. Utilization was made of the room and pillar plan of excavation and a steam engine provided power for the elevator and ventilating fan. A second mine was opened ½ mile west of Mine Number One in 1913 but this operation was very short-lived, closing in 1914. High Bridge Coal Company Mine Number One continued operation until it was purchased by the Scandia Coal Company in 1926, when it then became the Scandia Coal Company Mine Number Five. Four other Scandia Mines were opened in the Madrid area.

The Zookspur Mine Or the Scandia Coal Company Mine Number Two — located one and one-half miles south of Madrid at Zookspur was opened in 1911 and was similar in operation to High Bridge and Scandia Number One except that it was equipped electrically. H. Zook was mine superintendent until 1917 when he was replaced by Owen Reese, son of W. J. Reese, who owned Reese Brothers Coal Mine at the turn of the century. Coal from this mine was shipped to various parts of the state by means of the Chicago, Milwaukee and St. Paul railroad, Boone branch.

Scandia Coal Company Mine Number Three — was opened in 1916 and was located one-quarter mile west of the J. R. Strange and Sons Coal Mine. H. Zook was also superintendent of this mine. Good quality coal was found in this mine, the latest of mining equipment was used and all foreseen great potential from this operation. Work at the mine halted in 1917 when the Des Moines river broke into one of the passageways and flooded the mine.

Scandia Coal Company Mine Number Four, was the largest mine in operation in terms of total tonnage produced, and was also the mine in operation the longest, lasting from 1916-1943. Located one-half mile south of the city limits of Madrid, Owen Reese served for 20 years as mine superintendent before C. T. Carny assumed the position. Electrically operated, the annual output of the mine was 250,000 short tons. Upon its closing in 1943, the mine still produced 67,000 tons of coal.

Scandia Coal Company Number Five was owned by the Carpenter Brothers, purchased by the High Bridge Company and renamed the Scandia Coal Company, Mine Number Five in 1926. Owen Reese served as mine superintendent until it was abandoned in 1931.

Eagle Mine or Scandia Coal Company Number Six operated from 1926-1939. Located two miles east of Madrid on a spur track from the new Chicago, Milwaukee, and St. Paul Railroad, the mine was operated electrically and used the room and pillar method of mining. The shaft was sunk by the Sayer Brothers of Des Moines and the average tonnage was 50,000 short tons.

The Phillips Fuel Company. The discovery of large amounts of coal in the Madrid area around 1906 prompted several other companies to prospect here. Only one established a mining operation to exploit the coal field which was the Phillip's Fuel Company of Ottumwa. A shaft was sunk one mile north of Scandia Mine Number One where a mining town was eventually formed called Phildia. Wallace Convey was superintendent of the mine while it was in operation from 1910-1915 and the methods of working were almost identical to the Scandia Mine Number One.

During the 1930's and 1940's, many small mining operations, employing 10 men or less started again. Most of the mines were located along the Des Moines River and supplied coal for local people and businesses. The mines were similar to mines which operated in the late 1800's with the exception that gas engines replaced the steam and horse power in some of the mines.

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