

# Gas Boom

Muncie Physician Arthur J. Phinney Played Important Role in Central Indiana's Natural Gas Boom During the Late 1800s

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WHEN the natural gas boom started in East Central Indiana in the late 1880s, a Muncie physician played an unusual role.

The physician, Arthur J. Phinney, an accomplished amateur geologist, observed and studied borings and records of the Indiana Natural Gas Field during that period, reports Walter H. Pierce, Ball State University geology researcher.

"Dr. Phinney developed advanced concepts of the trap, reservoir and pressure aspects of the gas field," says Pierce. "He became Indiana's first subsurface geologist!"

"He worked at geology in spare moments, but Dr. Phinney's work was of such high quality that he attracted the attention of John Wesley Powell, then director of the United States Geological Survey," the Ball state professor continued.

Powell, who had already gained fame for his dangerous 900-mile journey down the Colorado River and through the Grand Canyon by boat, was so impressed with Dr. Phinney's series of reports on the Indiana Natural Gas Field that he sent W.J. McGee to visit the physician during the fall of 1887.

"One of Dr. Phinney's most striking contributions was his list of requisites for a gas field," notes Pierce. "He listed six requirements. The only thing missing is what the geologists know as a carrier system — permeable rock through which oil floats on water."

Pierce adds that the physician was one of the first geologists to state that hydrostatic pressure — the weight of resting water — played a role in gas migration.

"Dr. Phinney initiated the study of the gas field at his own expense, but Powell's interest got him an appointment as U.S. geological surveyor for the Indiana Gas Field," Pierce reports. "Arrangements were made to publish his completed work. The task took three years."

John B. Patton, present Indiana state geologist, believes Dr. Phinney's paper on the Indiana Gas Field was "one of the earliest and best in the annals of petroleum geology."

How did this remarkable physician become interested in geology?

"Nobody knows," replies researcher Pierce. "He was born in Geauga County, Ohio, in late August 1850, lived to be 92 years of age, but spent only 15 of those years doing geologic research. During all of those 15 years, he kept up his medical practice and was more productive than many highly trained geologists."

Dr. Phinney's education offers no clue to his interest in geology. He received his high school education at Geaugy Seminary and attended Oberlin College for a year before going to Allegheny College, Meadville, Penn., for an additional two years of study.

"Dr. Phinney concentrated on science and mathematics during this period of his education," said Pierce. "He taught 'common school' and then, in 1875, started his medical studies at the age of 25."

"He attended the College of Wooster and Western Reserve Medical School," Pierce went on. "Then he entered Pulte Medical School, Cincinnati, and was graduated in 1877."

Known as a very precise man, the physician-geologist described the early Eaton well with great attention to detail.

"The gas has some odor," wrote Dr. Phinney, "though not very unpleasant, it burns without smoke, and is thought to be free of sulfur. The roar produced by the escaping gas can, under favorable conditions, be heard a distance of two miles. A two-inch pipe was extended from an elbow at the top of the casing to a point 18 feet above the derrick, or 90 feet from the ground. Another two-inch pipe was extended horizontally from the elbow about 60 feet from the well."

"Both pipes were furnished with a T, giving four places for escape of the gas," he continued. "When lighted, the flame from each was about 10 feet long. The light could easily be seen from Muncie, 12 miles south, and I was told that it had been seen 20 miles."

At the time Dr. Phinney wrote this, he was 36 and the acknowledged expert on the geology of the region.

"Dr. Phinney became the authority on the geology of East Central Indiana," asserts Pierce. "His understanding of the entrapment of hydrocarbons was probably further advanced than that of most geologists of his time. His description of the Trenton Gas Field may be the earliest description of a carbonate stratigraphic map."

Pierce says Dr. Phinney made the first structural contour map of the state of Indiana, the first map of the Trenton Gas Field, and the second color geologic map of Indiana.

In 1892, at 42, Dr. Phinney put geology aside. He sold his collections of fossils, minerals and land shells which numbered greater than 17,000. These were all classified and labeled.

"Perhaps Dr. Phinney wanted to simplify his life and devote more time to medicine," speculates Pierce. "It was geology's loss. He was more productive than many professional geologists."

Dr. Phinney continued to practice in Muncie until 1907 or 1908 when Pierce believes he moved to Indianapolis and practiced a few years and then retired.

The last few years of Dr. Phinney's life were spent in the Masonic Home at Franklin.

Dr. Phinney's wife died in 1923 and their only daughter Louise, died in 1940 — two years ahead of her father.

All three were buried in Muncie's Beech Grove Cemetery. The graves of Dr. Phinney and his daughter do not have markers.

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