



Abraham Lincoln

President, U.S. Congressman, State Representative, self-taught lawyer.... and surveyor

He was the sixteenth president of the United States. He successfully led the country through its greatest internal crisis, the American Civil War, preserving the Union and ending slavery. Before becoming the first Republican elected to the presidency, Lincoln was a lawyer, an Illinois state legislator, a member of the United States House of Representatives, a captain of the militia, and, a surveyor. The gangly, bookish Illinoisan who galvanized millions across a country in crisis with his soaring rhetoric had a curious intellect, devouring history and memorizing passages from Shakespeare. Raised in a family of modest means, Lincoln started working at an early age, taking up various jobs before becoming Deputy Surveyor of Sangamon County, Illinois. Robert E. Church, executive director of Illinois Professional Land Surveyors Association, believes that it was Lincoln's career as a surveyor that profoundly influenced his political career.

LINCOLN AS A LAND SURVEYOR: AN OVERLOOKED CHAPTER IN THE LIFE OF ABRAHAM LINCOLN

—by Robert E. Church

Abraham Lincoln is easily the most recognizable American of all time. Every child in this country can name him by first grade, and so do countless of millions who will never set foot in the United States. On February 12, we will mark the 200th anniversary of his birth. Across the country, countless events and exhibits will tell the story of this remarkable man. I want to make sure that the story of his contribution to our country as a surveyor gets told as well.

It's 1832. The 23-year old Lincoln lives in New Salem, a tiny village in central Illinois about 20 miles northwest of Springfield, the state's current capital. He runs for the Illinois state legis-

lature and is defeated. Undeterred, the young man of big dreams and even bigger ambition takes up surveying, earning good money and people's respect. His repeat run in 1834 launches his career in the legislature but it does not take him away from surveying—not for another three years at least.

Lincoln performed thirty property surveys and several road surveys between 1833 and 1837 while living in New Salem. As the Deputy Surveyor of Sangamon County he also laid out, in 1836, the nearby towns of Albany, Bath, Huron, New Boston, and Petersburg.

Lincoln was a surveyor before he became a politician; but politics created the conditions for surveying to be in demand just when Lincoln was looking for new professional opportunities.

Illinois had become the 21st State in 1818 and John Calhoun, County Surveyor of Sangamon County (which included New Salem at the time) was very busy. Settlers were seeking land to





LINCOLN
ILLINOIS BICENTENNIAL COMMISSION

purchase, and many of the original survey corners were obliterated and needed to be restored.

There were the usual boundary fence line disagreements, and speculators were laying out towns and offering lots for sale. Roads were surveyed to relocate the trails. Calhoun needed help, badly. He decided to ask Lincoln to work for him as deputy surveyor.

"I know nothing of surveying," remonstrated Lincoln. "But," said Calhoun, "They tell me you can learn anything."

Indeed, he could. He learned trigonometry and surveying principles; he studied law; he was a self-taught military strategist; a visionary who wrote the historic "House Divided" speech, and a commander-in-Chief who changed the course of the Union with his Proclamation of Emancipation.

Lincoln, who had just become a member of the Wig party, was very up front with Calhoun about his political aspirations. "If I can be perfectly free in my political action I will take the office, but if my sentiments, or even expression of them is to be abridged in any way, I would not have it or any other office." Calhoun, a Democrat, gave him the job.

That settled, young Lincoln threw himself into mastering his new job. He read surveying books and consulted the local schoolteacher, Mentor Graham. One of the books Lincoln read was Flint's Survey, a System of Geometry and Trigonometry, which was particularly useful where the Metes and Bounds system was in use. He

studied the first chapter on geometry and the second chapter on trigonometry over and over.

Lincoln was acquainted with legal descriptions of land. He knew about the "Metes and Bounds" system used in Kentucky, where Daniel Boone had surveyed land for Abraham Lincoln's grandfather. There is a record of Lincoln saying that his father had moved from Kentucky partly because of the defective land titles there.

Lincoln also knew about the rectangular system in Indiana, which was evidenced by the story that one time when his father proposed to sell some land to a neighbor, young Abraham read the deed and warned his father that if he signed it as it was written, he would be deeding away the whole farm.

Having prepared himself to survey, Lincoln needed to acquire a surveyor's compass, a Gunter's chain, a set of marking pins, a couple of plumb bobs, a few flags or range poles, an axe, and stakes. He also had to have a field book in which to record his surveys.

By law he was required to "carefully and legibly" record and note every survey made by him. He was required to note the name of the person who the survey was for, the members of his survey crew, and describe the Metes and Bounds of the land from the Original Survey notes.

There is ample evidence of Lincoln's skill as a surveyor. Disputants over land boundaries frequently submitted their controversies to him, confident of his honesty and competence. Lincoln's surveys were accurate in comparison with much of the original government surveys. More often than not, his findings ended the disputes.



The two well known surveyors: George Washington and Abraham Lincoln



Pollard Simmons (left) brings the news to Lincoln about his appointment to deputy surveyor



Surveyor Lincoln's tools of trade: A Rittenhouse compass and a Jacobs staff

His research took him to the Federal Land Office in Springfield to review the original government survey plats and determine where exactly the settlers' lands were located. The 18" x 18" original plats were hand drawn and colored in St. Louis from the notes of the original surveyors. There are over 3,300 plats that cover Illinois. This information showed the Bearing Trees from which to locate and re-establish section corners.

As far as we know, Lincoln made no maps of his farm surveys. He did the survey and wrote his notes, but there was no need to furnish the farmer with maps of their farms because they already knew where their farms were. They only wanted to know where they should build their boundary fences.

Lincoln learned that the base line of the Original Government Survey ran east to west across southern Indiana and was extended across Illinois in the early 1800s. He also knew about principal meridians and that the Third Principal Meridian had been run due north from the base line and extended southward, crossing the base line near Centralia, Illinois. Lincoln's survey work was north of the base line and west of the Third Principal Meridian, much of it in Townships 17, 18, and 19 North, and Ranges 6, 7, and 8 West.

Surveyor Lincoln was very busy. In his first year, he billed Sangamon County for survey work and map making; he witnessed deeds, drew up deeds and mortgages, and signed a petition to the County Commissioners to lay out a road from Petersburg to Beardstown.

One of his first property surveys was for a man named Reason Shipley who came to Sangamon County via Kentucky and Baltimore, Maryland. The original survey plat of 320 acres of land prepared by Lincoln in 1826 and later signed by president Andrew Jackson was almost lost during an energetic housecleaning by Shipley's granddaughter decades later. The Reason Shipley Survey Plat is now in the possession of Lincoln Nation Life Insurance Company in Fort Wayne, Indiana.

Another well documented survey Lincoln performed was for Russell Godbey, who needed him to locate the exact boundaries of 80 acres. Godbey's land lay six miles north of New Salem and about a short half mile east of the Sangamon River. When the first surveyors ran a true line West between Sections 19 and 30, the distance would not have been a full 80 chains, because it ran into the Sangamon River.

Lincoln often had the landowner help with the surveying, usually to carry the chain. But, despite outstanding help from Mr. Godbey, Lincoln learned what beginning surveyors always learn—that running a line through mud and water, and dragging a chain through briars and brush required boots or high lace shoes.

Being alert for future business opportunities and painfully aware of the need for more and better roads than were the horseback trails, he wrote and signed a petition to the Sangamon County Commissioners to request that a road be laid out from Musick's Ferry on Salt Creek to the county line in the direction of Jacksonville, west of New Salem. The petition was granted.

One of Lincoln's most important surveys was laying out the town of Petersburg, which would become the County Seat of Menard County in 1839. On February 17, 1836, Lincoln filed a plat, noting, "I hereby certify that the town of Petersburg has been surveyed according to law and that it is a correct plat of the same." According to the plat, he laid eight blocks west from the northwest curve of the Sangamon River, and eight blocks south.

This made almost sixty-four blocks of eight lots each, except four blocks were left out where the river ran. In accordance with the survey practices of the time, he numbered the blocks beginning with the northeast one and continued westward. Block number 3 was not divided; this was to be the public square and the site of the hoped for courthouse.

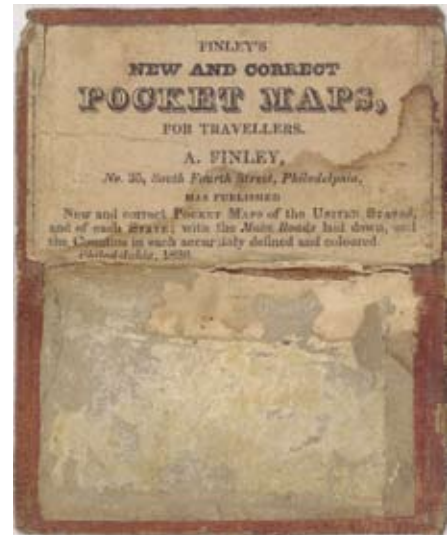
The streets and lots were laid out 66' wide, which is the length of a full Gunter's chain. Lincoln ran the alleys sixteen feet wide north and south through the blocks, taking eight feet off opposite lots to leave them with a depth of only one hundred and twenty-four feet.



Surveyor Lincoln got a horse—for riding as well as carrying his supplies. A story has it that he obtained the animal on credit.



Surveying Petersburg, Illinois



While performing the survey of Petersburg, Lincoln stayed at John Bennett's new hotel. Bennett and Lincoln were good friends, both socially and politically, and Bennett, no doubt, saw to it that Lincoln had a good room where he would not be bothered by well meaning friends.

Lincoln also used the room as an office where, with drawing board, T-square and triangles, he measured off the blocks in inches and ruled the lines. He inked the lines and when they were dry he rolled a fist full of stale bread into a putty-like ball and used it as an eraser to wipe the drawing clean.

After Lincoln surveyed Petersburg, Bennett decided he would become a developer and sell lots. He commissioned Lincoln to lay off an addition to be known as Bennett's Addition in June, 1837. It was northwest of the public square. On June 6, 1837 Lincoln certified for the record that the plat of John Bennett's Addition to Petersburg was correct as surveyed by him.

You've probably all heard the story that Lincoln "skewed the line" in the Petersburg survey. Some 25 years after the town had been platted, several property owners along one side of an outlying street had trouble establishing their property lines.

They consulted Lincoln's original plat but got no relief. A committee was sent to Springfield to consult a distinguished surveyor who could not offer any answer. He referred them to the records, and eventually the problem went to court.

While the trial was pending, an old Irishman named McGuire, who had been working for farmers during the summer, returned to Petersburg for the winter. When the court case was mentioned in his presence he promptly said, "I can tell you all about it." McGuire helped carry the chain when Lincoln did the survey, and his story reveals the compassion Lincoln had for other people. Apparently, while locating the street in the area of the later dispute, he straightened up from his instrument and said, "If I run the street straight through, it will cut four feet off of the end of Jemima Elmore's house."

Mrs. Elmore was the widow of a soldier who had been killed in the Black War while serving with Lincoln. The house was all she

had. According to McGuire, Lincoln did not think it would "hurt anything out here if I skewed the line a little and miss the house."

There is not much that can be told about the town of Albany, which Lincoln also surveyed. It never existed long enough to leave a ghost. The only thing created at Albany was the paper plat that Lincoln plotted. The late Harry Pratt, an Illinois State Historian, mentions this plat in his book, *Lincoln Day by Day*.

The would be town of Huron, which was to be located north of New Salem along Sangamon River, suffered similar fate. In 1836, Lincoln surveyed the area. The town was platted at the planned junction of a shipping canal that was intended to better connect central Illinois to the Illinois River. The plans for the canal fell apart during the Panic of 1837, and the town was never built. It is still a cornfield today.

In 1833, the federal government decided to change the schedule for mail delivery and petitioned the County Commissioners Court to relocate the road between Sangamon Town and Athens, Illinois. On June 3, 1834, the Deputy Surveyor of Sangamon County was appointed by the court to survey the road relocation of the road.

Lincoln started his survey at Sangamo Town and ended by setting a stone at the intersection of what is now known as Main Street and Jefferson Street in Athens. The Lincoln survey was completed on November 4, 1834 and the road became known as "The Post Road."

While nearly all of Lincoln's surveys were performed near New Salem, one was done for Elijah Iles, a businessman in Springfield, who speculated in farmlands and "hedged" lots in future towns. Lincoln was hired by Iles's agent Peter Van Bergen to lay the town site of New Boston on the Mississippi River. During the survey, a debt note from his and Berry's storekeeping times was purchased by the agent. Berry was dead when the note was called, and Lincoln was taken to court for not being able to pay the debt off. He lost all his personal possessions in a sheriff's sale held at New Salem in February, 1835. Sold at auction were Lincoln's horse, surveying equipment, and saddlebags toward an unpaid

debt of \$223.24. Also sold were Lincoln's surveying instruments: the compass and Gunter's chain, marking pins, range poles, stake axe, and large saddlebag.

It would appear that Abe was out of luck and out of a job. But, at the sheriff's sale, a friend of Lincoln's, James Short, bid and purchased the confiscated items without Lincoln's knowledge. He returned them to Lincoln the next day, and Lincoln went back to work.

The happy ending was that Lincoln was finally able to return the favor by repaying Short when he became president. Short had fallen on hard times, and to help his friend, Lincoln appointed him Indian Agent at Round Valley Indian Reservation in California at a salary of \$1,000 per year.

Until the 1990s, it was believed that Lincoln owned no property at New Salem. But a document rediscovered at that time tells otherwise. The document refers to the "undivided half of Lots 16 and 17 North of Main Street in New Salem, property of Abraham Lincoln." It also states that there was a building on the property.

In 2006, historical archaeologists concluded, with the aid of modern surveyors, that "lots 16 and 17" (which are not on the original New Salem plat), actually fall directly on the site of the Offutt Store, where Lincoln clerked in 1831. It is now believed that Lincoln purchased the building after Offutt left town in 1832.

What Lincoln did with the building is unclear, but during the heyday of his surveying career in the mid 1830s, he may not have rented the larger store in the center of town. It is quite possible that what we know as "Offutt's Store" later served as Lincoln's surveying office where he stored his gear, drew some of his surveys, and wrote out his descriptions.

In the spring of 1837, Lincoln moved to Springfield, the state's new capital where he began the practice of law as a junior partner of John T. Stuart. It appeared his surveying career was over. However, while he was an attorney, Lincoln used his knowledge of surveying several times, including when the court commissioned him to survey a disputed section of land.



I had always believed that the last survey of Lincoln was in 1836 or 1837. But just recently the "Lincoln Legal Briefs," the quarterly newsletter of the Lincoln Legal Papers, reported that the last Lincoln survey was performed in 1839.

The case came about when William Butler and William Tilford both claimed a tract of eighty acres of land in Sangamon County. After taking the dispute to court, Butler and Tilford reached an agreement in which Tilford agreed to convey ten of the acres to Butler, and Butler could purchase more of the land for \$1.25 per acre. (That price was the price charged by the U.S. Government when they opened up the Northwest Territory.)

Butler bought an additional fifteen acres. Tilford later sold tracts of land that included Butler's property to William Smith and William Whittington. Butler then sued Tilford, Smith, Whittington, and others to obtain a survey and proper titles to the land.

In July 1839, the court appointed Lincoln to survey the seventeen acres of land in dispute. Lincoln surveyed the land in August and made his report to the court. When the court reconvened in November 1839, the defendants did not appear, and the court ruled for Tilford. The court appointed Lincoln as a commissioner to convey the seventeen acres from Tilford to Butler.

The original copy of the Surveyor's Report written and signed by Lincoln is owned by David H. Leroy of Boise, Idaho.



Mr. Leroy is an attorney in Boise and is a former lieutenant governor of the state. He has an impressive Lincoln collection including the surveyor's report.

The Law Practice of Abraham Lincoln: Complete Documentary Edition (2000) included the case of Butler v. Tilford et al., but did not include the surveyor's report made by Lincoln. The Lincoln Legal Briefs article states that the document quite possibly reflects the last survey that Lincoln performed and fills an important gap in documenting the case.

Lincoln used his surveying skills again on October 10, 1855, when he wrote a letter to the Surveyor General in St. Louis asking him to send information on certain section corners.

Lincoln was asked to be an arbitrator several times. Sometimes, it required a lot of patience. When, in a boundary dispute, he was asked, "Where is the Center of the Section"? He responded: "It's where it has always been."

Asked by the court to render a legal opinion on the location of the Center of the Section January 1859, Lincoln stated: "I think the true rule for dividing into Quarters any interior Section, or Sections which is not fractional, is to run straight lines through the Section from the opposite quarter section corners, fixing the point where such straight lines or intersect each other as the middle or center of the Section"

That opinion still holds true today for land surveyors in writing legal descriptions based on the Center of the Section of land.