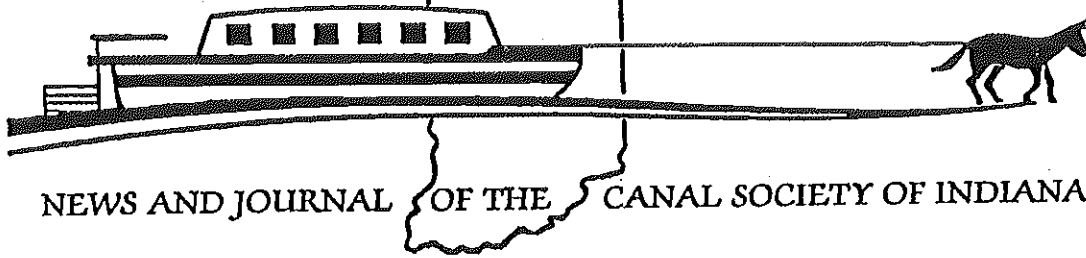


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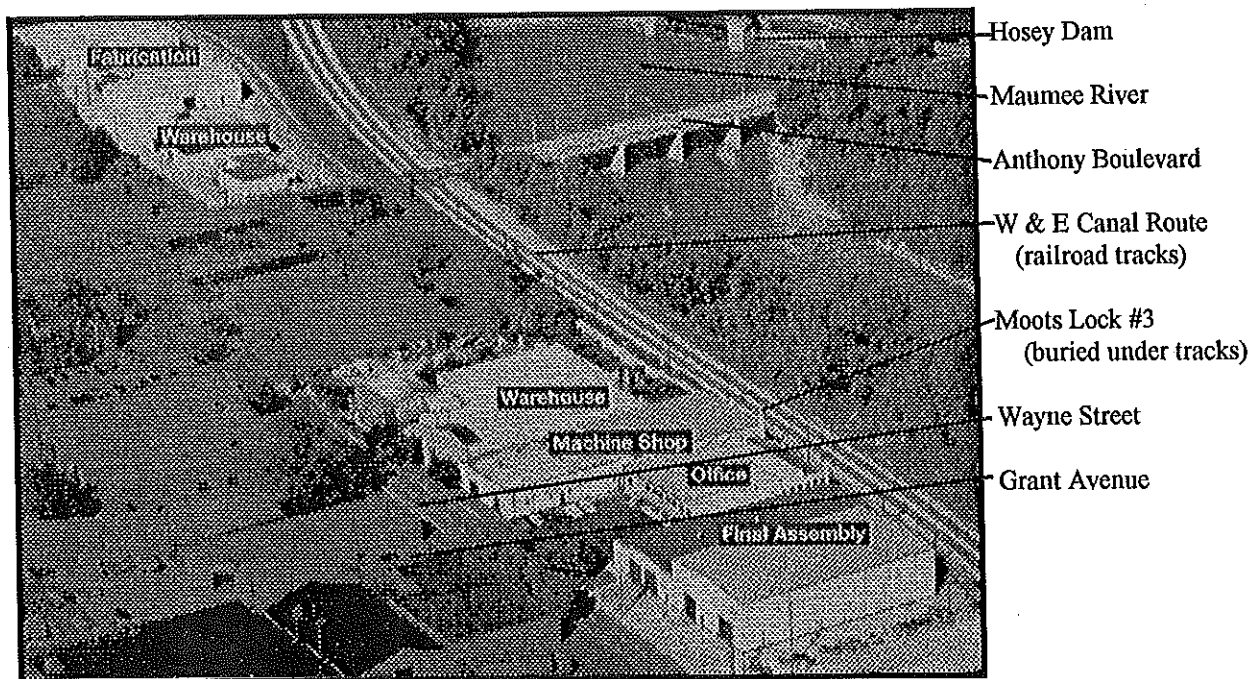
NEWS AND JOURNAL OF THE CANAL SOCIETY OF INDIANA

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P.O. BOX 40087 FORT WAYNE, IN 46804

DECEMBER 2005

## MOOTS LOCK PINPOINTED



This aerial photo of Deister Machine Company, Inc. along with an old railroad map helped pinpoint the location of Wabash & Erie Canal Lock #3, Moots Lock, in Fort Wayne, IN. Photo courtesy Deister Machine Co.

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### **MOOTS LOCK PINPOINTED**

By Carolyn Schmidt

Canal Society of Indiana (CSI) Headquarters has had an old blueprint railroad map for the past several years that shows the location of Moots Lock #3, but we have not actually gone to the spot. When we received a letter from Larry Owen, Human Resource Manager of Deister Machine Company, which is located at 1933 E. Wayne Street in Ft. Wayne, we went into action.

Larry wrote that he was trying to do some research on the location of the old Wabash & Erie Canal. Deister sits on the east end of Fort Wayne and borders the railroad tracks and Maumee River. He said he knew that the Nickel Plate Railroad purchased the right-of-way

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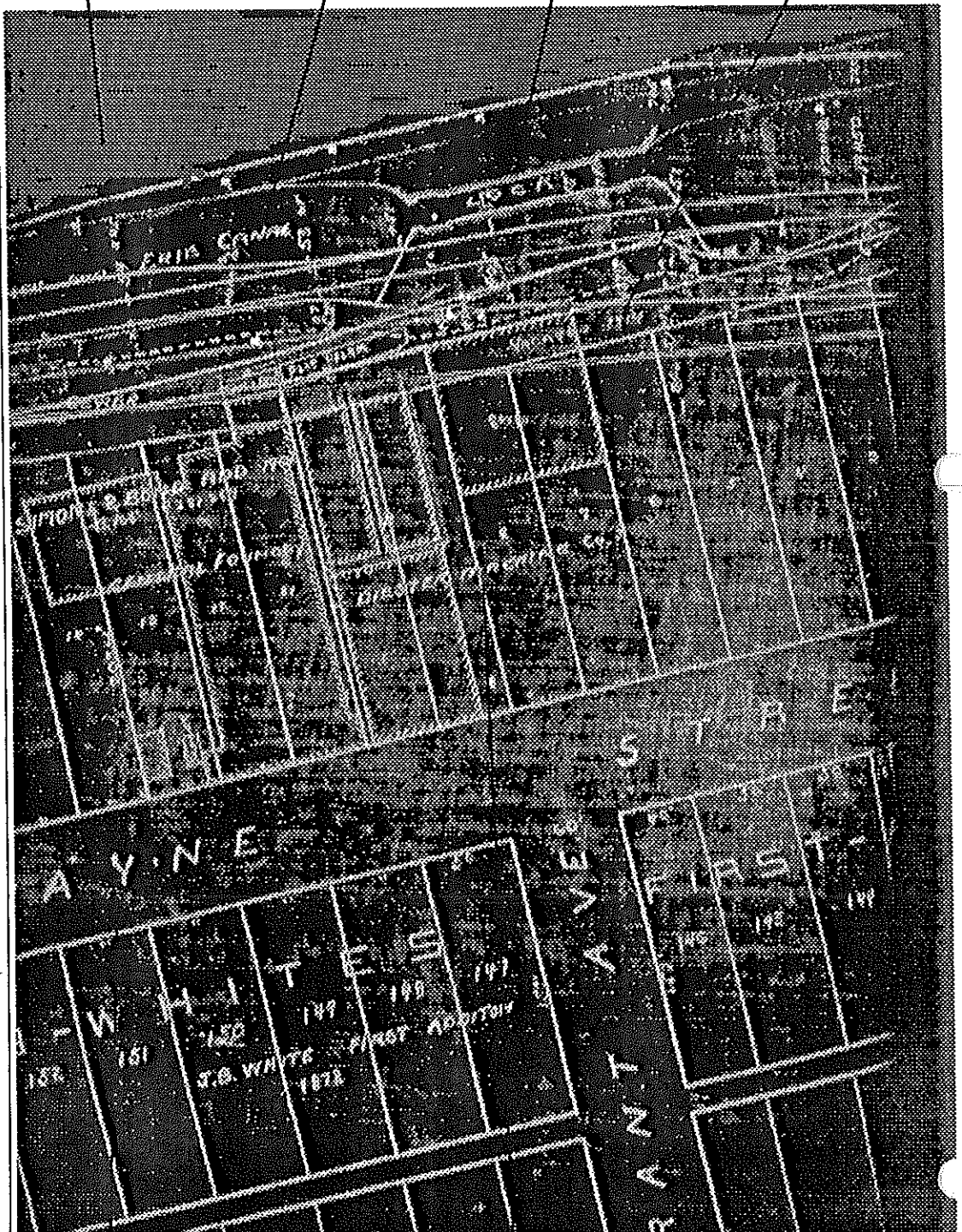
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from the Wabash & Erie Canal, but he was 901 Glasgow Avenue, which also borders trying to find more information on the the railroad tracks. Beside these tracks is a canal's exact route. He believed that part of section of a fairly large drainage ditch that the Deister property was sitting on land he wanted to determine whether or not it formerly owned by the canal. He also said was a remnant of the canal. He welcomed that the company has property located at us to view this drainage ditch.

**This old blueprint railroad map shows the location of Moots Lock**

Maumee River    Wabash & Erie Canal    Moots Lock #3    Vacated 1914



Wayne Street    Deister Machine Company    Grant Avenue

Since CSI is always interested in learning all we can about the canal, I, Carolyn Schmidt, phoned Larry and accepted his invitation to see the ditch. I also told him that headquarters had a map showing where the lock was located.

Bob Schmidt, CSI president, and I met Larry in Deister's office, showed him the map and told him what we knew about the railroad filling in the canal and burying the lock. The third lock of the Wabash & Erie Canal from the Indiana/Ohio state line was the Moots Lock. It was 761 feet above sea level. Built in 1847, it was one mile east of what was then the little town of Fort Wayne. This lock was one of the few built of cut stone on the Wabash and Erie Canal. It lowered canal boats 6½ feet from the canal summit to the next level which ended at the Gronauer Lock when going toward Toledo. Moots lock was the eastern termination of the 17 ¾ mile long summit level and Dickey Lock at Roanoke was the termination of the summit level to the west. When the railroad took over the right-of-way from the canal, Moots Lock was buried under the fill for the tracks. Today nothing can be seen of the lock, which is located behind Deister Machine Company approximately where Grant Avenue intersects Wayne Street in Fort Wayne.

From the railroad map Larry determined the location of the lock behind the Deister buildings. He remembered an alley being between the buildings. We walked through the plant and out the back to the railroad track. Although we could see nothing that indicated the lock, we noted how narrow the passage was between the plant and the Maumee River at this point.

We then proceeded along the railroad tracks to the Glasgow Ave. property. There we found a spur track running into the Deister plant. That is at a lower level than the current track. This indicates the tracks have been raised. We located this on the old blueprint. We noted the location of the canal on the map and believe the ditch he showed us is part of the canal. (This is not on the segment of the map shown in this publication. The actual blueprint is about 50 feet long and covers the tracks from west to east Ft. Wayne. It is very fragile.) The ditch/canal is very overgrown. We will return when the foliage has died down. We also want CSI directors to look at the site for further determination.

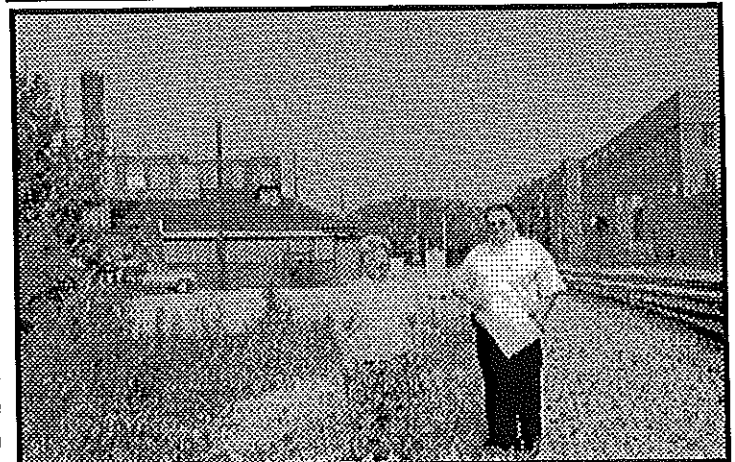
When we asked Larry what Deister Machine Company, Inc. manufactures, he replied, "Mining equipment." Mining equipment in Ft. Wayne, Indiana? It seems that Emil Deister moved to the United States from Germany in 1872 and lived in Woodburn, Indiana. In 1893 he went to work for Bass Foundry and Machine Company. He became interested in the study of ore separation. He extracted gold from mercury amalgam

using a centrifugal separator. He then went to separating tables. His basement was used to build his first ore separating table, which he took to Arizona to demonstrate. His invention was praised in textbooks.

In 1906 he left his position as draftsman and erecting engineer at Bass to found Deister Concentrator Company. He sold this plant in 1912 when he founded Deister Machine Company, Inc. He served as the latter's president and general manager from 1912 to 1961. After he had retired the company continued to grow and by 1999, Deister Machine expanded its operations by purchasing the land formerly owned by Deister Concentrator Company. The original 5,500 square-foot plant has expanded to more than 315,000 square-feet in many buildings today.

The Deister name can be found on a vibrating battery test stand as well as screens, scalpers, feeders, concentrators, and classifiers for aggregate, coal and mineral rock, which are mined, and in asphalt materials that are refined. Products produced in Ft. Wayne are in use in all 50 states, Canada, Mexico, S. America, Saudi Arabia, Puerto Rico, Haiti, Yugoslavia, Iraq and Turkey.

Top: Location of Moots Lock #3 Wabash & Erie Canal  
Bottom: Carolyn Schmidt and Larry Owen on railroad spur by  
railroad track and ditch/canal on left. Photos by Bob Schmidt



## "THE BOWERS TRAGEDY"

By Charles Davis

In the spring 2000 issue of Indiana Canals I wrote an article entitled "Numa vs. Canal Town Thugs" and mentioned the Bowers tragedy. Silas Bowers was accused of torching Nathan Sidwell's barn. Around three hundred "regulators" caught Bowers and Abraham Burk. Burk said John Reeder had set the fire at the insistence of Bowers. Bowers was tied up and Burk whipped him with the "cat-o'-nine tails." After a trail Bowers was released and commanded to leave the country. He was given ten days to straighten out his affairs and then leave the state. Bowers went to Terre Haute and returned with a new gang. He was captured and whipped unmercifully. When Bowers left Numa with his wife for Illinois their carriage was fired upon and Bowers was wounded. The Parke County Whig of May 3, 1855 said he was killed between Paris and Clinton.

Further information came to light about who killed Bowers so I wrote another article in the Summer 2000 issue of Indiana Canals. An article in the Rockville Tribune on January 10, 1906 claimed that the carriage was ambushed and Bowers killed by Allen and Fenton. Allen admitted that Bowers' enemies gave them \$200 to commit the deed.

More recently I came across the following letter in the Rockville Tribune written by John T. Campbell to the paper's editor that said Fenton and his partner killed Bowers. It also gave me the location of Bowers' final resting place.

Rockville Tribune, Jan. 17, 1906

Editor Rockville Tribune:

I have just finished reading S. T. Catlin's Roseville. It reminds me of two items which he probably did not know.

First, Old Doctor Pomeroy's son, H. R. Pomeroy, made a considerable fortune in mining, bought the St. Louis Globe Democrat, and was decoyed (I think) into the St. Louis whiskey troubles under Grant's administration, became bankrupt, and some sixteen to eighteen years ago was selling auerpid barometers, about which I got into a considerable correspondence with him, which drifted into reminiscences and that I learned he was a relative of Senator Pomeroy of Kansas.

Second--As to the lynching of Silas Bowers --I had read Beadle's history of Parke county on the subject and, as a boy, lived nearly three years with Dr. Kile on the Governor Claude Matthew's farm, west of Clinton,

when the whipping occurred, and heard many versions of it. I think Dr. Kile was in it. He was in one I know.

About 1877, I was surveying west of Roseville, and stayed one night with Charles Laney. The subject of Bowers came up and he told me the following. His father, James Laney, was in the party who did the whipping. Before turning Bowers loose, they warned him to leave the country. This he promised. All separated and went home. Mr. Laney had not more than got into bed till some one halloed at the gate. Laney went to the door and asked who as there. Bowers answered, making himself known. "Why Bowers, what are you doing here?" asked Laney, assuming as much importance as he could. "Some men have whipped me nearly to death, I am not able to go home, and I want to stay all night with you," said Bowers. Laney took him in, gave him a clean shirt in place of the bloody one he had on, and all the time poured out wagon loads of sympathy for him. Bowers was so badly hurt that he could not go home for more than a week. Laney succeeded in convincing Bowers that he (Laney) had no hand in the whipping and Bowers confided in him his resolution to retaliate. He said, "Laney, I know most of them. I will leave the county, but G-d d-m them, I will come back and will finish them one at a time, till I get the last one." Laney passed this information among the lynchers, and they, knowing his persistent, determined character, were afraid to let him live. Hence the scheme to kill him. He as ambushed at the State line, west of Clinton, and shot, in the buggy, by the side of his wife. His teams were on the road, before or behind. He lived about a half hour. His wife drove to the first house ahead and sought help. He was buried in "Gooseneck graveyard," just across the State line in Illinois. I remember one assassin was Fenton, but forget the other.

A few years ago I was in Rosedale, and talked with Barnett Lewis, who told me that when a young man he got the milksick by drinking from a spring near old Clinton Locks (now Hudnut and Lyford). Said I, "Lewis, judging by the time you lived there perhaps you knew a man that I have heard much about and would like to know more about Silas Bowers." "Know him!!!" said Lewis, "I ought to, he married my oldest sister." "The devil he did!!!" said I. "Well, what kind of a man was he?" "A d-d sight better man than some who whipped him," said Lewis, "He was too smart for any or all of them, and beat them in trades, and they whipped him for it," he said. It was Lewis who told me where he was shot and buried.

A few years ago Bowers' son visited the scenes of his boyhood and told someone that he would stay in the county no longer, as the vengeance was growing in him so fast that if he stayed a few days longer it would be impossible for him to refrain from killing somebody,

# 1874 MAP OF VERMILLION COUNTY, INDIANA

and left.

When a boy at the age of fourteen I heard ex-Sheriff Kilgore, from near Mecca, tell my uncle that Bowers was a very clever, obliging man but was a slick man in trade, and in driving hogs and cattle from the woods, to put up for the winter, he would give himself the benefit of the doubt as to ownership. I have often heard it stated that every man who was engaged in that whipping, except Alexander McCune, had afterward suffered some great calamity. John Stipp was killed by his insane son.

John T. Campbell  
Soldiers Home  
Lafayette, Ind.  
Jan. 12, 1906

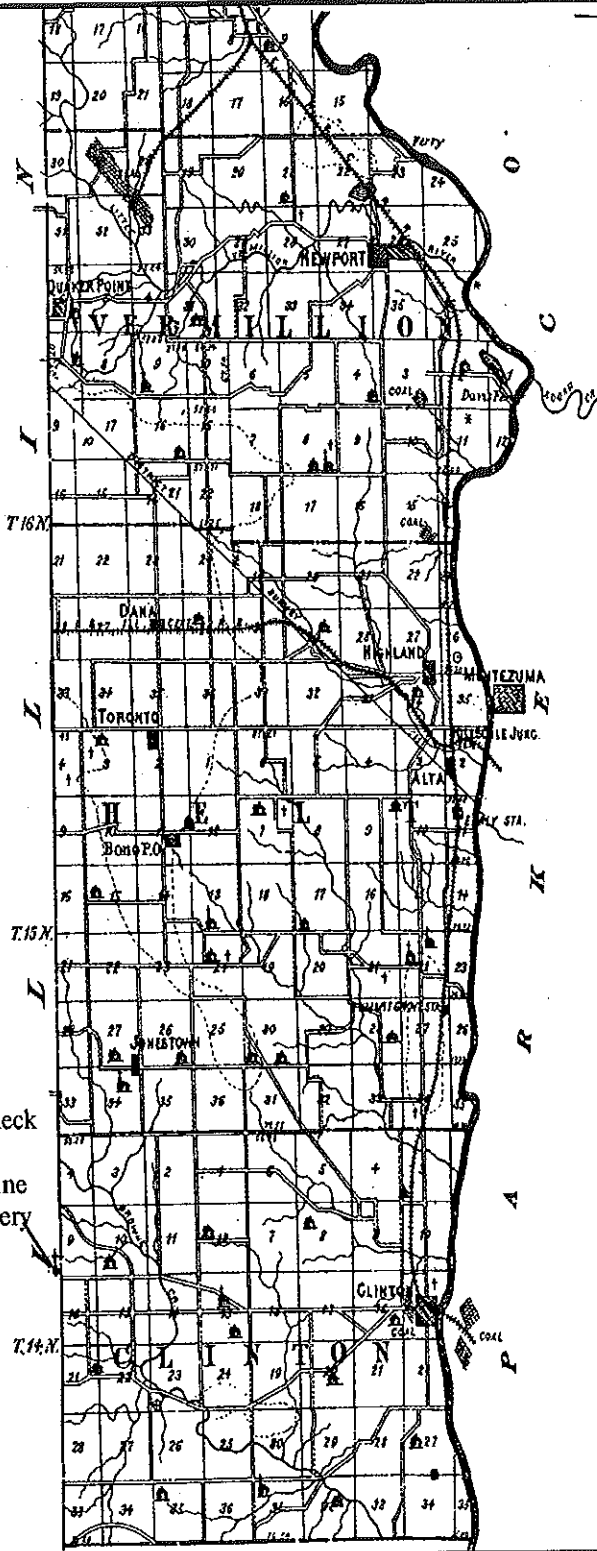
A look at the Parke County Census on microfilm, page 299 shows Silas Bowers at the age of 50 and born in Ohio, his wife, Phibi Bowers at the age of 52 and born in Ohio. Their children were Aaron age 22, born Ohio, farmer; Elizabeth age 17; Martha age 15; Sarah age 14; Lena age 10; and Lucinda age 8, all born in Indiana, probably in Parke County for Silas entered land here in 1833.

From the Obituary of Barnett Lewis, I found he was born in Highland Co., Ohio, Oct. 15, 1819. At the age of 14, he moved to Parke county, Ind., living here until his death, April 19, 1897. The Lewis family is buried in the Mount Pleasant Cemetery. The obituary doesn't mention Phibi Bower. Sounds as if the Bowers' and Lewis' may have come from the same area.

In the Probate records, there is a Soloman Bowers, died 1847, and Silas is administrator of Soloman's estate. Soloman could be Silas' father.

When I looked at the Census, I couldn't find out where Phibi and Aaron Bowers had gone. I visited the Gooseneck or Stateline Cemetery and Silas' grave isn't marked. The Cemetery was heavily vandalized a few years ago, has been cleaned up today and is mowed.

The Dr. Kyle farm mentioned in the story was part of the Salmon Lusk farm. Lusk later removed to the Narrows of Sugar Creek, part of today's Turkey Run State Park.



Gooseneck  
or  
Stateline  
Cemetery

# CANAWLERS AT REST

## NATHAN ROWLEY

**b. September 28, 1788**

**d. January 12, 1872**

**By Carolyn I. Schmidt**

Nathan Rowley was born in Shoram, Vermont, on September 28, 1788. He worked on his father's farm and also learned the shoe business. In 1819 he decided to seek his fortune elsewhere. When the flatboat on which he was traveling stopped at Evansville, Indiana, to "wood up" on December 10, 1819, he decided to stay.

Nathan used what little capital he had to establish a shoe and boot shop on Water Street in 1820. He saw that Evansville was becoming a place to notice. Prices were inflated. He began to purchase real estate in 1820-21. Half of the northwest quarter of section 20 was entered in 1820 or 1821 and the southeast quarter of section 20 in 1821. The land was worth \$5.00 per acre

In October 1822 the shoe and boot making stand of Rowley and Robinson was taken over by Harry D. Smith. On March 5 the following year Nathan announced he had again commenced the shoe and boot business on Front Street. He ran the shop for eight years, saved his profits, and accumulated several hundred dollars.

In 1823 Nathan began his service to the community. He was a trustee on Evansville's Board of Trustees along with Robert M. Evans, president; John W. Shaw, Wm W. Vernon, Amos Clark and Joshua V. Robinson. Daniel Chute was the secretary, Daniel Avery the treasurer and Nathan Rowley the collector. Taxes assessed were on property valued at \$24,681.

In 1825 Nathan was on a committee of the Vanderburgh Missionary Society. He was interested in helping others.

In September 1828 Nathan was elected president to take the place of John Connor, whose term of office

had expired, on the County Board of Justices. A law was in effect from 1824-1831 that justices-of-the-peace performed the duties of county commissioners. At the end of a year's service as justice-of-the-peace, Esquire Rowley was succeeded by James Rose, Esq., who in return was succeeded in 1830 by Esquire Rowley, who served as the president that year as well. During that time he was known as Squire Rowley and was often consulted by those prone to quarrel.

Trustees were changed every year. Nathan Rowley served again in 1831 as board secretary with Alanson Warner, president; Alexandria Johnson, treasurer; Edward Hopkins, collector; Silas Stephens; and one vacancy. Taxes assessed that year were on a property valuation of \$11,627.

From 1828 to 1831 Nathan operated a drug and grocery business with different partners at various times: John Shanklin, Dr. Trafton, and Gen. Evans. In 1831 he built a store-house and the following year opened a dry goods store in the building in company with Marcus Sherwood. Later the Merchants' National Bank was located at that site.

Nathan bought three ten acre lots for \$250 in 1834. In 1835 he bought another ten acres for \$500 from Trafton. These 40 acres he later platted as Rowleytown on the Northeastern Enlargement of Evansville. It also was known as Rowley's farm. Rowley's Lane, which extended from Main Street to the farm later became Williams Street. In the 1840s or earlier, Bull's Head Tavern, a large two-story frame building with a two-story porch in front, a bar, a large dining room, a dance hall, lodging rooms, stables for horses, wagons and buggies and a ten pin alley sat upon this tract. Many important Evansville residents frequented the establishment.

On March 16, 1833 Nathan Rowley was elected president of the Evansville Board of Trustees. Francis Amory was the secretary; John M. Lockwood, treasurer; and Edward Hopkins, collector. Also serving were Silas Stephens and Francis Amory. Taxes of real estate and personal property were assessed on \$17,932.

Those serving on the Board of Trustees as of May 23, 1835, were Amos Clark, president; James Carson, clerk; Nathan Rowley, treasurer; Thomas Ham, collector, James Lockhart, surveyor, Alanson Warner, and Marcus Sherwood. Property on which taxes were assessed was valued at \$47,167.

In August of 1835, Nathan succeeded G. W. Lindsay as a judge of the Vanderburgh County Probate Court. He and the others serving in this capacity at various times were said to be "men of good business

talent, prominent in their day, devoted to the best interests of the city and community, and while they were not lawyers, yet they were trusted for their sound judgment and unimpeachable integrity."

Nathan continued in the capacity of Board of Trustee's treasurer on June 10, 1836. Amos Clark continued as president. James Lockhart was the clerk and Isaac Hutchison the collector. Representing the first ward was Wm. McKnitt; second ward, James Lockhart; third ward, John M. Lockwood; fourth ward, Edward Hopkins; and fifth ward, Amos Clark. Property that year valued at \$120,880 was assessed for taxes.

During the 1830s Nathan donated \$20 for the Presbyterian Meeting House. He also served on a building committee for St. Pauls Protestant Episcopal Church on January 7, 1839.

In 1838 Nathan sold out his interest in the dry goods store to take a contract on the Central/Wabash & Erie Canal. Its terminus was to be at Evansville. His contract stipulated that he had to dig seven half-mile sections and finish the part which ran through Fifth street to Division in 1839. He faithfully completed this contract.

Before the large canal basin was excavated in Evansville, a graveyard had to be removed from the tract of land. The canal had been surveyed and was to pass through this square on which a magnificent court house was erected after the canal era. Canal boats were built in this basin by a stock company of enterprising business men of Evansville. They were John Hewson, who was later to become the third mayor of Evansville, Nathan Rowley, Robert Barnes, Stephen Hopkins, John Mitchell, John Douglas, A. B. Carpenter, Thomas Scantlin, John M. Lockwood, Marcus Sherwood, and Joseph P. Elliott.

The company limited its capital stock to \$1,500. Thirty shares of stock were sold at \$50 per share. Experienced workmen were brought from the east to build the boats. The company's first boat was named the "Rowley" in honor of the efficient superintendent of construction. The second boat built was called the "Evansville."

The newly constructed canal boats awaited the arrival of water in the basin. As the water swelled in the channel, the boats were gradually lifted and the vast crowd, which had gathered, was filled with emotion. They sent up cheer after cheer as Mace Newman mounted a mule and started off towing the first boat. Mace, who was always on hand and up front whenever there was any excitement or public demonstration, had usurped the honor of towing the first boat from the other contenders. It was the proudest moment of his life.

Although the canal boats made their first run only as far as White river, the trip was an eventful one. Only passengers were taken by boat that day. It was a day of rejoicing and celebration. People took their picnic baskets, fishing tackle and guns. They brought back deer, turkey, and other game, which was plentiful in the area in those days. The men who pushed this enterprise forward to completion were very proud of their work. However, some say they were even prouder on the day they began filling the canal bed with dirt in 1864.

Nathan was the toll collector on the canal for several years. In that capacity a story recalls that when "the canal boat 'Pennsylvania' arrived at the terminal basin in Evansville in 1853, the local toll collector, Nathan Rowley, did not bother to collect the toll on the Pennsylvania until two days later. Perhaps the people were a little gun shy. They had celebrated so many times before only to see nothing happen."

Thomas Smythe (See article in The Hoosier Packet August 2005) married Nathan Rowley's daughter. Smythe was one of the captains who ran a canal boat the entire distance from Evansville to Lake Erie. His son, Henry B. Smythe, recalls "that when school vacations came in June for several years his father used to close his house in Evansville and take his mother with him, the only child, by canal boat the round trip between Evansville and Lake Erie." The entire length of the canal was only operated for a short time.

When Indiana became indebted after the internal improvement fiasco, Nathan tried to help. He will be remembered for his effort to relieve the State of Indiana from the "odium of repudiation in connection with its debts."

The Evansville Board of Trustees in June 1840 consisted of John Mitchell, president; first ward, Marcus Sherwood; third ward, John Mitchell; fourth ward, Fred E. Goodsell; and fifth ward, Nathan Rowley. Benjamin F. Dupey was the clerk, collector and assessor; James Carson the treasurer; Wm. T. T. Jones the attorney; and Thomas Gidney the marshal. Real estate was valued at \$599,496 and personal property at \$245,310 or a total of \$844,806. There was 2,121 inhabitants in the city at that time.

In 1840 Rowley and Sherwood are listed as one of Evansville's mercantile interests. The county had a population of 6,250.

Governor Noah Noble appointed Nathan a Probate Judge in 1840. He was re-elected to the office by a large majority the following year, but he resigned the latter part of 1841. He was not as learned as some

of his brother officials, but he was highly commended by all who dealt with him in a probate capacity. was settled, but Carpenter was later listed as the owner.

Back on the Evansville Board of Trustees on June 11, 1841, Nathan served as president, treasurer and represented the fifth ward. F. E. Goodsell was the clerk and represented the fourth ward; Thomas Gidney was the marshal; Ben E. Dupuy was the assessor; and Wm. M. Walker was the surveyor and represented the first ward. The second ward was represented by Willard Carpenter and third ward by C. M. Griffith. Real estate was valued at \$501,675 and personal property at \$164,900 for a total of \$726,108.

Willard Carpenter brought a law suit in 1842 against Jackson McClain, Nathan Rowley and others about a tract of land on which the Exchange Hotel stood. The circumstances connected with the various persons dealing with the property were very complicated and required pages of court pleadings to clearly state them. The largest amount of the purchase money for the property then owned by George W. L. White was in the form of notes and a mortgage held by Wilson, who pledged these notes and mortgage to Nathan Rowley as collateral for endorsement of a note to McClain. Then Wilson asked Nathan if he could look at the notes and mortgage and return them. Nathan, not suspecting anything, gave them to Wilson, who took them to Carpenter. Wilson and Carpenter made a contract between them agreeing to the forfeiture of the title to Carpenter. The agreement showed an erasure, which was said to destroy the paper. The suit remained on the docket for many years due to the many complications and numerous lawyers. There is no record of when it

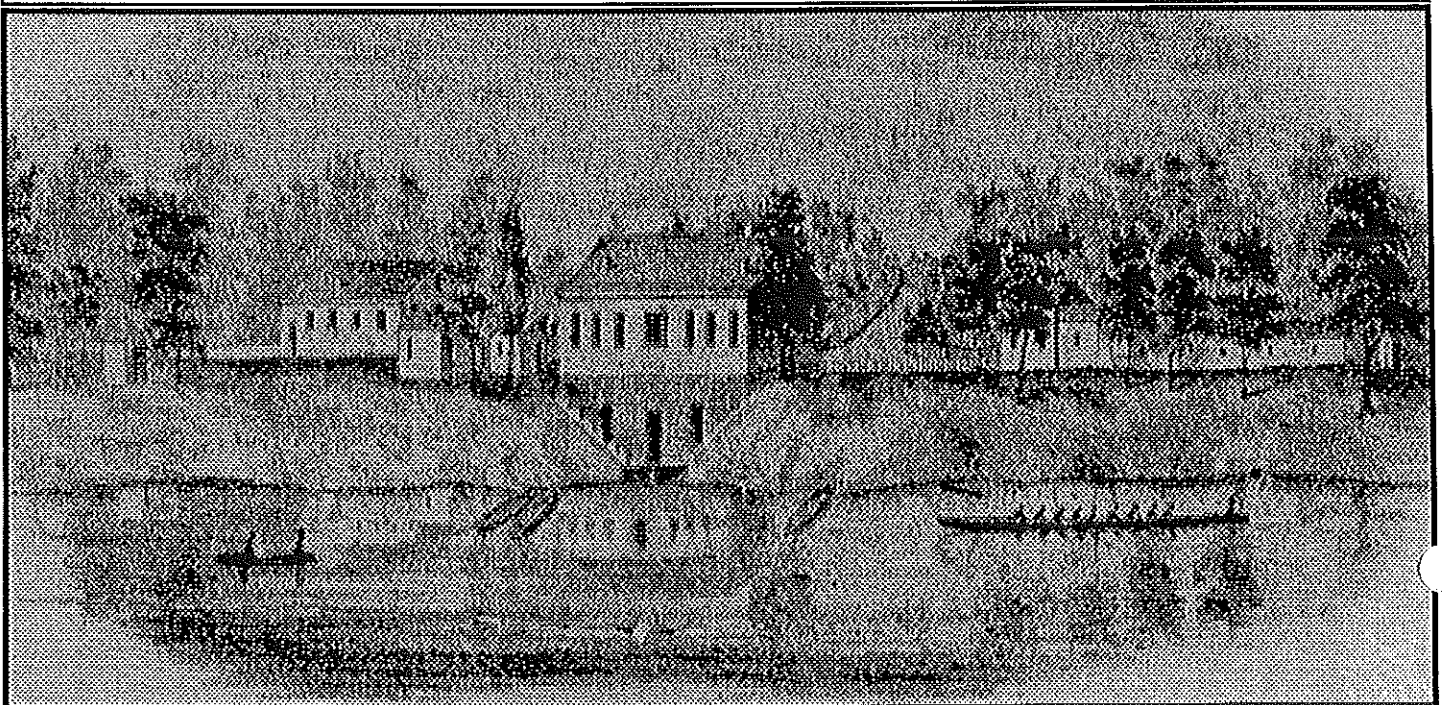
In 1842 Nathan rented the Indian Flour Mill. There he conducted a large and profitable business until fire destroyed it in 1844. The over ten thousand dollar loss did not stop him. He rebuilt the mill, ran it for a year and then sold it to open the Salt Well Park in company with Thomas Gifford. This venture became a very popular resort.

Obtaining cheap salt was very important to frontier settlements. People living south of Henderson county, Kentucky, were walking to Terre Haute, Indiana, to get salt transporting it in sacks on horseback or by wagon in the early days. In the late summer of 1824 James W. Jones and Elisha Harrison drilled through solid rock on Pigeon Creek south of and adjoining Maryland Street in search of salt water. After passing several small veins of it they struck a large vein of very highly impregnated salt water at 463 feet. An editorial on September 9, 1824, said it hoped to be sufficient to supply two furnaces of 50 kettles each with salt. These furnaces were located just a short distance up Pigeon Creek from the Ohio River where salt could be easily shipped to other villages.

Mr. Worsham of Kentucky packed the meat of several head of fat hogs with the Evansville salt. It ate the skin entirely off the dressed pork and covered the meat with slime. Manufacturing salt on Pigeon creek ended. The property became overgrown with natural vegetation and remained so for about 20 years.

In the early 1840s Rowley and Gifford purchased

Pigeon Springs was opened one mile west of Evansville in 1842. It later was known as Salt Wells.





the salt works property. Thomas Gifford was an Englishman of means from a good family. He was prominent in the English Settlement and in the social life of Evansville.

Rowley and Gifford opened the grounds in 1842 as a private pleasure resort after clearing them and erecting buildings. The artesian spring located there was highly recommended for its medical properties. A lithograph of the Pigeon Springs (Salt Works Park) property that Nathan Rowley sent to Henry Ashley in England is said to have impressed Ashley so much that he moved to America and lived on the grounds occasionally working on the Wabash and Erie Canal.

On June 19, 1845, the Evansville Journal ran the following advertisement:

"Pigeon Springs"

"Pigeon Springs advertised by Rowley and Gifford, as a Health Resort. One mile from Evansville on Pigeon Creek. Southern patronage solicited. Hotel accommodations first class. Wild game of all kinds in the forest surrounding the Springs. The buildings are all new, large and well planned. Bowling saloons and a bar apart from the main building in a shady grove. The proprietors invite Southerners to call and examine this establishment, etc."

"ROWLEY & GIFFORD"

Those wishing to reach the Salt Works could take the Salt Wells Road that ran directly from the town about one mile north to the resort. Later, Gifford's sister's husband, Captain Thomas Bethel, of Newburgh, Indiana, is said to have stopped at the resort while in Evansville during the Civil War and ridden backwards and forwards from Evansville on horseback in full uniform.

The first street car line in Evansville was built to the salt wells. The cars were drawn by mules and horses. Later the electric railway took visitors to the property then known as Pleasure Park.

Evansville was finally incorporated on January 27, 1847. From then on the mayor appointed the heads of the departments and councilmen.

On February 17, 1849, Nathan was again a justice-of-the-peace in Vanderburgh County. In June of 1851 Nathan became recorder of the Evansville City Council. That year things were in a state of flux. The same clerk, treasurer, attorney, assessor, collector, surveyor and wharf-master were retained, who had served the previous years. However, on August 30, 1851 G. W. Glover succeeded J. F. Sherwood as marshal; Nathan was succeeded by G. H. Todd on

August 17, 1851; and Joseph P. Elliott resigned and was replaced by John S. Hopkins on November 22, 1851.

Nathan was a promoter of the Evansville & Crawfordsville Railroad in 1849 and liberally subscribed for its construction. He also contributed \$2,000 in 1853 to the Straight Line Railroad.

By 1853 Nathan had been instrumental in making Pigeon Springs Resort (Salt Well Park) a leading public resort. It was the oldest place of amusement in Evansville.

Nathan became a justice-of-the-peace on July 13, 1859. In 1865, at the expiration of his term of justice-of-the-peace, he retired from his active career.

Nathan Rowley died at the home of Thomas D. Smythe, his son-in-law, on January 12, 1872. Records show that Nathan Rowley was buried in Section 7 Lot 4 Grave 3 in Oak Hill Cemetery in Evansville, Indiana. There is no tombstone on his grave.

In a reminiscence of David Schnee he recalls a bill that amounted to \$56.15 that he owed W.M. & J.P. Elliott in Evansville on December 3, 1844 and says:

'During those three years that I lived with you (Elliott), much transpired that has been pleasantly reminiscent to me now in my old days. The campaign of 1840, when it was 'Old Tippecanoe And Tyler too.' I well remember. When having a jollification on the river bank one night in that campaign, old Joe Kerney, the negro who used to ring the auction bell across the street from our place, dressed up in woman's clothes and passed through the crowd in imitation of Harrison's waving a petticoat. For this thing old Joe was seized and taken up stairs and outrageously whipped with a blacksnake whip from your shop to make him tell who put him up to it., but they didn't get it out of him. At another time during the same campaign, when the Whigs were having a parade up Main street, our next-door neighbor stretched a Van Buren flag across Main street to the auction house. Some of the procession passed under it, when a delegation of horsemen from Posey county came along. They refused to pass under it. The crowd attempted to pull it down, but could not get hold of it—until old Squire Rowley came along with half a brick tied to the end of a long line. They threw it over the rope and soon had the flag torn down. With great excitement the procession passed on."

Nathan Rowley was described by John Iglehart as "one of the most practical and forceful men in Evansville." He "was associated in one form or another with many matters of public interest for forty years, and lived through till after the Civil War, when the writer

distinctly remembers him, a very old man much stooped, who walked with the aid of a cane."

Sources:

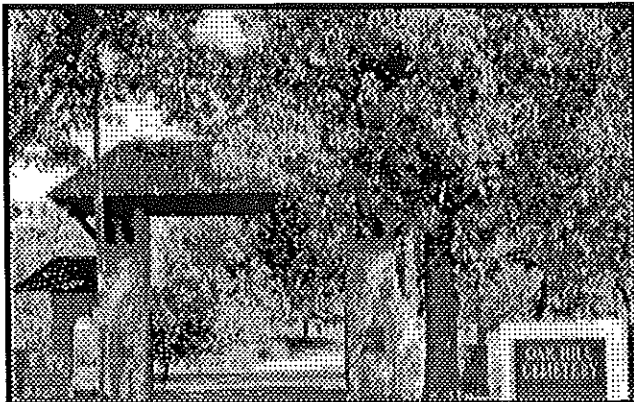
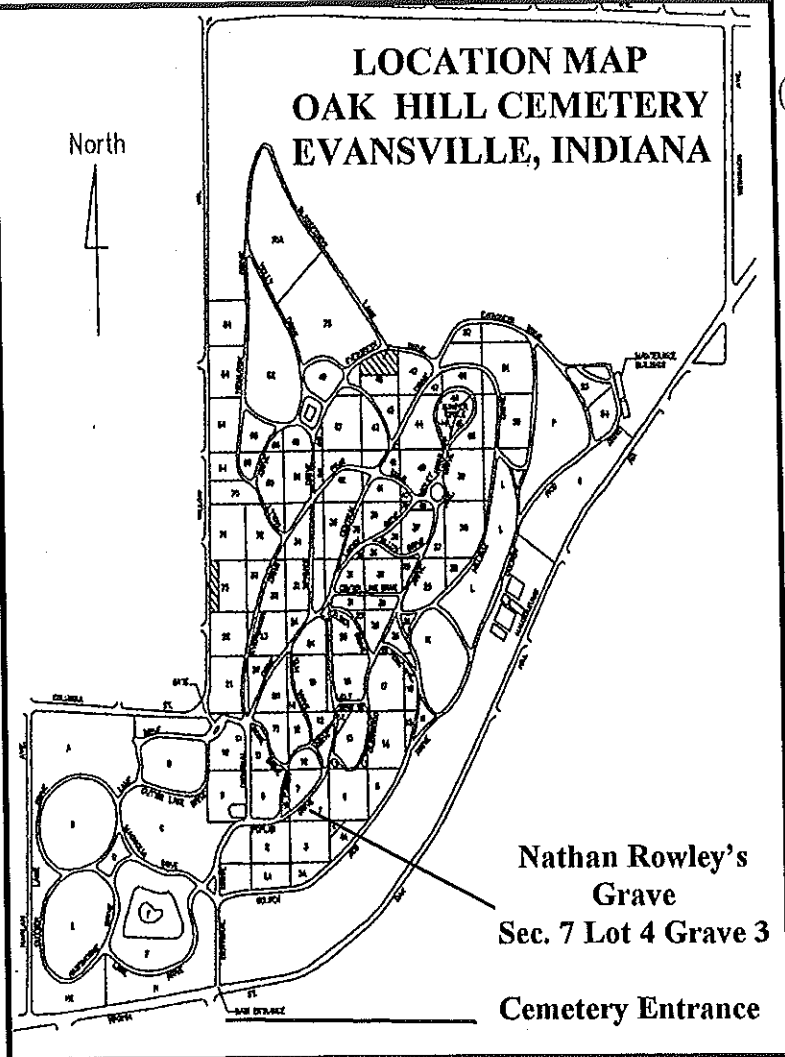
Elliott, Joseph P. A History of Evansville and Vanderburgh County, Indiana. Evansville, IN/Kelly Printing Co. 1897.

Evansville and Its Men of Mark. Evansville, IN/Historical Publishing, Co. 1873.

Gilbert, Frank M. History of the City of Evansville and Vanderburgh County, IN. Chicago, IL/The Pioneer Publishing Co. 1910.

History of Vanderburgh County, IN. Brant & Fuller. 1889.

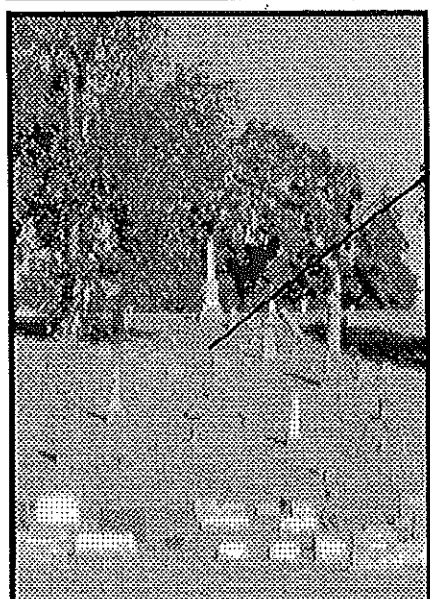
Iglehart, John E. An Account of Vanderburgh County From Its Organization. Dayton, OH/ Dayton Historical Publishing, Co. 1923.



Nathan Rowley was buried up Oak Hill near the Wabash & Erie Canal.  
Photos by Bob Schmidt

Nathan Rowley Grave Site  
Section 7 Lot 4 Grave 3  
Oak Hill Cemetery

Central/Wabash & Erie Canal  
once ran where the buildings  
now are located



## Wawassa Paper Mill

### Limpus Lock

By Phyllis Mattheis

Wawassa Paper Mill was the first and only paper mill established in Fayette County in eastern Indiana. It had a good water supply from the Whitewater River. Some historians think that Wawassa is an Indian name and it was the early name of one of the 56 locks along the Whitewater Canal. Others say it is a corruption of the original owners initials - W. A. Smith. This lock, Lock No. 33 located about a mile south of Alpine, also has the name of Limpus Lock.

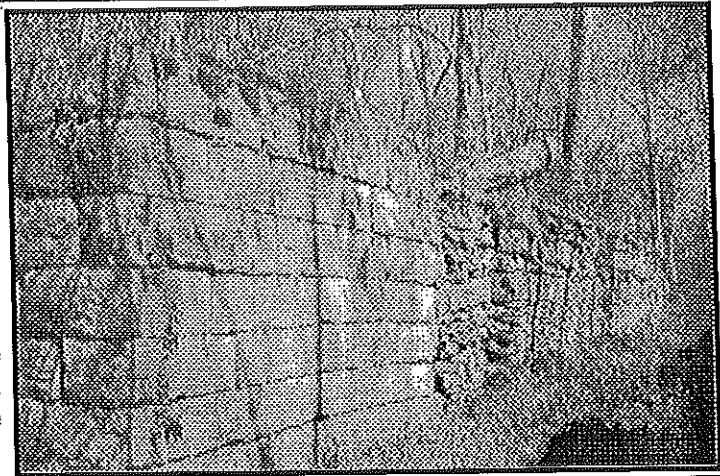
In a 1981 story by Max Walters in the *Connersville News-Examiner* we learn that the Wawassa Paper Mill covered 15 acres and employed from 75 to 150 people when it was running at full capacity. It produced many hundreds of thousands of dollars worth of paper products during its ten-year existence (1865-1875) and was important to the early economy of Fayette County.

Making paper was a continuous process, and the mill ran day and night, seven days a week for most of its ten years. Manufactured products left Connersville in parload lots via the Whitewater Valley Railroad, which was built on the towpath of the Whitewater Canal, and were shipped to the four corners of the world.

The mill was operated exclusively by water power. The company utilized the old canal bed which had been discontinued as a transportation artery. A dam across the Whitewater River just below Alpine diverted some of the swift river water to the mill via the canal bed. Built along the banks of the Whitewater Canal, this thriving industrial plant stood on the Daniel R. Green farm. It was built immediately following the close of the Civil War.

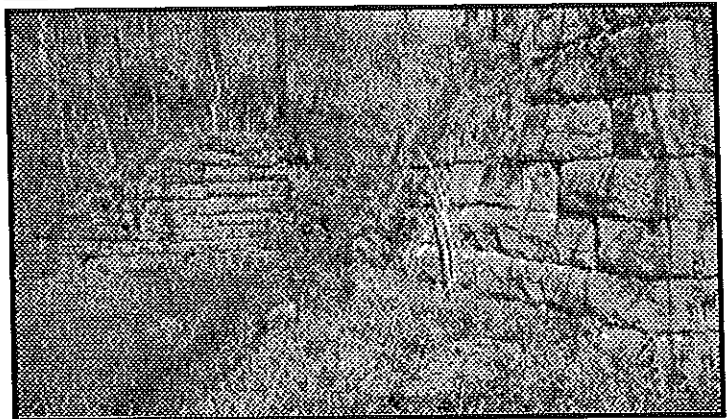
At first the mill manufactured paper from native wood grown nearby. Poplar trees were preferred and the mill used only the top branches. The mill owners purchased tracts of wooded land and after removing the poplar trees and selling the tree trunks, they sold the land and the remaining marketable timber.

After the poplars became scarce, the Wawassa Paper Mill made paper from straw that they purchased from Fayette County farmers at a good price. When straw became scarce, they made a very good grade of paper from cornstalks, which the farmers of the community were pleased to haul to the mill and receive cash for a farm by-product that was ordinarily plowed under or burned. In just a few years time the mill utilized thousands of tons of corn stalks.



Above: Limpus Lock No. 33 on the Whitewater Canal is located one mile south of the village of Alpine, IN. It is a good example of a composite lock having mason cut stone entrances and a rubble stone lock chamber that was once lined with wooden planks to make it watertight. Note the row of larger stones within the rubble stone lock chamber.

Below: Limpus Lock is all that remains of a paper mill community with a school house, a church, a physician and a shoe cobbler. When the mill was destroyed by fire, the community was injured through the loss of jobs and thousands of dollars in sales. Photos by Bob Schmidt



With a growing demand for a better grade of finished paper, the mill owners turned elsewhere for raw materials. Jute was imported from South America, and some raw materials were imported from Europe, but transportation costs made importing raw materials unprofitable. Consequently, the mill began using rags for making their highest grade paper.

Unfortunately, in 1875 the mill was destroyed by a disastrous fire. Many jobs and thousands of dollars in annual sales were lost to the community. Several years later, nearly six tons of scrap iron were salvaged from the ruins of the mill and sold to Stephen Limpus, a nearby landowner, which explains the name change to Limpus Lock.

Alice Green Gray\* recounted, that as a child she spent much time with playmates along the Whitewater River. A 'barrel' fence was along the bank of the river in front of the old paper mill. Empty barrels had been filled

with gravel and sand, but over the years the barrels sank into the sand or were washed away.

Early manufacturers had to be ingenious to be successful and the Whitewater Canal contributed to the success of the paper mill, even when the canal was no longer used as a transportation artery. Had it not burned, would the Wawassa Paper Mill still be producing paper for us?

\*Alice Green married the Hon. Finly H, Gray, who served as US congressman from this district. The Gray's owned Canal House in Connersville and occupied it from 1936 to 1947. Mrs. Gray died there in 1943 at age 78 and Mr. Gray died May 8, 1947 at age 83. The historic landmark was owned and occupied by the VFW from 1947 to 1971 when Historic Connersville, Inc. purchased it and restored it. They are the present owners.

**EAGLE MARSH**

CSI contributed \$500 toward the Eagle Marsh Project in Fort Wayne, Indiana, and sent letters to those living in the area asking for further contributions to the project. The following members contributed per our request: Carl & Barbara Bauer, Gerald & Mary Ann Getty, Earl Kumfer, John & Louise Larsen, Paul & Marla McAfee, Curlis & Mary Sue Meaux, Ed & Cynthia Powers, Bob & Carolyn Schmidt, Jack & Peggy Seigel, Steve & Sue Simerman, Allen Vincent and the Maumee Valley Heritage Corridor. Through your contributions and those of others the project is becoming a reality. A letter sent with our society's donation to Little River Wetlands was printed in the Little Wabash River News along with lists of donors and the level at which they donated to the project. Someday we hope to see a towpath trail alongside this marsh restoration.

**NEWS FROM DELPHI**

**CARROLL HIGH SCHOOL VOLUNTEERS**

By Dan McCain

On Tuesday, September 20, 2005, forty-two Carroll High School students and three teachers arrived at Trailhead Park in Delphi. They had the day off because each had already passed the ISTEP comprehensive tests last year. Some were Juniors and some were Seniors. They all worked diligently on that beautiful late summer day. The challenge was to clean and groom trails along the riverside southern sections of Delphi Historic Trails.

Arriving at 8:30 a.m. these volunteers had elected to put in their "sweat equity" rather than sit at home. Their counterparts back at the school had to take the test and were sweating in their own way with pencils and paper. After a 10 minute orientation provided by

Dan McCain, Chairman of Delphi Historic Trails, they divided into three groups. Each group had a Carroll teacher to lead and each student was given a specific job. Many used rakes to sweep off leaves and sticks from the trail surface. Some students had pruners to lop off overhanging branches and still others "whacked" weeds alongside the trails.

Overall the work progressed as the troops took on over two miles of trails to groom. The student volunteers felt good about the accomplishments as they looked back over their shoulders. For Carroll County it was rewarding to have these scholarly students doing community service and leaving a positive mark from their toils.

**SMITH LEADS WALK**

By Dan McCain

On October 8th, at 2:00 P.M., Carroll County Wabash-Erie Canal Association board member and historian Mark A. Smith led a group walk along the Interurban section of the Delphi Historic Trail System accompanied by Brian Stirm, trolley and rail enthusiast. Participants in the walk boarded the newly-acquired and very popular trolley near the Delphi Body Works and received a ticket reminiscent of those given to Interurban travelers on the Fort Wayne and Logansport Traction Line, which ran through Delphi from 1907-1932. Brian Stirm, Manager of the Delphi Airport, punched the tickets. The entourage then motored to Trailhead Park for the walk, which engaged the participants in a bit of time travel back to 1818. Topics covered included the Treaty of St. Mary's, Daniel Baum's Landing, Smith's Dairy Farm, and the Interurban Transit System.

**WHITEWATER CANAL TRAIL NEWS**

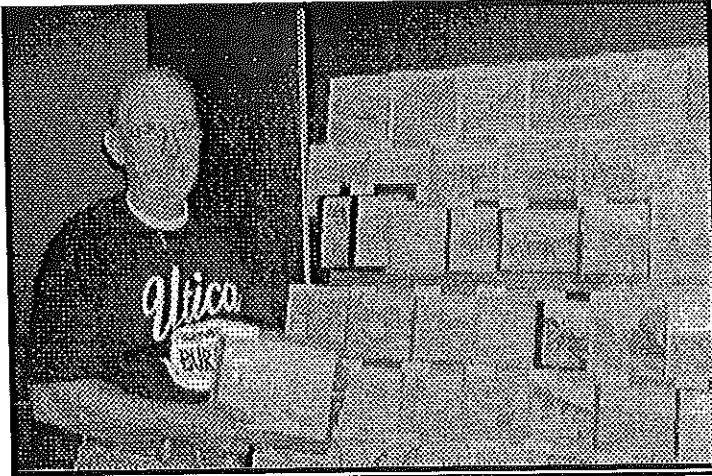
On Saturday September 24, members of the Whitewater Canal Committee gathered at the red barn in Metamora, Indiana, beyond Duck Creek aqueduct around 8:30 a.m. They brought post hole diggers, spud bars, shovels, and 1/2 cordless drills to put up fencing and gates on the Whitewater Canal Trail that they are constructing atop the old towpath. Those who wanted lighter work were encouraged to pick up rocks and sticks along the trail. Anyone interested in participating in future trail construction may call Mick Wilz at (866) 324-7842 or write Mick Wilz, Whitewater Canal Trail, P.O. Box 126, Brookville, Indiana 47012.

## "A LITTLE TOO LATE" THE HENNEPIN CANAL TOUR

By Neil Sowards

Photographers: DH - Don Haack, GH - Gerald Hulslander, NS - Neil Sowards, BS - Bob Schmidt

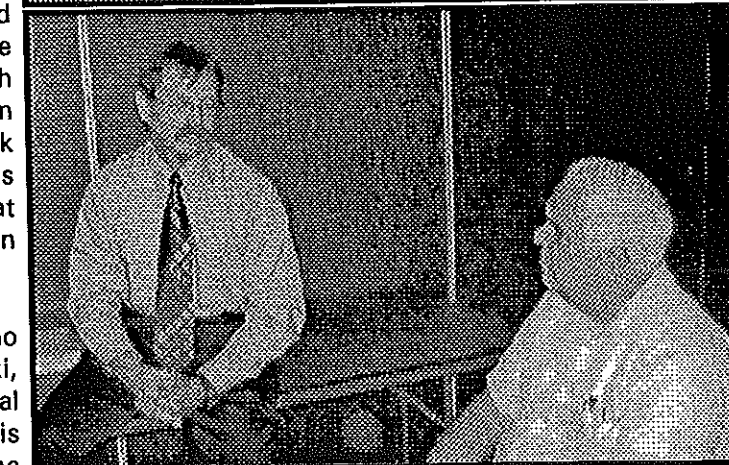
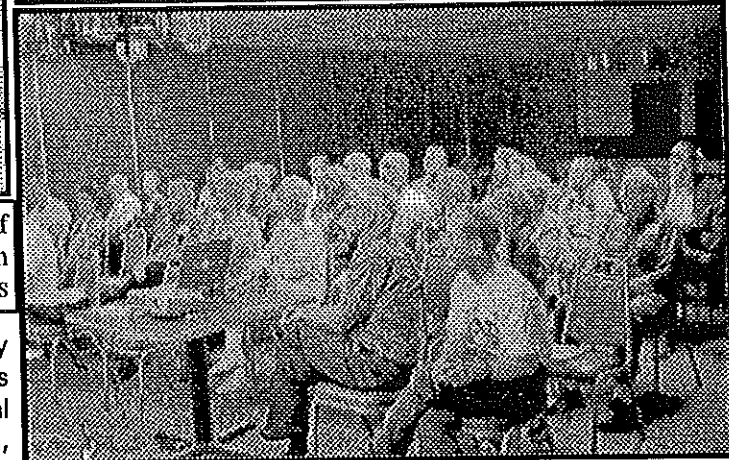
Thirty-three people gathered at Days Inn Motel in Princeton, Illinois, for the CSI tour of the Hennepin Canal entitled "A Little Too Late." Although they came from four states and represented a wide variety of occupations, they shared a common interest in canals.



Brian Nolan of Fabric Arts, Inc. displayed his complete series of drawings of the Illinois & Michigan Canal and of some Hennepin Canal structures. They were available for purchase. BS

Friday night started with fellowship and a display of drawings of locks, aqueducts and other landmarks along the Illinois and Michigan Canal, the Hennepin Canal and the Illinois River by Brian Nolan, an artist from Utica, IL. He had often done two of each site with one from old photographs to show it in its original state and one showing it as it looks today. He said that in his research he found a picture of the lock keeper, wife and baby on a houseboat at Lock 1. Later, when he was at that lock making sketches, an old man came by, saw what he was doing, and said, "My parents were lock keepers on that lock and I was born on their houseboat." So the baby in the photograph was now an old man!

After a nice buffet dinner, Gerry Hulslander, who had arranged this tour, introduced Mark Walczykinski, who is employed by the Illinois Department of Natural Resources as a Conservation Officer. His passion is studying the Indians of Illinois. His beautifully done "PowerPoint" talk entitled "Native Americans of the Starved Rock Region" was about the historic period starting from the arrival of French Jesuits, explorers, and traders to the removal of the Indians to the West. He made it clear that there were many groups and subgroups and how the various tribes moved. The Illinois is not a tribe of Indians but refers to a group of related



1. Hot sandwiches, potato salad and baked beans were eaten while members caught up on their fellow canawlers' news. NS
2. After dinner Mark Walczykinski gave a PowerPoint program about Native Americans in the Starved Rock Region that captured the attention of his audience. NS
3. Walczykinski (left) talks with Larry Eggleston about the books they both have written on Native Americans. NS

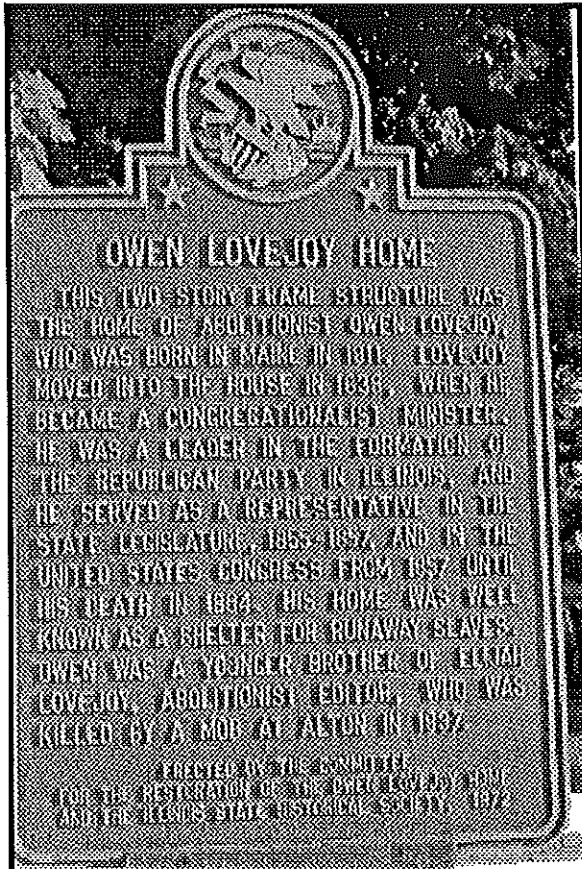
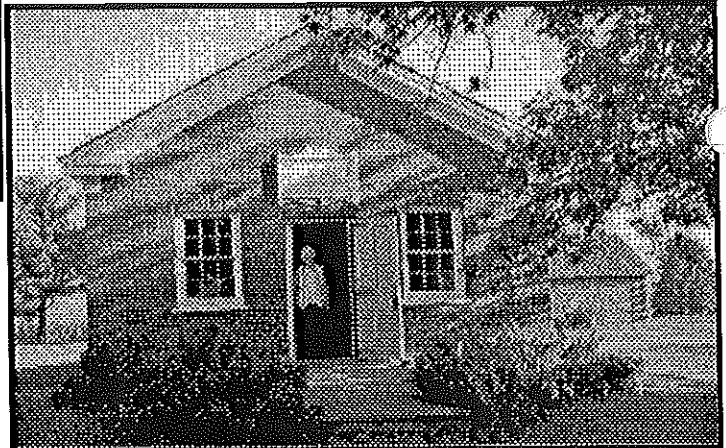
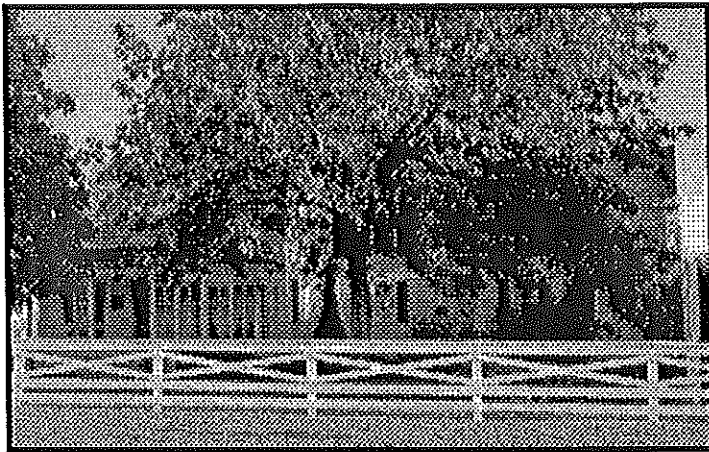
tribes. At one time over 20,000 Native Americans (the current politically correct term) lived in the Illinois River valley. There were incursions by the Iroquois with fighting, massacres and conflicts.

Saturday morning, after a continental breakfast, the canal lovers boarded a nice tour bus. Our first stop was the restored home of Owen Lovejoy, a minister and abolitionist, who served in Congress and was the first to speak against slavery there. His house at Princeton was a well known stop on the "underground railroad" and included a space under the eaves for hiding slaves. Although the Hennepin Canal had not yet been built, if it had been in operation, slaves would probably have followed it's towpath or hidden aboard a boat in their run for freedom.

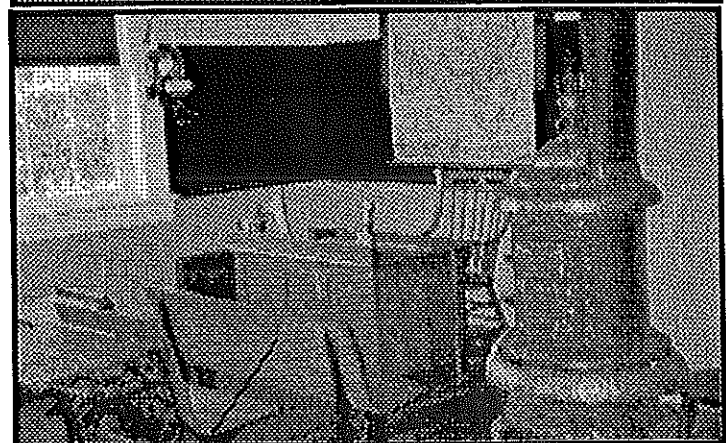
An authentic one room school, the Colton School (1850-1972), complete with recitation bench had been moved on land behind the Lovejoy house. Several tour members had attended one room schools sans recitation benches. We found the following rules for teachers in 1872 interesting:

Rules for Teachers

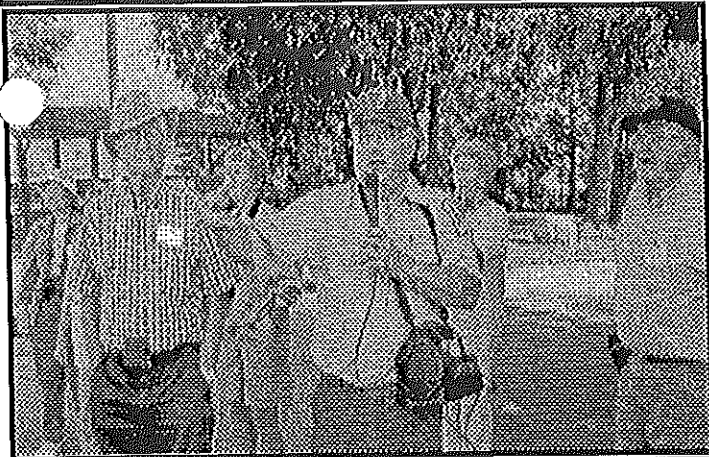
1. Teachers each day will fill lamps, clean chimneys.
2. Each teacher will bring a bucket of water and a scuttle of coal for the day's session.
3. Make your pens carefully. You may whittle nibs to the individual taste of the pupil.
4. Men teachers may take one evening each week for courting purposes, or two evenings a week if they go to church regularly.
5. After ten hours in school, the teachers may spend the remaining time reading the Bible or other good books.
6. Women teachers who marry or engage in unseemly conduct will be dismissed.
7. Every teacher should lay aside from each pay a goodly sum of his earnings for his benefit during his declining years so that he will not become a burden on society.
8. Any teacher who smokes, uses liquor in any form, frequents pool or public halls, or gets shaved in a barber shop will give good reason to suspect his worth, intention, integrity and honesty.
9. The teacher who performs his labor faithfully and without fault for five years will be given an increase of twenty-five cents per week in his pay, providing the Board of Education approves.



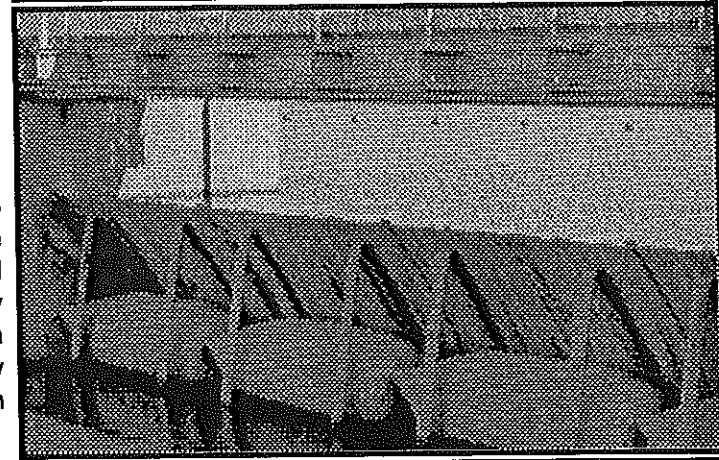
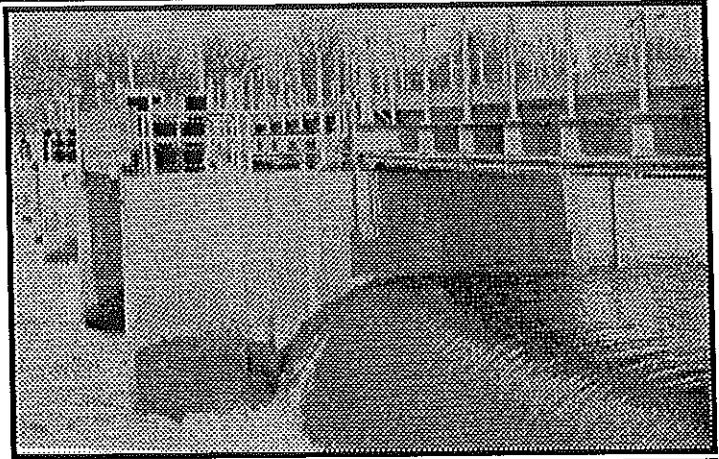
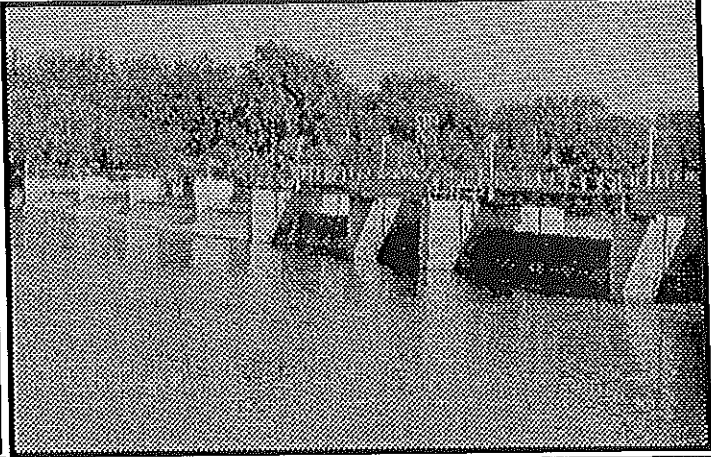
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Above: We were welcomed into the Colton School. DH  
 The recitation bench sat before the teacher's desk. DH  
 Left: Owen Lovejoy lived in this home and hid slaves here for the underground railroad. DH  
 A marker tells about Lovejoy. BS



Gerald Hulslander, tour planner, stands to the left of Steve Moser, our tour guide with microphone, as Steve describes how the Rock River dam pools water for the Hennepin Canal. NS



At Rock Falls, Steve Moser, the site superintendent for the Hennepin Canal Parkway, Illinois Department of Natural Resources, joined us and took us to a new hydroelectric dam, which had recently been built across the Rock River between the towns of Rock Falls and Sterling, IL. The original Sinnissippi Dam was built in 1907 to create a pool water 8 feet deep and divert it into the 29-mile-long feeder canal that fed the summit level of the Hennepin Canal, which is on the National Register of Historic Places as part of the Hennepin Canal Historic District. This was the main feeder with only one other feeder on the western end on Rock River. The feeder was the same dimension as the main canal, so it could handle the same size boats.

The new dam had a permanent spillway and moveable gates that used large Kevelar pillow floats to kept the barriers up. Kevelar is a product used to make bullet proof vests and other items requiring strength and unpenetrability. The pillows could be deflated individually by computers to allow water or debris to pass through individual sections of the dam. Since it is one of the few such dams in the world, it attracts engineers from everywhere to see how it operates.

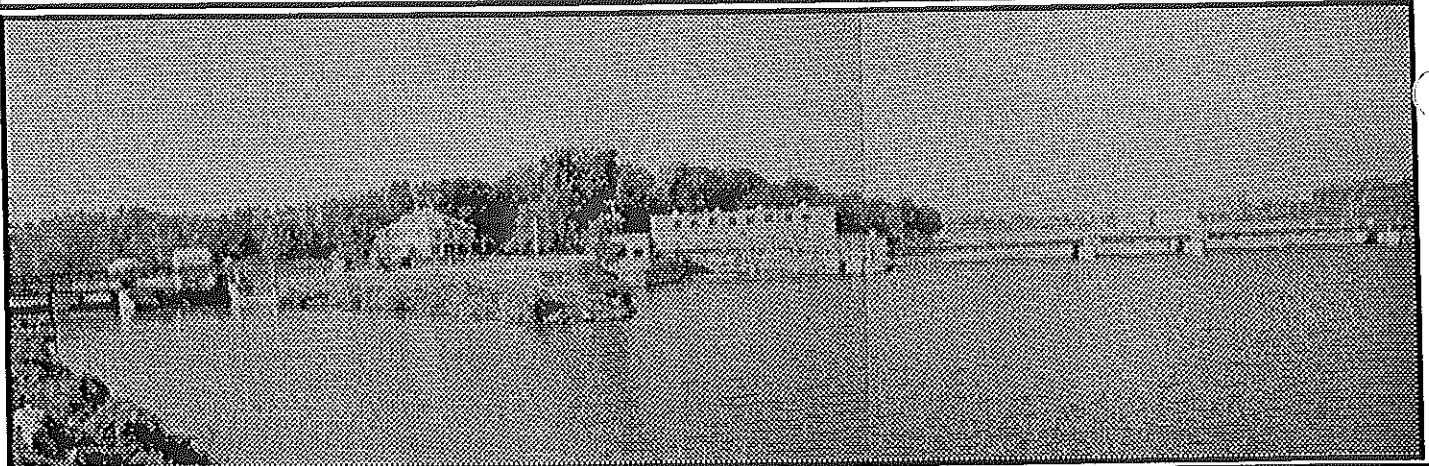
At one end of the dam is a concrete building that houses the hydroelectric power plant built by and supplying electricity to the city of Rock Falls. It houses two huge propellers that spin in the current of the river turning a rod about 100 revolutions a minute. Through the use of gears, the spin is increased to about 9,000 revolutions a minute in a generator.

Across the road is a large house, which was originally built for the head of the entire Hennepin Canal. It is now used by the Department of Natural Resources as are other nearby buildings.

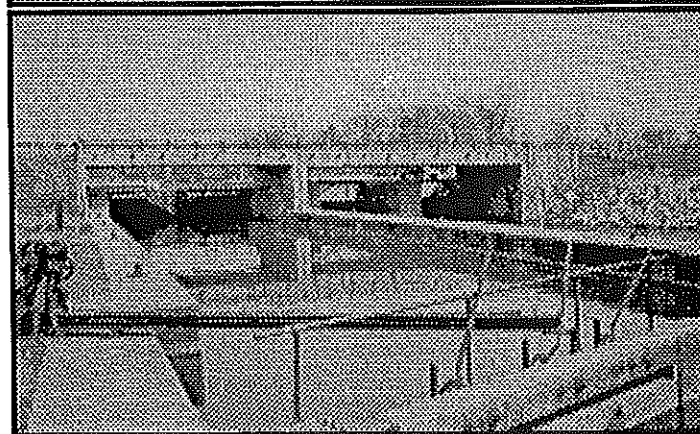
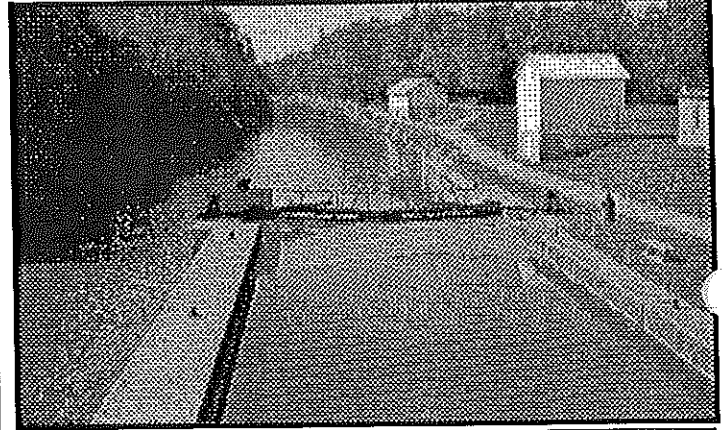
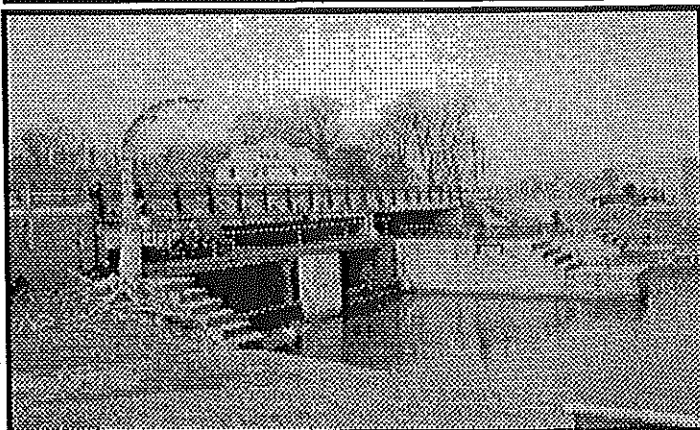
There is a lock at the entrance of the canal so

1. The dam across the Rock River between Rock Falls and Sterling, Illinois, as seen from its downstream side, has excess water flowing over it. BS
2. This section of the dam has been electronically controlled by computers to let water flow over it. GH
3. This section has been raised to hold back water. The Kevelar pillows, which support it, are clearly seen. BS

that boats could go from the canal into the river. At one time the river was deep enough for boats to go up river 12 miles to Dixon, thereby extending the area served by the canal. Today the pool behind the dam offers recreational opportunities such as fishing, water skiing, swimming and boating. While we were there we saw

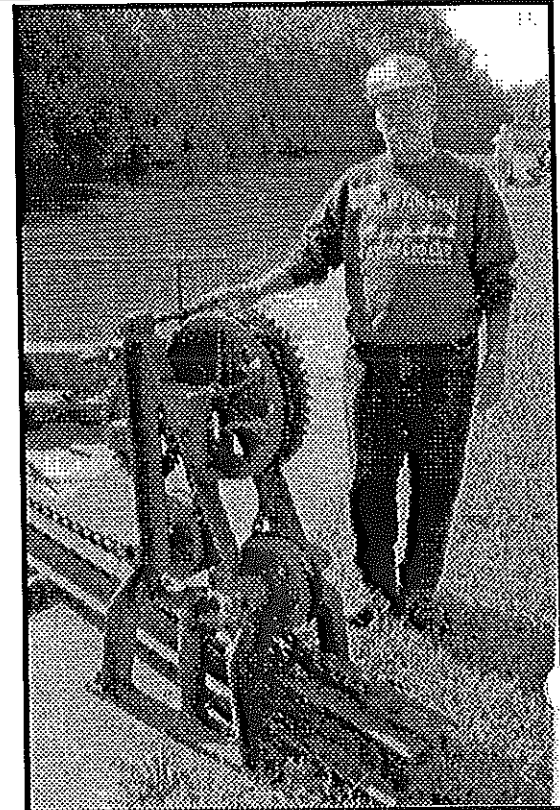


This is the first of two feeders on the Rock River for the Hennepin Canal. The guard gate of the Hennepin Feeder Canal is on the left. To its right is the old canal superintendent's home. To its right is the concrete hydroelectric plant. These are all in Rock Falls. Then shown in the Rock River with the new dam across it, which pools water for the canal. To the right is Sterling, IL. with hardware manufacturers in the background. From this view the dam appears like any other dam. Photo is a combination of two photos taken by Don Haack.

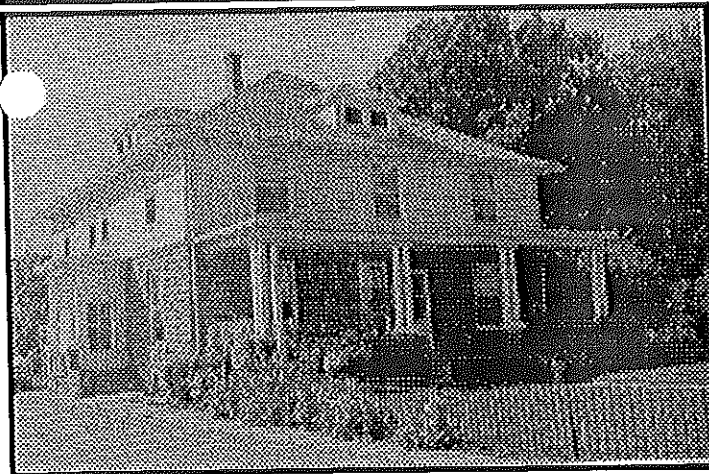


L 1. The entrance guard lock and bypass channel of the Hennepin Canal Feeder from Rock River is seen with a road bridge over it. The superintendent's home is in the center. GH  
 L 2. The guard lock is seen looking toward Rock River. Note the mechanical gears and iron rod that replaced the balance beam of earlier canals to open and close the gates of the lock. GH  
 R 1. Note the snubbing posts on the guard lock and the out buildings of the superintendent's home now used by IDNR. BS  
 R 2. Larry Turner stands by the gears and the iron beam that operate the lower gates of the guard lock. These were made by the Hennepin builders and cast in sand. BS

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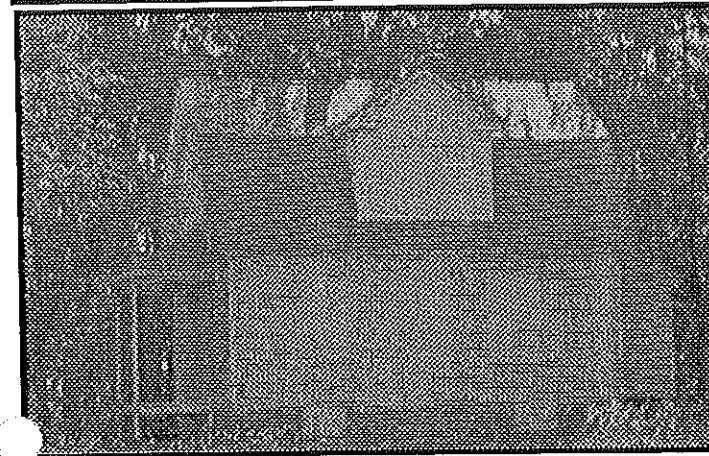




boats filled with pine branches that were being taken to place on duck blinds for the hunting season.

Beside the lock was a set of gates that controlled the flow of water into the feeder. On the bank nearby was an inspector's house. There was an inspector for every 7-8 miles of feeder who walked the canal looking for leaks, etc.

Down river could be seen two very large hardware manufacturing companies, makers of hinges and hasps. Beyond them was the remains of a steel mill now long closed. Just as the canal became economically inviable, so has much of American manufacturing.



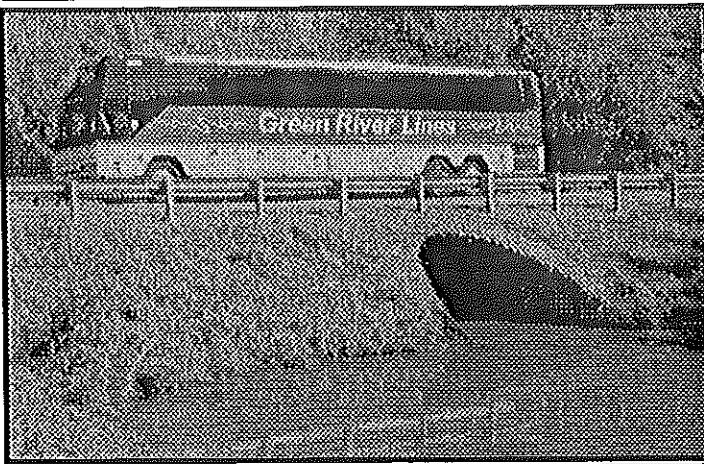
Following Steve in his IDNR pick up truck, our bus took us to visit the feeder aqueduct over the Green River. Parking over a culvert for the canal, we exited the bus and hiked a quarter mile to reach the aqueduct. Communication along the canal in its original days was by telephone and an original cement telephone post and cement fence posts were seen along the canal on this walk.

When we reached the aqueduct, many fish could be seen in the river below it. Each of its ends had a Desfontaines type emergency gate so the canal could be divided into segments to prevent a break from draining

The superintendent's home is now used by the IDNR. BS  
This canal inspector's home was modest in comparison with the superintendent's home. DH

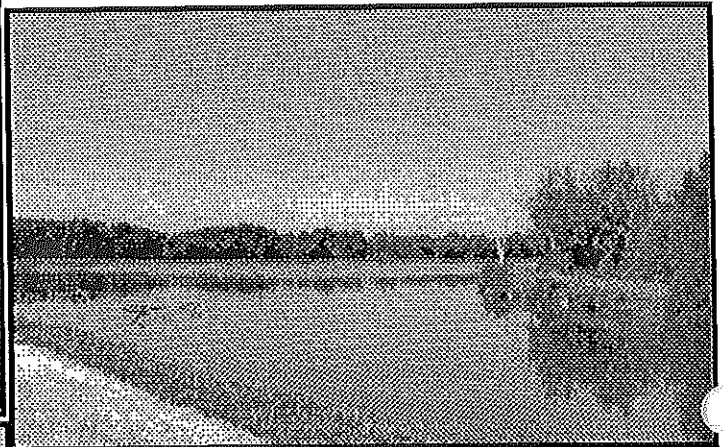
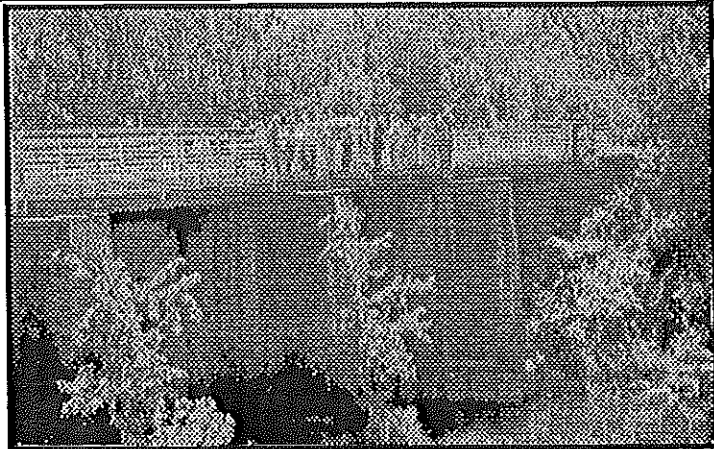
Thirty-three Canal Society of Indiana members toured the Hennepin Canal and posed by the guard lock of the feeder canal in Rock Falls, Illinois. Photo - Steve Moser, IDNR tour guide



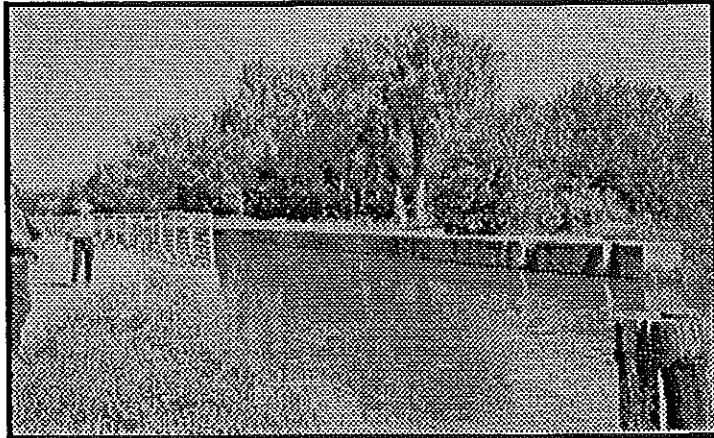


the entire feeder. The aqueduct was a cement channel resting on cement piles and abutments. Poured cement was used for the first time to build the locks and aqueducts on the Hennepin Canal. Since it was a new technology, many new methods had to be developed. These techniques were later used on the Panama Canal. While reinforcement wires or rods were incorporated in the fence posts and telephone poles, there were none in the aqueducts and locks. They have held up very well without reinforcement.

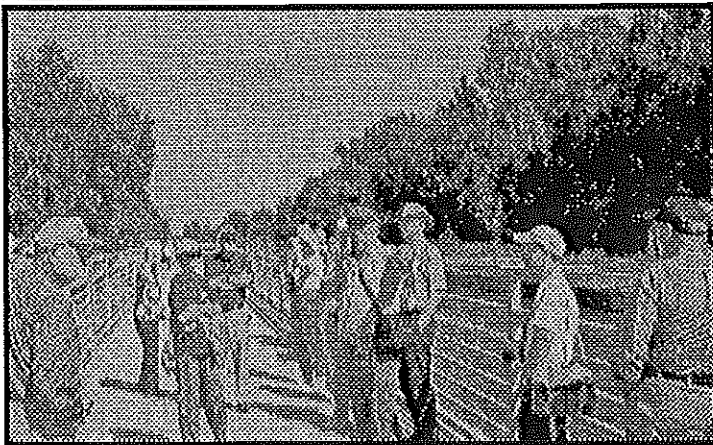
The feeder only dropped one foot in its 29 miles. It was longer than the portion of the Hennepin Canal mainline east of the summit level, which was only 28 miles long.



The feeder canal at the upper right joins the mainline of the Hennepin Canal, which is from the left to the lower right. Note the trees in the canal on the left that were let fall there for crappie beds. BS



We then visited the wide water where the feeder joined the Hennepin Canal. Trees that had grown up on the tow path over years of neglect by the Corps of Engineers have been cut by IDNR and let fall into the canal to provide crappie nurseries that were requested by local fishermen.

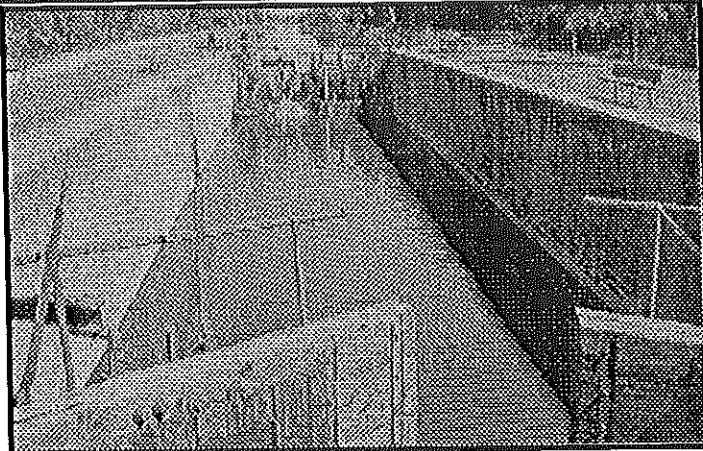
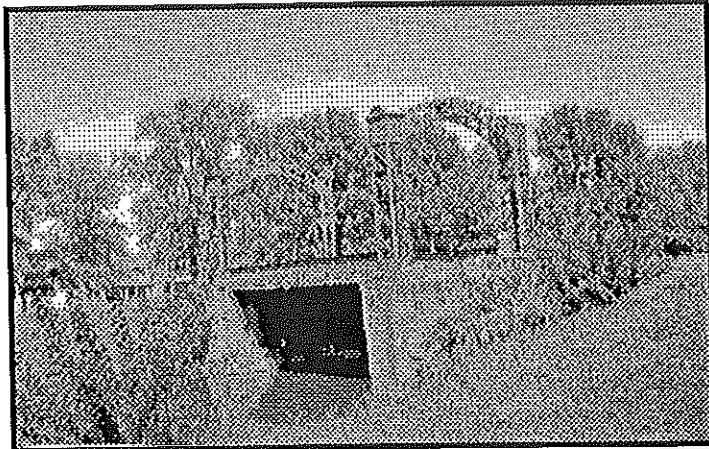


The next stop was Lock 22 and Bridge 19 where a welcomed box lunch was eaten alongside the canal

1. Our bus parked over a culvert that replaced a bridge, which was too narrow for farm equipment to cross. BS
2. The Hennepin Feeder Canal crosses this aqueduct over the Green River. The huge piers of concrete have been protected by steel filled with rock around their bases. Canawlers looked over the side to see schools of fish facing into the current below. There were several really large fish among the smaller ones. NS
3. Desfontaines gates can be placed across the aqueduct in the deep indentations in its sides to stop water flow in the case of canal break. DH
4. Steve Moser, with microphone, explains how the aqueduct was built and how it operates today. NS

FEEDER AQUEDUCT OVER GREEN RIVER

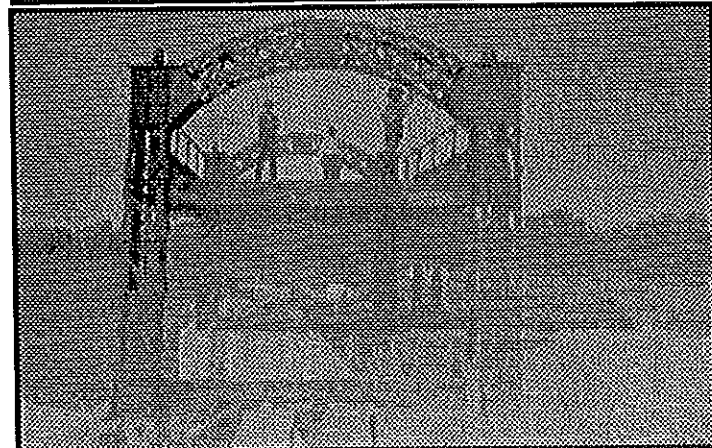
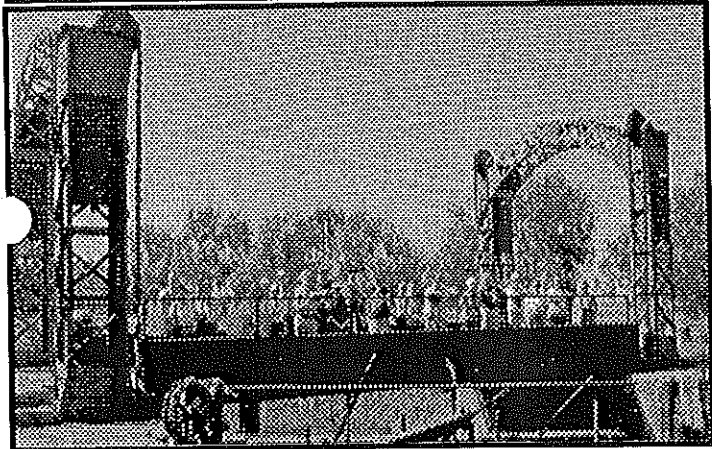
under shady trees with a pleasant breeze. The bridge's plate said it was built in 1904 and was made out of steel and cast iron. It was raised and lowered by one man turning a lever in the center of the span. Counter weights in the four corner towers made this possible. The man rode the bridge up and then back down. The lock beside the bridge still had wooden gates and some of its



Lock 22 is next to the bridge with its gates partially open. BS

mechanical equipment. The lock keeper's house was sold by the Corps of Engineers and a private individual has moved it across the canal to private land.

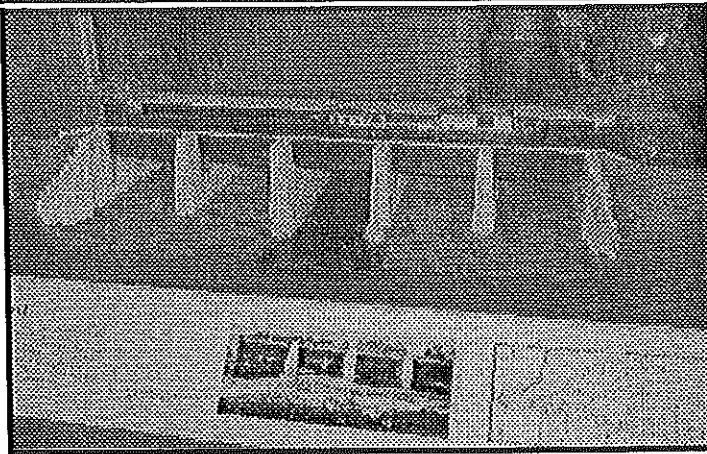
We then went to the Hennepin Canal Visitor Center. Closed on weekends because of staff cuts that were brought about by loss of funding to the National Heritage Corridor, it was specially opened for the Canal Society of Indiana tour. Outside the building we were



**BRIDGE 19 ON THE HENNEPIN CANAL**

1. Bridge 19 is typical of the bridges that spanned the Hennepin Canal. Today many of them are replaced by culverts. NS
2. Bridge 19 is a lift bridge made of steel and cast iron. BS
3. An old photo shows Bridge 19 raised up to permit boats to pass beneath it. BS

1. This old slip scoop was used to dig the Hennepin Canal. DH
2. Another type of slip scoop was on display at the Visitor Center. BS



model of the Marshall gate. Steve Moser provided CSI with blueprints of the gate to take back to headquarters for further study.

The following explains how sand casting was done:

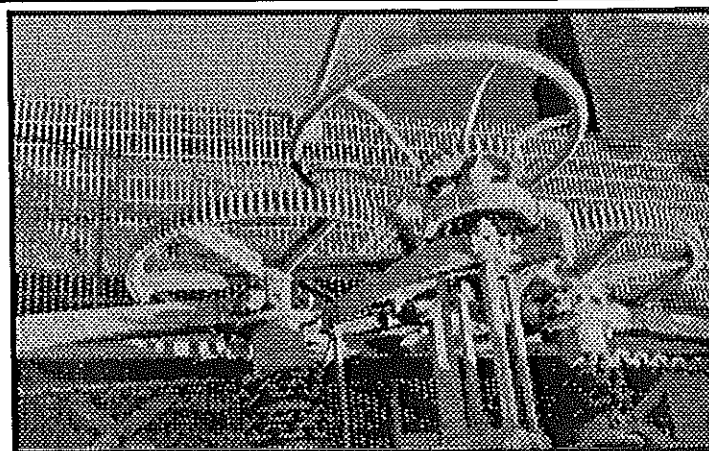
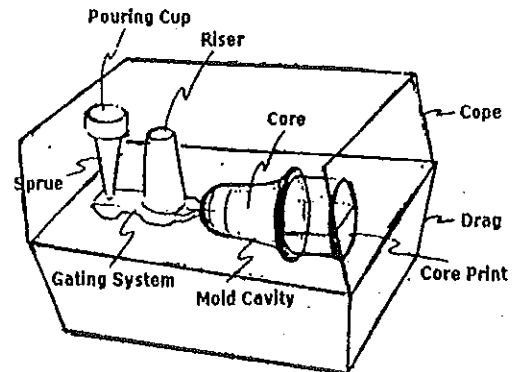
**Sand Casting**

Sand casting is a simple and easy process to create detailed items in aluminum, brass, bronze, iron, and steel. For the most basic and simple castings, ordinary sand may be used. The sand is mixed with oil to give it a consistency that will bond together when it is packed down (just until the sand will stay together and hold its shape). A form is then used to hold the sand around the object being cast. This form may be a simple box of steel or even wood. The form is made in 2 sections, a top and bottom half. Sand is poured into the bottom form to just cover the bottom and then the object is placed into the lower form. A mold is made in the exact shape of the object you want to be cast. The mold may be made of anything - glass, wood, plastic another casting, etc. A release agent is placed on the object to prevent it from sticking to the sand. This is generally just a powder similar to the consistency of flour.

Sand is then poured around the object and tamped down until it is nice and firm. Two or more channels are cut into the sand, going from the mold to the openings in the form. These are used to pour in the molten metal. The sand is level off to the top of the lower form and more release agent is poured over the object and the top of the sand in the lower form. The upper form is then placed over the lower form and more sand poured in and packed tight around the object. The sand is again tamped down to make it firm around the object. The upper half of the form may then be removed from the lower half. The sand will stay in the upper half of the form and will have the shape of the object. The object itself may now be removed. If things were done correctly, the object will come free from the lower form easily thus leaving a mold.

The upper form may now be placed onto the lower form and the two halves are clamped together. The final step is the easiest; the molten metal is poured into the mold made by the two forms through the casting, or Sprue holes. When the casting has cooled, the forms are opened, and the new casting may be removed. The sprues are cut off the edge of the casting and the sand may be reused. A new casting has been created.

Typical Components of a Two-part Sand Casting Mold



1. This model showed how the aqueducts were built of concrete on the Hennepin Canal and feeder. BS
2. Sandy Billing holds a light weight wooden model of a gear. The model was placed in oiled sand to form a mold for the cast iron. BS
3. These locally produced gears still operate. BS

welcomed by Gary Wiegall representing the Friends of the Hennepin Canal. Inside the museum we saw many interesting historic pictures, a model aqueduct, diagrams of the canal, stuffed wild life and so on. Of special interest was a large slip scoop pulled by horses to dig the canal, original wooden patterns for making castings for the lock gears and other iron parts, and an operating

An old notice at the Visitor Center told of penalties on the Illinois and Mississippi Canal now known as the Hennepin Canal:

**NOTICE.**

The lands acquired and owned by the United States in connection with the Illinois and Mississippi Canal, and lying in the counties of Whiteside, Bureau, Henry and Rock Island, in the State of Illinois, are held for purposes of navigation, for the accommodation of the U. S. lock and bridge tenders, and for sites for government structures. Trespassing on said lands is strictly forbidden, and all persons are hereby expressly warned under penalty of the law.

1. Not to cut trees, dig up and carry away earth, sand, gravel, or rock, injure fences, locks, bridges, culverts, telephone lines, or any other structures belonging to the United States, — use dynamite for any purpose, or erect temporary or permanent buildings or other structures;

2. Not to permit horses, cattle, sheep, hogs, or other animals, to run at large on any portion of the said lands, including those used as public highways;

3. Not to ride or drive along or upon canal embankments, except where such embankments are intended as public highways.

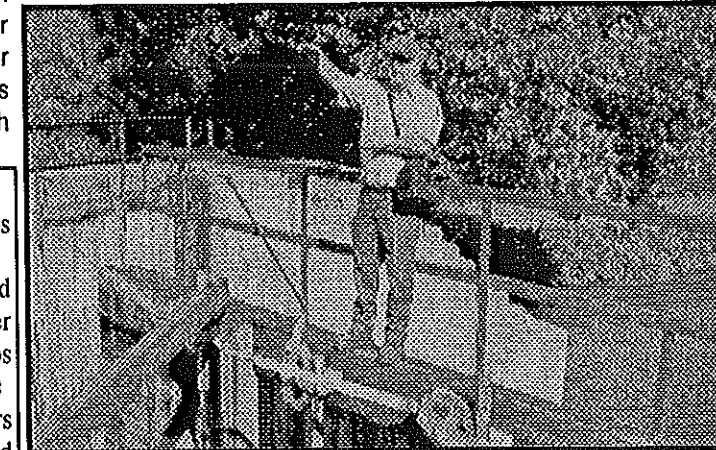
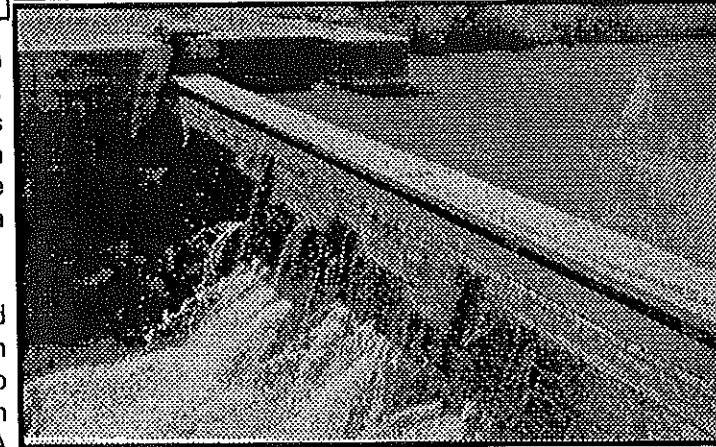
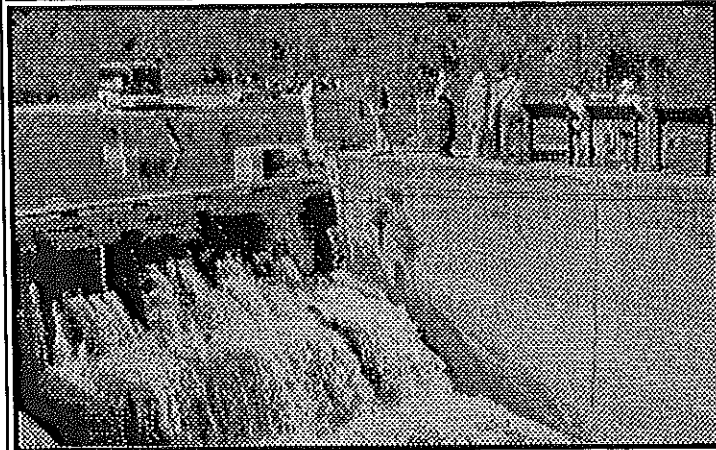
Approved: F. L. AINSWORTH,  
THE MILITARY SECRETARY,  
ACTING SECRETARY OF WAR

War Department, August 10, 1906

After leaving the Visitor Center, our next stop on the eastern segment of the canal was to see Locks 14, 15, 16 and 17, several bridges and historic ruins. This section is projected to be the historic area with everything being restored as it was in the days of the canal. We first saw cement supports for skids where a boat yard was once located.

Some of the locks had wooden lower gates and functioning butterfly valves, which operated by levers on the top of each gate. The upper gates were Marshall drop gates that dropped flat when water pressure on both sides became equal so boats could pass over them. A copper air tank in them caused them to rise when water underneath them was discharged into the bypass. Air replacing the water caused air bubbles to push the gates upwards and be caught by the incoming water, which

1. These cement supports are all that remain of a boat yard. BS
2. The upper end of this lock has a Marshall drop gate that drops down when the water level is the same as that upstream. NS
3. This Marshall drop gate has a copper tank at the top covered with these wooden planks. It drops to the right when the water level in the lock is the same as that upstream. The air tank helps to raise up again when the water is emptied from the lock. BS
4. Steve Moser stands on the lock's lower gates with their gears for opening the wickets below and the steel beam that opens and closes them. BS



The Historic Restoration Area

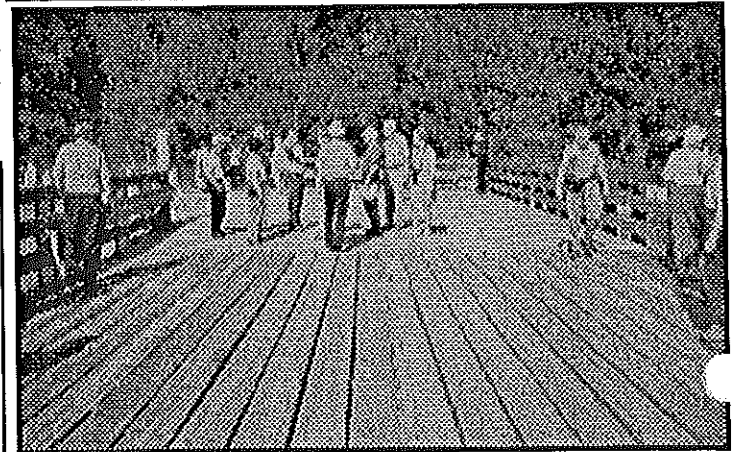
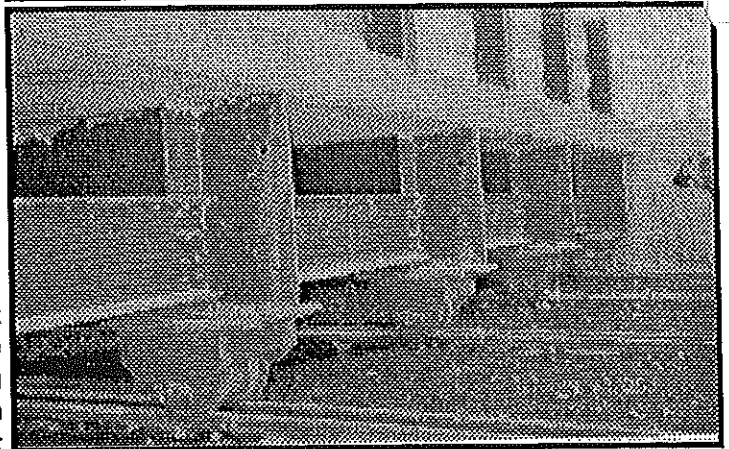
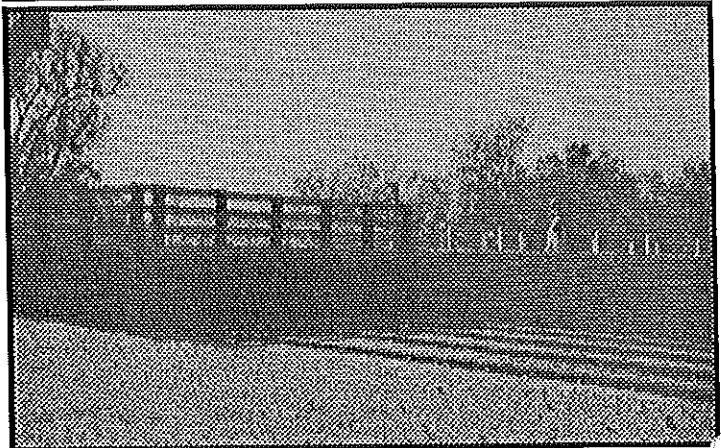
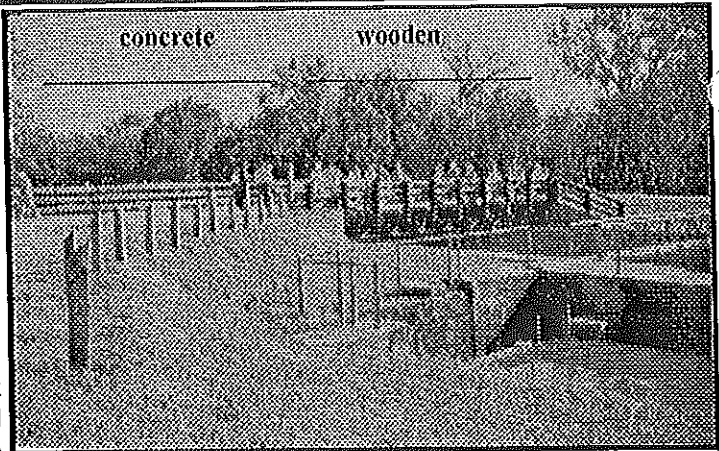
further pushed the gates into the upright position. These Marshall gates must have operated much like the Wabash & Erie Canal Flood Gate removed from Clear Creek in Huntington, Indiana.

A depth gauge on the lower end of a lock showed the water to be 5 feet deep. Silting has greatly decreased its actual depth. Originally the Corps kept it at 7 feet. The canal was 80 feet wide and 7 feet deep when it was in use.

We then saw a large new plate glider bridge built in the style of an original much smaller version. It rolled on ten rails supported by twenty small railroad-like wheels set at right angle to the canal. Sixty percent of the bridge was poured concrete, which counterbalanced the remaining forty percent of wood and steel. When ready for use, the wooden-steel part extended over the canal with its far end resting on the far abutment. Vehicles came up on the bridge, crossed the canal, and then turned left off the concrete section onto the road. No motive power had been built into the bridge. It can only be opened or closed by bringing in heavy equipment to push it. Its construction was ordered by the court for access to farmland on the other side of the canal by heavy grain trucks and combines.

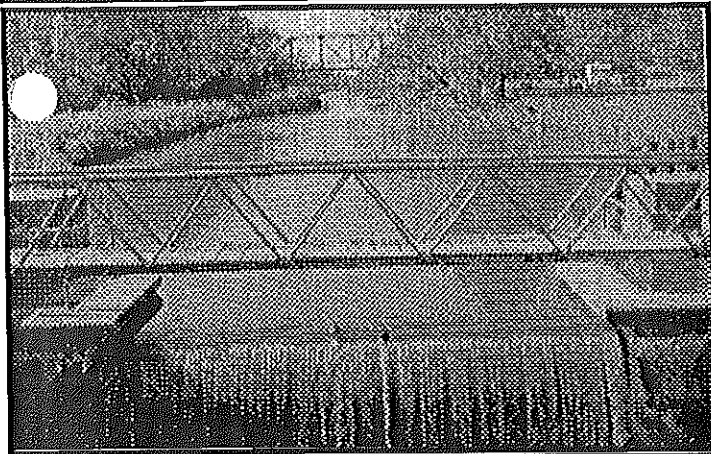
Beyond the bridge there was barely visible the foundation of a building where the cement fence and telephone posts were made. The posts were marked U.S. and weighed 160 pounds.

Returning to the motel, the tour members rested a short time and then shared the evening banquet with make your own sundaes. The program was a well done, thirteen minute video on the Hennepin Canal. Steve Moser then answered many questions the canawlers had about the canal. He shared stories such as one about the contractor who dug a hole and buried some tree stumps in the bottom of the drained canal, not realizing he was digging through the clay liner. This resulted in a leak, which was difficult to locate and created a great expense to repair. Following his speech, Steve was presented with Walmart gift cards to be used for something needed in the Visitors Center. He said they really need a new vacuum cleaner.



1. The concrete portion of the plate glider bridge is on land at the left. The wooden portion is over the canal lock. DH
2. The entire bridge can be pulled back onto the land on these rails. DH
3. The bridge is atop a steel structure with wheels that run on rails. The man's head at the right shows the massive size of the structure. DH
4. The wooden floor of the bridge extends over the canal. Many canawlers stand on the concrete portion of the bridge, which is a counterweight. DH

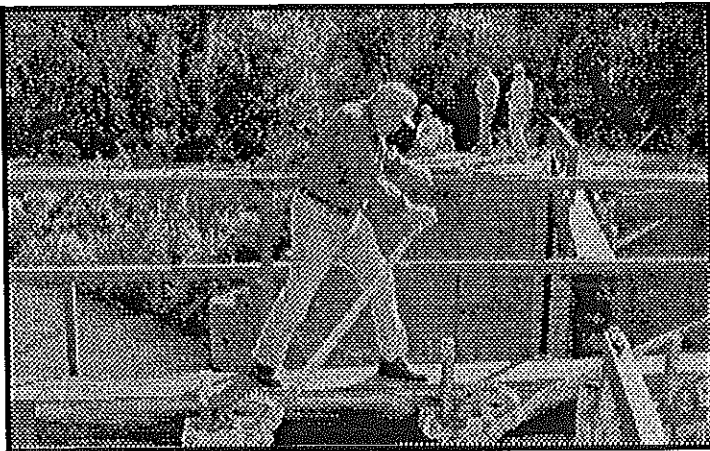
Plate Glider Bridge



This foot bridge crossed the lock just beyond the plate glider bridge. A railroad bridge is seen in the distance. BS

Sandy and Leon Billing posted newspapers clippings about the tornado that heavily damaged Utica and killed eight while they were visiting the canal. Gerry Hulslander added additional information about the destructful event. Bob Schmidt announced the upcoming "Gateway to the East" Toledo tour of the Wabash & Erie Canal on May 4-6, 2006.

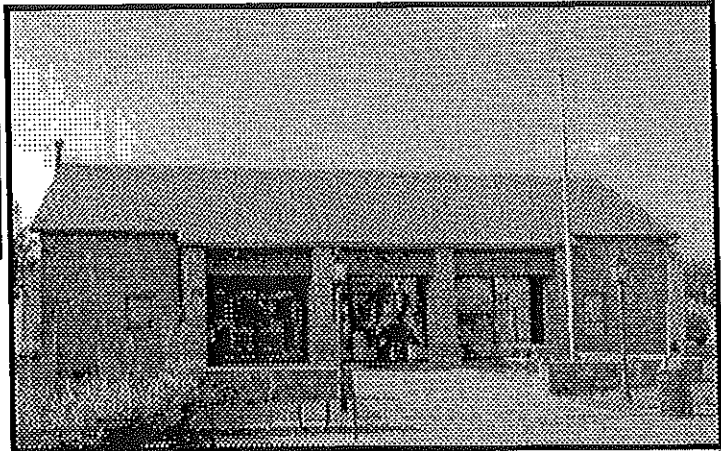
Then it was time for the Kicks and Kapers Award that is presented to someone who has added a bit of fun to the canal tour. Since the plaque had room for only one more name, Carolyn Schmidt called forward all those present who had been recipients of the award to explain why they had won it. She then announced this tour's recipient, Maury Bonecutter, a first time tour attendee who had bravely walked out upon the narrow lock gate walkway and demonstrated opening the wicket using the metal lever.



Maurice Bonecutter won the "Kicks & Kapers Award" for his bravery in demonstrating how to open and close the wicket. BS

On Sunday, twenty-three tour members visited Utica and saw the La Salle County Historical Society Museum housed in an old picturesque stone canal warehouse. It is well done with sections on the canal,

Civil War, Southwest, costumes, and a picture of Edward Edson Lee, who wrote under the pen name of Leo Edwards five series of juvenile fiction books, Jerry Todd, Poppy Ott, Andy Blake, Trigger Berg and Tuffy Bean. Many of these books were set on the canal in Tutter, Illinois, his fictional name for Utica. Their library had a complete set of his books. It is this series which formed the earliest basis for my interest in canals.

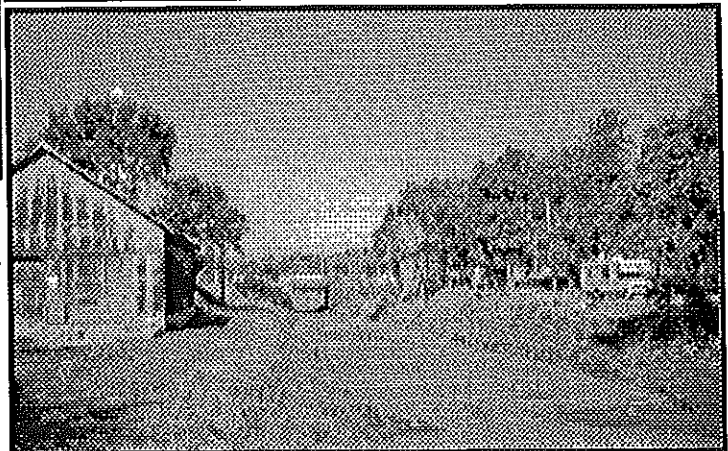


Above: The La Salle County Historical Museum is housed in this old canal warehouse on the I & M Canal, an earlier canal than the Hennepin. A marker outside read: BS

#### CANAL WAREHOUSE

This stone building was a warehouse on the Illinois and Michigan Canal, which was completed in 1848. The building was constructed one year later by James Clark, a resident of Utica. Before the advent of the railroads the canal was the main commercial artery to Chicago. The canal helped establish Chicago as an important grain market and contributed greatly to the growth of that city and the northern part of the Illinois River valley. Clark had also constructed five sections of the canal. He operated a general store in his warehouse, which in 1877 alone shipped 210,000 bushels of corn and 22,000 bushels of oats. This warehouse is the only one surviving on canal frontage.

Below: This section of the I & M Canal behind the canal warehouse is covered with duckweed, a river otter was swimming in it when we were there. DH



Gerry Hulslander then led a walk to another one room schoolhouse, grain elevators, sites damaged by the tornado and then stopped at the barn where the historical society houses its forge, buggies, farm equipment, etc. Since he had given a lesson in planting and harvesting corn by modern methods the day before, he then told how it was done in the good old days and demonstrated old farm equipment.

Many canawlers then went to Duffy's in Utica for huge Reuben sandwiches before wishing each other farewell. Some returned home while others went to visit friends or tour other parts of Illinois.

### WHAT WE LEARNED ABOUT THE HENNEPIN

By Carolyn Schmidt

Through the tour, we learned that discussions began in 1834 about joining the Illinois and Mississippi Rivers with a canal. Construction began in 1890. Construction of the eastern main line began in 1894. It wasn't completed until 1907, a long time after other U. S. canals. It is 155 miles long and shortened the distance between the rivers by nearly 500 miles if you had to take a boat down one river and up the other. Originally there were 33 locks. The first one, on the Illinois River, has been under water for over 5 years. Fourteen of the locks had unique Marshall gates. Five have been restored to working condition. Of the original 9 aqueducts only 6 remain. It required 21 locks for the 196-foot climb from the Illinois River to Wyanet.

The main canal from the east to the west spans Bureau, Henry and Rock Island counties. Eight miles of the canal follow the same channel as the Rock River. The Feeder canal begins at Rock River in Whitest County and extends 29 miles to the main canal in Bureau County.

The thirty-three locks were made of concrete with chambers 35 by 170 feet and walls 240 feet long with a top width of 4 feet. They were filled by two tunnels, one around each of the miter walls. A butterfly valve at the head of each tunnel was operated from the top of the wall by means of a hand wheel. There were similar valves for emptying the locks at the lower end. All of the locks' lower gates were ordinary miter gates placed at an angle of 70 degrees, 30 minutes with the center line of the lock. They were also used on all but 14 of the upper gates. These were fitted with automatic gates with air chambers designed by Major Marshall.

Although the conception of the Hennepin Canal took place in the nineteenth century, it was not actually built and completed until the twentieth century. The idea was to build a large enough canal to carry bulk freight and let the railroads carry the smaller freight. This might have worked if the Illinois and Michigan Canal, which ran from the Illinois River to Chicago, would have been larger, thus creating a waterway across the state of

Illinois. Costs for the canal exceeded projections. Part of this was due to piece-meal acquisition of right-of-way. Had it been purchase up front rather than as the project progressed, land would have been obtained for less money. Also work on the Milan section was estimated on a ten-hour work day. Congress passed an act providing that laborers should not be permitted or required to work more than eight hours a day for government contractors.

The Hennepin Canal worked well from the beginning. Once the sediment had seeped into the minor cracks and stopped leakage, the whole canal operation required only 1 cubic foot per mile per second to make up for evaporation, waste, lockages, and leaks.

Although this canal never was a success, it was a training experiment for engineers, who later went on to use the techniques learned here on the Panama Canal. The canal structures were built of concrete using the hand mixing method on culverts and new machine mixing for locks. New types of bridges, lock gates, etc. were built. Obstacles were overcome by using towers, a cableway and a specially constructed bucket. A three-foot gauge railroad carried dirt and materials for embankments at a difficult site. Technology took a leap forward, but the Hennepin was "A Little Too Late."

Fence posts with notches to hold the wire and telephone poles were made of reinforced concrete. GH BS



Father Louis Hennepin was a priest, the historian on La Salle's first expedition, and was sent by La Salle in 1680 to find the source of the Mississippi River. The canal and the town were named for him.

"The first recorded account of the discovery of coal in the United States is contained in Hennepin's narrative of his explorations in the West, between 1673 and 1680, when he saw the coal outcrop in the bluffs of the Illinois river, not far from Ottawa and La Salle."

Ruoff, Henry W. The Century Book of Facts. Springfield, MA/The King-Richardson Company, 1900.