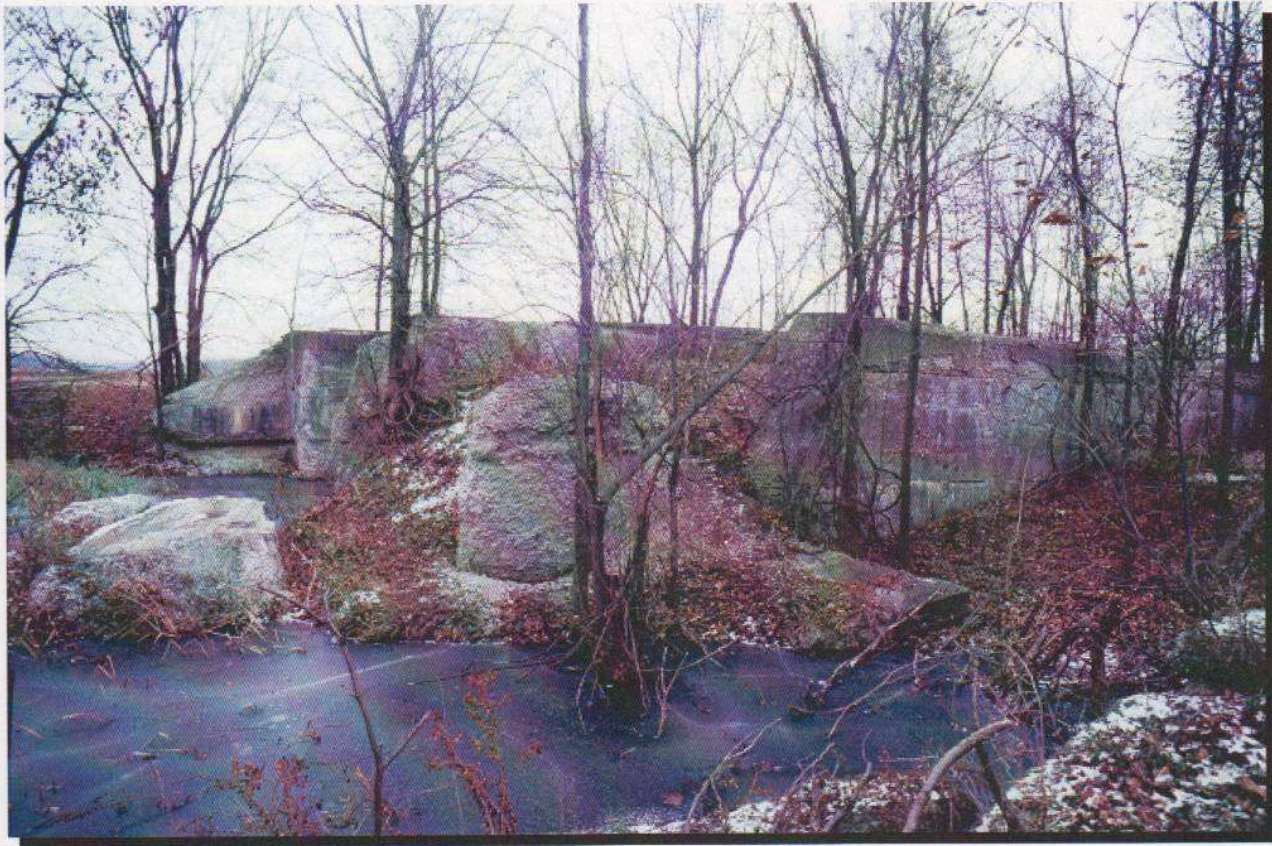


# “TAMING THE SWAMP”

## Miami & Erie Canal and the Wabash & Erie Canal in Paulding, Putnam and Allen Counties



*Lock 32N - Viall's*



Presented by the  
Canal Societies of  
Ohio and Indiana



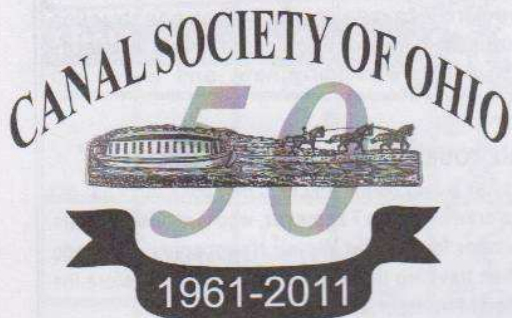
April 1, 2, 3, 2011

**TABLE OF CONTENTS**

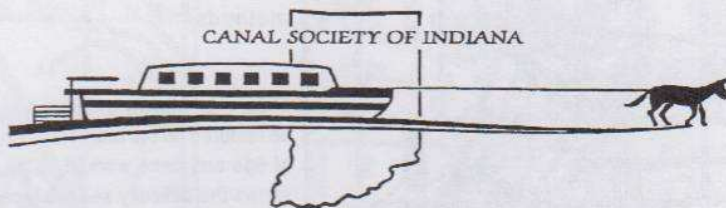
<b><u>I. THE TOUR</u></b>	
Wabash & Erie Canal map .....	2
Miami & Erie man .....	3
Wabash & Erie Canal route .....	4
Miami & Erie Canal route .....	5
<b><u>II. GEOGRAPHY AND NOMENCLATURE</u></b>	
Four names for two canals .....	7
Map Ohio's Canal System .....	8
Lock numbering systems .....	9
The Black Swamp by Bob Schmidt .....	10
Current and ghost towns .....	12
<b><u>III. HISTORY</u></b>	
Construction financed by public land sales .....	15
Miami Extension Canal authorized, built in three sections .....	20
Hipp's Lock .....	21
My Grandmother Was A Locktender .....	22
The Dynamiters .....	23
Canal renaissance .....	25
<b><u>IV. INVENTORY AND CONSTRUCTION OF CANAL STRUCTURES</u></b>	
Wooden locks, dams, aqueducts and culverts .....	27
Specifications for wooden locks .....	29
Plan & Profile .....	30
Miami & Erie: Junction to Delphos (table of locks) .....	31
Wabash & Erie: Indiana line to Junction (table of features) .....	32
<b><u>V. INDUSTRY AND COMMERCE</u></b>	
Iron furnaces .....	33
Forestry .....	34
Field tile production .....	34
Ottoville Mill Still Going Strong .....	34
Defiance - Junction Entrepreneur "Memoirs of Edwin Phelps" .....	35
<b><u>VI. SUNDAY TOUR ROUTE OF DEFIANCE AREA</u></b>	
<b><u>VII. BIBLIOGRAPHY</u></b>	
	39

This booklet was produced for the Spring 2011 joint tour of the Wabash & Erie and Miami & Erie Canals in Northwest Ohio by the Canal Societies of Indiana and Ohio. It was written by **Bill Oeters, Bob Schmidt, Carolyn Schmidt, Neal Brady and Scott Bieszczad**. A few unique pictures are attributed to their owners and all others are from the authors' collections.

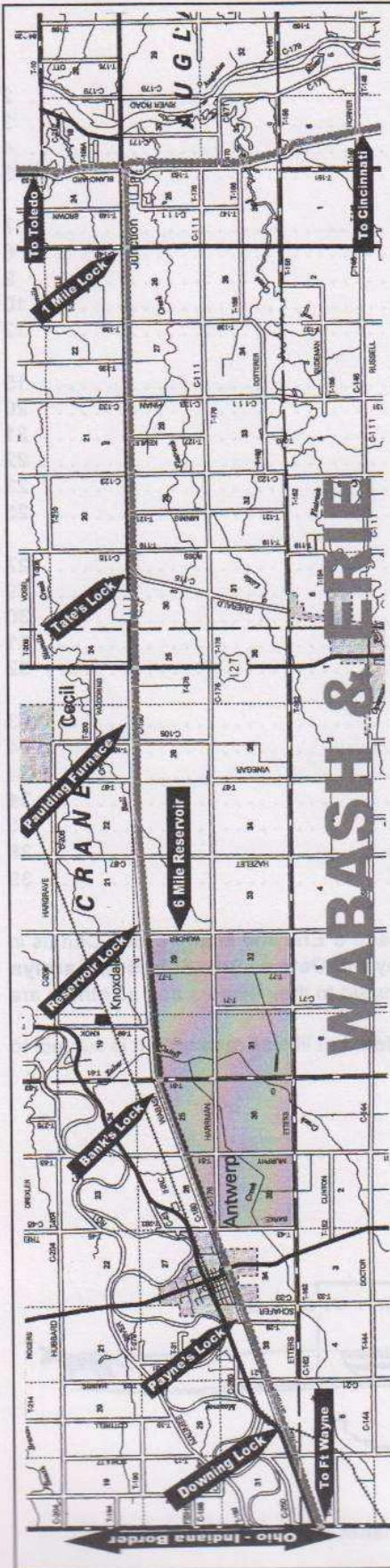
All effort was taken to ensure the accuracy of the information presented, but like all research, it is subject to correction when additional facts are discovered.



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**CANAL SOCIETIES of INDIANA**  
 &  
**OHIO TOUR**  
 April 1-3, 2011  
**TAMING THE SWAMP**



Van Wert, Ohio

**Joint Spring Tour**  
**Canal Societies of**  
**Indiana and Ohio**

Wabash & Erie Canal  
**Indiana Line to Junction, O.**  
 and  
 Miami & Erie Canal  
**Junction, O. to Delphos, O.**

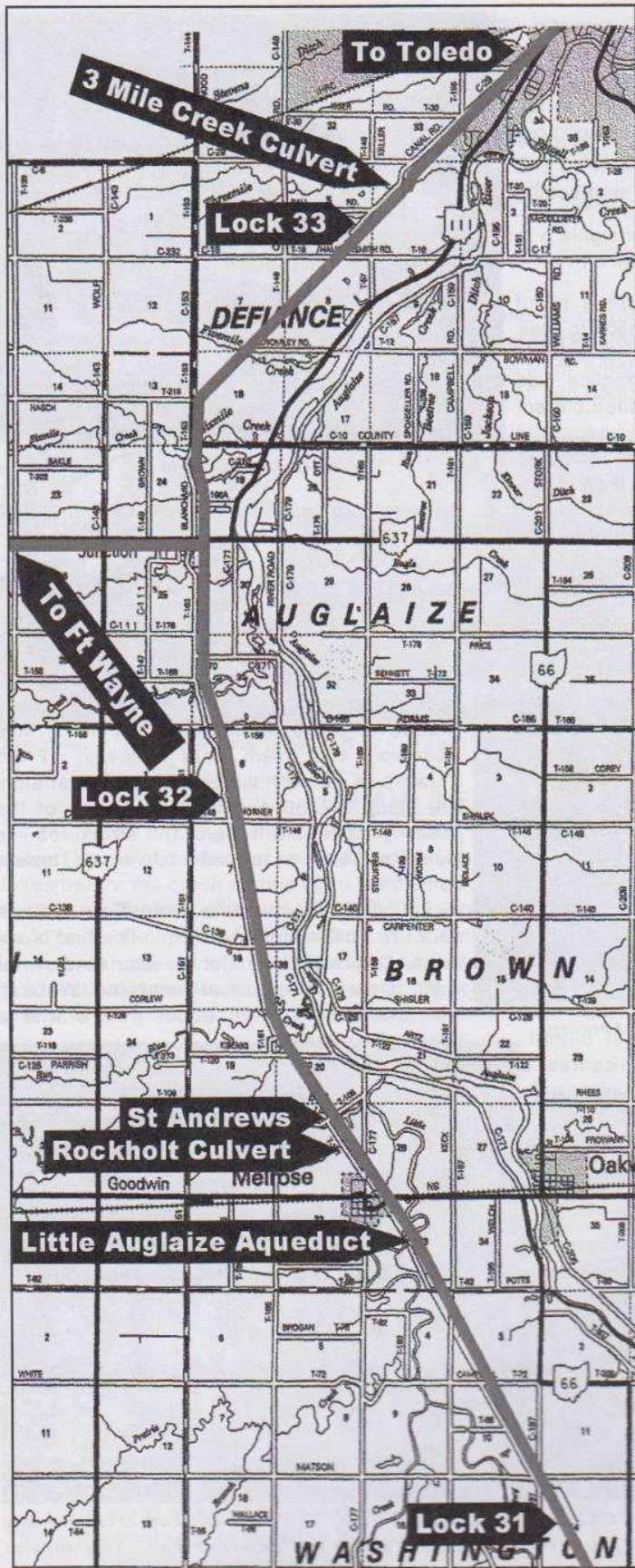
The **Wabash & Erie Canal** in Ohio runs from the Indiana state line and ends at the canal's intersection with the Miami Extension Canal at Junction. This portion from the state line to Junction is 18.3 miles.

The portion of **Miami Extension Canal** on this tour will be from the Six Mile Creek Culvert at the tour's northernmost point, near the Paulding - Defiance county line to Delphos, located along the Van Wert and Allen county line.

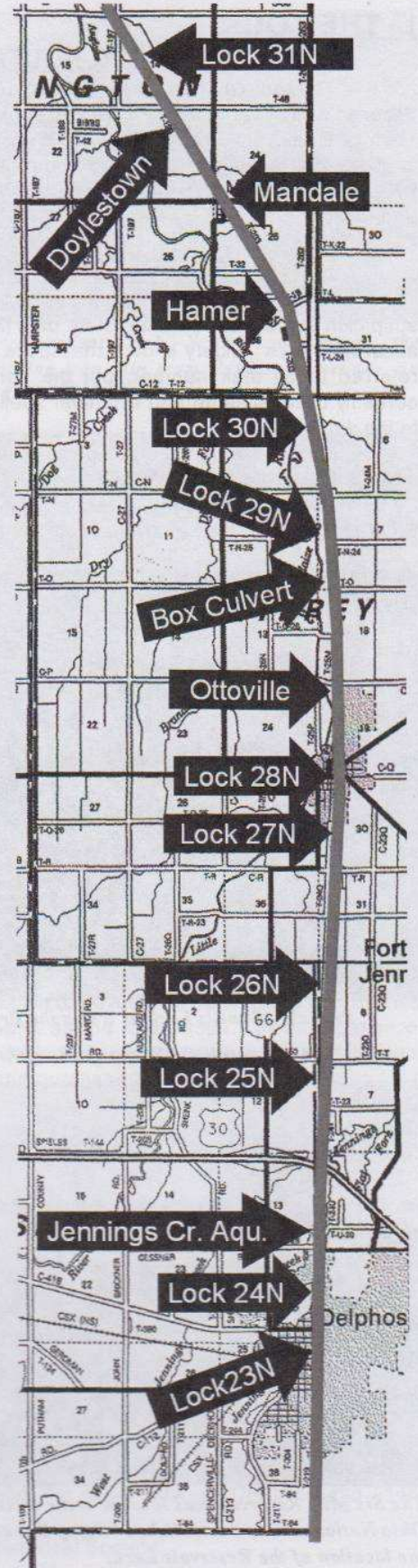
These were the last parts of the Ohio canal system to be built and as a result it offers a unique opportunity to see the different construction methods which were used. Some, like wood, were used as an austerity measure, others like concrete which was fairly new, and tested old methods.

**THE TOUR LOGO**

The Canal Society of Indiana always has a tour theme and logo that point out what will be featured on the tour. The logos are drawn by **Nate Tagmeyer**, who is almost 91 years of age and once worked as an illustrator for the Fort Wayne Newspapers. This logo shows the difficulty settlers faced when traveling through the Black Swamp before the canals provided a much easier method of transportation.



Northern half M&E



## I. THE TOUR

### THE TOUR ROUTE

The tour can be broken into two distinct areas: first the Wabash & Erie Canal from Antwerp to Junction and second, the Miami & Erie Canal from Junction south to Delphos. The route is about 100 miles long, covering about 800 square miles and will take about 3.5 driving hours and 5.5 hours for sightseeing and lunch.

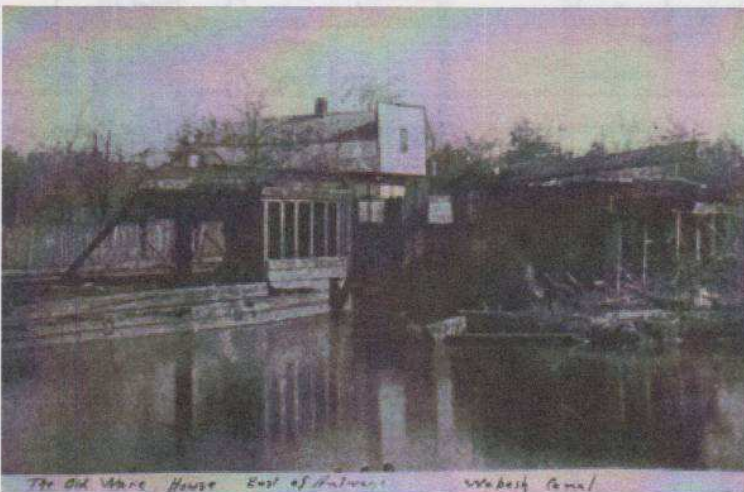
### SPELLING WARNING

Take the spelling of all canal names with a bit of suspicion since it appears the state paid little attention to their accuracy. It's widely known that locks were to have been referred to by their number, but the common practice was certainly by local name and whatever spelling sounded correct to the writer.

Many permutations are possible and some examples are Newburg/Newberg, Vial's/Viall's, Bucklin/Buckland/Bulkhead, Doering/Doring or Yate's for Tate's. But the best example would have to be in the 1914 BPW report when they address flood damage in Otterville rather than Ottoville.



*Harmann Tile Kiln*



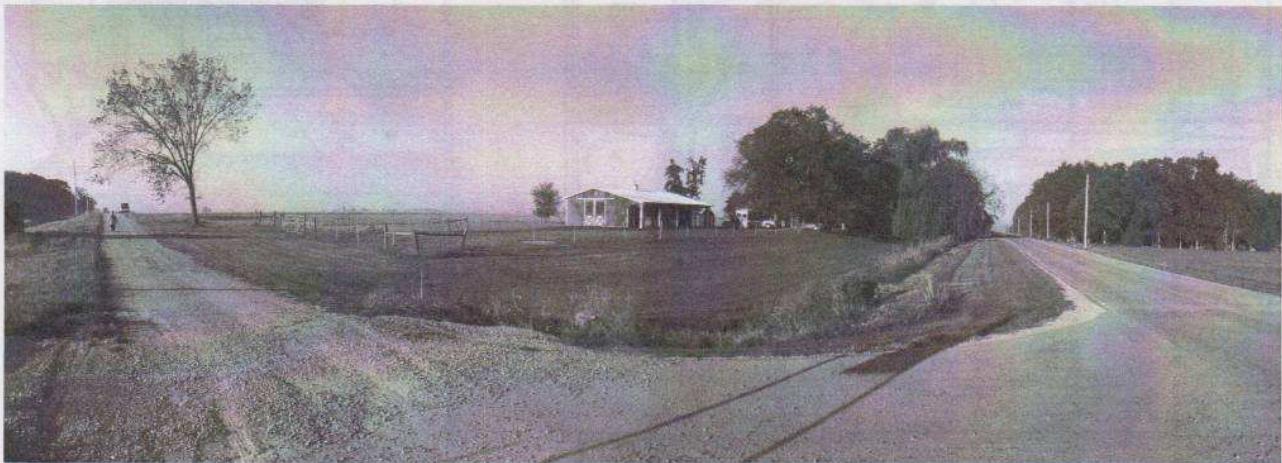
*Probably Bank's Lock as it was the first east of Antwerp*

### WABASH & ERIE CANAL TOUR ROUTE

Because so much of the Wabash & Erie Canal was built of perishable wood and was abandoned so early, there is very little left to see except for some earth work for the Six Mile Reservoir and prism near Antwerp. From Antwerp to Junction the canal follows a straight line along CR180 and SR111. Some of the prism remains, but none of the structures like locks, culverts or aqueducts remain before Junction.

The canal enters Ohio from Indiana about two miles from Antwerp. The first of six locks, **Doering Lock** (for the local land owner G.W. Doering,) a culvert and the Wabash Railroad were located about a mile and a quarter from the line.

The second lock, **Payne's Lock** was 2.8 miles from the state line. The canal follows through the southern



*The Six Mile Reservoir was located at the intersection of CR180 (right) and TR77 (left). This north east corner is where the Ohio National Guard established "Camp Dynamite" and placed their Gatling Gun during the "Reservoir War." This was also the location of the Reservoir Lock.*

part of Antwerp, past Paulding Furnace and site of the **Harman Tile Kiln**. The **Six Mile Reservoir** begins and covers about 3,600 acres within its embankments. However, in times of high water the reservoir would reach an estimated 14,000 to 15,000 acres. **Bank's Lock** was located 5.1 miles from Indiana and the reservoir continued until its eastern boundary where the **Reservoir Lock** was located 7.8 miles from the line and about 10 miles west of Junction.

The canal continues on a straight line along CR180 to US127 where it begins SR111 all the way to Junction. A single iron kiln from **Paulding Furnace** remains just west of US127 on the north side of the canal.

**Tate's Lock or Reide's Post Office Lock** was located 13.1 miles from Indiana. A hack line ran between the canal and Paulding. The last lock, **One Mile Lock**, named for its location from Junction was located at the corner of the intersection of SR111 and SR637.



*CSI President Bob Schmidt examines the remaining iron kiln from Paulding Furnace, on CR180, west of US127.*

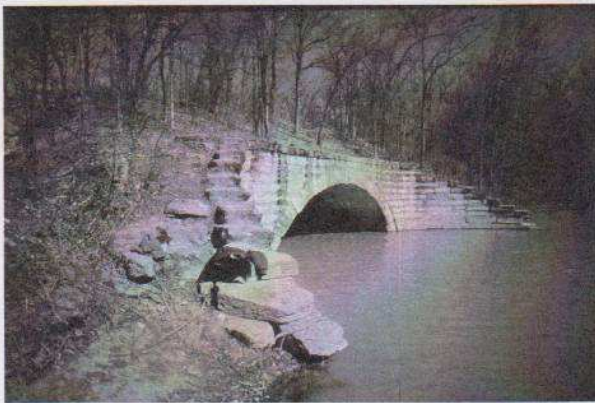


*Junction, O. Miami & Erie to the left and Wabash & Erie follows the road. The historical marker is behind the fence.*

### **MIAMI & ERIE CANAL TOUR ROUTE**

About .9 mile north of Junction, on CR153 is **Six Mile Creek Culvert**. At 168 feet wide and 20 feet tall this culvert is one of the largest on the Miami & Erie system. The culvert crosses the creek at a narrow point of several lakes before the creek empties into the Auglaize River which flows into the Maumee River in Defiance and then into Lake Erie. The tour will travel CR149 on the way back to Junction and offers a unique glimpse of undrained land and must be an excellent example of how the **Black Swamp** looked.

**Junction** is located in Paulding county about 10 miles south of Defiance and the Maumee River. Today the intersection of the Miami Extension and the Wabash & Erie canals is still well defined as the two prisms remain. Junction was planned to be a major center of commerce, but in reality it failed to develop as canal trade with Indiana began to fail as early as the mid 1850s. In anticipation of maximizing tolls collected from future heavy trade with Indiana, the state of Ohio had purchased a second set of scales for a weigh lock they planned for Junction. When the heavy trade didn't materialize the scales which were stored in Junction were moved to Toledo with the suggestion they be advertised for sale.



*Six Mile Creek Culvert may be the largest culvert on the M&E Canal at 186 feet wide and 20 feet tall.*

From Junction, the canal runs south toward its intersection with the Ohio river in Cincinnati, passing through **Delphos, St. Marys, New Bremen, Lockington, Piqua, Dayton**, and finally the river.

The first tour stop south of Junction is the tall stone culvert over **Little Flat Rock Creek**, on T163. **Flat Rock Creek Aqueduct** is located on T163 at the Auglaize/Brown Township line. When originally built this aqueduct was 224' wide and built entirely of wood. In 1859 this and Blue Creek were both rebuilt with stone abutments, shortening the wooden flumes to about 50' each. This aqueduct was removed in 1934 by the CWA (Civil Works Administration).

A small **circular brick culvert** carries an unnamed stream under the canal between CR T156 and T146. This is the beginning of the **Nine Mile Level**.

The tour will return to Paulding for lunch at the John Paulding Historical Society.



*Flat Rock Creek Culvert, south of Junction on T163.*

the northern bank have also begun to hide the view of the stonework on the south side.

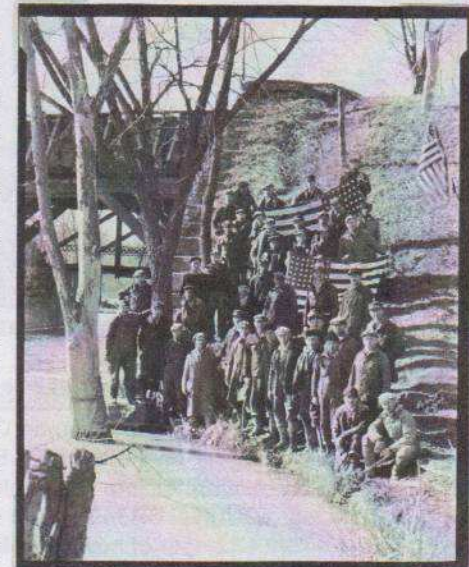
Between the Little Auglaize Aqueduct and the next stop at the double stone box culvert in Putnam County, there is, in geographic order, north to south: the ghost town of **Newberg**, **Staley's Culvert**, **Murat**, **Lock 32N Hipp's**, the ghost town of **Doylestown** and into the still active town of **Mandale**. A ride down T203 will pass the ghost town of **Hamer** and cross the Paulding - Putnam County line. A **stone culvert and Lock 30N** were located a half mile south of the county line. Today there is no sign of the lock but a distinct rise marks the spot on the road.

A mile and a half south of Lock 30N is the site of **Lock 29N**. Again, nothing remains of this wooden lock. It has locally been called "**Deadman's Lock**" because of a murder there in the 1880s. Research at the Putnam County clerk of courts failed to produce any details.

Ottoville, Locks 28N and 27N are next. Of the three locks built in the Ottoville area, only the foundation of **Lock 28N** can be identified next to **Odenweller's Mill** at the far north end of town. Some of the anchor bolts remain and can be identified. **Lock 27N** was located near the south end of Ottoville and was .32 mile south of Fifth Street by the cemetery.

Locks 26N and 25 are located in the stretch of farm land between Ottoville and US 30. **Lock 26N** was a quarter mile south of Twp Rd 23N and **Lock 25N** was located a quarter mile south of Carpenter Rd in VanWert County.

The final section of the tour concerns several items in the Delphos area. The **West Flat Fork Creek Aqueduct** was removed when US30 was realigned into a four lane highway and no trace remains. Fortunately, the nearby **Mile Marker 155** was saved and is now displayed near the Lock 23N site.



**CWA workers remove Flat Rock Creek Aqueduct in January 1934 (John Paulding Historical Society Museum.)**



*The Flat Rock Creek Aqueduct, which was removed by the CWA in 1934, was originally built without stone abutments and was 225 feet wide and built entirely of wood. It was rebuilt in 1859 with stone abutments and a 50 feet wooden flume.*



*Simple brick culvert north of Lock 32 on T163.*



*Lock 32N Viall's was named for the locktender. Also on cover.*

The north abutment of the **Jennings Creek Aqueduct** remains at the north end of Delphos. This aqueduct was also narrowed to a 3' flume after the flood of 1913 to allow water to be delivered to lessees after navigation ceased.

**Stone Lock 24N** is .36 mile south of the Jennings Creek Aqueduct and is easily found under the town' water tower. An adjacent paper mill has been removed. **Lock 23N** is the last item on the tour and is located where the canal crosses Third Street, .75 mile south of Lock 24N. **The Delphos Grist Mill** was here but no part remains. In low water much of the original wood lock foundation can be seen.

The tour returns to VanWert via US30.

## **II. GEOGRAPHY AND NOMENCLATURE**

### **FOUR NAMES FOR TWO CANALS**

Before the history of the state's canal system in western Ohio can be understood there must first be an understanding of where the lines went and the progression of names used.

Since the canals in Northwest Ohio were built over a period of almost 20 years and between three competing states, there were many opportunities to give different names to the same piece of canal. Ohio decided to build two canal routes, one on the east, another on the western side of the state. The Ohio & Erie Canal was planned from Cleveland to Portsmouth on the Ohio River but the western half of the state would start with a short canal, *the Miami Canal*, from Cincinnati on the Ohio River, then north to Dayton, with the possibility of eventually extending the line to Lake Erie. Once extended from Dayton to Junction, that new part was called the *Miami Extension Canal*.

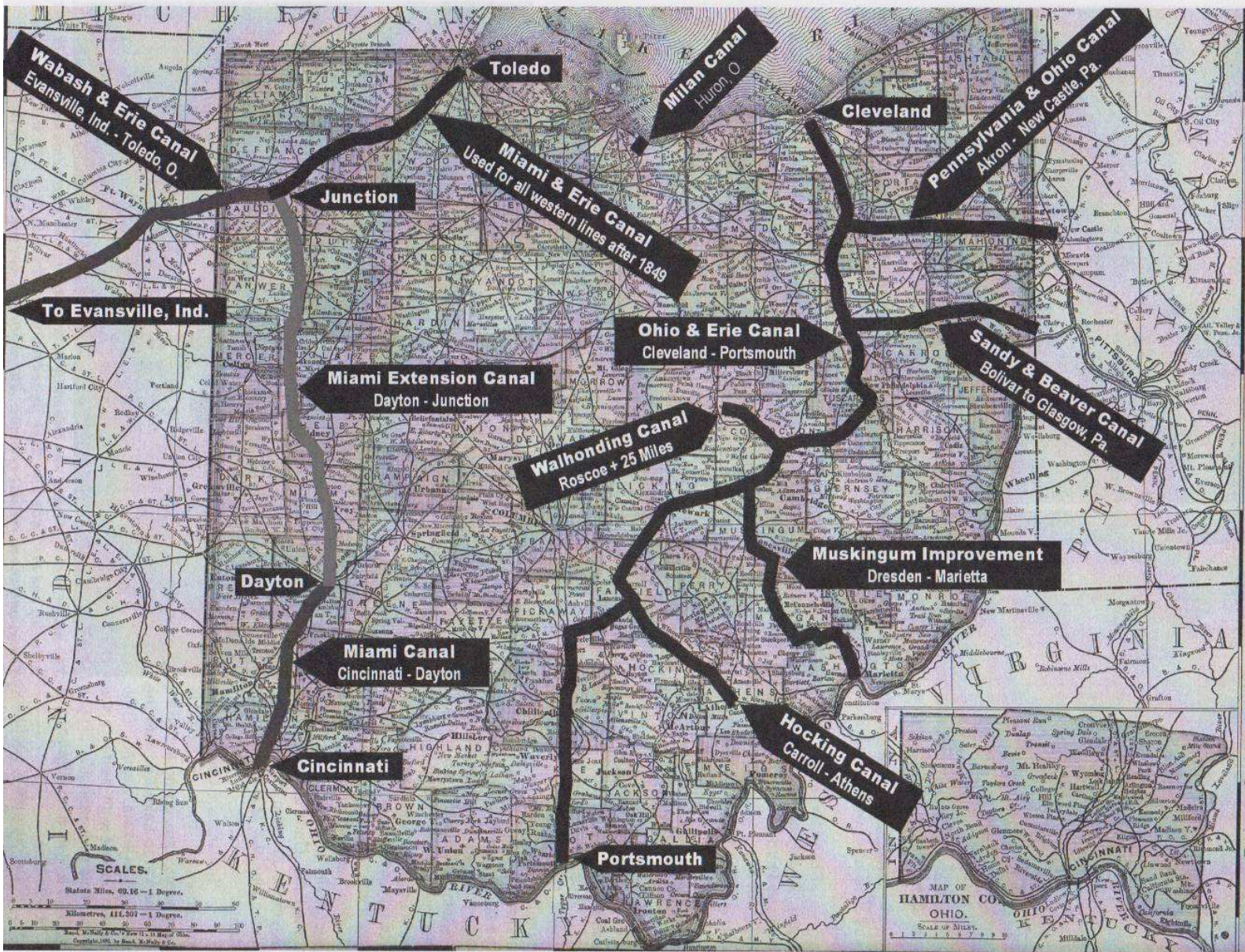
Indiana and Ohio agreed to connect their canals in northwest Ohio, giving Indiana a connection to Lake Erie and the eastern markets, while Ohio would benefit with trade to the west. This joint project would use Indiana's name of *Wabash & Erie Canal*.

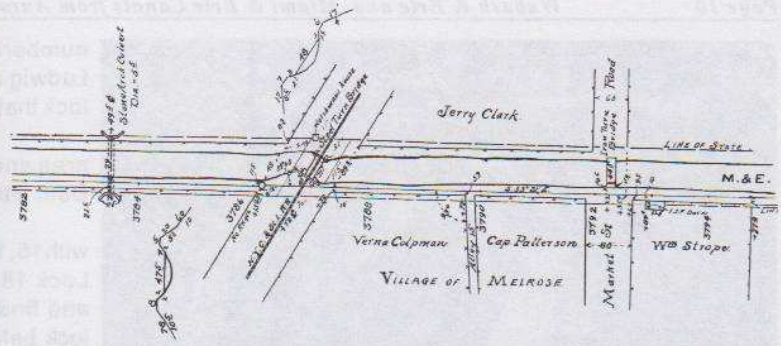
Unfortunately, confusion with the Harris Survey of 1817 placed Toledo and the terminus of the Ohio and Indiana work in the Territory of Michigan. Neither state building the



*The Blue Creek Aqueduct was originally built without stone abutments and was 224 feet wide. It, and the Little Flat Rock Aqueduct, were rebuilt in 1859 with stone abutments. Today, only the north side remains. The south side was removed in the late 1950s.*







*Rockholt Culvert remains north of Melrose. The NYC(hicago) & St. L(ouis) RR crossed the canal in Melrose. Now NS.*

canal wanted to spend their resources on a canal ending in another state, so work was delayed and finally after a corrected survey, a "War" and Federal intervention, the contested area was assigned to Ohio and the canal was finished. In the deal Michigan became a state and received the Upper Peninsula.

O March 13, 1849 the state legislature, to avoid the confusion, renamed all parts of the western canals as the Miami & Erie Canal, including those previously named Wabash & Erie. (47 O.L. 44)

### LOCK NUMBERING SYSTEMS

The confusion caused by having different names for the same assets is not limited to the main lines of the canals and extends to at least three different numbering systems for the same locks on northwest Ohio canals. These three systems do not include the assignment of informal names assigned to the structures along the line, many of which inevitably changed when people assumed new jobs or when property was sold.

When the Wabash & Erie was being built from the Indiana state line to Toledo there was no connection with the Miami Extension Canal which was being built north from Dayton to Junction, O. In fact, there was even speculation that the line might not be completed.

When the numbering of the Wabash & Erie in Ohio was assigned the state began at the first lock into the Maumee River in Manhattan (north Toledo) and called it Lock 1, the second about 3/4 west on the Manhattan Extension was Lock 2. Locks 3, 4, and 5 were immediately west of the Swan Creek Aqueduct in downtown Toledo, Lock 6 was where the New York Central RR "Water Bridge" crossed under the canal. The two locks of the Swan Creek were (in 1843) considered a Side Cut and were not included in the main line numbering.

Lock 7 was further west, but still in Toledo at a place known as Central Grove; Lock 8 was in Maumee, seven st of the six lock Maumee Side Cut which connected the main line with the Maumee River and Perrysburg. The six locks of the Maumee Side Cut also were numbered 1 through 6. Lock 9 was at Providence (#44 of the later



*The Little Auglaize River Aqueduct crossed under the canal south of Melrose, one half mile south of SR613. The ghosttown of Newberwal to theright ride if the south abutment which remains. The north side was removed.*



*Staley's Culvert was south of Newberg and was a simple concrete tube with concrete wing walls.*

through 6 (26 to Ohio). To cloud the issue even more, many of the Board of Public Works and Canal Commission reports refer to these as Locks 1 to 13 from the Maumee River in Defiance. The last known survey of the Wabash & Erie Canal in Ohio was done in 1888 after the 1887 demolition of the Six Mile Reservoir and shows six locks. This survey by H. H. Gaffney only has names, not numbers, in his original transit books.

Finally, the state adapted a new numbering system which conformed to the usual practice of numbering down from a summit level. Lock 1 was in New Bremen, 23 and 24 were in Delphos, the final lock before Junction was Lock 32. Locks 33 to 39 were between Junction and Defiance. Locks 40 to Lock 52 were between Independence dam and the canal's terminus with Swan Creek in Toledo. The two locks of the Swan Creek Side Cut assumed the numbers of 51 and 52 because the Manhattan Extension wasn't really used after 1850 and was officially abandoned by an act of the Ohio Legislature in 1864.

## **THE GREAT BLACK SWAMP**

**By Robert F. Schmidt**

The route of the (Miami) Wabash and Erie Canal through northwestern Ohio was greatly impacted by glaciers about 15,000 years ago and left behind a flooded forested plain that required the removal of water to become productive. Indians avoided the area because of the swampy soil, heavy forestation and undergrowth. The early whites coming into the area called it The Great Black Swamp. It covered an area about the size of the state of Connecticut, 120 miles long and up to 40 miles wide, and extended from Sandusky, Ohio, to Fort Wayne, Indiana. Although this was a terrible place to build a road, it seemed that a level terrain with plenty of water could be a logical place to build canals. However, digging a channel through the muck and mire made digging more difficult and bogged down the teamsters' two wheel carts loaded with the soggy soil.

The glaciers that developed in the late Pleistocene, blocked the Saint Lawrence river, formed glacial lake Maumee and forced melting waters to the southwest out through the Fort Wayne trough. The waters poured southwest into the Wabash river. Evidence of this glaciation today is seen in Fort Wayne by the numerous sand and gravel companies in the area, a drumlin known as Fox Island and the



*Lock 31N Hipp's was named for the miller who operated it. A small town called Timberville grew near the lock. The widewater shown here, a few anchor bolts and the spillway earthwork are all that remain.*

numbering system and the site of today's Issac Ludwig mill and canal boat ride through the renovated lock that is operated by the Toledo Metropark District).

Locks 10, 11 and 12 were in the Texas, O. area and Lock 13 remains today in the Independence Dam State Park near Defiance.

Lock 14 was the River Lock in Defiance with 15, 16 and 17 in each of the next three city blocks. Lock 18 was at the B&O RR crossing, 19 further west and finally Lock 20 near today's land fill was the last lock before Junction.

This is where the confusion begins. Logically, the state numbered the first lock west of Junction as Lock 21; unfortunately it also numbered the first lock south of Junction (after the Miami Extension was completed) as Lock 21. The numbering of 22 through 52 continued up to the highest lock at New Bremen on the Miami Extension, and the Wabash & Erie Canal was completed with 22, 23, 24, 25 and 26 before the Indiana state line. To add to the confusion, Indiana, and sometimes Ohio, too, called these 1 (21 to Ohio)

wetlands of Eagle Marsh. This sandy wetland extends all the way to Huntington, Indiana, and is about 80,000 acres of marshy soil.

As the glacier retreated, a glacial lake remained over this region for thousands of years rotting vegetation and aquatic life that built up a rich soil in the lake bottom. The lake slowly backed into today's Lake Erie leaving behind old shorelines and terminal moraines that helped hold water into this pear shared region of western Ohio.

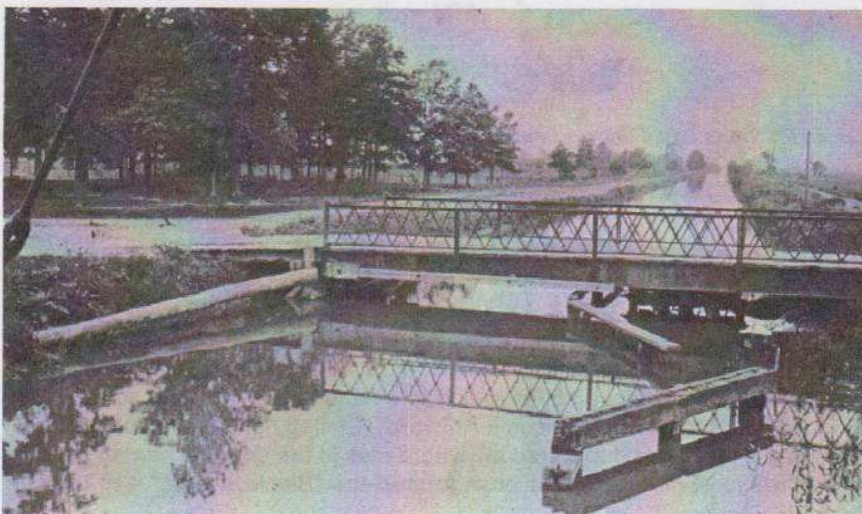
When early explorers reached the region it was very foreboding. It was heavily forested with standing water sometimes waist deep and muck that could suck up man and beast. Black flies and mosquitoes were everywhere. Malaria and ague took a toll on human existence. The land was filled with snakes and water creatures. The foliage blocked out the sun during the day and at night it was very black. One early resident of Paulding County remarked: "We read that God separated the land from the water, but here is a place He forgot."

About the only activity here during the early pioneer period was military movement through the swamp. General Anthony Wayne's legions chopped their way through the forest on their way to the lower Maumee and Fallen Timbers in 1794. The scouts of Wayne's troops had a difficult time keeping the segments of the army together as they worked their way through this flooded waste land. Again during the War of 1812, the troops sent to the Erie front, to Fort Meigs and other spots had great difficulty in breaching the swamp.

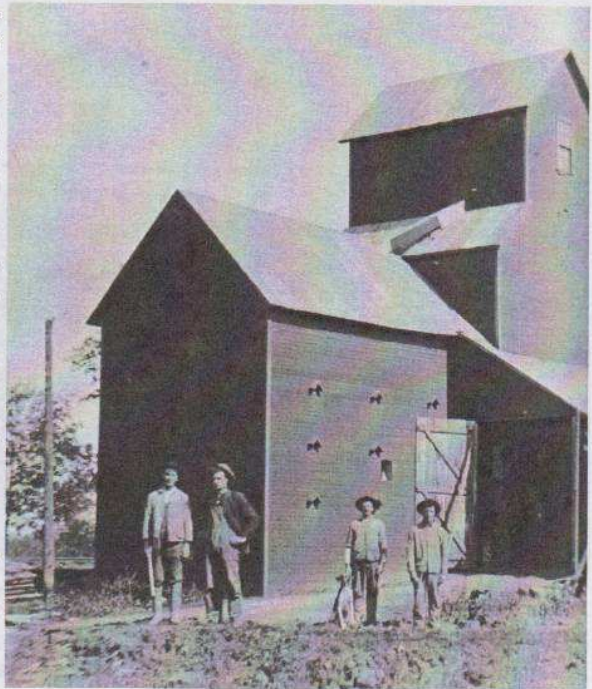
The Black Swamp is bisected by the Maumee River, which extends from Fort Wayne to Toledo. At Defiance, Ohio, the Auglaize River enters the Maumee from the south and the Tiffin River enters it from the north and provide most of the drainage of the swamp. To the east the Portage River drains into Lake Erie near Sandusky.

Before the canal era, there was little reason for settlers to come to this region since there was much more desirable land to be found to its south, north and even west. Also the Maumee was not really good for transportation. It was very shallow in spots, there were 16 miles of rapids at Grand Rapids, Ohio and the river meandered across the swamp, greatly lengthening any journey by canoe or boat. It certainly was unsuitable for steamboats. Even today there is no commercial transportation on this river.

In 1827 the federal government offered Indiana a land grant to build a canal from the Tippecanoe River near Lafayette, Indiana to the Auglaize River at Defiance. Indiana had five years to begin building the canal. In its 1834 negotiations with Ohio, Indiana agreed to turn over the portion of the land grant in Ohio if Ohio would build a canal to Lake Erie and not charge a different toll to Indiana traffic on the waterway. The fact that this canal was to be built and Ohio's plan to extend the Miami canal at Dayton through the swamp to Defiance added economic value to the swamplands.



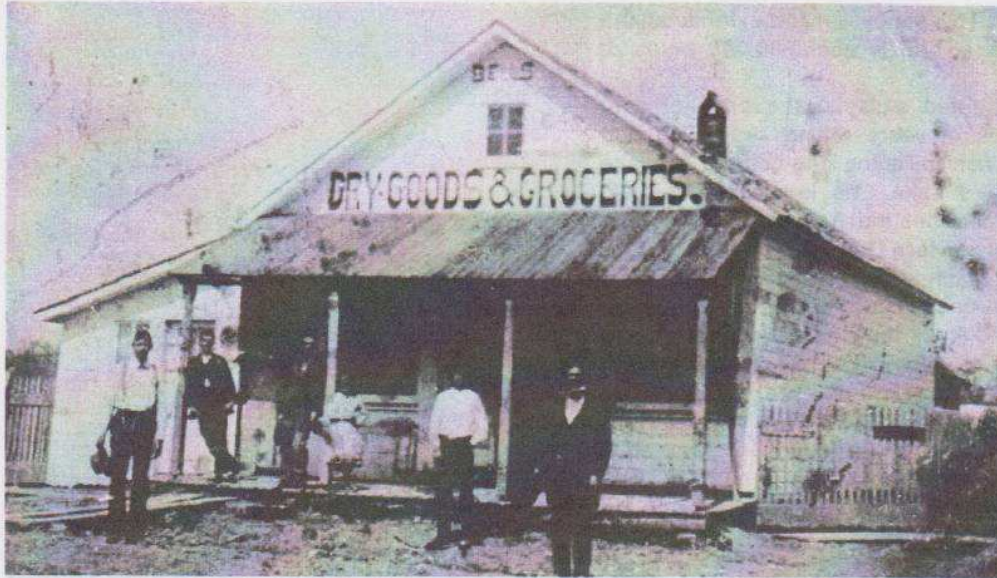
*The swing bridge at Mandale crossed near the railroad.*



*Grain elevator at Mandale. There were also a number of clay pits there for use in producing field tiles.*

Indiana began building the Wabash & Erie Canal in 1832 to the west toward Huntington, Indiana. Although Ohio had accepted the land grant, it had problems of its own with the 1834-35 boundary dispute with Michigan territory. According to the terms of the Northwest Ordinance of 1787, the borderline from Lake Michigan was assumed to place Maumee Bay in Ohio. In fact the geographic location of Lake Michigan was further south thus Toledo and the Maumee Bay appeared to remain in Michigan.

Again the Black Swamp played a role. Michigan claimed the swamp formed a natural barrier for the state of Ohio and that the Toledo strip should remain in Michigan. Ohio



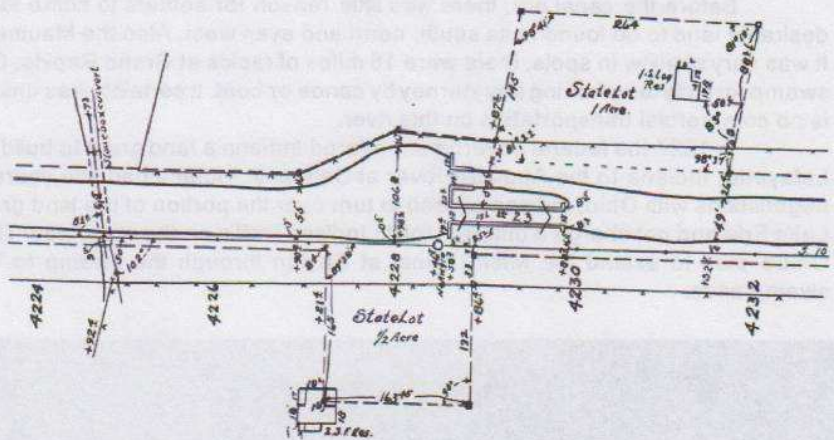
*William Bell operated a general store at Hamer, just north of the Paulding-Putnam county line.*

needed the bay if it was to build a canal terminus and have a port on Lake Erie. The swamp probably helped to reduce the threat of violence as Ohio had great difficulty in moving a military force of any numbers to the Toledo area. Without detailing the whole conflict, it was resolved by letting Ohio have the 5-8 mile Toledo strip and giving Michigan an additional portion of the upper peninsula.

The Wabash & Erie Canal was finally completed in Paulding County in 1843 and the canal opened between Lafayette, Indiana, and Toledo. The Miami & Erie Canal was extended from the south to Junction, Ohio, where the two canals met in 1845. The economic benefits of the Black Swamp could now be realized since products had a way to reach markets. As the land was cleared trees were cut. Although some were just burned, others were used for lumber products, cord wood, hub and wheel spokes, ship building and barrel staves. Factories developed along the canal, first for barrel staves and then for charcoal and iron furnaces. There were two iron furnaces, one at Antwerp and one at Paulding. These operated from 1865 - 1880 - 86. Iron ore was brought by canal boat and smelted using the charcoal produced from the timberlands.

Once the land was cleared they still had to drain it in order for it to be farmed. In the early years drainage was performed by nailing together two boards at right angles forming a V. This structure was inverted into the ground so that water could pass. Later good clay was found and an industry of tile making developed. At first this tile was laid manually. Then mechanical trenching machines were developed so that fields could more easily be trenched, tiled and drained. Through draining the swamp by 1880 and eliminating the malaria mosquito, the health of the community improved.

Today, this region has some of the best agricultural land in the country. Corn, wheat, soybeans and even food crops like tomatoes are grown commercially. This area remains largely agricultural and has no large cities in the old Black Swamp area. Even though remnants of the old swamp are hard to find, nature would quickly return the land to a swamp again without it being drained.

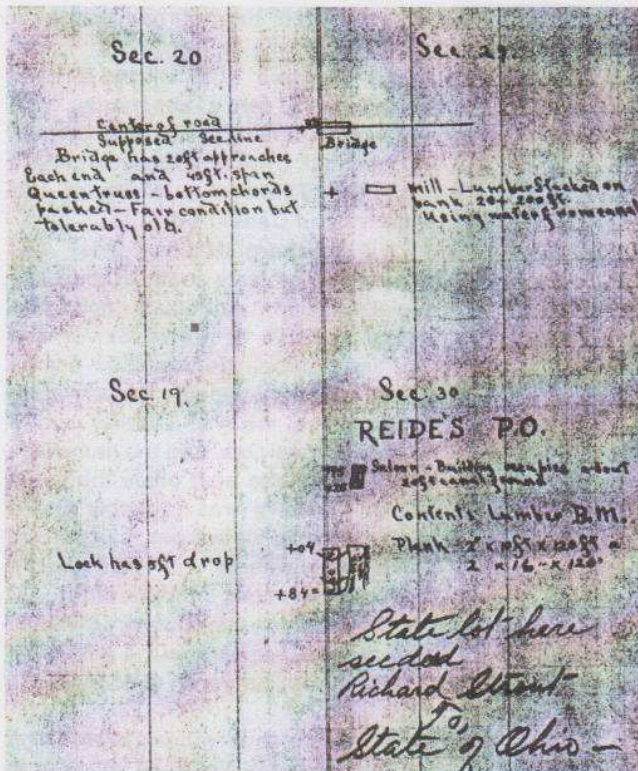


*Lock 30N Stone (old #23) was immediately south of the Paulding-Putnam County line and the rise in the land marks the location. Part of the adjacent stone culvert remained until the early 1990s.*

## **CURRENT AND GHOST TOWNS**

**Antwerp** (Wabash & Erie) The completion of the Wabash and Erie Canal on July 4, 1843 brought many new settlers into this region. The Wabash and Erie Canal connected with the Miami and Erie Canal at Junction. Antwerp, ideally located on the Maumee River, was seen as a perfect place in which to establish a town. That same year surveyors W. Wilshire Riley and Samuel Rice platted what would become Antwerp. Naming rights belonged to Riley and store owner Horatio N. Curtis, who wanting a name not duplicated anywhere else in the country, named it after Antwerp, Belgium. Early pioneers subdued the massive forests that once formed the "Black Swamp" and built a thriving city. Antwerp was incorporated in 1863.

The Toledo, Wabash & Western Railroad was the first railroad built in Paulding County, and it arrived in



Original transit page of W.H. Gaffney's 1888 survey of Reide's P.O. on the Wabash & Erie Canal.

Antwerp in 1855. The railroad eventually led to the demise of the canal, and from 1855 on, most new settlers arrived by train. As wood industries flourished, Antwerp became the largest village in the county during the Civil War period.

**Tate's Landing** (Wabash & Erie) was originally called **Reide's P.O.** because Capt. Robert Reid established the post office there. Lyle Tate was a canal contractor who established the town because of its strategic location at a lock, just north of Paulding and about half way between Antwerp and Junction.

There's a story of a fight between the locktender and another boatman at this lock in "the 1840s". The locktender was tried for murder but his plea of innocence because of self defense was rejected because the dead man was found outside the fence near the lock. Like the story of the murder at Lock 29N, the outcome of the trial is lost to history or imagination.

In 1900, the last saloon in town was dynamited. Rumor said some self-righteous citizens hired demolition workers to rid their community of its problem. Written accounts all say it was a typically rowdy canal town, however some photos of the period show a refined domestic look.

**Junction** ( Wabash & Erie and Miami & Erie Canals) Junction was named because it was where the Wabash and Erie and the Miami & Erie Canals met in Auglaize Township, Paulding County, about a mile west of the Auglaize River. Platted in 1842 by John Mason, Sr. and Nathan Shirley, the location was thought to ensure a

great metropolis would soon form there. In fact, 1842, Capt Dana Columbia sold his land in Ft. Wayne and relocated to Junction because he thought its strategic location would soon out-distance Chicago as the best location for commerce in the mid-west.

In its heyday Junction had six churches, five groceries, two blacksmiths, three hotels, three warehouses, one state toll collector and up to 40 saloons.

When Junction was a thriving port and the state bought a set of scales which were to have been installed into a planned weigh lock there. The lock was never built and the scales were taken and stored in Toledo and later sold as surplus.

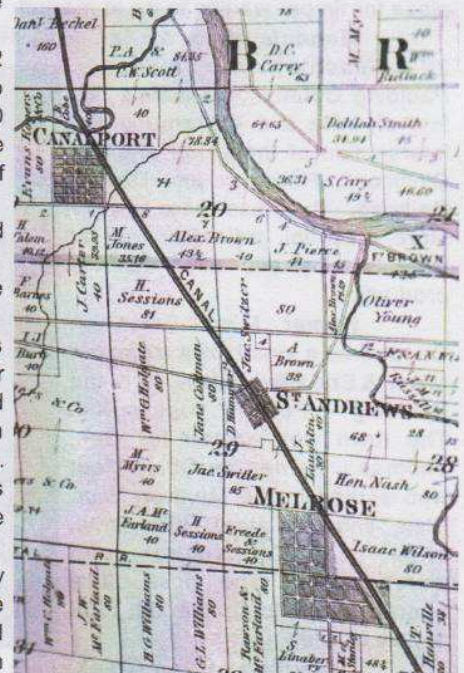
Junction began to fade when canal packet service stopped in 1852 and by 1855 the Wabash & Western Railroad paralleled the canal into Antwerp. Indiana abandoned its portion of the canal to the Ohio line in 1870 and the line was little used except for rafting timber to Toledo. After the Reservoir War of 1887, the state built an earthen dam across the mouth of the Wabash & Erie, forever ending Junction's role as a canal terminal.

**Canal Port aka Exchange Bridge** (Miami & Erie) was located along the Miami & Erie Canal in Section 19 of Brown Township of Paulding County, about a mile south of Charloe and just south of the Blue Creek Aqueduct.

The town was little more than a port on the canal for J.A. Boyd's timber and mercantile business. A quarry operated in the Auglaize River and a tram was built to transport the four foot layers of buff colored magnesium limestone from the river to the canal. Canal Port existed from 1850 and declined after 1881 when the Nickle Plate RR reached Melrose. It was also called Exchange Bridge since a nearby bridge over the canal was build there to allow the mules to move the towpath from the west side to the east side of the canal.

**St. Andrews** (Miami & Erie Canal) was established in 1850 by James and Alexander Mather from New Brunswick, Canada and named the town for the patron saint of their native Scotland. St. Andrews was located about a mile north of Melrose on the Miami & Erie Canal, near Ft. Brown where the Little Auglaize River joins the Auglaize.

It never became more than a landing and was over shadowed by



Canalport, St. Andrews and Melrose, Newberg was just south of Melrose



*The only remaining double box culvert on the Extension is north of Ottoville, on CR25M at CR O.*

**Murat** (Miami & Erie) Although sometimes referred to as Timberville, Murat was located about a mile north of Timberville, the site of Lock 31N, Hipp's. The two locations were related since Murat was founded in 1853 by Jesse Harrell. John Hipp, mill owner at Lock 31N, was married to Jesse Harrell.

The town of 44 lots consisted of a store, sawmill, grist mill, Knox School as well as a canal widewater and high bridge which could be used for loading boats. Murat's post office closed in 1864 and moved to Newberg and then to Melrose as railroad traffic drew commerce to the faster transportation.

**Timberville** (Miami & Erie) Timberville was synonymous with Lock 31 Hipp's Lock. While not ever platted as a town, Timberville attracted the locals with a saloon, blacksmith's shop, two stores and the post office. The mill there, operated by John Hipp was for grinding flour, not corn. It is said people would gather to hear the Timberville Cornet Band.

**Doylestown**, Miami & Erie Canal, located on the canal in the southeast corner of the northeast one-quarter of section 27 of Washington Township, about a mile north of present Mandale. The town was founded by Capt. Samuel Doyle, operator of the famous Doyle & Dickey Packet Lines, in 1851. There is no mention of the town after the Post office opened on February 5<sup>th</sup> and closed on December 27, 1851. It was probably no more than a banking place for timber waiting to go to market.

**Mandale**, Miami & Erie Canal. Mandale is located in the northwest quarter of the northwest quarter of section 26, Washington Township, Paulding County. Mandale's 81 lots of were laid out around the intersection of the canal and the Cincinnati, Hamilton and Dayton Railroad. Business there were a store, a school, grain elevators as well as clay pits used for tile production.

**Hamer**, Miami Extension Canal, was a small town along the Miami & Erie Canal just north of the Paulding - Putnam county line. The town was named for Gen. Thomas L Hamer, an Ohio officer who served in the Mexican War. Plats show a store, blacksmith shop, church, school and warehouses. The post office operated from September 30, 1857 to July 8, 1893.



**Ottoville aka Dog Creek, Lock 28 was built next to Odenweller's Mill in Ottoville. The mill was originally 16 (Miami & Erie) When the powered by canal water, then steam, now electricity.**

Melrose when the railroad came in 1881.

**Melrose** (Miami & Erie) continues to be a residential and commercial center for Paulding County. Melrose took over what business there was from Timberville, Newberg, St. Andrews and Canal Port.

**Newberg** (Miami & Erie) was located immediately south of the Little Auglaize River Aqueduct and was platted in 1851 by David Skiver and Leonard Kimmel. Before 1851 a man named Darling opened a grocery store in his cabin at the site. Darling named his store "Royal Oak" and the name was also used for the post office there. In reality, Newberg was probably just a banking place for lumber. The town faded and nearby (.5 mile north) Melrose became the center of commerce when the railroad arrived.

Reverend John Otto Bredeick, the founder of Delphos, found six Catholic families on Section Sixteen of the canal, he bought and platted ground, and secured rights to water power of the canal to establish a sawmill adjacent to Lock 27. This initiated a settlement between Locks 27 and 28 north of the Loramie Summit. In 1848, he established a parish with the Catholic families and in 1850, through his generosity, they built a two-story frame building 36 feet by 20 feet. This was near canal Lock 28, and the building's upstairs served as a church, while the lower floor was used as a shelter for the new arrivals until they could build their own cabins on land they purchased. The town was also referred to as 16 or Lock 16, in reality it was *Section 16* when contracted.

**Delphos aka Section 10 (Miami & Erie)** Delphos is located along the Allen - Van Wert county line, was founded in 1845 and incorporated in 1851. Reverend Father Otto Bredeick and his brother, Ferdinand, selected the location, which was determined by construction of the canal, in the center of prime agricultural land.



*Lock 28N, Odenweller's Mill and the locktender's house (two chimneys) in Ottoville.*

### III. HISTORY

#### **PUBLIC LAND SALES FINANCE CANAL CONSTRUCTION**

The first public movement in Ohio toward a canal across the state was a resolution in the Legislature in January, 1817, on the recommendation of Governor Thomas Worthington. No definite action, however, was then taken. In 1819 Governor Ethan Allen Brown, also at the request of Governor Clinton', recommended action, and the next year a resolution was passed providing for three Canal Commissioners with authority to employ an engineer and assistants to make a survey, providing that that Congress would donate United States' lands along and near the line of the canal to aid in its construction. Action rested here for about two years.

Meanwhile renewed attention was being given to the desirability of a canal across the portage to connect the Maumee with the Little River. The ease with which such canal could be made was apparent at a glance to all persons passing along the ancient Glacial Drainage Channel southwest of Fort Wayne, who had been reading about canals in general or about the construction of the New York and Erie Canal in particular. Captain James Riley, then a surveyor, reported to Edward Tiffin Surveyor General, that on the 19th November, 1820, he went southwest of Fort Wayne about one and one-half miles up the River St. Mary, crossed that stream and measured the distance to Little River a tributary of the Wabash and navigable in times of high water without improvement the distance being a little less than seven miles. From the summit level in this course back to the River St. Mary he reported a decline of about twenty feet, for which two locks would be sufficient. A canal to connect these rivers he estimated 'would not be beyond the means of a few individuals of enterprise and ordinary capital.

January 21st, 1822, by a joint resolution of the Ohio Legislature a Canal Board composed of Alfred Kelly,



Benjamin Tappan, Thomas Worthington, Isaac Menor, Jeremiah Morrow, and Ethan A. Brown, was appointed to have surveys made for the improvement of the falls of the Ohio River, and to examine four routes for a canal or canals from Lake Erie to the Ohio River. For these purposes \$6000 was appropriated. Nothing was done by the Canal Board, however, toward the survey of the Falls of the Ohio, as that work belonged to the United States.

The preliminary surveys for canals were along the water courses up the Maumee and Auglaize and down the Loramie and larger Miami; up the Scioto and down the Sandusky; up the Cuyahoga and down the Tuscarawas and Muskingum; and up the Mahoning and down the Grand, or these courses reversed. James Geddes of Syracuse, New York, who had been employed on the New York and Erie Canal, was chosen chief surveyor and Isaac Jerome assistant. Only one surveying instrument could be obtained, but during the summer of 1822 a preliminary survey was made of over eight hundred miles of prospective canal routes.



*Ottoville's Corporation Limit Marker perpetuates the Lock 16 error. Lock 27 was just south of the cemetery on SR66.*

The Board reported in favor of the route up the Cuyahoga River from Cleveland, probably on account of the largest population being along this route. - This report caused a serious protest, particularly from the friends of the Sandusky route, and in February, 1824, the Maumee and Sandusky routes were resurveyed, with a decision in favor of the Maumee route for the second canal. January 25, 1825, the Commissioners reported the distance from the foot of the Maumee Rapids to the Ohio River as 265 miles, and the length of the necessary canal feeders 25 miles. The altitude of the summit above Lake Erie was given as 378 feet; and this summit above the Ohio River as 511 feet. The estimated cost of the Ohio Canal by the Cuyahoga River was a little more than that by way of the Maumee.

The 24th May, 1828, Congress granted to the State of Ohio to aid in extending the Miami Canal to Lake Erie by the Maumee River " a quantity of land equal to one-half of five Sections in width on each side of said canal between Dayton and the Maumee River at the mouth of the Auglaize [Defiance] so far as the same shall be located through the public land, and reserving each alternate section of unsold land to the United States to be selected by the commissioner of the General Land Office under the direction of the president; and which land so reserved to the United States shall not be sold for less than \$2.50 per acre. This act, like all others for canals, required that the canal should always remain a public highway, free to the United States from tolls and other charges.

Work was to begin within five years, and the canal was to be completed within 20 years from the date of the act.

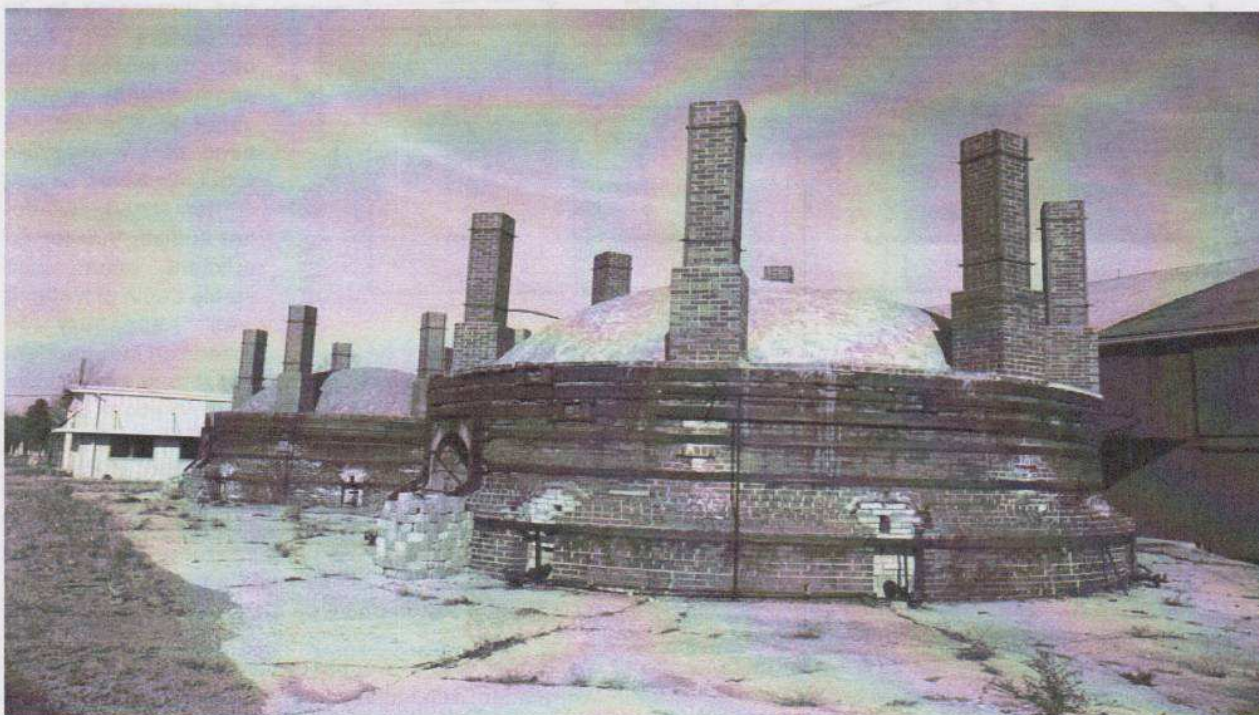
The Legislature authorized the Commissioners 4th February, 1825, to begin work on the Miami-Maumee route between the Mad River at Dayton and Cincinnati; and the 20th July contracts were let for the first twenty miles, work beginning the next day. Work on the Ohio Canal was previously in good progress between Cleveland and Portsmouth. The section of the Miami & Erie Canal from Cincinnati to Dayton was completed in January, 1829, but the ten

locks connecting it to the Ohio River were built later.

At this same date Congress further granted to Ohio 500,000 acres of land to pay the debts of and to complete the canals-those commenced to be completed within seven years. The Ohio Legislature did not act for the extension of the Miami Canal until February, 1830, when the Commissioners were authorized to examine into the practicability of such canal. Their report was rendered favorably in January, 1831, and work was begun at Dayton in 1832. The 2nd March, 1833, Congress extended the time for its completion another five years.

Owing in part to the difficulties attending the Toledo War against the claims of Michigan to her territory and the strife between Toledo and the villages of Perrysburg and Maumee for the ending of the Canal at the Lake level, contracts were not let on the northern end until May 1837. The citizens of Perrysburg and Maumee desired the Canal to end there, at the foot of the rapids. Toledo made urgent claim to the terminus; and residents of Manhattan near the Maumee Bay desired that to be the place where connection with the river was made. Meantime the claim of Ohio to the Harris Line as the northern boundary of the State was sustained by Congress. The 22nd August, 1836, the Canal Commissioners met at Perrysburg, and there the rival parties gathered the next day in great numbers and asserted their different claims with such warmth that each place was granted canal connection with the Maumee. This decision was confirmed by Governor Lucas at his visit to those towns on the November 11, 1836.

Representative Jennings of Indiana reported a bill 23rd. January, 1823, from the Committee on Public Lands favorable to a canal, but it was not until May 26, 1824, that Congress authorized the State of Indiana to survey and



*Two huge tile kilns were located near Lock 27 but were removed in the 1980s.*

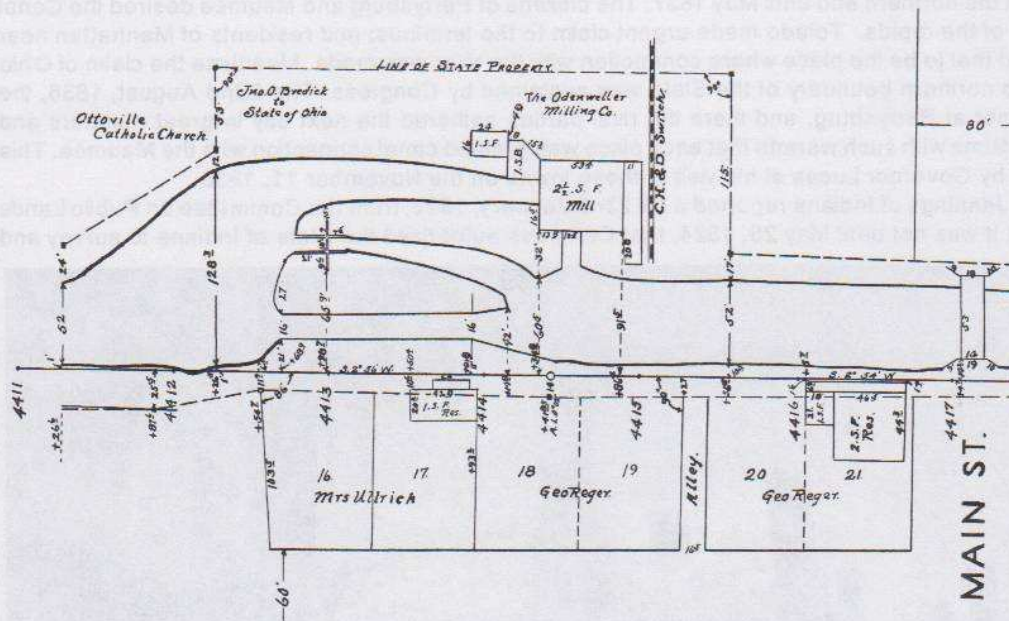
mark through the Public Lands of the United States the route of a canal by which to connect the navigation of the rivers Wabash and the Miami of Lake Erie (Maumee); and ninety feet of land on each side of said canal was to be reserved from sale on the part of the United States, and the use thereof forever be vested in the State aforesaid for a canal, and for no other purpose whatever. The Act further provided that if not surveyed and map furnished within three years, and the canal not completed within twelve years, or if said land shall cease to be used and occupied for the purpose of constructing and keeping in repair a canal suitable for navigation, the grant shall be void. The right of way being also granted by the Miami Indians by treaty in 1826 a Board of Canal Commissioners was appointed in the winter of 1826-27, composed of David Burr of Jackson County, Indiana, Robert John of Franklin, and Samuel Hanna of Fort Wayne who became one of the most active and efficient members.

While all the stern provisos in the land sale legislation would seem to indicate accuracy and intolerance for failure, it doesn't explain human errors such as S.S. Stambaugh of Toledo who was able to buy hundreds of acres in the Six Mile Reservoir. The survey said "S.S. Stambaugh of Toledo claimed to have bought from the US Government in 1873 or 1874 the following tracts of land within the Six Mile Creek Reservoir in Paulding County: The S ½ of NE 1/4; The S ½ of N.W. 1/4; and the S ½ of Sec. 30, Township 3N, Range 2E, containing 456 acres. Also the SE 1/4 of SE1/4 Sec 26, Township 3N, Range 1E, containing 40 acres. Also the NW ½ Section 32, Township 3 North, Range 2 E - 165 acres. The board directed the acting commissioner in charge to take the necessary steps to condemn or secure these lands. They are thought to have been erroneously sold by the authorities at Washington." There is no

future record of a refund, exchange or dismissal of the matter.

Mr. Hanna made a journey to New York by way of the Maumee and Detroit, Lake Erie and the New York and Erie Canal, for the purpose of purchasing a surveying instrument; and he returned in quick time. for such modes of travel. The Indiana Legislature also appropriated \$500 to enable these Commissioners to determine the practicability of an Erie and Wabash Canal.

March 2nd., 1827, Congress granted each alternate Section of land, and in quantity equal to one-half of five Sections in width on each side of said Canal to the State of Indiana to aid in constructing the Canal. This was the year



Plat map showing Lock 28, Odenweller's Mill and the site of the original Catholic church.

previous to the grant to Ohio; and it is believed to be the first large grant for the promotion of a public work, also the first grant of alternate sections.

The magnitude of the work kept constantly unfolding and increasing to its supporters. It soon became evident to the engineer that a short canal to connect the head of the Maumee with Little River, as first contemplated, would not suffice; that for an efficient canal with stable depth of water, it was necessary to extend an independent canal to and well down the Wabash,, also

northeastward to the Miami and Erie Canal near Defiance, not relying upon the Maumee River at all above Defiance. The place of connection with the Miami and Erie Canal being determined at a point named Junction, in Paulding County, Ohio, May 24, 1828, Congress authorized Indiana to sell and relinquish her land grants northeast of her State Line to Ohio. The east end of the Wabash Canal now becoming a joint work of the two States, W. Talmage was appointed Commissioner for Ohio and Jeremiah Sullivan for Indiana; but it was not until February 1, 1834, that Ohio-with her own different canal projects on hand, and the Michigan dispute complicating the northern terminus of the Miami and Erie Canal-fully decided on the conditions for giving the Wabash and Erie Canal, as a competitor, a connection with Lake Erie.

Indiana was indemnified by other lands for those of the former grants disposed of by the United States in individual grants to indians by treaties before their survey or determination. The Indiana Legislature organized a Board of Canal Fund Commissioners on January 31, 1832, and after examination they reported the State Canal Fund as \$28,651.00.

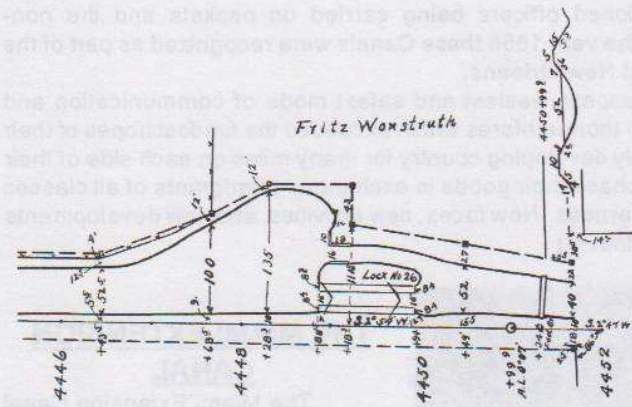
Jesse Williams of Ft Wayne was appointed chief engineer and ground was formally broken February 22, 1832; and in the spring of 1834 the Feeder of the Wabash Canal was completed, extending from Fort Wayne to the Feeder Dam across the River St. Joseph, a distance of about six miles. This Feeder was necessary to carry the boats over the summit a little southwest of Fort Wayne at an altitude of one hundred and ninety-seven feet above the mouth of the Maumee River and, also, to feed eastward to the Six Mile Reservoir in Paulding County, Ohio. On Independence Day 1834 'the entire population' of Fort Wayne went to this Dam on a hastily built boat for the purpose, and there a grand celebration of the day and Canal was held. During the next year the Canal was completed to Huntington and the Fort Wayne people celebrated the event by a grand excursion to that place. In 1837 this Canal was completed to Logansport; and four years later to Lafayette. The division between Fort Wayne and the Ohio State Line was given to the contractors in the summer of 1837.

On account of the sparse settlements in northwestern Ohio, and the scarcity of money, the Legislature of Ohio did not urge the completion of the northern part of the Miami and Erie Canal as did Indiana that of the Wabash. Becoming impatient the Legislature of Indiana enacted, 22nd January, 1840, a joint resolution " that it shall be the duty of the Chief Engineer to proceed immediately to the seat of government of the State of Ohio, and in a respectful manner to urge upon the consideration of the members of the Ohio Legislature the necessity of speedy completion of the Wabash and Erie Canal from the Indiana State line to the Maumee Bay, in compliance with the compacts made between the two States in relation thereto." This joint resolution, with a letter of the Indiana Chief Engineer setting forth

the urgent reasons for the early completion of this Canal, were duly transmitted to the Ohio Legislature on January 31st, 1840.

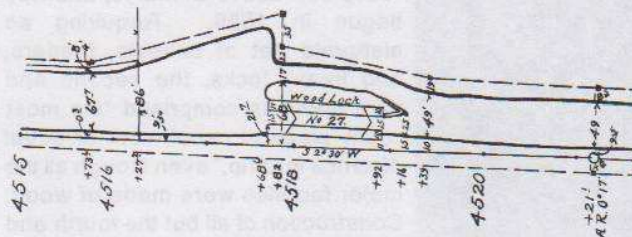
Contracts for the making of this Canal had been awarded by the Ohio authorities as follows: from the mouth of the Maumee River at Manhattan to the Grand Rapids, at the Village of Maumee in the spring of 1837; and at Defiance 25th October, 1837, from the Grand Rapids to the Indiana State Line. The contractors gathered about two thousand laborers and began (their payment in Michigan 'Wild Cat' bills that they had borrowed. Then came the financial panic of 1837.

In May, 1838, the contractors had trouble with the laborers on account of nonpayment of them for five months. The difficulty was compromised, however, in many cases by orders on stores and due-bills; and full payment of these obligations in good money was made in June. These contractors from the commencement labored under difficulties to an extent that no other work in the State has been subjected, reads the Annual Report of the Board of Public Works December 30th, 1839. The high price of provisions which were necessarily brought from long distances; the consequent high price of labor, and severe sickness which drove the men out of the valley during the summers, were the reasons assigned. The report of



Lock 27N (old 26) at the south end of Ottoville

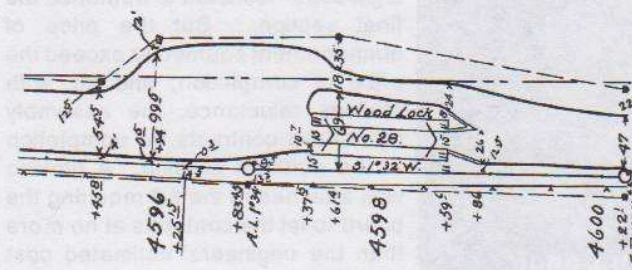
January 12, 1841, states that the prospect of obtaining money for completing the work was so doubtful that contractors were advised of the fact at the close of 1839, and were recommended to use their own discretion and consult their own convenience in prosecuting the jobs; consequently not much work was performed during the first three months of 1840. After the 1st April, however, work progressed better than in 1839 on account of there being less sickness.



Lock 26N (old 27) between Ottoville and Delphos

From Defiance to the State Line, the want of proper material (stone) rendered it necessary to build the locks of wood. The locks north of the summit to the Wabash and Erie Canal were also built of wood. South of the Summit Level and below Defiance the locks were all built of cut stone. In June 1842, the Canal was opened for traffic from Toledo to the Grand Rapids. The Annual Report of the Board of Public Works January 2, 1843, reads that the whole of this work is now so far completed as to admit the water when the proper season for using the same shall arrive, and nothing but unforeseen accidents will from this time forward prevent, at all proper seasons of the year, an uninterrupted navigation. For the last fifteen months there has not been paid one dollar in money to the contractors on this Canal, and the amount now due is equal to \$500,000. Almost the whole resources and credit of that portion of the State in the vicinity of this work have been used up and invested in the construction of the same. Indiana was in the same condition, but not to such degree as Ohio. Various promises to pay, both public and private, were in general circulation with depreciated values; and many had to be renewed from wear before their redemption occurred. Some of these were finally replaced by the

semblance of bank notes issued from certificates of the Chief Engineer and in smaller denominations for convenience of circulation.



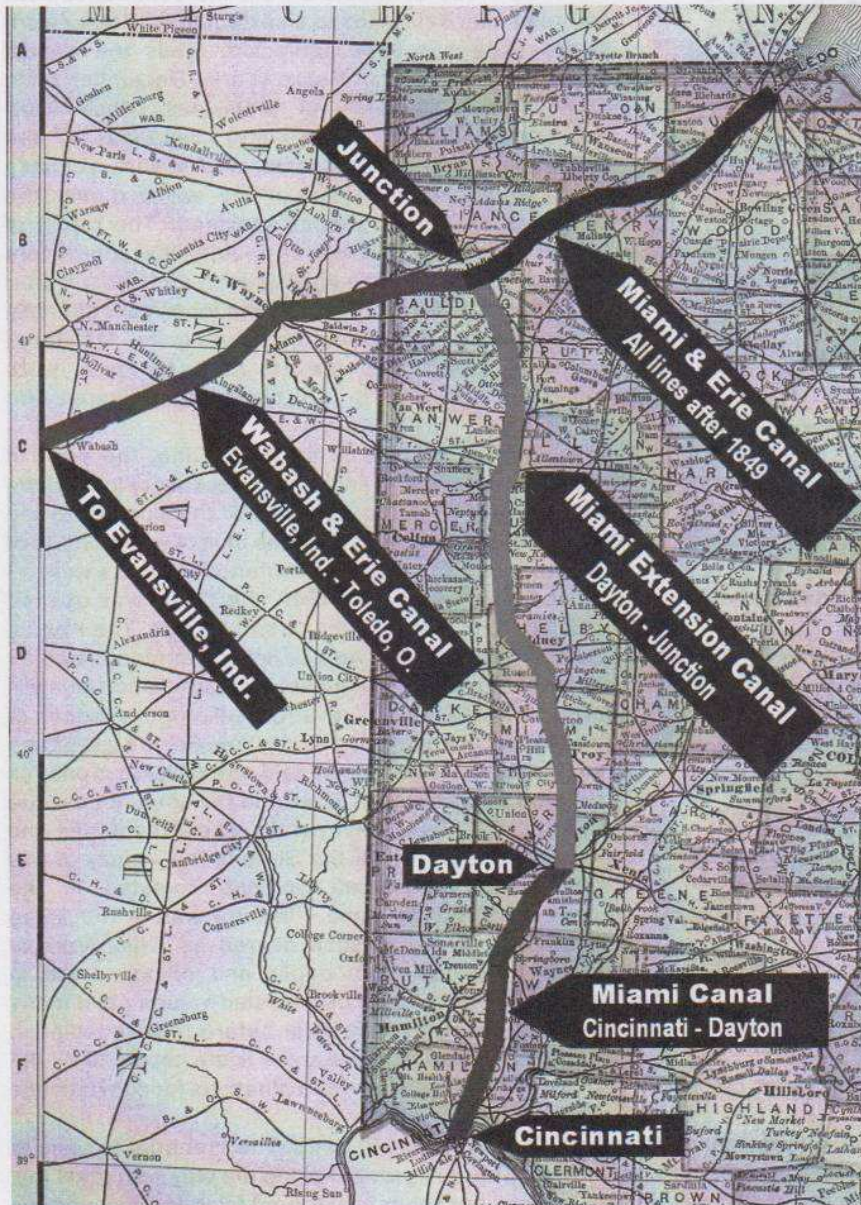
Lock 25N (old 28) between Ottoville and Delphos

The Canals were opened to traffic from Toledo through Fort Wayne May 8, 1843. The first boat to pass to Lafayette was the *Albert S. White*, Captain Cyrus Belden, of Toledo. She was greeted along the way with great joy, the larger towns giving the Captain and crew public receptions. The first packet or lighter boat fitted for passengers, soon followed under Captain William Dale.

Fort Wayne advertised a great canal opening celebration for July 4, 1843; and representatives were present from Toledo, Lafayette, Detroit and Cleveland. General Lewis Cass delivered the principal address to the largest civil meeting held in Fort Wayne up to that date.

There was delay in the construction of the Miami and Erie Canal through the dense forest south of Junction, Paulding County, Ohio, ten and a half miles west of south of Defiance, and the point where the Wabash and Erie Canal connected with the Miami and Erie; and the first boat from Cincinnati did not arrive at Toledo until June 27, 1845. This year the United States Government made first use of this Canal in the transportation of soldiers from Toledo and ports southward to Cincinnati on their way to the Mexican War. The soldiers from Detroit, southern Michigan, and northwestern Ohio, were taken this way, the commissioned officers being carried on packets and the non-commissioned officers and privates on freight boats. Until the year 1856 these Canals were recognized as part of the great national military highway between New York City and New Orleans.

These canals then came into full use as the cheapest, easiest and safest mode of communication and transportation devised up to then. They soon developed into thoroughfares which exceeded the fondest hopes of their supporters. Freight of all kinds came to and from the rapidly developing country for many miles on each side of their lines, businesses sent eastward bound products and purchase their goods in exchange. Immigrants of all classes came and from farmers relocated to clear homes in the wilderness. New faces, new activities, and new developments of all kinds were seen in every direction. (Adapted from Slocum)



## THE MIAMI EXTENSION CANAL

The Miami Extension Canal was built in four divisions. The first, a 32 mile line between Dayton and Piqua was completed in 1837. Then the second segment, 32 miles north to St. Marys, was let to contractors. The third consisted of a twelve mile "deep cut" above St. Marys, and was begun in 1839. Requiring an elaborate set of culverts, feeders, and heavy locks, the second and third divisions comprised "the most costly piece of canal work of equal distance in Ohio," even though all the major facilities were made of wood. Construction of all but the fourth and northernmost division, a 33 mile line to the junction with the Wabash & Erie, was finally completed in 1843.

Because expenditure had greatly exceeded estimates, the legislature hesitated to authorize the final section. But the price of abandonment seemed to exceed the price of completion; and so, with obvious reluctance, the assembly authorized contracts for completion of the northern division. A proviso was attached to the bill requiring the board to let the contracts at no more than the engineers' estimated cost (\$367,000), to be paid in "domestic bonds" of the state in lieu of cash. Departing the prescient, the board awarded a single contract for the entire line, and the work was completed in 1845. Thus the last project of the expanded public works program came to fruition.

The combined Miami Extension-Wabash & Erie line, some 250 miles in length, gave Cincinnati access to Lake Erie and completed the grand design of 1825, which had contemplated two lake-to-river canals. The era of regional isolation in the Ohio country was finally ended. (Scheiber 129, 130)

**HIPP'S LOCK, 31N, TIMBERVILLE, PAULDING COUNTY**

By Grover Hill

Reprinted From Towpaths, Vol. XVIII, No. 3

At 95 years of age, I am probably one of the very few persons yet alive who rode as a passenger in the Miami & Erie Canal while it was still a mode of transportation for people and merchandise. I was born at Lock No. 31 which was about eight miles north of Ottoville, Ohio; and since the year 1863, it has been known as "Hipp's Lock." My father came to the lock from St. Mary's in 1863 and erected a mill for the grinding of wheat and flour. This was perhaps the first flouring mill in Paulding County. There were numerous small mills along the streams for grinding corn, but none for the manufacture of flour.

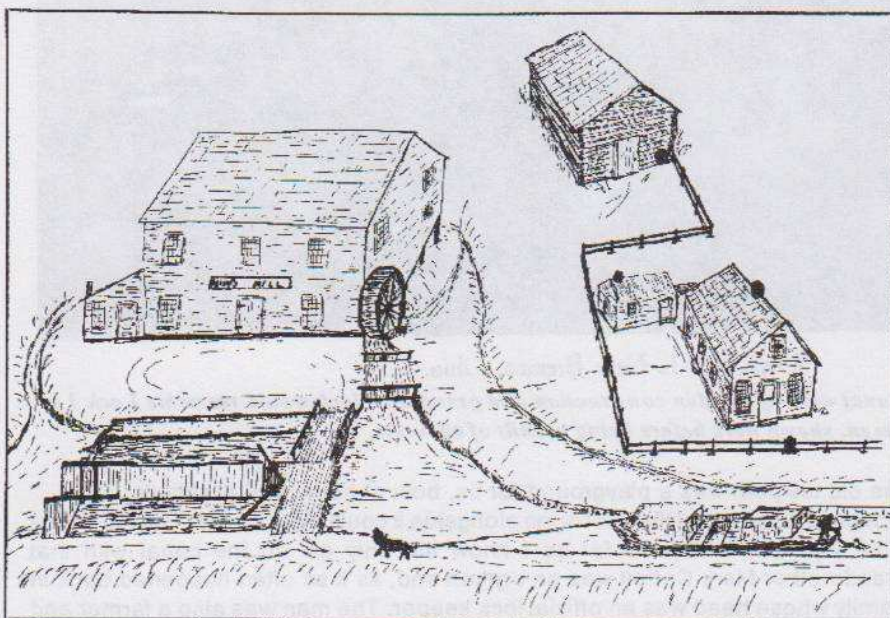
A grocery store was constructed by my father, John J. Hipp, in conjunction with the mill. The mill, which also ground corn, was on the east side of the canal and since the towing path was on the west side, a floating bridge supported by coal oil barrels was in place above the lock and was poled to the east bank when a boat approached. The bridge was not anchored at all. When not in use it lodged against the two sides of the embankment for the dam that backed up the water for the mill race.

A small hamlet grew up around the lock and took the name Timberville by reason of the vast quantities of ship lumber and logs brought to the site to go downstream to Melrose, Defiance and Toledo. The ship timbers were massive oak 30 to 40 feet long and two to three feet square. They were cut down and hewn from the forest trees by French-Canadians and Scots-Canadian woodsmen. Some of the woodsmen boarded with my parents and others made their domicile near the lock. I recall Joseph and Peter Antoine (French) and Kenneth "Sandy" McDonald, Philip and Angus Grant (Scots). The ship timber period ended about the late 80s, to be succeeded by the logging economy.

The logs were cut mostly by the local timbermen and farmers and brought to the canal in the winter season and when the ice went out, were rafted to Melrose and Defiance to be made into barrel staves and lumber. Among the raftsmen I recall - Vern Shirley, who later became sheriff and probate judge of Paulding County, John and William Sherman, Marion and Cal Ayers, Sam Swihart and Francis Miller.

A Mr. Robert Harvester had a mill three quarters of a mile east of the canal where small trees were sawn into bolts and four foot lengths of wood and hauled to the canal on a wooden tramway for shipment by boat.

A "bolt" was what the timbermen called logs and large limbs that were cut into lengths approximately the length of a barrel stave. You will recall that before the advent of fiber containers, much merchandise was shipped in wooden barrels. Sugar, flour, crackers (you have no doubt heard the expression "cracker barrel philosopher"); vinegar and coal oil were also shipped in barrels made of heavier staves - usually of oak; elm being used mostly for the other merchandise. At the stave factories which dotted northwestern Ohio (Paulding County had as many as 12 or 13) the larger logs were also cut into barrel lengths and quartered into bolts before being manufactured into staves. I worked at the factory at Grover Hill at fifty cents per ten hour day when I was seventeen years old.



No photo of Lock 31 is known to exist and Lawrence Hipp had this drawn for his book.



John Hipp

As a lad of five or six years of age, I was taken along on a trip to Ottoville (Putnam County) by my mother. The boat was captained by a Mr. Wise. The State Boat captained by Mr. Spencer was used for maintenance of the locks and canal banks. The boat captains were, I believe, generally the owners, and among them I recall Chris Booth, Charles Medary, Ira Green, Dave Shiveky, DeLarm Cattel and Jack Gleason.

There was always good fishing below the dam that diverted water for the mill race, and folks would come for miles to seine in the deep water below the lock. I recall one time when my older brothers were fishing below the dam when an eel was caught. So I learned what "slippery as an eel" meant when the boys had extreme difficulty in holding it to extract the hook.

I also recall quite vividly the time when I was watching Mr. Wes Coley (locktender at Lock 31 N) dipping fish with a net and I fell into the deep water of the canal. Mr. Coley made a quick grab for me, otherwise this would not be written.

I believe in the early days of the canal the bridges were all built high over the water so boats could pass under. By my day they had been replaced by "bump" or "swing" bridges, which were on the level of the roadway. A boat would press or bump against the bridge and it would swing open to allow the boat to pass. It would then swing back into place.

There was a high bridge at Hamer, a small hamlet in Paulding County near the Putnam County line, while at Mandate to the north and just north of Hipp's Lock, the bridges were of the bump type.

I left the lock when my parents moved to Grover Hill, Ohio in 1892.

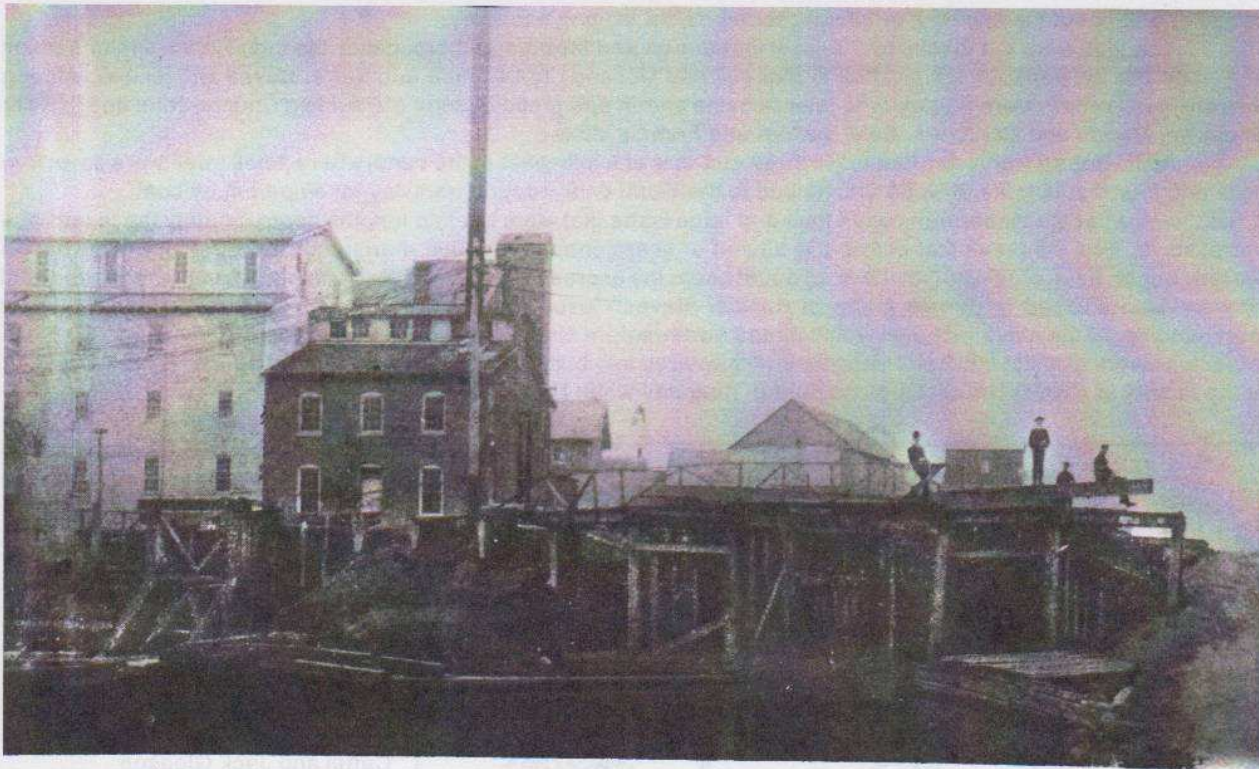
### **MY GRANDMOTHER WAS A LOCKTENDER**

by Mrs. Walter S. Stevenson, as told to L.W. Richardson of Gainsville, Ga.

From Towpaths Vol. XI, No. 3, 1973

Yes, I well remember the old Wabash & Erie Canal-it has a very special meaning for me. Of course, in my childhood, it had been many years since there had been any boat traffic and most of the canal bed was dry and overgrown with weeds and bushes. In places there were pools, possibly caused by springs or small streams draining into the old canal. In cold weather these little ponds provided us children with convenient skating rinks. I don't remember any fishing, although there could have been some of that, too.

My family were pioneer residents of Paulding County. When I was very young, we moved to the old McGuire place on the canal, east of Antwerp. As Merrie Luella Hughes, I attended Murphy School, a one room institution that



B27B2

Lock No. 1, New Bremen, Ohio.

*All of the locks on the Wabash & Erie Canal were of wooden construction and grandma's lock would resemble Lock 1 in New Bremen, shown here before being rebuilt of concrete.*

was also on the banks of the canal. The old towpath was a playground for us, both at home and at recess.

However, I feel a personal attachment to the canal that just living alongside it could not give me. The fact is-my Grandmother was a lock tender on the Wabash & Erie-so far as I know the only girl on the canal with that responsibility. It happened this way: Grandmother Mary Coffelt was an orphan and, as it so often happened back in that day, worked for her "keep" with a family whose head was an official lock keeper. The man was also a farmer and could not be in constant attendance to his canal job. This chore then fell to Grandmother's lot and she became well known to the boat crews traveling the canal.

This was in the 1850's, when she was in her early teens, she was born in 1840. There at the lock, my Grandfather first

met her, although he was not a boatman. In 1860, when she was twenty, she married Jasper Newton Hughes, my Grandfather, and left the canal. She died in 1909.

When I was a little girl, Grandmother would tell me of her experiences on the canal, it was all very exciting to me. She was a little woman, not quite five feet tall and weighing less than a hundred pounds. I wondered how she could have moved the heavy balance beams of the lock gates, but she said that she "managed". No doubt she had help from the boatmen. She was a remarkable woman and of course I am proud of the fact that "Grandmother was a lock tender".

**THE DYNAMITERS**

**No Compromise... The Reservoir Must Go!**

**The Story Of The Dynamiters**

**From 1841 - From A Century Of Progress - 1941**

With the coming of the railroad which speeded up the shipping facilities, shipping by canal became less each year. There was also another drawback - shipping on the canal was at a standstill in the winter when ice covered the sluggish waters of the canal.

In 1870 the state of Indiana abolished the part of the canal that laid within their state. After that the canal was open only from Antwerp to Junction, a distance of about 18 miles where it intersected with the Miami & Erie Canal. About all it was used for by that time was to get logs to the local mills and to other mills at Defiance, O.

As the country became more settled, and farming began to move back away from the streams where they were met by the back waters of the reservoir which fed the canal. This backwater was also the cause of much illness - ague and typhoid being the principal ones. It was also a breeding ground for mosquitoes. I have been told that when they saw a man walking in the banks of the reservoir they would come in swarms large enough to carry the man off. I have no proof of this.

In the early eighties when shipping by canal had all but ceased, the citizens of Antwerp and community looked out over this gloomy and impenetrable swamp that was no longer a source of revenue, they decided it was time to abandon the canal and reservoir and reclaim this flooded land for farming purposes.

In 1886 a petition which stated the grievances of the reservoir and asked for the abandonment of the canal from the Indiana state line to the junction of the Miami and also the Six Mile Reservoir, was sent to Columbus to be considered by the House of Representatives, where it was passed. The bill was fought bitterly by a large delegation from Defiance, which depended on the canal for rafting logs to manufacturing plants in that city. In March 1887 the bill was defeated in the Senate by a vote of 26 to 8.

The defeat of this bill brought out the fighting spirit of the citizens of Antwerp.

Something must be done



Small groups began to gather under cover of darkness. Secret meetings were held and sworn to secrecy, plans were made to drain the reservoir.

In printing this story of the draining of this large body of water I have interviewed nearly every living person in this vicinity who had an active part in the dynamiting of the reservoir. The story this printed is just as it was told to me I think this is the first time their names have ever appeared in print.

Several meetings were held

*The 6 Mile Reservoir, the reason for the Dynamiters' action. Built for 3,600 acres, it could swell to 12,00 acres after heavy rains.*



in the back room of Frank Lamb's barber shop, and above the store of Oliver Applegate.

Under a large black banner which on one side had the words - No Compromise --- on the other side - The Reservoir Must Go - they were sworn to secrecy.

They assumed the name of Dynamiters. In their first attempt a Mr. Hardy was delegated or hired by Eli Munson to float a bucket of dynamite with a long fuse attached into the feeder from the reservoir side.

The damage caused by this explosion and also several other points were promptly repaired by men from Defiance.

Through the influence of these same parties, the state of Ohio placed watchmen or guards to protect its



*As the forests were cut back there was less canal traffic which led to the reservoir becoming a health hazard and general nuisance.*

property. One of these guards was Worden Sperry (now living in Antwerp.) For this guard duty he received \$1.50 per night. Incidentally he was also one of the Dynamiters. Under cover of darkness he would open the gates leading from the reservoir into the canal and would permit the water to run out during the night.

Finally on the night of April 25, 1887 a large force of men gathered numbering between 200 and 300, carrying large amounts of dynamite. All were masked and carrying guns, with a grim determination - No Compromise -- The Reservoir Must Go.

They traveled by foot, by horse and by wagon.

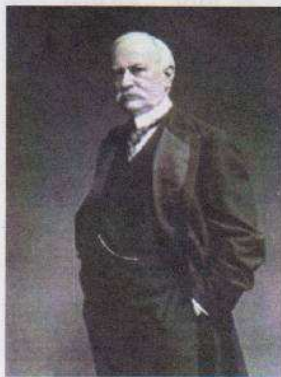
A part of the delegation went to Junction under the

leadership of O.S. Applegate. People living along the canal were warned to vacate.

Another delegation went to Tate's Landing, part way between Antwerp and Junction. Others went to the lock at the lower end of the reservoir and still others began digging through the reservoir bank in several places to within a few feet of the water. Large charges of dynamite were then placed in the remaining bank.

The other delegation having arrived at their scenes of operation, saturated the wooden locks with kerosene and placed two charges of dynamite of fifty pounds each in each end of the lock.

The hour of midnight was the signal.



*Gov. Foraker*

At the set time the mighty roar of the explosion of 100 pounds of dynamite echoed through the night from the direction of Junction. Hardly had it died down when another similar blast shook the earth at Tate's Landing where the lock was blown.

Before the rumbling had ceased the sky was lighted by the explosion of several hundred pounds of dynamite placed in the lock at the lower point of the reservoir and in the bank separating the water from the canal. With a mighty rush the water poured out into the canal, and from there over the country side, knee-deep to the horses, some of the Dynamiters told me. Their work was done and the Dynamiters returned home. All again was quite except the rushing of the water as it poured through the break made by the dynamite.

They had made good. No Compromise -- The Reservoir Must Go.

On the following morning word was sent to Governor Foraker at Columbus describing the destruction of the state's property. He immediately sent a telegram to Major Bunker at Toledo, to assemble fifty men from the 16<sup>th</sup> Regiment and report for duty in Paulding County.

On the evening of April 25, 1887 troops arrived to protect the canal and reservoir from further damage.

The troops numbering about fifty men and nine officers were armed with muskets and 2,000 rounds of ammunition. These guns were mounted on the banks of the reservoir to rake the north and east banks if found necessary, but nothing happened. They tried to repair the damage previously done but without success.

Soldiers doing guard duty on the reservoir sighted no enemy - there was only the rushing of the water. Suddenly, apparently out of nowhere, rose the Dynamiters, surrounded and captured the guard on duty, other guards fared similarly, though no harm befell them. Again over the waters if the reservoir roared the mighty blast of the

Dynamiters.

No Compromise - The Reservoir Must Go.

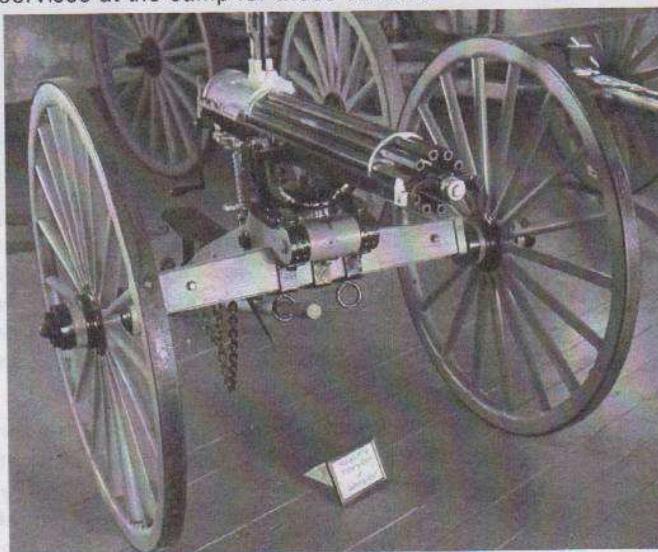
These men had quietly left town. A group of them had boarded the east bound train to Knoxdale, and from there walked to the reservoir.

In getting this group of men on board the train, John Pocock who was agent for the Wabash at the time, informed the conductor of the train to pay no attention to them - just collect their tickets and put them off at their destination.

But it also required his efforts to quiet the passengers of the train, as this group entered all masked and armed with shotguns, rifles and revolvers. Among this group was Worden Sperry and although masked as the others in the group, he exposed a tell tale mark - a gold tooth (which at the time was quite uncommon). As Worden was one of the ring leaders he was recognized by one of the captured guards.

He was later arrested, taken to Paulding and placed under bond. The bond was insufficient in size to hold all the names on the bond for his release, and he was promptly released.

On the following Sabbath, the Reverend McCluskey from Antwerp held Devine services at the camp for these soldiers.



*US Gatling Gun, Model 1876, cal. 45-70, probably similar to what the Ohio National Guard towed to the reservoir.*

One of the Dynamiters who was present thought his text was: "The sword of Foraker be upon us and the roaring of mighty waters is heard throughout the land and groans and lamentations riseth up from the city of Defiance."

The soldiers stayed on duty at the reservoir one week. They had been treated with respect by the people from this vicinity, and made many friends during their stay. They had one casualty, one of the soldiers accidentally shot himself on their arrival at Cecil.

The state sent detectives to try and locate the guilty parties and during the time these detectives were supposed to be present several of our citizens decided to visit friends in some other state.

However, one of these detectives, whose coming has been tipped off, was met when he alighted from the train by a reception committee of Dynamiters headed by O.S. Applegate. Upon being told that his business was known, he was asked to forget what he came for and leave town.

Looking into the grim and determined faces of the group, and upon a coil of rope with a noose dangling

down from the arm of Warner Ryel, he exclaimed, "Alright, gentlemen, alright, if that's the way you feel about it, I'll bid you good-day." He promptly started walking for the benefit of his health.

About a month later Governor Foraker made a personal trip to Antwerp. He was met by a group of citizens and escorted to the scenes of the late destruction where he saw the dilapidated condition of the reservoir and the canal and the swampy condition of the surrounding country.

During his visit he made a speech in which he promised that he would do all in his power to remedy these conditions which he did.

In May 1888, a second bill was passed by both houses which then became a law - and the final chapter of the reservoir and the canal.

Here are some of the names of the men of the locality who took an active part in the dynamiting - there are a number of others whose names I failed to get as the memory of the old timers is beginning to fade. O.S. Applegate and Worden Sperry as ring leaders; Bob Perry, Asa Boland, Chas. Boland and Ezra Reams. Mr. Hardy and Warner Ryel handled dynamite; others who stood guard or assisted in the digging or other duties as were assigned to them were: Jack Graves, Chas. Graves, Joe Champion, Sr., Mr. Shaw, Henry Harris, Jess Bond, Wesley Johnson, H.H. Gordon, Lew Gordon, John B. Zuber, John Pocock, E.M. Sunday, Geo. Munson, Eli Munson, Francis Zuber, Nick Harrmann, Frank Lamb, Frank Leamon, Simon Nedrow, Al Martin, H.O. Overmyer, George Overmyer, Wm. Smith and Andy Smith.

## **CANAL RENAISSANCE**

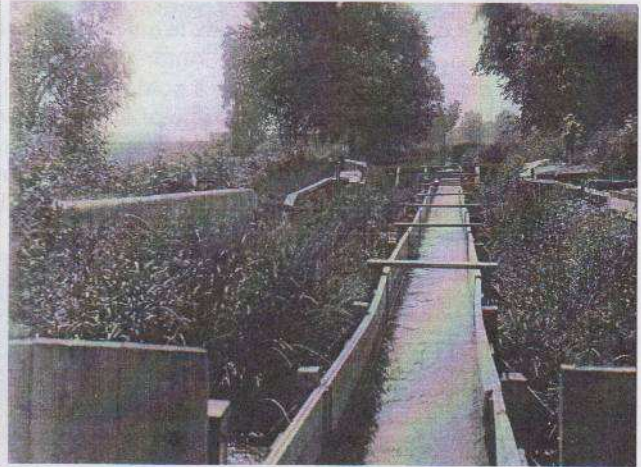
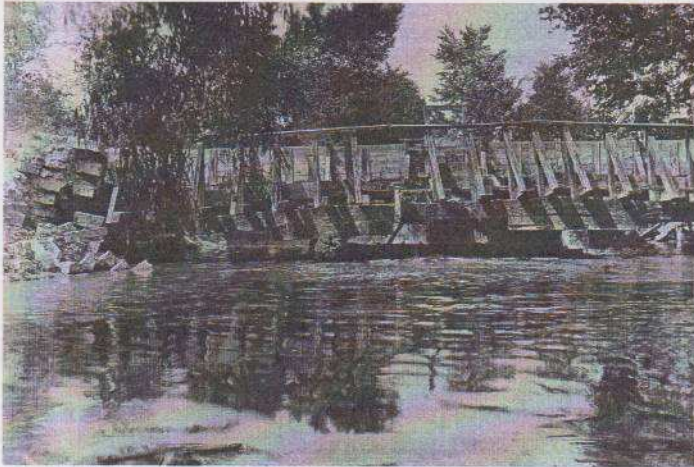
After canal traffic ceased because of competition, lack of maintenance or natural disaster; most towns were happy to see the canals perish as they'd become disused nuisances where children drowned and mosquitoes bred. Outside the towns the canal right of way, especially large tracts like the Six Mile Reservoir, could be returned to agricultural use.

Some towns, however, did keep a sense of pride in their canal past and have embraced it as their history and

as a tourist attraction. Delphos is one such town and has both the last boat on the line and the first canal festival to its credit.

The Delphos Canal Heritage Days Festival is the oldest canal related event in Ohio, dating to the first in 1964 when the three day festival is held the third weekend in September and features a Sunday parade that draws thousands who line the two mile route to watch countless marching bands, commercial, academic and civic floats.

In 1987 a group of the town's youth joined together as the Columbian Squires who, under the direction of the



*The Flood of 1913 destroyed many canal structures, particularly hard hit were the fragile aqueducts. Top two photos are of the Jennings Creek Aqueduct which was rebuilt into a narrow flume to provide water to lessees. Blue Creek, bottom left, had similar modifications. Photos are from a state survey in 1916.*

Reverend Chris Vasko, of Delphos St. John's Parish, for the purpose of raising and saving the remaining parts of the pleasure canal boat, the Marguerite. They succeeded and saved the remains of the original Marguerite boat from the canal and preserving the remaining parts for eventual display in the museum.

The **Delphos Canal Commission** was formed in 1987 and has grown to have a large museum of canal and local items. The two floor museum occupies the former W. T. Grant store on Main Street. The canal is directly behind the museum but is submerged in tile with a parking lot covering the prism. The remains of Lock 23N are visible just across the street from their parking lot. An Anthony Wayne Parkway historical marker remembers the canal where it crosses SR66, across the street from the town's memorial park which also has a reproduction Lincoln Highway Milepost. Delphos was part of the 1928 alignment of the route between Lima and Fort Wayne on America's first coast to coast highway.

The **Miami & Erie Canal Corridor Association** works to preserve and improve the Miami & Erie Canal Corridor as a viable resource; advancing the cultural, historical, natural, commercial, and recreational opportunities that exist there.

As a 501(c)(3) organization, MECCA works to develop and encourage local, state, regional, and nationwide recognition of the Corridor by coordinating and representing the interests of the citizens, businesses, and government agencies in Allen, Auglaize, Miami, Shelby and Van Wert Counties, while extending both north and south to include other

interested entities. MECCA works toward establishing a continuous physical link along the existing canal corridor and assisting when able, the development of compatible economic ventures, developing strong working relationships with corridor partners while to preserving and interpreting the natural, recreational, and historical resources near the canal.

## **IV. INVENTORY AND CONSTRUCTION OF CANAL STRUCTURES**

### **WOODEN LOCKS, CULVERTS AND AQUEDUCTS**

In May 1837 a bank panic struck the United States and after a brief recovery a serious depression began in 1839. These events were especially hard on canal contractors. The state paid them in state script, and after 1837 merchants refused to accept this at par. Most importantly, in isolated areas, such as in northwest Ohio where the Miami Extension was going forward, the influx of canal labor and contractors' demand for provisions kept local prices high, even though the price level was generally falling during the post-1839 depression. This situation called for austerity when possible. To further hamper construction, the Miami Extension was built in an area of sparse settlement and contractors couldn't depend on local labor and had to instead rely on highly paid itinerant workers.

The 230 mile length of the Miami & Erie Canal was divided into three subdivisions for purposes of maintenance and administration. Subdivision One ran from Cincinnati to Sunfish Lock (#27S), Subdivision Two went from Sunfish Lock to New Bremen and finally Subdivision Three completed the canal from New Bremen to Toledo and also included the Wabash & Erie Canal from Junction to the Indiana state line. Besides being the longest subdivision at 124 miles, Subdivision Three was the last built and because of this late start, offer the greatest opportunity to study alternative construction techniques.

### **WOODEN LOCKS BY NECESSITY**

Many sources often speculate why wood was used for lock construction on the northern part of the Miami Extension Canal. These writers often suggest the locks were built of timber as temporary structures in anticipation of

being replaced by more permanent installations of stone. Others suggest wood was used because of a lack of suitable construction grade stone in the area or the lack of suitable roads for the transportation of stone.

What is probably more accurate is that the determination to substitute cheaper, expedient materials was strictly a financial, and not a logistical decision.

Stone quarries existed at both Samuel L. Doyle's farm at Junction and at Judge C.L. Noble's quarrying operation at Stone Dock Farm in the Little Auglaize River near the mouth of Blue Creek in Brown Township of Paulding County. Either of these quarries could have supplied sufficient quality stone for any amount of canal construction in the area. In fact, both are credited as the source of stone for some of the larger



*Typical wood lock (Lock 37Nin Defiance) lasted about 8 years.*

structures along the line, including the massive Little Auglaize River Aqueduct at Melrose. Further, the Blue Creek quarry actually had a tram built to the canal where the stone was shipped to market by canal at a place known as Canal Port.

The proximity of these two suitable quarries negates the argument of availability and location. Further credibility to the austerity theory is that when the state made improvements on the extension, they employed poured concrete, as early as the 1890s, rather than the costly, labor intensive masonry. The wooden locks were a constant source of trouble- and a drain on the state's maintenance crews. The fact the wood locks were built in two stories must have helped somewhat, but virtually every annual report and annual report to the governor contains long lists of work needed to keep the canal operational.

The locks were built in two stories so that the lower level would always be submerged and thus reduce the maintenance required for replacing components which were exposed to air and the dry rot which would result.

For example, in 1893 the Executive Documents report to the governor lists 20 of the 29 wooden locks as needing either to be rebuilt or to have the cribbing replaced in the next year. That same year 28 of the 29 wooden locks had been repaired or replaced. The same report the next year best summed up the situation when it said 'Over half

the locks on this Subdivision received attention in repairs more or less extensive, the wooden locks especially being in such poor condition that they require the most careful attention and almost constant repairing.' Later in the same report, under the heading "Repairs Needed", the reports says "In fact it is a surprise to the builders that many of the wooden locks remain standing, considering their worn condition, some of them having long since outlived the age of the timber."

Surely if the state had intended to replace these wooden locks with more permanent locks, they would have started a program by the 1890s, rather than continue repair work on what had become a burden on the resources of the canal system.

### WOODEN CULVERTS

Like the wooden locks, wooden culverts were constructed by the state in an effort to complete the Miami Extension Canal with as little expense as possible.

While some traditional stone culverts were built, a majority, particularly from New Bremen to Junction, were made in a simple wooden box style. Indiana faced a similar austere situation when they were building the Wabash & Erie Canal and also resorted to using box culverts to complete their line. Indiana, however, carried the idea further and built small dams upstream of the culverts to cause a pool of water which would submerge the wood in an effort to reduce the effects of dry rot on the exposed timber.



*Wooden Culvert over 6 Mile Creek, north of Spencerville, being rebuilt. (Allen County Museum)*

When Ohio began to replace the aging wooden culverts the state chose concrete as an alternative to the expensive stone work. Several of these concrete culverts still exist and are in surprisingly good condition.

The best examples are in the Spencerville area with several smaller culverts like the one at Six Mile Creek, north of the village. Another is just north of Deep Cut and at least two others remain between Deep Cut and Kossuth. Just south of Kossuth, off

Warner Barber Road is the large concrete Prairie Creek Culvert. The other large concrete culvert which remains is the Lock 2 culvert, north of the town of Lock 2, O. This culvert is unique in that it has the road as an integral part of the culvert.

Few remains of the wooden culverts exist. A small wooden box culvert survived until about 1985 at Melrose when it was removed because of the fear of flooding if it were to collapse. There are still a few timbers and spikes at the site just north of the railroad tracks which pass through Melrose. In 1990, parts of the wooden culvert at Lock 30, located at the Paulding-Putnum County line, were unearthed during county sponsored dredging of the creek.

In addition to the wooden and concrete culverts, the state also employed several other alternative methods on the Extension.

Iron pipes were employed as well as a interesting circular brick culvert at Bull Creek in Paulding County. Another modest type was a concrete tube with simple wing walls at each side. At least two of this style remain: one, Staley's Culvert on T-183, located south of the Little Auglaize River Aqueduct and the other north of Melrose on T-181, near the ghost town of St. Andrews.

### WABASH & ERIE CANAL IN OHIO

The Wabash & Erie Canal, from the Indiana state line, originally ran to Toledo before the completion of the Miami Extension in 1845. Like the work from New Bremen north, all the locks on the Wabash & Erie through Defiance were made of wood. All were eventually replaced by concrete, except for Lock 39, the River Lock, which allowed boats to enter the Maumee River for their slackwater navigation of the four miles to the second guard lock at Independence Dam.

Like the wooden locks on the Miami Extension, the W&E locks were dilapidated and by 1887 the line there was really only used for rafting logs to mills in Defiance. The Six Mile Reservoir near Antwerp was a constant source of irritation for the local residents and eventually became the target of a group of dissidents who banded together under the banner of 'No Compromise - The Reservoir Must Go' and named themselves 'The Dynamiters.'

Demolition charges made quick work of the aging wooden locks and reservoir gates. What took the state years to build of wood was destroyed in seconds when 'Three hundred determined men, went out at midnight last night and overpowered the few guards who were stationed at the reservoir and locks. The guards were securely bound and then the mob scattered and then went up and down the canal. The aqueduct was blown up, one lock blown up and another burned... After this had been done, the men returned to town and quietly dispersed to their several homes.'"

Ironically, the wooden locks were destroyed because they'd become useful only for transporting wood to market.

### SPECIFICATIONS FOR WOOD LOCKS

From The Sixth Annual Report Of The Board Of Public Works January 2, 1843

Rules and Specifications relating to the extension of the Miami Canal north of the Deep Cut.

**DIMENSIONS:** Locks shall be eighty feet long, in the chamber, between the upper and lower gates, and fifteen feet wide in the clear.

**THE FOUNDATION** shall be laid at such level or elevation as said commissioner or engineer may prescribe, but in all cases as low as the bottom of the canal below the lock. When a good even foundation of solid, compact, and durable rock cannot, in the opinion of the commissioner or engineer having charge of the work, be procured at the proper elevation, the foundation shall be composed of good, sound, hard and durable timbers, hewed square and not less than one foot in thickness, which shall be laid horizontally cross-wise in the lock pit, level and even. The timber shall rest on a bed of good gravel puddle of such depth as said commissioner or engineer may deem necessary, and direct, into which it shall be driven or sunk at least one inch, and the space between the timbers shall be perfectly filled with good puddle composed of gravel and such other suitable materials as said commissioner or engineer shall designate, which shall be thoroughly rammed and packed, beginning at the bottom of each space. Two or more rows of sheet piling, to be composed of good, sound straight and squared edged white oak plank, set close together, and bated if necessary, extending to such depths as said commissioner or engineer shall deem necessary, and shall designate, shall be set into the ground across the foundation, in a ditch to be cut for that purpose, which shall be thoroughly filled with good puddle well rammed.

A **FLOOR** composed of good, sound, three inch plank, free from shakes, well joined so as to form tight joints shall be laid across the whole foundation of timbers above described, and thoroughly spiked down to the timbers underneath. The whole space between the walls of the lock, extending from the breast to at least ten feet below the lower miter sill, shall be covered with a tight, well laid floor to be composed of good, sound and firm white oak plank, two inches in thickness, free from shakes, rot and unsound knots, joined at both sides and ends, which shall be thoroughly spiked down with spikes of proper size, and not less than ten inches in length. At least five spikes to every ten square feet shall be used in laying the floor.

**FRAME WORK** to be composed of good, sound oak timber, perfectly free from shakes, rot or unsound knots, well and neatly counter hewed and framed and put together in a substantial and suitable manner. The plank to be used in the chambers and on top of the locks must be of good oak and free from all defects whatever.

**THE LOCK GATES AND MITER SILLS** shall be made agreeable to plans to be furnished by the engineer having charge of the work and shall be composed of good, sound, solid white oak timber and plank and be secured with iron of good quality and proper dimensions made and formed agreeable to bills and plans to be furnished by said engineer.

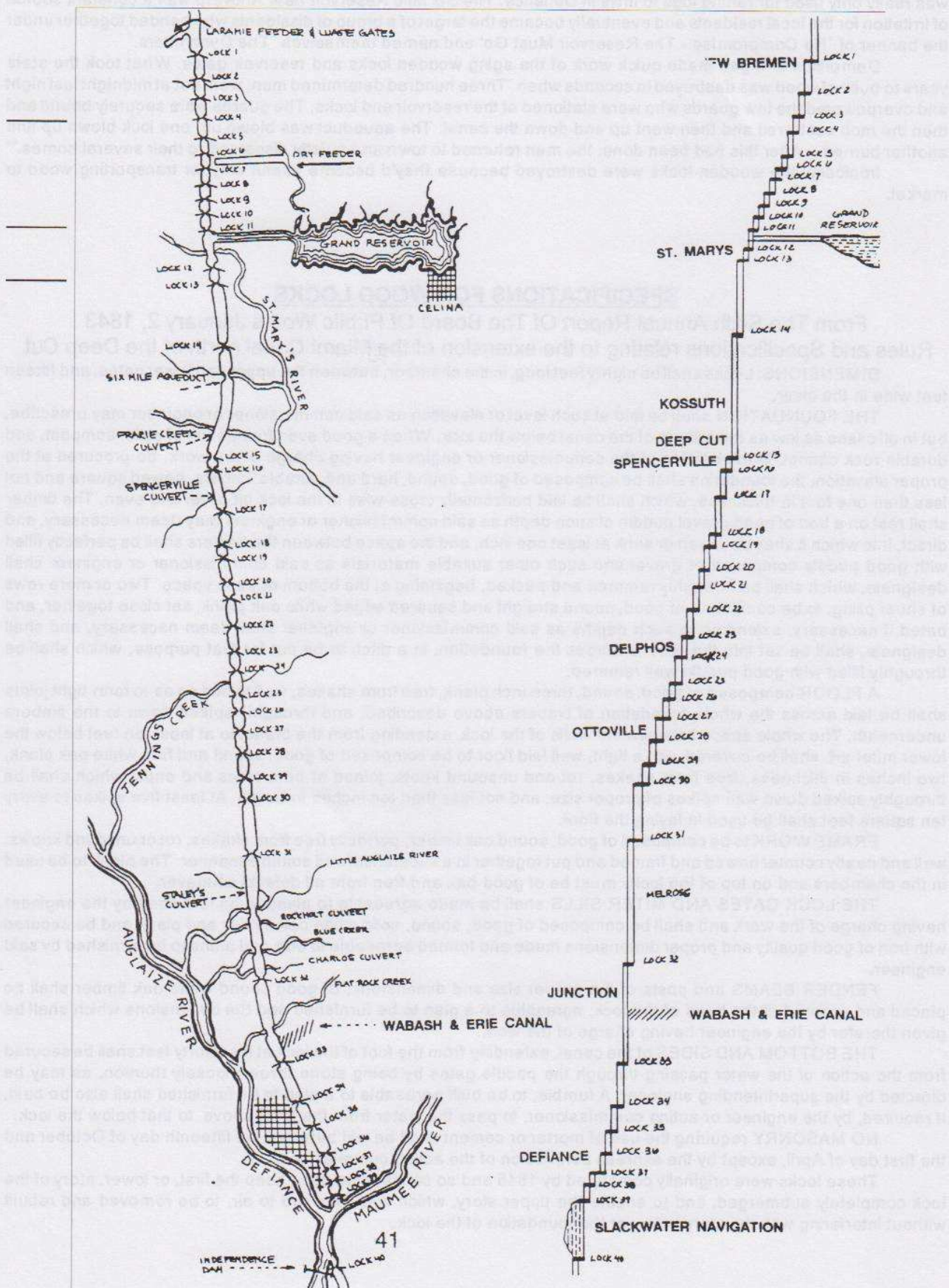
**FENDER BEAMS** and posts of the proper size and dimensions, of good sound white oak timber shall be placed and secured at the head of the lock, agreeable to a plan to be furnished and the dimensions which shall be given therefor by the engineer having charge of the work.

**THE BOTTOM AND SIDES** of the canal, extending from the foot of the lock at least forty feet shall be secured from the action of the water passing through the paddle gates by being stone thrown loosely thereon, as may be directed by the superintending engineer. A tumble, to be built agreeable to a plan to be furnished shall also be built, if required, by the engineer or acting commissioner, to pass the water from the level above to that below the lock.

**NO MASONRY** requiring the use of mortar or cement shall be laid between the fifteenth day of October and the first day of April, except by the express permission of the acting commissioner.

These locks were originally completed by 1845 and so constructed as to keep the first, or lower, story of the lock completely submerged, and to enable the upper story, which was exposed to air, to be removed and rebuilt without interfering with the story below or the foundation of the lock.

### Plan and Profile of the Miami & Erie Canal



## LOCK LISTING

New No.	Old No.	Location	Elevation*	Construction	Condition
-	1	Manhattan River Lock		Stone	Removed
-	2	Manhattan		Stone	Removed
52	-	Swan Creek - Toledo	7	Stone - Concrete	Removed
51	-	Swan Creek - Toledo	15	Stone - Concrete	Removed
50	3	Armada Mills	22.5	Stone - Concrete	Removed
49	4	Armada Mills	31.5	Stone - Concrete	Removed
48	5	Armada Mills	39.5	Stone - Concrete	Removed
47	6	NYC Water Bridge	48.5	Stone - Concrete	Removed
46	7	Central Grove	55.5	Stone - Concrete	Removed
45	8	Maumee	61.5	Stone - Concrete	Removed
1	1	Maumee Side Cut		Stone	1/4 Extant
2	2	Maumee Side Cut		Stone	Extant
3	3	Maumee Side Cut		Stone	Extant
4	4	Maumee Side Cut		Stone	Extant
5	5	Maumee Side Cut		Stone	Removed
6	6	Maumee Side Cut		Stone	Extant
44	9	Providence	63.5	Stone - Concrete	Operational
43	10	Bucklin's (Slackwater)	73.5	Stone - Concrete	Extant
42	11	Rice's	81.5	Stone - Concrete	Removed
41	12	Texas	88.5	Stone - Concrete	Removed
40	13	Independence Dam	88.5	Stone	Extant
39	14	River	96.5	Wood	Removed
38	15	Defiance	105.5	Wood - Concrete	Removed
37	16	Defiance City Hall	114.5	Wood - Concrete	1/4 Extant
36	17	Defiance	123.5	Wood - Concrete	Buried
35	18	Erie Mills B&O RR	130.5	Wood - Concrete	Extant
34	19	Hudson's	137.5	Wood - Concrete	Extant
33	20	Schooley's	142.5	Wood - Concrete	Extant
1	21	W&E 1 Mile	147.25'	Wood	Removed
2	22	W&E Tate's Landing	152.25'	Wood	Removed
	23	W&E Reservoir	158.25'	Wood	Removed
	24	W&E Bank's	163.25'	Wood	Removed
	25	W&E Payne's	171.25'	Wood	Removed
	26	W&E Doering (aband)	171.25'	Wood	Removed
32	21	Viall's	152.75	Wood - Concrete	Extant
31	22	Hipp's Timberville	156.75	Wood	Removed
30	23	Stone - County line	162.75	Wood - Stone	Removed
29	24	Deadman's	167.75'	Wood	Removed



28	25	Odenweller's Mill	177.25'	Wood	Removed
27	26	Ottoville	182.25'	Wood	Removed
26	27		189'	Wood	Removed
25	28		196.5'	Wood	Removed
24	29	Stone Delphos	202'	Wood - Stone	Extant
23	30	Delphos Mills	211'	Wood	Removed
22	31		219.25	Wood	Removed
21	32		224.5	Wood	Removed
20	33		231.5	Wood	Removed
19	34	Bloom's	240	Wood	Removed
18	35	Southworth	246	Wood	Removed
17	36		255.75	Wood	Removed
16	37	Spencerville	263.5	Wood	Removed
15	38	Spencerville	274	Wood	Removed
14	39	Saw Mill	283	Wood - Concrete	Extant
13	40	St. Marys	291.25	Wood - Concrete	Extant
12	41	St. Marys	299.5	Wood - Concrete	Buried
Feeder	Feeder	St. Marys	-	Wood - Stone	Extant
11	42	St. Marys	306.5	Wood	Removed
10	43		313	Wood	Removed
9	44		319	Wood	Removed
8	45	Stone - County Line	331	Wood - Stone	Extant
7	46		336	Wood	Removed
6	47		345	Wood	Removed
5	48		354	Wood	Removed
4	49		361	Wood	Removed
3	50		367.5	Wood	Removed
2	51	New Paris, O.	377	Wood	Removed
1	52	New Bremen, O.	386.5	Wood - Concrete	Extant

Shaded locks are those on the tour route \*Elevation above Lake Erie Ohio Archaeological Survey, 1873

### WABASH & ERIE CANAL FEATURES

#### Based on W.H. Gaffney's May 1888 Survey of the Wabash Canal

Began May 3<sup>rd</sup>, 1888 - Col Alex Bassil, Engineer in charge; W. H. Gaffney, Field engineer; Jas. A. Kerr; C.Y. Atkins; Jno E. Gallup; Arthue Bennett (one day only); G. H. Munson; Col Wm McGrew, May 4

Description	Lift	Sta.	Distance from Indiana line
(Lock 6/26/13) Doring/Downing Lock	3 feet	70	1.3 miles
Stone culvert		75	1.4 miles
St L & Wabash Railroad		77	1.5 miles
(Lock 5/25/12) Payne's	5 feet	148	2.8 miles

Bridge		165	3.1 miles
Antwerp Stave Mill		173.5	3.3 miles
Bridge		177.5	3.4 miles
Munson-Pecox's Hoop and Stave Factory		178	3.4 miles
Bridge		192	3.6 miles
Bridge		204	3.9 miles
Doring, Harris & Gording Saw Mill		205	3.9 miles
<b>(Lock 4/24/11) Bank's Lock</b>	5 feet	267	5.1 miles
St L & Wabash RR		305	5.8 miles
<b>(Lock 3/23/10) Reservoir Lock</b>	6 feet	413	7.8 miles
Bridge		437	8.3 miles
Bull Creek Culvert		535	10.1 miles
Repaired Beak In Berm Bank		535	10.1 miles
Cincinnati, Jackson & Macinow RR		571	10.8 miles
Paulding Furnace		581	11.0 miles
Bridge		623	11.8 miles
Aqueduct		627	11.9 miles
<b>(Lock 2/22/9) Tate's Landing Lock aka Riede's P.O.</b>	4 feet 9 inches	691	13.1 miles
Queen Post Bridge		758	14.4 miles
Bridge		811	15.4 miles
<b>(Lock 1/21/ 8) One Mile Lock</b>	5 feet	916	17.3 miles
Queen Post Bridge		966	18.3 miles
Junction with Miami & Erie Canal		971	18.4 miles

(Lock xx/xx/xx = Lock from Junction / Old Ohio system / Indiana system - from river in Defiance)

## V. INDUSTRY AND COMMERCE

### IRON FURNACES

Once the canals had been built and established work commenced to remove the dense forest which surrounded the entire Paulding County area. The overwhelming amount of trees were looked at as a liability after the first cutting of the select material used for premium applications such as boat building. For example, for boat masts, it is said that trees couldn't have any branches closer than 70 feet to the ground.

In the early 1860s Graft, Bennett and Company of Pittsburgh, Pa., established Paulding Furnace on the north bank of the Wabash & Erie Canal in Crane Township of Paulding County a mile and a half from Cecil. This was a Catalan Bloomberg and forge for the reduction of iron ore by the direct process. Cobb, Bradley and Company of Cleveland also established a similar operation just east of Antwerp called Antwerp Furnace.

These furnaces were near the center of unbroken forest. Land was very cheap, and the timber was yet looked upon as a detriment to be eliminated as easily as possible by the settlers.

As many as 250 choppers and sawyers were employed at one time at each furnace. One hundred and twenty cords of wood were used per day to make 45 tons of iron. The iron ore was brought from Lake Superior mines by lake freighter to Toledo and then by canal boat to Paulding County. The reduced iron was taken by canal boats to Toledo, and lake boats to Cleveland. Some was taken south to Cincinnati and the Ohio River and then to Pittsburgh.

The average length of run per year was eight months, and the average amount of iron produced annually by each furnace was 2,600 tons.

The plants were dismantled and gone by 1890 when the forest had been cut back and wood for industrial use became scarce. The opening of the Cincinnati Northern Railroad at that time also eliminated the need for the furnaces to be located next to the canal, ending that part of the Paulding economy and opening the door for agriculture to become the mainstay of the area. (Adapted from Slocum)



*Originally, trees had to be at least 70' to the first branch.*

## **FORESTRY**

Today agriculture is by far the biggest industry in Paulding County. However, before any crops were planted the original settlers had to overcome the thick forest and swampy ground which covered the area.

First, the forests were cut of their prime species like the burr oak and white oak, leaving the lesser species like pine to be harvested later.

It is said that the cut trees would be stacked for miles along the canal while they waited their turn to be cut or floated to market. In addition to the bulk wood crop, much of the lesser sized pieces were used in stave and hoop factories where coopers would assemble the pieces into barrels.

The rafting of large tree trunks became a major part of moving the wood from the area to market. The tree trunks were chained in groups to fit through the locks and those groups chained in lengths that would extend up to 14 lockings of wood, with a small scow at the rear of the float where the boatmen could steer the float. Once in Toledo lumber yards there they were either processed into construction sized pieces, or transhipped by freighter to

## **FIELD TILE PRODUCTION**

The swamps needed to be drained through field tile, the production of which quickly became an industry of the area. Until the late 1990s several brick kilns for the production of field tile remained adjacent to the canal in Ottoville. These were located at the southern end of Ottoville near the cemetery and where Lock 27N was located. Another well known tile kiln was located just east of Antwerp on the farm of Nick Harmann.

## **OTTOVILLE MILL STILL GOING STRONG**

Written by Barb Selyem for Grainnet

There is over a century of history inside the whimsical lemon-yellow exterior of the Odenweller Milling Co. in Ottoville, O.

It has been home to this amazing 1894 feed mill for 104 years. Howard Odenweller, vice president, is the fourth generation to manage the business, now in its third century of operation. Howard, who is very proud of the company legacy, preserves fragile property records in an old safe inside the mill office. These fascinating deeds document a very short ownership list.

**History of Ownership:** In 1894, the Catholic Church sold the property to two men, Schullen and Wannemacher, who subsequently built a flour mill.

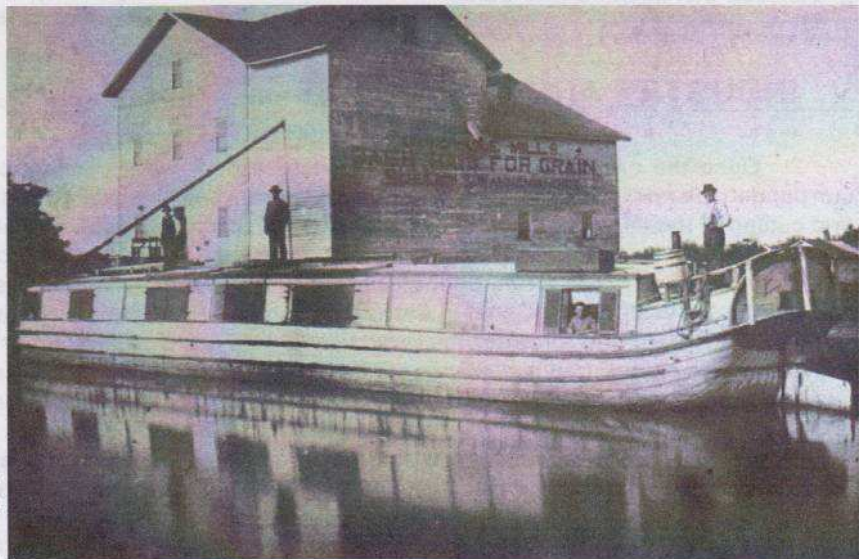
E.L. Odenweller, Howard's great grandfather, acquired the mill in 1897.

The mill was built next to the Miami and Erie Canal, which ran from Cincinnati, to Toledo. This canal made generating power using a water wheel both convenient and economical. Despite the canal's location, Howard said only one shipment of flour was moved by boat. Navigation on the canal ceased in 1912. At the same time, the mill was converted to electricity.

The mill's interworkings massive, hand-hewn, burr oak timbers fastened with wooden pegs support the structure. Those timbers had been free for clearing.

There is no manlift inside, only a maze of stairways leading to the upper floors of this century-old workhorse. A network of wooden spouts, draped with cobwebs and disappearing through the walls and floors, connects wooden elevators to cribbed, hopper-bottom bins and other machinery.

Much of this machinery was manufactured by two old companies with familiar names Sidney Grain Machine Co., Sidney, O. and A.T. Ferrell, Saginaw, Mich. Patent dates stenciled on the equipment date back to 1879. From Flour to Feed. In the early years, we delivered more flour to local merchants by team and wagon, Howard said. Later



*Schulien & Wannemacher proceeded Odenweller as mill owner.*

we used trucks. When we started noticing more and more bread trucks in the mid-1940s, we decided to change from milling flour to manufacturing feed, Howard said.

At the same time, we began a relationship with Central Soya that was to span nearly 50 years, he continued. Our company has the distinction of receiving the first and last loads of Central Soya's Master Mix Feed.

In 1990, the Odenwellers took on the Kent Feed line, and in 1999, as if to verbalize their commitment, they painted the old mill Kent Feed yellow and gave it a new Kent Feed red roof.

They also continue to manufacture their own custom feeds.

Howard is optimistic about the continued success of Odenweller Milling and confident that the remarkable old mill easily could continue in operation for another 100 years.

## **DEFIANCE JUNCTION ENTREPRENEUR**

### **"Memoirs of Edwin Phelps"**

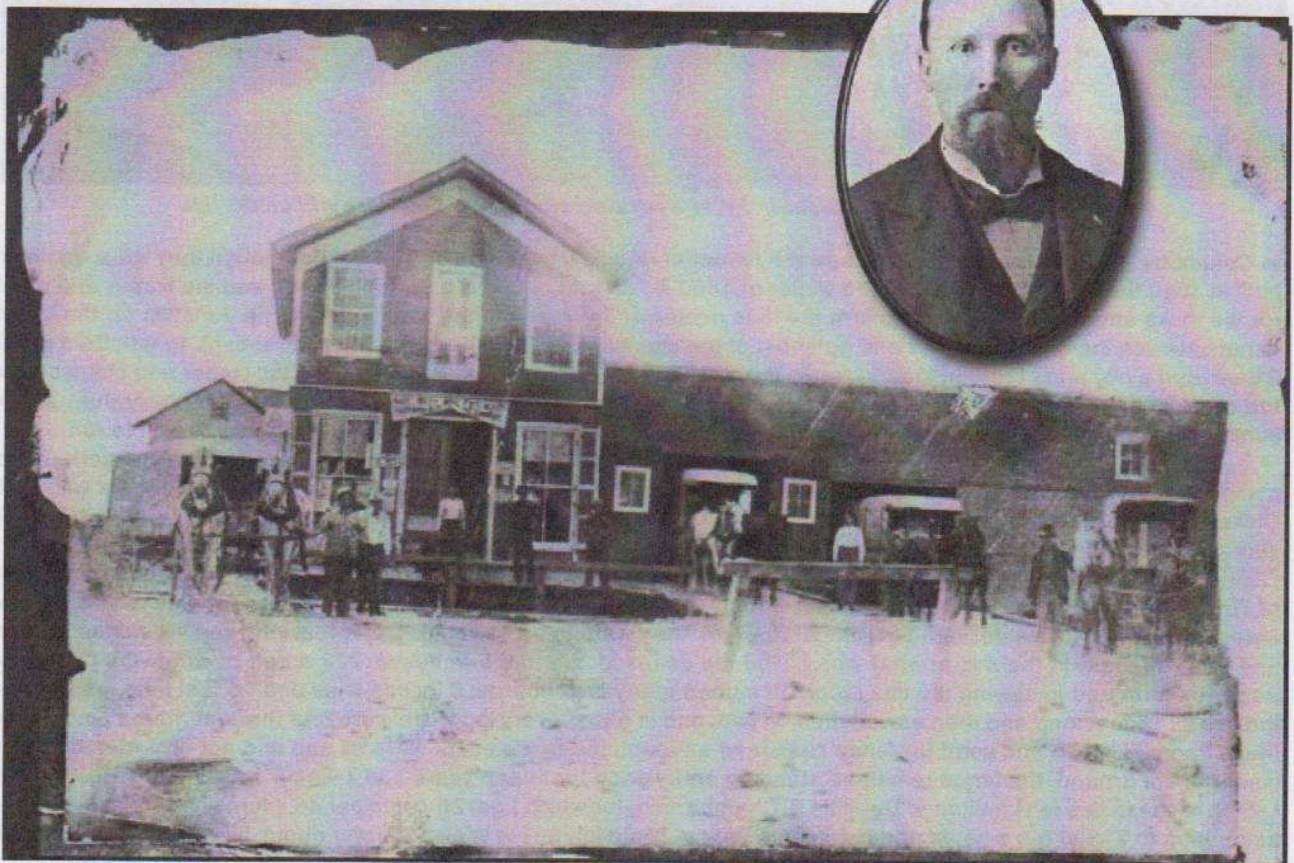
*Northwest Ohio Quarterly*, Vol. 17, No. 4, October 1945, pp. 72-124.

Reprinted with permission of The Maumee Valley Historical Society, submitted by William Dzombak, Latrobe, Pa.

Edwin Phelps, a resident of Defiance, Ohio had studied law for two years when, in 1839, he was appointed Clerk of Courts for Williams County, Ohio and, in the fall of that year he was elected justice of the peace of Defiance Township. While continuing his law studies, he practiced law and dabbled in other enterprises some of which were related to the Miami & Erie Canal as in the following selections from his memoirs.

"The canal was being constructed at that time, [1839] which made considerable legal business. In the month of September, William Semans, my preceptor, at the instigation of his client had three stalwart Irishmen arrested for riot and for some reason they employed me to defend them, which I did and got them clear, for which they paid me \$10, which rather nettled Mr. Semans, as his client failed to pay him anything or very little. I think he got \$1 or perhaps \$2.

## **Winfield Scott Beaman, Merchant**



*Winfield Scott Beaman was another store owner at Junction. An orphan who died at 53 years old advertised that his goods were so good and his prices so low that they "struck terror in the competition."*

I was proud of earning this \$10.

I also practiced law and earned about a hundred dollars attending petty cases in the vicinity of Defiance. I was farming and raised over two hundred bushels of potatoes which I sold at 37 ½ cents per bushel. I was also a contractor on the Wabash & Erie Canal, Section 103 ... and did several hundred dollars worth of work at a great disadvantage as Ohio State checks were worth only 50 cents on the dollar. The contract commenced about six miles from Defiance and I was up there considerably and frequently left there after the men quit work and came home. I was justice of the peace which required considerable time and I had quite a large collection of canal claims. Together with my law practice I was a pretty busy man. I finished up my contract on the canal during this year and got the checks but it was a pretty hard time to get the money. Checks sold as low as 45 cents on the dollar the last of this year ... in 1850 ... I went to Columbus to see about leasing the water for a sawmill at the 6th lock above Defiance. Maria Welles, daughter of Woolsey Welles, went with me to visit Alfred Kelley, one of the canal commissioners. I see it cost then to go to Columbus \$8.12 and it took about three days. We went by canal to Dayton, R.R. Dayton to Xenia and by rail from there



*Lock 24N Stone lock in Delphos. From a postcard scene. Note the paper mill on the left.*

to Columbus. I had taken a contract to saw the timber to rebuild locks 5 & 6 at Defiance. Although they were originally built in 1840 they had to be rebuilt in the winter of 1850 & 1851 and I built the sawmill and sawed the timber and plank for the locks and I had to get out most of the logs myself and I went into the woods above the Junction on the Miami canal between the canal and river and got most of the logs working with the men until I got enough to raft, then rafted 2 them and a boy and I brought them down to the mill. I got the mill in operation and sawed the timber and plank before the close of navigation, as the water had to be drawn off the canal to put in the locks. It kept me pretty busy all the summer and fall getting the logs and attending to the sawing of them. I built a basin at the mill in which to run.

While in charge of the collector's office I dabbled considerably in other matters. I had to keep a clerk and in company with Dana Columbia, who kept a hotel at the Junction and with whom I boarded, I made a contract with R.R. Dickey of Dayton, Ohio to furnish stone on the bank of the canal. Dickey had his own boats and we quarried the stone during low water in the bed of the Auglaize River and worked quite a number of men and made a little money.

The Cincinnati, Hamilton & Dayton Railroad was in process of construction during this year and I purchased of Taylor Webster, near Springdale in Butler County, an eighth interest in what was then called the Beeswax farm and agreed to pay him in ties delivered at Hamilton, Ohio. They were to be sawed ties, 7 ½ feet long and six inches square, and I sawed them at the mill at what was called the Jones lock. I had purchased 229 acres of what was called the Beeswax farm and in sawing the ties I took off a good many inch boards, 6 inches wide and 15 feet long, as I sawed the ties all 15 feet long and then sawed them in two, and in about every log there were four three-cornered pieces and these I sawed in two and used for fence posts and although the fence posts were all sap and not considered lasting timber in the ground, the fence remained standing pretty good for fifteen years and it was a very cheap fence for me. I shipped these ties to Hamilton to Doolittle & Chamberlain, for which I got 26 cents per tie. I furnished them 6,157 ties amounting to \$1600.82, a net of about 18 cents per tie. I sold the mill to Weisenburger about July 15/51 for \$2800.00.

This was a very good year for the canal, the receipts at the Junction office amounting to about \$105,000. I cleared boats in the fall of 1851 up to the 4th day of December, 1851, and was glad when the season was over. It was slavish work, as I was compelled to get up at all time in the night to clear boats and sometimes in case of a break in

the canal west of Junction I would have to be up all night. On the 20th day of November, 1851, I had on hand \$13,000 and my bond was only \$10,000. Still it was no temptation to me to run away. In the winter of 1852 & 1853 I spent some time in Columbus and while there I got a contract with R.R. Dickey, of Dayton, to furnish stone on the bank of the canal near the Junction in Paulding County, Ohio. Dana Columbia who claimed to own some land on the Auglaize river just below the present bridge across the Auglaize and I got out the stone in partnership. He furnished the stone and during the summer of 1852 we expended over a thousand dollars; wages were 50 cents per day and board for men and \$2 per day for men and teams and board.

February, 1853, I made a contract with the Findlay, Gilboa & Defiance Plank Road Company to build a plank road for them from the corner of Fifth street and Clinton street in the town of Defiance to Ayersville, 5 miles and 134 rods at \$1600 per mile, of \$5 per rod. I received \$5000 Defiance Township bonds at 75 cents on the dollar and the balance was to be received when it was collected of the stockholders. I bought about 250 acres of timber land of James Cheney in Paulding county and contracted with Nick Guiot to cut the logs and raft them up to my sawmill at the 6th lock from the river, where I sawed the plank and stringers, and I would have made pretty well on the contract if I had received my pay, but the soil from here to Ayersville was a clay soil and when wet was very slippery and it was hard work to keep the planks in place and there was a great deal of dissatisfaction with the road and the stockholders refused to pay and I lost about \$2500. In the year 1853 the contract for building the Wabash Railroad, then called the Toledo & Illinois Railroad, was let and ... Gilson & Co. took



Lock 23N was replaced with a concrete dam and parts of the foundation timbers remain.

the contract of tying the grading the road from the Maumee river to the Indiana State line, and they sublet two miles from the Maumee river to Timothy Fitzpatrick, and to Freeman & Gardner five miles west of Fitzpatrick's, and in the fall of 1853 I purchased the interest of Moses Gardner and Freeman and I worked through the winter of 1853 and 1854, and finally my cousin Edward H. Phelps bought out Freeman and in the fall of 1854 the company failed to raise money to pay their contractors and gave the contractors the privilege of quitting or going on with the understanding that if they went, the railroad company would pay whenever they were able to raise the money. We concluded that we had the shanties built and tools and bedding, etc., all of which would be a total loss if we abandoned the work and the men needed the work as they would have nothing to do through the winter, and we went on with the work, paying the men 75 cents per day and charging them \$2.25 per week for board, which if they put in full time left them \$2.25 per week for their work or 37 1/2 cents per day. We had to pay as high as 3% a month interest for money and when the work was completed there was due us about \$20,000 and we completed the work so far as to get the engine over our work and to the state line of Indiana. July, 1855, there was considerable work still to be done, fencing, clearing up the old logs and stumps. I finished up the work and the fall was appointed agent for the railroad at Defiance and commenced work for them in October.

There was no depot, not even a freight car, and I boxed up a little place under the water tank and kept my office there. It was nearly a year before the telegraph line was completed. I tended the office night and day, with only one man to pump the water .

I contracted with the R.R. Co. to furnish the telegraph poles from the Maumee river to the Indiana State line. The first poles were either white or burr oak and had to have the bark taken off and were to be 30 feet long and not less than 6 inches at the top. I got them delivered at 25 cents a piece and received 30. My wages were \$50 per month and I managed by trading one way and another to get about \$75 per month. While engaged in the building of a railroad in every shanty along the line we had to keep a barrel of whiskey, as the men would not work without it .

## **VI. SUNDAY MINI-TOUR OF THE DEFIANCE AREA**

**Five Mile Culvert** (Drive by) Located where the one lane Cromley Road ends and the farm road begins. This well preserved culvert is easily visited but the single lane road would be problematic for a number of cars.



*Lock 37 after renewal.*

Defiance, across the street from Riverside Cemetery.

**Lock 35N Erie Mills/B&O RR** - Located on S. Jackson St., about .2 miles north (east) of Deatrick St. Immediately adjacent to the CSX mainline.

**Lock 36N** (Drive by) was the first of the four downtown Defiance locks. Today this lock is under the current Defiance Chamber of Commerce office. Between Third and Fourth Streets.

**Lock 37N** was called the "City Hall" lock since the original city hall was directly adjacent to the lock. In the

early 1990s the city excavated half of the buried lock, landscaped the area and then built an outdoor amphitheater for public concerts. Located between Second and Third Streets.



*Lock 33N Schooley's*

**Lock 33N Schooley's Lock** Located on Canal Rd., about a quarter miles south of the intersection of Canal Rd and Ball Rd. near the county land fill. (Canal Rd. south of Ball Rd. is a "paper road" and is an unmaintained grass path.)

**Three Mile Creek Culvert** is under Canal Rd., just around the corner from Ball Rd. A dirt path leads down to the culvert.

**Lock 34N Hudson's/Paper Mill** - Located about 1.75 miles north of Three Mile Creek Culvert. The lock is at the western end of Legion Baseball field. (Canal Rd. becomes S. Jackson in the city of Defiance)

**Coe Run Culvert** - Located just west of the Big Bear supermarket, on SR111, in



*3 Mile Culvert*

**Lock 38N** (Drive by) was the last concrete lock in Defiance and was only 150 feet from Lock 39N. Located between First and Second Streets.

**Lock 39N River Lock** (Drive by) was the entry lock into the Maumee River. This wooden lock was never rebuilt in concrete and today no trace remains. Located between First Street and the Maumee River.

**Mule Bridge** - The Mule Bridge was a wooden bridge, rebuilt with a steel frame and deck and built on top of two stone abutments and sat on two piers. The bridge was necessary to allow the mules to cross from the south to north side of the river and continue their trip to Toledo along the river. The south abutment remains west of the SR66 bridge. The north abutment has been removed. The foundations for the two piers remain in the river and may be seen during periods of low water.

**Slackwater navigation** - Independence Dam was built 4.3 miles east of the point where Lock 39 entered the Maumee River. This dam served two purposes: first to make a pool of water large enough to supply the canal's needs from there to a point between Texas, O. and Providence, O. secondly the pool of water was also used for navigation for canal boats, eliminating the need for a prism to be dug or constructed.

**Swale Mule Bridge** - Near the entrance to Independence Dam State Park is a small, arched concrete bridge which was used to cross a low lying area. The area is often flooded, and the small bridge allowed the animals to cross the area when it wasn't dry. A sign in the area attributes the bridge to the CCC during the 1930s Great Depression, but is clearly shown on the plat maps from the early part of the century.

**Lock 40N** - A stone lift and guard lock with upper gates about 10' higher than the lower gates. A set of wood gates were installed in 1953 and lasted until the early 1990s when they were removed and the metal hardware saved to be reused in the reconstruction of Lock 44 at Providence Metropark near Grand Rapids.

**Independence Dam** This 5' concrete dam was originally built of wood and rebuilt several times, the most recent in 1997. A few hundred feet west of the dam was the feeder from the river to the canal. This feeder design was troubled and was often plugged. The last design succeeded and was made of cast iron. Also adjacent to the dam was the towpath change bridge which brought the animals from the north side (shore side up to Lock 40N) to the south side of the canal, conforming to the standard practice of locating the towpath between the river and the canal prism.

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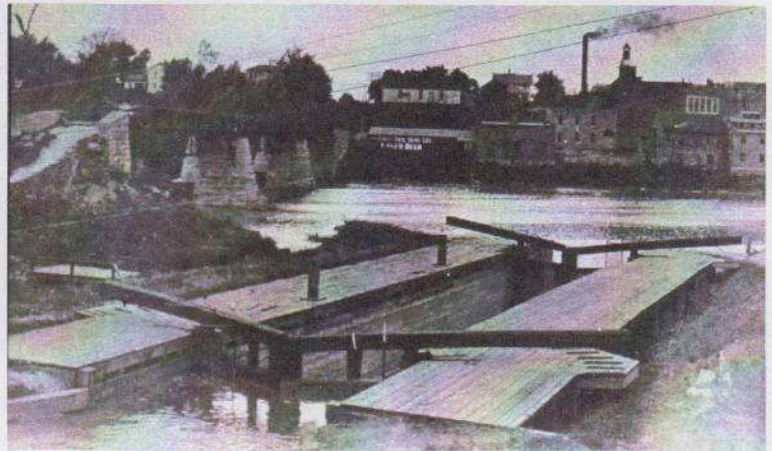
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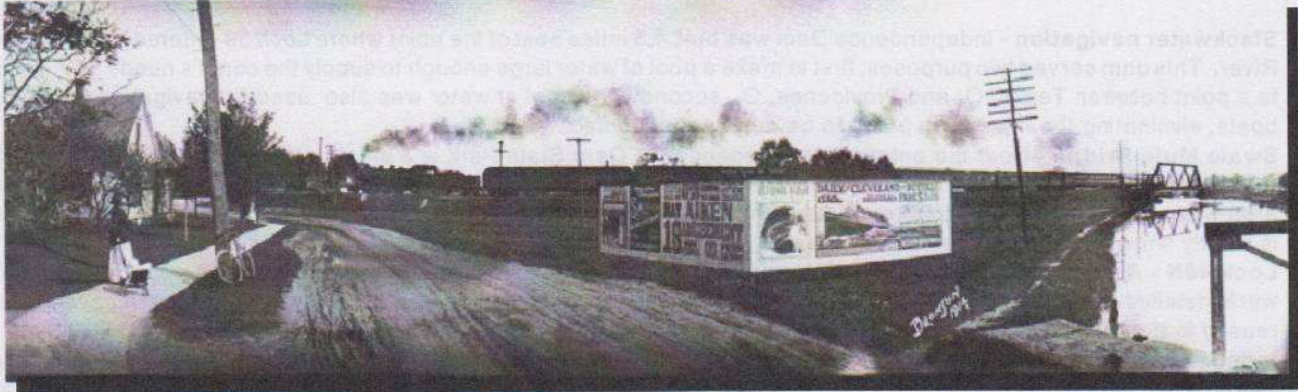
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*Lock 39N and Mule Bridge over Maumee River in Defiance.*





Lock 35N in 1914 at the B&O RR trestle, top. Same area, today with CSX mainline.



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*This small concrete bridge allowed mules to pass over a swale on the slackwater navigation, just west of Lock 40N where the boats entered the canal from the Maumee. A sign in the area says it was built in the 1930s by the CCC, but it clearly shows in the canal era plat maps.*

## SPRING TOUR ITINERARY

CSI/CSI Spring Tour - Miami & Erie Canal in NW Ohio  
April 2, 2011

ARRIVE	LEAVE	TYPE	DESCRIPTION	TRAVEL	VIEW
	8:00 AM	Start	Holiday Inn		
8:40 AM	8:55 AM	Drive past Stop	Antwerp <b>6 Mile Reservoir</b>	30 min 10 min	15 min
		Drive past	Reservoir embankment / Turn around		
		Drive past	Watered section		
		Drive past	Kiln		
9:15 AM	9:35 AM	Stop	<b>Junction, O.</b>	20 min	20 min
9:40 AM	10:00 AM	Stop	<b>6 Mile Creek Culvert</b>	5 min	20 min
		Drive past	"Black Swamp" section		
10:15 AM	10:35 AM	Stop	<b>Little Flat Rock Creek Culvert</b>	15 min	20 min
10:45 AM	11:00 AM	Stop	<b>Flat Rock Creek Aqueduct</b>	10 min	15 min
11:20 AM	12:00 PM	Stop	<b>Lock 32N Viall's</b>	20 min	40 min
12:20 PM	1:10 PM	Stop	<b>Lunch at Paulding Historical Society</b>	20 min	50 min
1:25 PM	2:05 PM	Stop	<b>BlueCreek Aqueduct</b>	15 min	40 min
		Drive past	Melrose / RR / Little Aug / Culvert		
		Drive past	Lock 31N Hipp's		
		Drive past	Mandale / Hamer / Lock 30N / Lock 29N		
2:25 PM	2:40 PM	Stop	<b>Stone Double Box Culvert</b>	20 min	15 min
2:50 AM	3:10 PM	Stop	<b>Lock 28N / Odenweller's Mill/ Group photo</b>	10 min	20 min
		Drive past	Lock 27N / Ottoville Tile / Lock 26N / Lock25N		
3:30 PM	3:55 PM	Stop	<b>Jennings Creek Aqueduct</b>	20 min	25 min
4:00 AM	4:15 PM	Stop	<b>Lock 24N</b>	5 min	20 min
4:20 PM	4:40 PM	Stop	<b>Lock 23N</b>	5 min	15 min
	5:00 PM	End	Holiday Inn	20 min	

### ACCUM

13 Stops	225 min	315 min
	3.75 hrs	5.25 hrs

CANAL SOCIETY OF OHIO



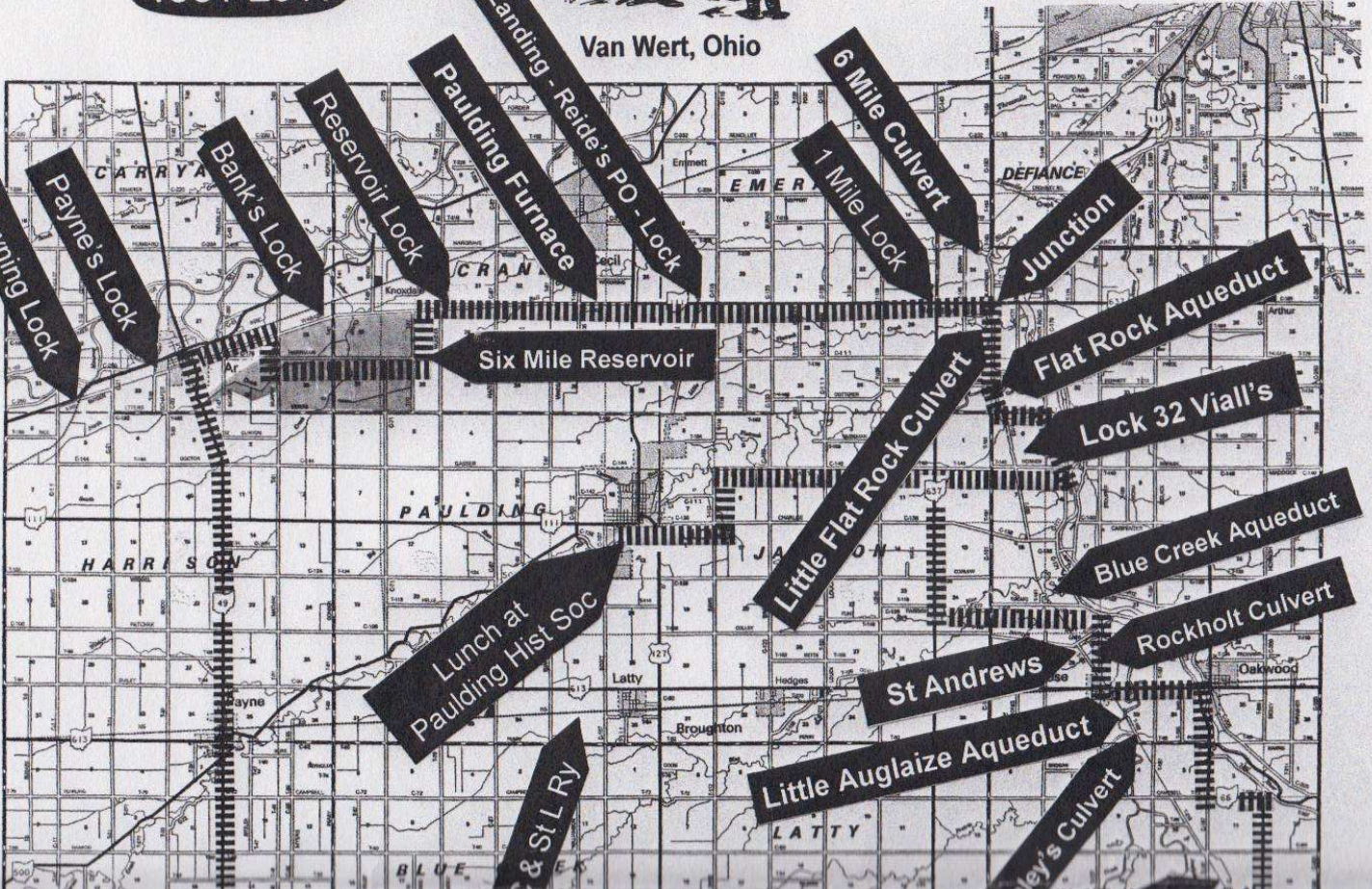
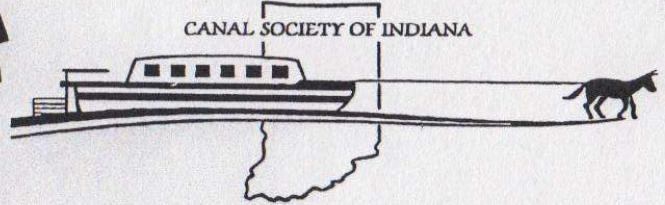
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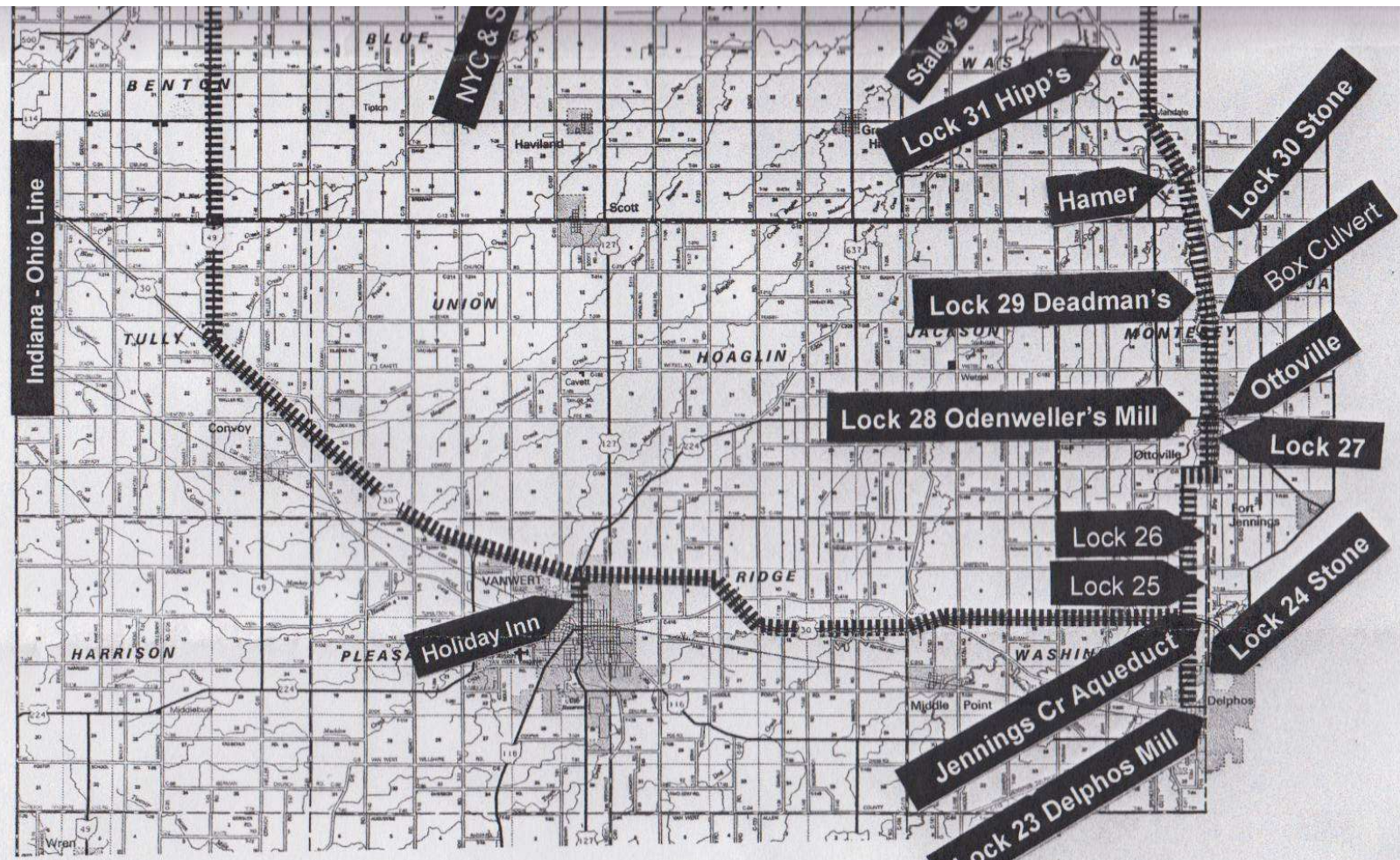
CANAL SOCIETIES of INDIANA  
&  
OHIO TOUR  
April 1-3, 2011  
TAMING THE SWAMP



Van Wert, Ohio

CANAL SOCIETY OF INDIANA





0 1 2 3 4 5 6  
SCALE OF MILES

0 1 2 3 4 5 6 7 8 9 10  
SCALE OF KILOMETERS

Tour map adapted from  
Ohio Department of Transportation  
county maps

Prepared for  
**CSI-CSO Joint Spring Tour**  
 April 1, 2, 3, 2011

Antwerp to Junction  
 Wabash & Erie Canal  
 and  
 Junction to Delphos  
 Miami & Erie Canal