

AMERICAN CANALS

BULLETIN OF
THE AMERICAN CANAL SOCIETY

BULLETIN NUMBER 39

Editorial Address — Box 310, Shepherdstown, W.Va. 25443

NOVEMBER 1981

PRESIDENT'S MESSAGE

Due to special income received from our eighteen Life Members; excellent sales of our new book "Best From American Canals"; a bequest from Ted Sherman's estate; and a considerable cost savings as a result of changing printers — our ACS Treasury (often in sad shape this time of year) is in very healthy condition. Charlie Derr reports that, as of October 23, 1981, (prior to sending out 1982 dues notices) our balance in savings and checking stood at \$4792.78. Since we are a non-profit organization we plan to share our good financial situation with all of our ACS members in the form of "no dues increase for 1982" and an expanded format in our quarterly newsletter, as described by Editor Tom Hahn. With the continued loyalty and cooperation of our 647 members throughout the World, the 1982 New Year should be our "best ever." May I also extend my personal best wishes to all of you for a "Happy Holiday" Season.

Bill Shank

OUR CANADIAN DIRECTOR HONORED BY AASLH



We are proud indeed to announce that the Canadian Director of the American Canal Society — **Louis J. Cahill**, of St. Catharines, Ontario — has been selected from the Annual competition of the American Association for State and Local History (Nashville, Tennessee) for its special "Award of Merit." The award was granted to Lou "for his personal dedication to the promotion of the local, national and international significance of the historic and modern Welland Canals." Congratulations Lou!! (His complete biography will be published in a future issue.)

INDIANA FIELD TRIP — A BIG SUCCESS!



The "Ben Franklin," constructed just a year ago, enters the Millville Lock below Metamora, where the boat and its passengers were dropped part-way to the next lower level to illustrate the sluice-gate operation.

by Nancy J. Dice Phillips, Connersville, Ind.

CANAL SOCIETY OF INDIANA

Under the guidance of its enthusiastic promoters — Tom and Julia Meek of Ft. Wayne, Indiana — the Canal Society of Indiana is "unofficially" underway. It has published its first, eight-page newsletter entitled **INDIANA WATERWAYS** (October 1981); has assisted as a co-sponsor (with the Canal Society of Ohio and the American Canal Society) in the most successful meeting and field trip along the Whitewater Canal October 16-18; and has established its headquarters (with the full cooperation of that organization) at the Allen County-Fort Wayne Historical Society, Fort Wayne, Indiana. Its official organizational meeting is planned for May 22, 1982.

Volume 1, Number 1 of **INDIANA WATERWAYS** is an illustrated 5-1/2" x 8-1/2" booklet which will be published bi-monthly by the Editorial Staff of Thomas Meek, Julia Meek and Nate Tagmeyer. Its objectives are to provide a common informational medium for those persons interested in the history of canals in Indiana, and also to assist in the formation of an active state-wide canal society. Subscription price of \$5 per annum; \$1.25 per single issue. Interested parties may send checks, payable to **INDIANA WATERWAYS**, care of Allen County-Fort Wayne Historical Society, 302 East Berry Street, Fort Wayne, Indiana 45802.

Members of the American Canal Society, Canal Society of Ohio, and the fledgling Canal Society of Indiana came to Connersville, Indiana, Oct. 16-17, 1981 for a weekend tour of the Whitewater Canal. The Holiday Inn (Connersville) was the headquarters for tours of the city and the Canal House, and a 34-mile train ride to Metamora stopping along the way to view locks and the Laurel feeder dam. Fourteen miles of restored canal waterbed and locks, preserved by the state in 1946, have given rebirth to the canal town of Metamora. The former storefronts that once served the canal trade of a century ago now house gift shops, craft shops, antique stores and restaurants. An operating grist mill, with a breast waterwheel, deriving power from the canal flow, as well as a ride on the canal in a replica Amish built packet boat, enhanced the visit in Metamora.

John Droege, organizer for the tour, gave a chronological review of the canal on Friday evening. A visual aid map, drawn by Barney Golding, denoting the locks by number, helped to enlighten the touring canalers. Don Dunaway, Historical Society of Brookville, gave a slide presentation of what the members would be viewing from the train windows. Fr. Dale Peterka showed slides of the Cincinnati and Whitewater twenty-five mile branch from Harrison, Ohio to Cincinnati.

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American Canals

BULLETIN OF THE AMERICAN CANAL SOCIETY

"DEDICATED TO HISTORIC CANAL RESEARCH, PRESERVATION AND PARKS"

AMERICAN CANALS is issued quarterly by the American Canal Society, Incorporated. Objectives of the Society are to encourage the preservation, restoration, interpretation and use of the historic navigational canals of the Americas; to save threatened canals; and to provide an exchange of canal information.

Annual subscription to "AMERICAN CANALS" is automatic with a minimum ACS dues payment of \$8.00. Individual copies may be purchased at \$2.00.

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A TRIP TO THE PEOPLES REPUBLIC OF CHINA

by Robert S. Mayo

This Summer I went to China with the American Underground Association as one of the People-to-People Programs. There were 31 people (including seven women) in our party and I must say that the Chinese Authorities treated us royally. We visited all the big cities and all the other tourist attractions such as the Great Wall and the many temples and shrines. Since our group was connected with underground construction we visited tunnels, subways, underground housing and they showed us dozens of Fall-Out Shelters to protect their population in case of an Atomic War.

We did visit the Grand Canal at Soochow but only for a half hour. I was fascinated by the dozens of sampans I saw in our visit, sculled along by hand or an occasional tug boat which had a one-lung diesel engine, pop-pop-popping along and towing six or eight other sampans. Tied along the shore were other ancient sampans inhabited by the river people; Here they were born and here they died.

CANADIAN CANALS SOCIETY FORMED

St. Catharines (Oct 31, 1981) — The first steps in the formation of a Canadian Canals Society were taken here today, in the city built around the Welland Canals.

The organization was carried out through the Welland Canals Foundation Inc., the successor to the Welland Canal 150th Anniversary committee, under the chairmanship of Malcolm Campbell, also vice-president, St. Lawrence Seaway Authority.

Some twenty-five people representing canal groups from throughout Ontario and New York state gathered at the St. Catharines Historical Museum for a day of discussion, films and a tour of the four Welland Canals. The Foundation has previously contacted about 75 marine historians and canal representatives who voiced support for a Canadian Society.

ACS President Bill Shank was unable to attend, but delegated J. Hayward Madden and Richard N. Cavagnaro (both of New York State) to represent the state-side ACS membership.

Also on hand for the occasion was William Hamilton Merritt, better known as the "Father of Canadian Transportation." Mr. Merritt, in the personage of actor/playwright David MacKenzie praised the group gathered, wishing them well in their discussions and future endeavours and stating that the group was reminiscent of the one he called together in 1818 to discuss the possibility of building what was to become the first Welland Canal.

A Steering Committee was formed to develop a draft charter and to lay-down basic operational principals. Dr. Wesley Turner, history professor, Brock University will be acting chairman with other committee members being John Seymour, Buffalo, N.Y.; J. Hayward Madden, Livonia, N.Y.; Malcolm Campbell, St. Catharines; Michelle Greenwald, Toronto; and Peter Styrm, Toronto. This group will likely be augmented as organization plans proceed.

The sub-committee will research and prepare by-laws and background information in the next few months. The first annual meeting will be called in early spring, 1982.

ACS members interested in joining the new Canadian Canals Society are urged to contact Louis J. Cahill, P.O. Box 745, 215 Ontario Street, St. Catharines, Ontario L2R 6Y3.

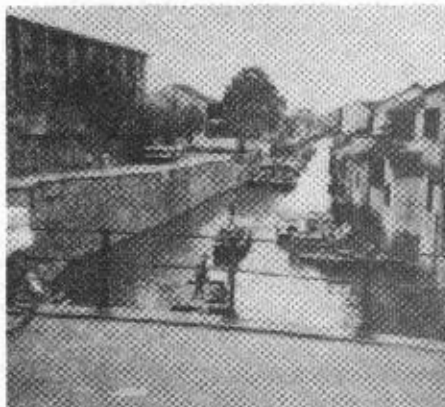
EDITOR'S CORNER

When Bill Trout, Bill Shank and I founded the American Canal Society in 1972, we included Canada within our organization because of the absence of any canal group in that country. Over the years we have worked closely with various officials, private parties, and civic organizations in Canada to publicize the importance of the rich heritage of the Canadian canals and the utility of their present-day use. For example, several years ago (while still President of the American Canal Society) at the invitation of ACS Director Louis Cahill, Mrs. Hahn and I traveled to St. Catharines, Ontario to emphasize the historical and economic importance of the Welland Canals. In 1979, ACS President Bill Shank and Mrs. Shank repeated that visit to set up a field trip for members of ACS along the Welland Canals. It was therefore appropriate that members of the American Canal Society should participate in the formation meeting of the Canadian Canal Society just a few weeks ago. It was particularly fitting that the formation of the Society began on the very eve of the 150th anniversary of the Rideau Canal.

Some contributors to American Canals may be wondering why the material you have submitted for publication has not been used. Because of a general lack of funds for the past several years it has been necessary to restrict the length of our publication to eight pages each quarter. With that small number of pages it has been difficult to cover member organization's activities, canal cruises, canal preservation items, canal industrial archaeology, feature articles, canal histories, etc. Now that we are operating in the black we will increase the number of pages of American Canals to twelve for as long as possible. So be sure to renew your subscription, tell your canal friends about the American Canal Society, and sit back to enjoy an expanded canal bulletin each quarter.

My wife Nathalie and I recently returned from a great trip on the canals of Southern France in the converted Dutch barge PISGAH, along with several other canal enthusiasts. Our canal travel took us along the Canal du Midi (which is now celebrating its 300th anniversary since opening in 1681. When opened, this canal was the greatest civil engineering work since the days of the Roman Empire. Other waterways we traveled were the Canal du Rhone a Sete, the Little Rhone River, and the Grand Rhone River. If space permits, we shall share part of this experience with you in the February issue of American Canals.

Tom Hahn



The "Grand Canal," Soochow, China — as photographed by Bob Mayo 8/30/81.

One of the members of our group left us early and he wrote me later that he had taken a 3-day trip down the Yangtze River and the boat passed through three tremendous gorges. He said it was magnificent.

At the recent Pennsylvania Canal Society meeting in Lebanon, I asked some of those present if they would be interested in having any of the various canal societies sponsor a canal trip to China this coming summer. There was real interest but we will require a total of 34 (one bus load). I hope amongst all the "Canalers" we can promote such a trip.

(Publisher's Note: I asked Bob for a few more details: He was gone for 26 days; flew to Peking on Northwestern Airlines, via Seattle and Tokyo; approximate cost of the whole trip — \$3700. Anyone interested in joining a similar trip whose prime objective would be a tour of the Chinese Canals, contact Bob Mayo, P.O. Box 1413, Lancaster, Pa. 17604)

SAM BLODGETT'S CANAL

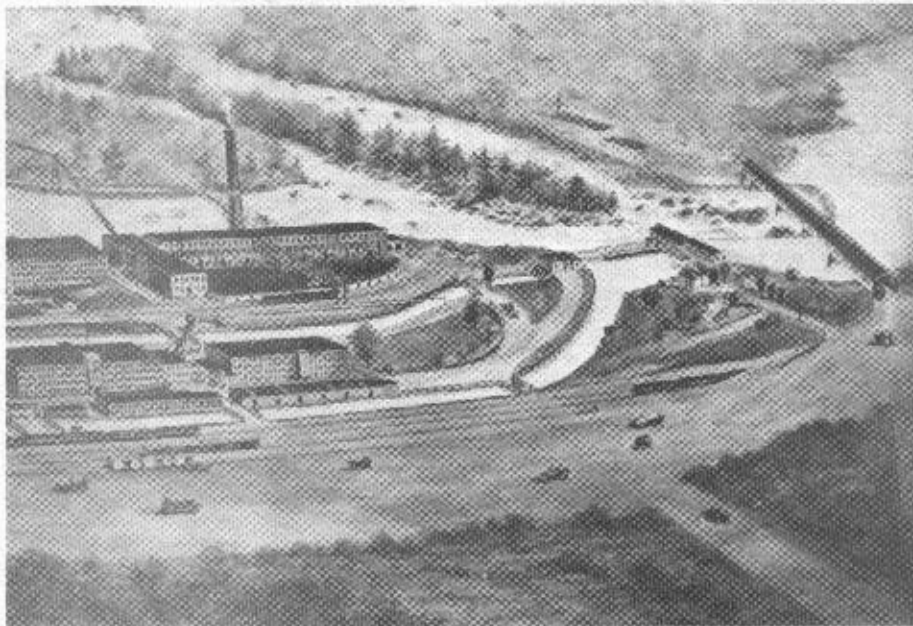
by R. A. Southworth

From time to time those of us who are "into" canals — the real canal buffs — suffer a certain amount of good natured ribbing about the subject. And it is true, of course, that canals are not behind every feature of American life. Nevertheless, it is amazing how frequently they turn up as having made some significant and long lasting contribution to our history.

Sam Blodgett's Canal in Manchester, New Hampshire around the Amoskeag Falls of the Merrimack River is a case in point. Here was a little ditch conceived and executed by one Samuel Blodgett at the end of the 18th century which had a lasting influence on the entire area. It showed the way for the utilization of water power later used by the giant Amoskeag Manufacturing Company, at one time the largest textile mill in the world employing 17,000 people. And it was instrumental in naming the city of Manchester, N. H., current population 91,000.

These times were the beginning of the "canal movement" in America, and Blodgett needed an easy way to get his lumber down the river. He had been living near the Amoskeag Falls and he conceived the idea of a canal around them. Work began on the Blodgett Canal May 2, 1794 - four months before work was to start on the Middlesex. The Manchester Canal was to have been completed in five years and to have cost \$9,000.00. As with so many other canal projects, the time and the cost were vastly underestimated. The work took 14 years and the canal opened May 1, 1807. It cost in the neighborhood of \$100,000.00, a fantastic amount in those days for a one mile project, probably the equal of about two million dollars today.

At first he put up his own money and started the canal. After some of his first projects were washed away he called upon Loami Baldwin (then engaged on the Middlesex Canal) to come up and offer advice. Judge Blodgett eventually ran through all of his own money on the project. He next enlisted the help of the State Legislature and eventually the canal was opened and Judge Blodgett rode through it in triumph.



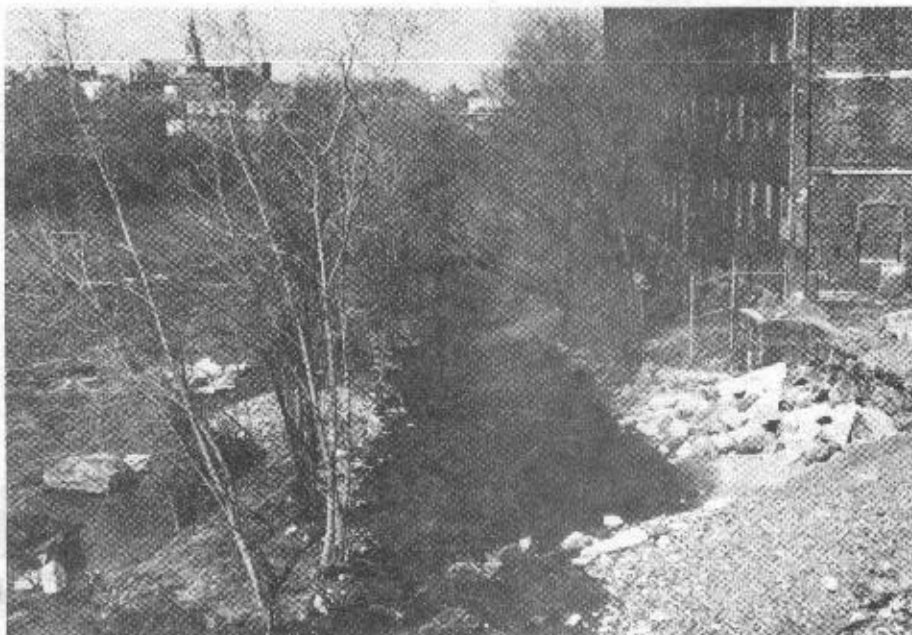
Old drawing (circa 1912) showing the north end of the Amoskeag complex and its canals. (Courtesy Alden Gould.)

In 1804 Blodgett was said to have made the prophetic statement, "As the country increases in population we must have manufacturing, and here, at my canal, will be a manufacturing town that will be the Manchester of America." And in 1810, three years after his death, the town then known as Derryfield did indeed petition the State Legislature to change its name to Manchester.

At the Amoskeag Falls the river drops 54'10" in 1/4 of a mile. Judge Blodgett's canal was about 9/10ths of a mile long and had perhaps six locks. We cannot determine the exact number of locks nor their size, but they accommodated canal boats 75' long by 9' in beam drawing 2' of water. From this we would assume the locks were probably 90' long x 10' wide, and the depth of the canal might have been some 3 feet. Interestingly enough the boats

were not towed through, but perhaps because the canal was so short they were poled through.

Blodgett's canal was a source of water power and mills grew up upon it. However, it was not until 1830 that a group of Boston businessmen purchased the water power for the entire Merrimack River in the area and assembled a 15,000-acre plot of land. This, in turn, became the Amoskeag Manufacturing Company with 64 mills extending for a mile on the east side of the river and a half mile on the west. This mill turned out half a million yards of cloth a week and was in existence for 100 years. And the idea for it, and the first motive power for it, was Blodgett's Canal. The remains of the southern end of the canal may still be seen from the Granite Street Bridge in Manchester.



Remains of the Hon. Samuel Blodgett's Canal on the east side of the Merrimack River, around the Amoskeag Falls, in Manchester, New Hampshire. (Photo by R.A. Southworth)

BOOK REVIEW

"Juniper Waterway: A History of the Albemarle & Chesapeake Canal" This illustrated history of the Albemarle and Chesapeake Canal traces the varying fortunes of one of America's most heavily used, commercially important, and scenically beautiful man-made waterways. Completed in 1859 this seventy-five mile ribbon of water joining the headwaters of Virginia's Elizabeth River and North Carolina's North River and is now part of the Atlantic Intracoastal Waterway — America's thousand mile "Grand Canal." Mr. Brown begins with the initial plans for building the canal in the eighteenth and early nineteenth century. He describes the construction and engineering obstacles encountered in building the canal through the tidewater wilderness. There is a chapter on the role played by the canal during the years of the Civil War and Reconstruction and chronicled are the years of steamboat travel along the canal, its eventual decline as a major channel of transportation. The last chapter serves as a guide for the traveler today who is interested in discovering the beauty and history of the waterway. (By Alexander C. Brown. The University Press of Virginia, Charlottesville, Virginia, 1981. \$22.50. 255 pages. Hardcover. ISBN: 0-813736-35-8)

(Clipped by Bob Mayo from the November 1981 issue of "Civil Engineering")

INDIANA FIELD TRIP DRAWS CROWD FROM SIX STATES



First "Lock Stop" on the railroad section of the tour, south of Connersville. Gale Hartel, President of the Canal Society of Ohio, poses for the cameraman, foreground.

(Cont'd from Page 1)

The nearly one hundred tour participants had optional side jaunts to visit the site of one of the eight hydroelectric plants that until 1955 supplied electricity for the city in the early AM hours of the day. During the Whitewater Valley Railroad trip, train historian Lowell Sasser regaled the riders with oral history and color of the canal days. The train trip included stops at several locks, and a tour of the town of Laurel, a stop at the Laurel feeder dam before arrival in Metamora.

The "Ben Franklin," a replica of the first packet boat to reach Brookville from Lawrenceburg in 1839, took the canalers for a ride to Lock 24, where the gates were closed and locked down, but not through, to give a demonstration of how the lock worked. Enroute, the boat passed through the restored Duck Creek Aqueduct. A tandem hitch of two horses was the power for the packet.

Leaving Metamora via busses, the tour viewed Twin Locks, number 23 and 22. Mr. Dunaway met the tour at Lock 19 and told of a nearby mill that helped to form the industrial base for Brookville.



One of the Whitewater Valley Railroad trains which runs along the old canal tow-path between Connersville and Metamora.

Returning to Connersville, Henry Blommel conducted the walking of the canal sites. Touring the Canal House, a Greek revival structure built in 1842 for the housing of the canal headquarters, Robert Gray, restorer of the Canal House into a home, and Harry Smith conducted.

Saturday evening, Mr. Blommel's slide presentation, "Cord and His Car" (parts for which were built in Connersville), visually portrayed the industrial park concept by John McFarland, Sr. of buggy manufacturing, and later automotive manufacturing.

The Whitewater Canal was part of the State Internal Improvements Act of 1836 that provided for the Whitewater Canal, the Wabash and Erie, and other internal canals along with railroads and macadamized roads in an attempt to open the fertile plains of Indiana to external access. The cost of the Whitewater Canal, the length of seventy-six miles, with seven feeder dams, and fifty-six locks was estimated at \$14,908 per mile for a total of \$1.4 million. When the state could not pay the interest on its bonds the canal was sold to a Cincinnati based syndicate in 1842. The canal was finished to the National Road, thus linking central Indiana with the port of Lawrenceburg on the Ohio River. There is a fall of 491 feet from the headwaters of both the East Fork and the West Fork of the Whitewater River, from Randolph County to the Ohio River. Devastating floods in 1847, and 1850, proved too much for the canal banks, and especially where the canal was lower than the river, destroyed great portions.

For 110 years, the flow of the Whitewater Canal through Connersville provided water-power for local industry. From 1910-1925, Connersville became the largest automobile manufacturing community in the world for its size; hence, the name of "Little Detroit."

A trip to Connersville feeder dam and the location of the "town that never was," Lockport, concluded the weekend tour. The fall tour planned by the Canal Society of Ohio brought visitors to Connersville from Ohio, New York State, Pennsylvania, West Virginia, and Illinois, to tour an actual operational canal and to ride a train whose sole purpose is to provide transportation from Connersville to Metamora on weekends. Before the coming of the railroad to the Whitewater Valley, the "canalers" of yester-

year were just as avid as the canaler of today; until the laying of the track on the tow path, the valley residents were still pleading with the State to keep the canal intact. The towns along the 1840 canal route flourished: some continued to grow, some stagnated, and some disappeared. One major contribution the canal provided was the re-writing of the State constitution in 1851 to provide that Indiana will always be and will remain a pay-as-you-go state.

(Whitewater Tour photos by Bill Shank)

IWA PENNANT PRESENTED TO ACS

At the October 17th combined ACS, CSO and CSI banquet meeting in Connersville, Indiana, Dr. Albert Celley transferred to ACS President Bill Shank the banner presented to him by Sr. Geoffrey de Fretas, President of Inland Waterways Association, in England, August 16th, 1981. (See August issue of A.C.) Thus was completed the ceremony representing the common bond between the Inland Waterways Association and the American Canal Society.



Albert Celley (left) presents the IWA Banner to Bill Shank during ceremonies at the Connersville, Indiana Canal Meet. (Photo by Louise Celley).

Dr. Celley has submitted a glowing (12-page) written report giving full details of the excellent, 16-day, English Canals Study Tour arranged this past summer by ACS Director Roger Squires. Bill Gerber has also submitted an enthusiastic (two-page) report on the same Tour. President Shank expressed regret that more of our ACS state-side members did not take advantage of the dedicated and detailed planning done by Dr. Squires in England to make his American visitors feel so welcome.

Bill Gerber, at the present time, is making plans to organize a return trip to England in the summer of 1982, possibly using both bicycles and canal boats "to allow participants to gain a wide ranging insight into a significant segment of the British Nation - probably around the Stratford Loop, including the Cotwolds, Stratford-on-Avon, Birmingham, etc." Anyone interested in participating in this tour is urged to contact William E. Gerber, 16 Princess Avenue, Chelmsford, Massachusetts 01863.

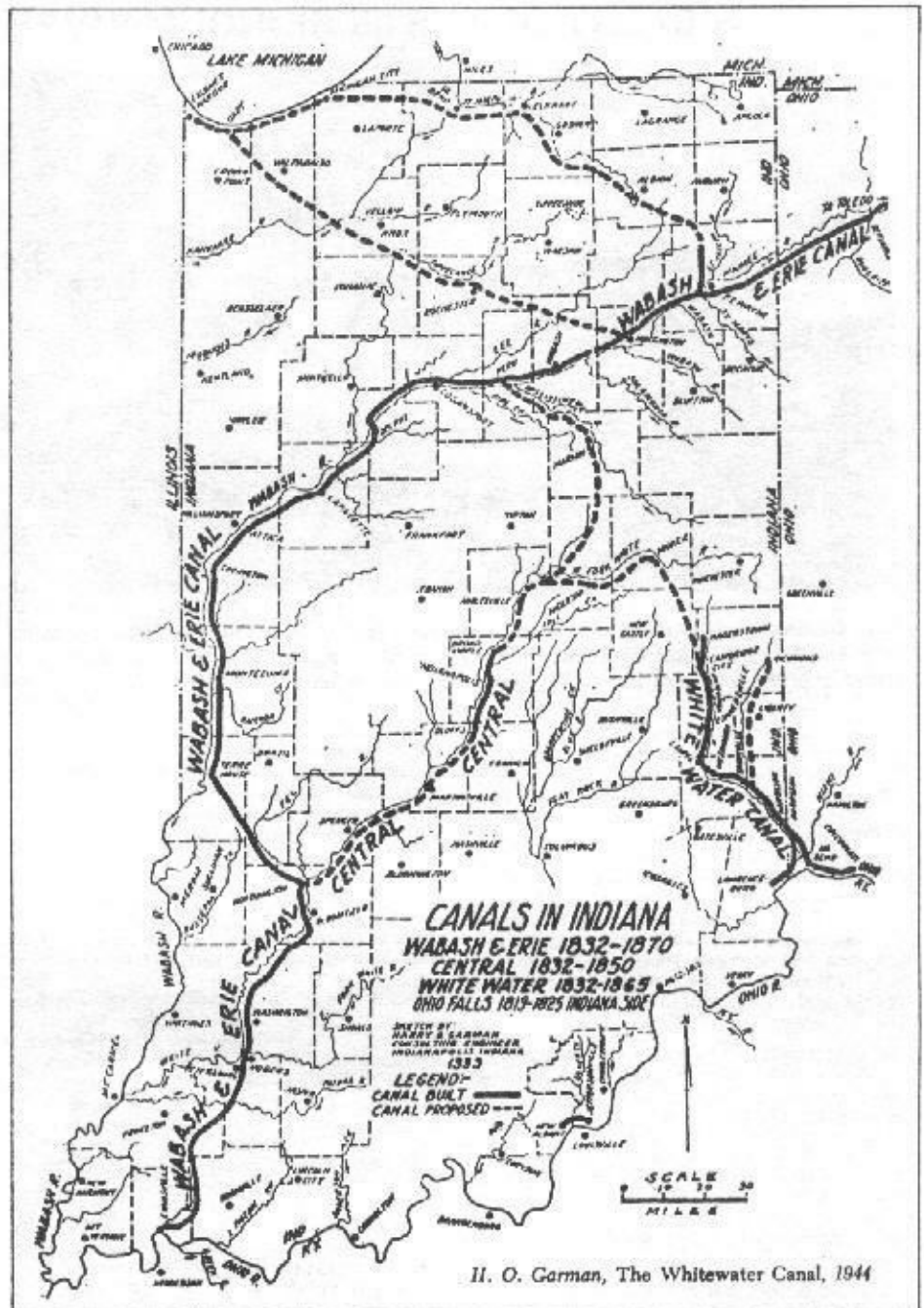


After the Whitewater Canal was abandoned for transportation a century ago, an undershot water wheel was installed in the Metamora Lock to provide power to an adjacent mill. The rebuilding of the Laurel Dam in 1953 has provided water once more to the restored water-wheel and mill (now in full operation), not to mention several long reaches of the old canal north and south of Metamora.

ACS MEMBERSHIP

As we wind up our tenth year "in business" we thought you might be interested in a geographical breakdown of our membership:

Pennsylvania	104
New York State	81
New Jersey	51
Ohio	47
Virginia	45
Maryland	38
Massachusetts	30
Illinois	30
Connecticut	27
CANADA	26
ENGLAND	23
District of Columbia	21
California	15
Indiana	10
West Virginia	9
Michigan	8
Wisconsin	6
Vermont	5
South Carolina	5
Minnesota	5
North Carolina	4
New Hampshire	4
Delaware	4
Maine	3
Tennessee	3
8 States, 2 members	16
10 States, 1 member	10
6 Countries, 1 member	6
Total Membership	647



ALEXANDRIA CANAL

Following the signing of a contract between the City of Alexandria and Industrial Archaeologist Tom Hahn, archival maritime research began on the Alexandria Canal with the emphasis on the tidelock and basin and the waterfront area. The Alexandria Canal was the 7 1/4 mile link between the Chesapeake and Ohio Canal at Georgetown and the City of Alexandria, Virginia on the Potomac River. Later this month an investigation will be made of the stonework found earlier in the neighborhood of the tide lock at Alexandria (one of the four lift locks of the canal located there) to determine if they are indeed part of the lock wall or the wall of the basin or some other structure. The remainder of the archaeological work will take place next spring. Various volunteers of the Alexandria Archaeological Research Center and the Virginia Canals and Navigations Society are and will be participating in the project. Anyone having historical photos or more recent photos of any part of the canal or archival documents, is urged to contact Dr. Tom Hahn, Box 310, Shepherdstown WV (Tel. 304-876-2464).

ROGER SQUIRES MAKES NEW SLIDE/TAPE

We have just received a new, 45-minute Slide/Tape show on the British Inland Waterways made personally by our ACS United Kingdom Director - Dr. Roger Squires. The 2-inch color slides may be projected, while a small cassette is being played. It is an excellent "show" telling the canal buff, anxious to inspect and travel the English canals, exactly what to do from the time he arrives in London, until he starts his canal trip (by land or water) around any of the canals of England or Wales. Information on buses, short or long canal tours, boats for hire, "pubs" and the most interesting towns along the canals - everything that you could wish to see or do, is included. The Slide/Tape show is available to ACS members on a "first-come, first-served" basis. If you have a local canal group who would enjoy such a show, get your reservation date in at once to Bill Shank, 809 Rathton Road, York, PA 17403.

HISTORY OF THE MUSKINGUM RIVER IMPROVEMENT



The "Lorena" — an Arkansas stern-wheeler, brought up the Ohio and Muskingum for chartered tours through the locks of the upper Muskingum. The vessel is shown in its winter quarters, north of Zanesville. (Photo by Bill Shank.)

By Theobald W. Kasper

The City of Coshocton, Ohio is a "Three River City". Although not quite as well known as Pittsburgh, Pennsylvania where the Ohio River is formed, it is in fact the place where the Muskingum River is born. The Tuscarawas River of Summit County flows through the counties of Stark, Tuscarawas and Coshocton and meets the Walhonding River (which is formed by the Kokosing and Mohican Rivers up in the hills of Knox County). At the confluence of the Tuscarawas and the Walhonding, the Muskingum River is formed.

It is the largest river lying wholly within Ohio, and it is almost 112 miles long. The elevations are: at the source 738 feet and at the mouth, in Marietta on the Ohio River, 585 feet, which makes that an average fall of 1.3 feet per mile. While the Tuscarawas drops 3.1 feet, the Walhonding has a fall of 4.2 feet per mile. The Licking River, which is the largest tributary stream and joins the Muskingum at Zanesville, has an average fall of a whopping 9.1 feet per mile.

It would appear that the Muskingum with its gentle descent would be ideal for navigation. But unfortunately an average figure is just that, average. It does not show that at times for miles the River is almost level, and the average fall of 1.3 feet accumulates tenfold and drops down all at once over rapids, thus making navigation impossible. Even so, there is an 1827 account noting that the steamboat "Hope", out of Marietta, went up river to Dresden some 93 miles. But it was a small boat and the River was extremely high.

The answer to the dilemma of an unnavigable river is found in the river improvement. This involves construction of dams and locks in the river itself. The dams raise the water level and create navigable slack water pools above them, thus actually making the river "deeper". The difference in height between the level above the dam and the one below was then overcome by passage through a lock which lifted or lowered the boat to the level ahead. Too many rapids or falls in the waterway are bypassed by means of a side-cut canal, with the head of the canal just above the dam, thus the dam diverts some water into the canal. At the end of the obstructions the canal terminates at the upper gates of the lift lock which makes up for the difference in the levels. A guard gate was added to the head

of the canal as a safety device for times of flood, or simply to shut off the water when repairs were made in the canal or in the lock itself. Sometimes tributary streams entering the navigable river were dammed up just to have control over the intake during times of flooding. These streams and the dams in the navigable river were utilized to create valuable water power for manufacturing purposes. Therefore we find many old mills at these dam sites. Not only grist mills but also carding, woolen, saw and powder mills.

During the 1840's the canal age was at its best. The construction of the Ohio & Erie Canal was completed, the Miami & Erie Canal was almost finished and several others were being constructed or on the drawing board. While the Ohio & Erie went from Cleveland (on Lake Erie) to Portsmouth (on the Ohio River) a different route was yet to be selected. The Licking Summit (part of the Ohio & Erie) and the outlet lock into the Ohio River were troublesome. The first had at times not enough water and the latter too much. The Board of Public Works decided to make the Muskingum River navigable and connect it with the Ohio & Erie Canal at a feasible point. That was the beginning of the Dresden Side-Cut and the Muskingum River Improvement.

ACS LIFE MEMBERS

John Barratt	England
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John A. English	New York
Thomas F. Hahn	W. Virginia
Michael A. Handford	England
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Ralph S. Misener	Canada
Arden Phair	Canada
William H. Shank	Pennsylvania
William E. Trout, III	California
William G. Tumbidge	New York
Herbert F. Verity	Ohio
David J. Williams	Maryland
Nathaniel H. Wooding	Virginia

(Note: To become a member of this important group, a "one-time" payment of \$100 will put you on our permanent mailing list.)

The thought behind the combination of river and canal navigation was that at the head of the navigable river steamboats would pick up the canal boats and tow them down river to their point of destination. This method was used on the Erie Canal in the State of New York where canal boats from Buffalo were towed by animals to the Hudson River and from there towed by steamers to New York City.

It is difficult to find concrete evidence regarding how much of this type of transportation was really done on the Muskingum River, but the Zanesville Republican recorded the traffic on the Muskingum River Improvement. For the first two weeks of May 1842 seven canal boats arrived from Cleveland and nine canal boats departed for Cleveland. It is also reported by a different source that the goods were exchanged from canal boats to river boats at Dresden, the head of the River navigation.

It should be pointed out that on these two waterways, the size of the locks determined the size of the watercrafts. On the canal the locks were 15 x 90 feet and on the river the size was 36 x 174 feet. The difference was in the propulsion of the crafts. Along the whole length of the canal a towpath was constructed. Draft animals were towing the boats from one lock to the next. But on the river the boats were self-propelled, and the steamboats were built either as side or stern-wheelers. The width of the lock determined the width of the boat, and so the stern-wheeler was born out of necessity. While it may have been better for navigating for the craft to have side wheels, the compromise to the stern had to be made to use the locks to their fullest.

During its 140 years of existence the Muskingum River Improvement has seen many changes. It was built by the State and completed in 1841. It consisted of eleven dams, twelve lift locks and five side-cut canals. The dams were numbered using the same system as the State applied to the Canal locks. At the high level was No. 1 located at Symmes Creek and down at the level of the Ohio River at Harmer opposite Marietta was No. 11. Lock No. 2 at Zanesville was a double lock. This explained the apparent discrepancy of having twelve locks and only eleven dams. (Today the lock sequence is reversed, with Lock No. 2 at Marietta and Lock No. 11 at Ellis — north of Zanesville.)

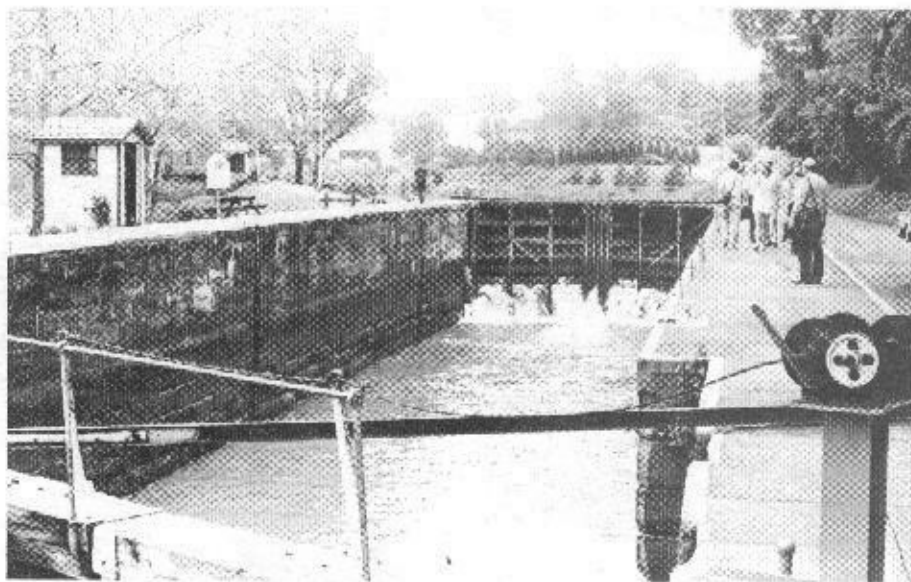
While in the early years after completion the improvement was successful and traffic flourished, the amount of toll collected never reached the sum the State had expected. This experience certainly was not new to the government (being in the canal business where the revenue was just the same).

The emergence of the railroads, the deadly enemy of all water transportation, cut into cargo and passenger tolls. The wear and tear on the heavy wooden lock gates, the maintenance of the stone works, constant flooding and above all continuous dredging of the waterways made it a heavy burden on the State. Therefore the entire Canal system and the Improvement was leased to private enterprise.

On June 2, 1861 the newly formed company, "The Lessees of Public Works" began operating the canals and the Improvement. Seventeen years later this lease was broken and again the State was in the canal business. But not for long, at least not with the river improvement.

The U. S. Government realizing the great importance of the navigable river, took over the improvement. The State ceded the property to the United States. On April 10, 1887 the General H. F. Devoe was the first steamboat to go down the river toll free. The U. S. Army Corps of Engineers undertook an extensive rebuilding, repairing and new construction program on the river. The fruit of this expense and labor was

(Cont'd on Page 7)



Lock Number Ten in lower Zanesville, during the Canal Society of Ohio June 6th Tour. (Photo by Bill Shank).

(Cont'd from Page 6)

harvested during the war years (1939-45) when the traffic on the River reached new heights. Newly developed coal mines were operating and shipping their products by steamboats to their destination. But this activity was short lived. In the years following the war, traffic again declined and by 1958 the Federal Government decided that this type of transportation was outmoded and gave the Improvement back to the State. With the river came the sum of \$235,000 in lieu of demolition of the works. Some seventy years previously when the United States took over the Improvement, the State had to shell out \$12,000 together with the worn out dams and locks. Not a bad deal at all for the State of Ohio.

With the Improvement again under the authority of the State a new phase started for the River. Instead of the demolition the United States had suggested, the Governor ordered the entire river improvement to be made into a park. The Department of Natural Resources, Division of Parks and Recreation, developed a ten year program of rehabilitation for the river. Picnic areas, boat launching ramps and restrooms were constructed. On July 16, 1968 the Governor of Ohio, James A. Rhodes, boarded a houseboat and rode down the River, thus officially opening the "Muskingum River Parkway" as it is now known.

Pleasure boats and excursion stern-wheelers are now plying the waters of the Muskingum. These boats now cruising in the river do not fit into the vision the Ohio Assembly had in 1813 when it declared that the Muskingum to the forks of the Tuscarawas and Walhonding was a navigable river. The dream the Assembly had was never quite realized. The railroads and later the highways with the transportation of goods on trucks diminished the importance of the waterway.

But the Improvement had done its duty in a way the Assembly of 1813 had not expected. The improved River helped settle Ohio and for a time it was the means of transportation and communication from these out of the way places to the big cities in the East.

Perhaps there are many who would say: "Once you have seen one lock, you've seen them all." But for us "Canawlers" who have walked so many miles on overgrown towpaths only to find a lock used as a rubbish dump or used in connection with a sewage treatment plant, the

Muskingum River, with its ten working locks is a welcome sight.

The historian will recognize its great public structures as a stepping stone our State used to get out of its infancy, the fisherman as a place to fish and many others just as a place to relax. And if none of that appeals to you, still take pride in the Muskingum. It's our River and it is beautiful!!

KANSAS CANAL PROPOSED

WASHINGTON—In order to rebuild water stocks in the High Plains, the Corps of Engineers has proposed tapping the Missouri River and pumping water uphill across Kansas in a \$10-\$16 billion, 295-mile canal.

The waterway, 30 feet deep and 180 feet wide, would cut a diagonal swath from St. Joseph, Mo., to reservoirs in western Kansas and western Texas.

Along the waterway, the Corps envisions 28 pumping stations and three hydroelectric plants.

The Kansas route is one alternative in a controversial proposal to transfer water from one state to another and replenish various degrees of water shortages in Kansas, Oklahoma, Texas, New Mexico, Nebraska and Colorado.

(Submitted by Florence Hahn from Topeka Capital - Journal)

C. & D. CANAL — 1851

"A new canal feeder which is in progress of construction at Chesapeake City, at a cost of about \$50,000, will, the Cecil Whig states, be in operation in about a month. It is intended for feeding the Chesapeake and Delaware Canal, and consists of a large wheel, 36 feet high, driven by steam. The water is raised at its circumference and escapes through the shaft, and the quantity will be sufficient to keep the canal at good running height during the driest season."

(Courtesy Edith McNally, from the Cleveland Herald, 8 Aug. 1851, p.2.)

LATEST MINDERMAN "ORIGINAL"



This is the latest canal painting done by Earl Minderman of Bethesda, Md., showing Abner Cloud House on the Chesapeake and Ohio Canal.

In 1801, long before the C & O Canal was started (1828), a settler by the name of Abner Cloud assembled Italian stone masons and other artisans and had them fashion this stately house overlooking the Potomac River about three miles west of Washington.

Cloud and his family lived in the house until his death in 1812, using the basement (seen in this view from the Canal and River side as the ground floor) for the storage of grain from his

nearby mill. Since Cloud's death, the house has had various occupants and has suffered from storms, floods and aging, but it has withstood them all to claim the title of the oldest structure on the entire Canal.

The Park Service now uses the ground floor as a Visitor Center with informational materials, services and facilities.

The upper two floors (the main entrance is on the opposite or Canal Road side) are used as the headquarters of Washington Chapter No. 3 of the Colonial Dames of America.

UNION CANAL TOUR WELL ATTENDED



George Wills (standing) was the lecturer at the Friday evening session, October 23rd, Lebanon County Historical Society auditorium.

The Fall Tour of the Pennsylvania Canal Society, October 24th, along the western section of the Union Canal, and the Pine Grove Feeder, was enjoyed by two bus-loads of canal buffs from the Pennsylvania and New York State area, as well as another bus, filled with members of the Canal Society of New Jersey, which caught up with us Saturday morning.

The Tour was preceded Friday evening by a meeting at the Lebanon County Historical Society, during which George Wills showed Union Canal slides, and early arrivals enjoyed the many displays at the new LCHS Museum. The Committee included Earl Lieby, George Wills, Mrs. Frederick Humphrey and Bill Etchberger.



Lock No. 6 on the Feeder, highest lock on the entire Union Canal system. This lock will be torn down by the park contractors, due to hazard of falling masonry.



Bill Moss, President of the Canal Society of New Jersey addresses members of PCS and CSNJ during the Saturday evening banquet, at the Treadway Inn, Lebanon.

On Saturday approximately 125 people participated in the guided bus-tour, which began at the Union Canal Tunnel and continued west and north, including an inspection of the old brick-pipe feeder (which conveyed water to the summit level of the canal from the old Waterworks on the Swatara), a visit to a restored 18th-Century farmhouse along the canal, lunch at Camp Beshore, and a trip along the Feeder Canal, north to Pine Grove. Much of the latter area will shortly be converted to a State Park, with a dam for an artificial lake, which will hide some of the Feeder Canal Locks and prism. Ruins of the highest lift locks on the entire Union Canal system are located in this area.

Saturday evening the entire group returned to the Treadway Inn where they enjoyed a banquet and lecture by Richard Pawling, author of "A Historical Review, Swatara State Park." Mr. Pawling's lecture dealt with the history of the entire Union Canal System, 1792 - 1885.

Bill Shank



Lock No. 21 West on the Union Canal, during the visit of the PCS-CSNJ buses. Directly behind this lock are ruins of the Swatara Creek Aqueduct.



John Miller, PCS President opens the Saturday evening meeting. To his right are Denver Walton, PCS Bulletin Editor, Earl Heydinger, PCS treasurer, and left, the speaker-Richard Pawling and Mrs. Pawling.

WABASH AND ERIE CANAL RESTORATION

"The Carroll County Wabash and Erie Canal, Inc. is alive, well and growing. A non-profit corporation established in 1974 with the purpose of working toward restoration of part of the old Wabash and Erie Canal lying within the city of Delphi (Ind.) and part of Deer Creek Township, the association has embarked upon a fund-raising program with hopes of success in their ultimate goal of a large recreational area along nearly a mile of the old canal bed." (INDIANA WATERWAYS, October, 1981) Officials of the corporation are: Dennis McCouch, President; C. Jerry Boone, Vice President; David Hanna, Secretary; and Joseph Peterson, Treasurer. Mailing address: P.O. Box 255, Delphi, Indiana 46923.

"DO IT YOURSELF" CANAL

By William Davies

Vacations used to be much more fun; possibly because they were more trouble, and certainly because they were much, much different from our everyday life. Today a man will arise from his easy chair in front of the tube, turn it off, go to his car in the attached garage, climb in and drive a few hours to his lakeside cottage. Here he puts his easy chair in front of the TV and continues on the same channel. This is now called a vacation.

It was 1912, two years before World War I, that our parents took us to Lake Ahmic, an absolute jewel, set in the Canadian wilderness some hundred and twenty miles north of Toronto. This was truly an unspoiled world, without roads, without electricity, without telephones, with sparkling, icy water, and trout and bass asking to be caught. But getting there, from Louisville, Kentucky was the problem, and, as they say, more than half the fun. It took a good twenty four hour day to get to Toronto, changing trains (and stations, too) at Cincinnati and Buffalo. From Toronto we took a sleeper northward for the overnight run to the little town of Burks Falls where we arrived shortly after sun-up. At this point the Magnetawan river passed under the railroad, and there, by the station was a wharf, at which lay a lovely little steamer, by name "Juanita", a lazy plume of smoke and steam rising from her tall stack. Her main foredeck was open aft to the pilot-house, with a canopied second deck abaft of this, and with the lower deck here enclosed to the rounded fantail. As I recall, she seemed huge, but in all probability was on the order of fifty feet overall by maybe eighteen foot beam. A stubby mast abaft the pilot-house was ablaze with flags and pennants, but her most distinguishing feature was an enormous functionless bowsprit, tipped with a massive, gilded arrow-head. Surely a ship capable of any journey in any sea! This was to be our caravel for the fifteen miles or so into Lake Ahmic. This was to be our means of transport; it had to be, as there were no roads. No roads at all!

The train puffed on, leaving us and our luggage and a number of other vacationers on the wharf, where there was much bustle and to-do getting everything and everybody aboard Juanita. Finally, with a great ear-shattering blast of her whistle, the lines were cast off, and with much tinkling of engine room bells she moved cautiously into the stream.

The Magnetawan River was not very wide, but there seemed to be plenty of water, and we were fascinated to watch the eel grass at the water's edge lean into us as the water was sucked away, and then flattened shoreward as the water came swooshing back. It was fascinating to watch the pines and hardwoods slip silently by as we twisted and turned our way through the dense Canadian forest. After an hour or so Juanita's engines stopped and I went to the upper deck to investigate. My father explained that this was a lock, which would lower our vessel so that it could proceed on the stream below, and continue our journey. We were tied up to a well-fendered wall, and ahead of us was the lock basin, with the gates open. With much jingling of bells, the captain inched Juanita into the basin, and the crew made her fast. Then, with great dignity, the captain went ashore, at the same time inviting all the male passengers, including me, aged eight, to disembark and haul on the great balance beams to close the upper gates.

While this piece of business was in progress, the captain mounted one gate and deftly twirled the sluice-gate wheel to close the valve tightly. The upper gates being closed and tight, he then strode majestically to the lower gates where he first cracked, then spun the lower sluice. With great turbulence in the river below, the ship slowly descended until it had met the lower

level, maybe eight or ten feet below. To me this was an astounding feat, and I proudly joined the other male passengers in sweating open the lower gates, whereupon the captain caused Juanita to move out to tie up along the lower fender wall while the passengers clumped down the wooden stairs to get back aboard.

After a short stretch of river we came out into a sparkling bit of water, a small lake called, as I remember, Long Lake. Here, a signal to the engineer caused Juanita's gentle throb to quicken, and we splashed gaily through the wavelets, and we stopped now and then at a pier to off-load freight, or parcels, or mail. After two or three miles of Long Lake we went back into the river, twisting and turning with the quiet stream. At one point a whistle sounded ahead, which was answered with a deafening blast from Juanita, and soon there appeared around a bend another little steamer parked in a widening of the stream provided for that purpose. There was much waving and cheering and shouting as we passed, then just silence and a gentle chuffing of the engine as we continued in the twisting stream.

Finally, about four hours after leaving Burks Falls, we came to a village and another lock. This was Magnetawan, where the river spills over a stony rapids into Lake Ahmic. This time we laid much longer at the upper fender wall while freight, express and mail were unloaded for the general store — post office, but finally, with a short blast of the whistle, and a jingle of bells Juanita moved into the lock basin. Again the previous procedure was repeated, with the captain officiating at the sluices, and the passengers leaning heavily into the balance beams to close and open the gates. This time I had not done my duty on the gates, as I wanted the thrill of descending with the vessel, and a thrill it was!

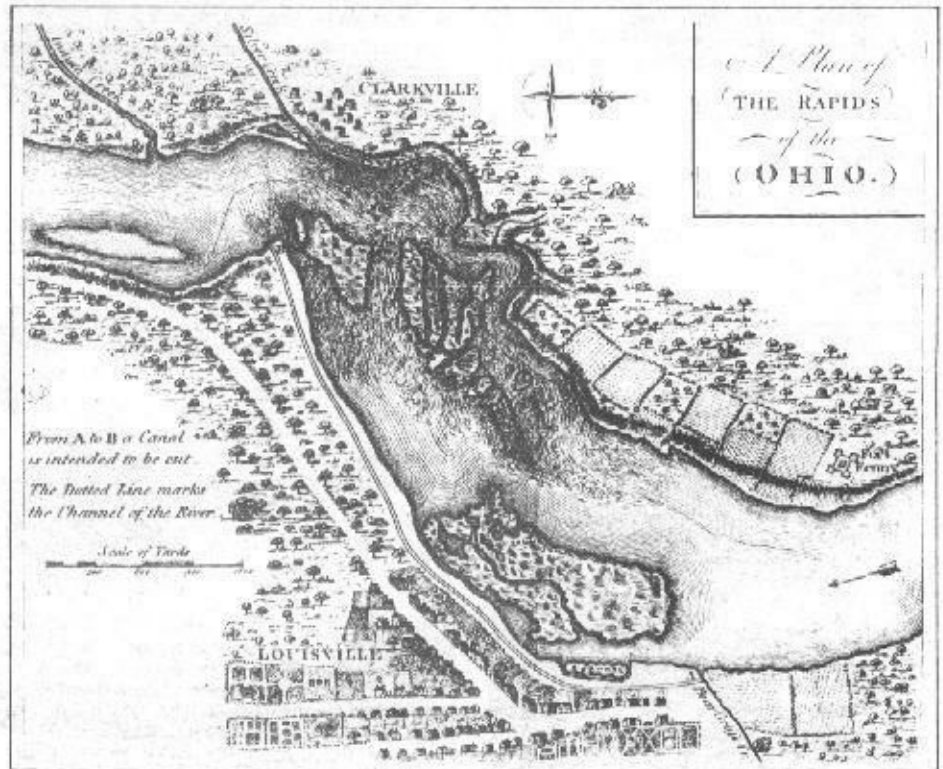
With one more scream from the whistle we slid majestically out into the short remaining stretch

of the Magnetawan River into Lake Ahmic, at which point another jingle of bells caused Juanita's pulse to quicken. Flank speed (possibly all of seven knots)! Now Juanita's bow cut into the little chop, sending shimmering spray both right and left as we plowed our way toward our destination, some four miles beyond, where we disembarked at a rambling inn in the piney wilderness of Canada. As the little steamer moved on, I had a moment of sadness as when parting from a friend. But then, several times each day Juanita or her sister ships appeared plying the lake and, presumably, the canal-river as a symbolic link with the crowded, noisy, smoky "civilization" we had forsaken for a month. But those four weeks in the forest without roads, without electricity, without telephone, but with the little steamers passing by, and sometimes stopping, were as happy as any I remember from my childhood.

(William Davies, 484 Hillside Court, Melbourne, FL 32935 wrote this piece for his two teen-age grandsons "as part of a continuing series for them to dispel some of the very peculiar ideas which they have about how things were in the "olden days."')

NEW YORK CANAL MUSEUM

The Canal Museum at Syracuse, New York on 25 October celebrated the 19th Anniversary of the Opening of the Erie Canal with an open house. Special events included the christening of their new Erie Laker Boat and the dedication of the Hoggee Room in the Weighlock Building of the museum.



This 1793 drawing by Gilbert Imlay of a proposed canal to circumvent the rapids of the Ohio River between Louisville, Kentucky and Clarkville, Indiana was published in London as part of Imlay's "Topographical Description of the Western Territories of North America." Imlay was an American Army Officer and Deputy Surveyor for the Western Territory. The falls remained a hazard to navigation until the building of the Louisville and Portland Canal, 1826-1831. (Courtesy "Antiques Magazine.")

"GOOD NEWS & BAD NEWS" AT SALTSBURG

THE DEPTHS TO WHICH WE HAVE SUNK

by Matthew Hogan



The "Canal Days" sponsored by Historic Saltsburg at Saltsburg, Pennsylvania on the site of the Main Line Canal was a success in spite of heavy rains early in the morning of 6 June. (Photo courtesy George L. Core, Historic Saltsburg)

SALTSBURG, Pa., Nov. 16, 1981 (AP) — A fire of suspicious origin Sunday swept an historic house in this tiny Indiana County community, stirring new fears about the wave of arson fires in the borough since January.

The vacant, 19th century house, the former home of the lockmaster of the old Pennsylvania Canal, was destroyed by flames, officials said. No estimate of the damage was immediately available.

Authorities were awaiting the results of a state fire marshal's probe to determine whether the blaze was deliberately set.

The 150-year-old house was on the National Register of Historic Places, according to Mayor-elect Gary Taylor. The local historical society had planned to renovate the two-story, wood frame structure.

CROSS FLORIDA BARGE CANAL

The Barge Canal is still operational for small craft, but (limited) as to the days and hours that lockage will be available for traffic. The Buckman Lock near Palatka, Fla. will be in operation daily, from 8 a.m. to 5 p.m.

At Inglis, Florida. The Inglis Lock will be operational Saturday & Sunday ONLY. By demand. If cruising in Lake Rousseau, care should be used extensively due to water level and debris. The Lake continues for the next 10-15 miles to Dunnellon, where the Lake meets with the Withlacoochee River. This lock operates from 8 a.m. to 5 p.m.

If any cruising is to be made in the Oklawaha River area, due care should be used as to water level and debris.

After two years of work the study of sunken canalboats is ending. The project included underwater archaeology and the review and organization of relevant historical materials. The goals were to provide access to the materials, especially those located at the museum, and to stimulate the documentation of canalboat remains.

Three publications were planned to disseminate our findings. The first was a diver's manual on canalboat construction; it has been published. The second describes the scope and content of relevant historical materials. The third, a canalboat primer, gives a brief view of the canalboat building industry using some of the projects findings.

Underwater archaeology has the potential to answer many of the questions unanswered by traditional historical research. The archaeological work conducted by Ron Hynes and the Underwater Archaeology Association divers brought to light new facts about the physical structure of canalboats, information not available elsewhere. Discoveries came from the careful measuring and photographing of the sunken boats, some of which contradict previous theories on canalboat design and construction. Thus, with these discoveries has come uncertainty. Assumptions about canalboats have been altered by new evidence.

The sheer volume of information held by the state archives, historical associations, private owners, and the museum itself, demands a renewed effort to analyze and interpret these documents. It is time for canal historians to get together, share their knowledge, and to review the findings of this and other similar projects. Although the project has formally ended, the work will be continued by independent groups and individuals to expand knowledge and understanding of the canalboat building industry.

From *The Canal Packet, Newsletter of the Canal Museum Assoc., Syracuse, N. Y., May/June 1981.*

CLARE SWISHER 1907 - 1981

We were saddened to learn of the passing, September 30, 1981, of Clare Swisher, Editor of the *ERIE STORY MAGAZINE*, Erie, Pa. Clare was an ardent canal buff and historian and had written many articles about the Erie Extension Canal System in his own publication, and others. In editorial and newspaper work for years, not to mention a tour of duty as a TV newscaster and the hosting of his own TV series entitled the "Erie Story," Clare in 1953 extended the latter enterprise into his own local publication of the same name serving industry and business in Erie. "The Erie Story" now continues under the editorship of Maurice Shoup. Clare had written a book entitled "Hayseed on the Heart," his final, major editorial effort, which will be in print shortly. It is a salute to life-style in the country in a less complex age. We have already extended our sympathy to Mercedes, his partner and helpmate of many years. We will sorely miss him, as a long-time personal friend.

Bill Shank



We thought this sketch, sent us by Bill McKelvey, was appropriate for the Holiday Season. It shows an English narrow boat (complete with Christmas tree), and was excerpted from an article in the "Glasgow Herald" for September 19, 1981. The article extolls the nostalgia of traveling the canals in England and Wales in the wintertime — quite possible with the mild winters there. (Full text of this article, entitled "Christmas up the Cut" by Raymond Gardner, is available for winter canal buffs!)

CANAL LOCKS AND INCLINES

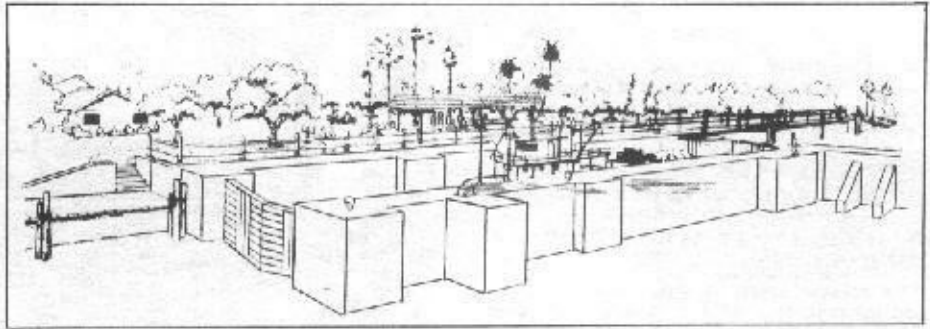
(The following is an excerpt from an article in *Engineering*, Vol. 1, June 8, 1866, pp. 386-387. *Engineering* was a periodical published in England. The editor at this time was Zerah Colburn, an American locomotive engineer. Submitted by Carl W. Larson)

For passing boats from one level of a canal to another, locks have been and are far more generally used than any other contrivance. The ordinary canal lock was, in all probability, derived from the old-fashioned "staunch," which still exists on some of the rivers in this country, which have but a slight fall, and is also frequently found in the East. A "staunch" is usually constructed by placing a wall on each side of the river, so as somewhat to contract its breadth, and between these side walls erecting a third in the middle of the stream, this last-mentioned wall having cutwater ends. Midway in each of the channels formed between the central and side walls is placed a transverse sill protected on its upper side by the necessary sheeting and piling. Across one of the channels a beam is placed immediately over the sill, whilst on the side wall of the other channel is fixed a pivot, upon which turns a beam which, when placed across the channel, bears against a stop fixed to the central wall, and is immediately over the sill. When it is required to raise the level of the water above the staunch, planks are placed so that they extend from the sills to the fixed and moveable beams above mentioned, bearing, of course, against their upper sides. By this means a sort of rude sluice gate is formed, which checks the flow of the water through the staunch. The manner of working this arrangement is as follows: Supposing a vessel to be going up stream, the planks and moveable beam would be removed from the one channel of the staunch and the vessel passed through it; the planks and beam would then be replaced, and the level of the water above the staunch thereby so raised that the vessel would be able to proceed up the river to the next staunch, and so on. It will be seen by the above description that the staunches form a series of rude locks, of which the length is equal to the distance between two successive staunches. The waste of water incurred by the use of this system is very great; it may however be considerably reduced in some cases by keeping each staunch closed except just at the time when a vessel is to pass through it, the vessel being in this case supposed to be provided with sufficient tractive power to enable it to pass up through the channel of the staunch against the descending current without much loss of time. In such cases the ascent of the vessels from the lower to the higher level would in reality be accomplished by the tractive force applied to them, dragging them up an inclined plane of water, the staunch merely serving the purpose of reducing the length of this inclined plane to the length of its own channels, at the same time, however, staunches are only adapted for working slight inequalities of level, such, for instance, as 12 or 15 inches; for greater rises or falls, other arrangements must be adopted.

The arrangement of an ordinary canal lock is so well known that any description of it will be quite unnecessary. It can be worked with the least expenditure of water if used for an ascending and descending boat alternately, the full lock left by the ascending boat being available for the descending boat, and the reverse. Unfortunately, however, the demands of traffic seldom allow of such an arrangement being regularly carried out, and the consequence is that the quantity of water which would serve to pass two boats, one up and the other down, is expended in passing one.

Generally speaking, it may be assumed that in ordinary locks, of about 5ft. or 6 ft. fall, the expenditure of water will amount to about three times the weight of the merchandise worked

NORTH NEW RIVER LOCK DEDICATION



In July 1981 the Broward County (Florida) Historical Commission in partnership with the Parks and Recreation Division dedicated Lock Number One at the Broward Memorial Boat Lock Park. Lock No. 1 was first completed in August 1812 as a part of an effort to utilize the *Everglades*. The lock will be completely restored as shown in the artist sketch above (Bolles, '78) and hand-operated as in original group for demonstration purposes. In addition, the lock-keeper's house will be restored and outfitted as a Florida Canals and Water Management Museum. Access to the park will be provided from State Road #84 and the Port Everglades Expressway (I-75). (Alden Gould, Director, ACS)

WANTED

Lowell National Historical Park architects and historians are interested in historic photographs of the Francis "Old Guard Locks" on the Powtucket Canal just north of the Broadway Bridge. They are specifically interested in photos showing the south elevation of the Lock House over the North Gates in order to complete design for restoration of the structure to its original 1881 appearance.

The park would appreciate hearing from persons who are willing to volunteer their photographs and personal memories. Private photographs and memorabilia submitted for this purpose will be copied by the Park and then returned to their owners. Please contact Robert Weible at Park Headquarters, 7 Merrimack Street, Lowell, MA 01853. Telephone: 617-459-4136.

The Tip of the Iceberg

A recent telephone conversation . . .

Hirer: "Hello, The fridge on our boat has stopped working"

Boatyard: "What seems to be the trouble?"

Hirer: Well, it's burnt a bit at the back."

Boatyard: "Burnt?"

Hirer: "Yes; it caught fire."

Boatyard: "Was there any other damage?"

Hirer: "Yes, a bit. Some of the seating caught fire, too."

Boatyard: "Good heavens! Anything else?"

Hirer: "And the curtains and some of the paneling."

Boatyard: "Did you use the fire extinguisher?"

Hirer: "I didn't need to."

Boatyard: "You didn't need to?"

Hirer: "No."

Boatyard: "Why?"

Hirer: "Because the boat sank . . ."

(From Waterways World, January 1981.)

through them. To reduce this expenditure of water, side ponds, or reservoirs, have in many cases been applied, and double locks have been also constructed with the same object. In each of these systems the intention is to economise the water by releasing it from the lock which is to be emptied into the adjoining lock or side reservoirs, the water so stored up being available for partially refilling the lock without drawing upon the upper level of the canal.

(To Be Continued)

CONCRETE CANALBOATS SURFACE!



At low water stages five sunken World War I vintage reinforced concrete canalboats can be seen above and below Lock #9 near Rotterdam on the Erie Division of the New York State Barge Canal System. Among them are U.S. #107, 112 and 120. The accompanying photos of these 500 D.W. Ton vessels were taken by Mike Talay and submitted by John Hulchanski, U.S. #107 and 114 are shown on pages 38 & 39 of McKeivey's *Champlain to Chesapeake*, and U. S. #117 is described in *American Canals* #33, page 6. Another sister vessel serves as a breakwater in the Hudson River off Nyack, N.Y. Where are the others? The Canalboat Hulks, Wrecks and Remains Committee welcomes any and all discoveries. Please send information and photos to Bill McKelvey, Chairman, 103 Dogwood Lane, Berkeley Heights, N. J. 07922.



ILLINOIS' HENNEPIN CANAL MAY BE RESTORED

by Joe Taylor

Based on public support shown at an Oct. 19 meeting, the Illinois Department of Conservation (DOC) is expected to support funding for the total rehabilitation of the Hennepin Canal.

Over 300 people turned out for the meeting arranged by David Kenney, DOC Director, to determine what course the department should take in seeking future funding and redevelopment of the canal.

One speaker asked all those who supported total rehabilitation of the Hennepin to stand and the overwhelming majority responded. The estimated price tag of total rehabilitation is \$23 million dollars.

The other two management options included total dewatering of the canal (i.e., draining) at a cost of \$10 million and major rehabilitation/moderate dewatering at a cost of \$19 million.

Under the option approved by the public, the entire Hennepin Canal, which stretches across the eastern half of Illinois from Bureau Junction to Rock Island, would be rehabilitated as a recreational waterway. The canal would be managed as a land and water-based state trail with an optimal variety of outdoor recreation. Those activities would include hiking, fishing, boating, canoeing, camping, and picnicking.

Of significance to American Canal Society members is the DOC's plan to restore a four-mile section of the canal for its historical significance. The section would become an outdoor museum and would represent a slice of the great canal era. Locks, dams, buildings, and other canal features would be restored and heritage interpretation would result.

The Hennepin Canal may be the best preserved, nearest operable, and most complete representative of the later canal boat era left in the nation. Constructed between 1890 and 1907, the canal had been designed as a short cut from the Illinois and Michigan Canal (from Chicago to LaSalle) to the Mississippi River.

I. & M. CANAL LOCK "FACE LIFTING"



(Photo courtesy Illinois Department of Conservation, Division of Historic Sites)

The Hennepin's construction was significant for it was the first American canal built of concrete without stone cut facings. The large scale use of concrete on the Hennepin had a long range impact. The engineering innovations, material used, and methods of dealing with it revolutionized the construction industry in general and the canal construction industry in particular and became a pattern for the Hennepin Canal.

The canal is easily accessible from Interstate 80. For more information, write Hennepin Canal State Trail, Rural Route 1, Sheffield, Ill. 61361.

American Canal Society members wishing to make written comments on the future restoration of the canal may write Department of Conservation, 605 Stratton Office Building, Springfield, Ill. 62706.

This unsightly ca. 1925 non-operating canal era concrete bridge and approach walls mar the aesthetic and historical view of Lock 14 of the Illinois and Michigan Canal at LaSalle, Illinois. Fortunately, it now appears that funds and permission have been received to remove the bridge and to relocate the road to a less conspicuous location. Other plans underway under Phase One include the construction of a cofferdam, the dewatering of the lock, and the removal of the sediment inside the lock under the supervision of Illinois Department of Conservation archaeologists. The Second Phase will include restoration of the lock walls, the hardware, and the lock gates of Lock 14.

Earlier this year, the National Park Service held a series of public meetings concerning the proposal to create the Illinois and Michigan Canal Heritage Corridor. Under the proposed plan the Park Service would stabilize other canal structures of the Illinois and Michigan Canal and would renovate portions of it. On 29 October Senator Percy of Illinois received the support of U. S. Interior Secretary Watt.

BILL ETCHBERGER — INTERNATIONAL "WORKING-CANAL" PHOTOGRAPHER



A high-masted sail boat, shown transiting the Hiram M. Chittenden Locks on the Lake Washington Ship Canal in Seattle, Washington.



Here is one of Bill's photos of a large, commercial vessel passing the upper gates of the Eisenhower Lock on the St. Lawrence Seaway, near Massena, New York.

William F. Etchberger of Lebanon, Pa., an ardent canal buff, is particularly interested in visiting and photographing present-day inland waterways in North America. He has visited many of the major canals, locks and waterways from the Pacific Coast to the Maritime Pro-

vinces in Eastern Canada. Here are a few samples of some of the dramatic photos he has taken. We will be publishing more in future issues — the Soo Locks, the Welland Canal, and other inland waterways of interest to ACS members.