

AMERICAN CANALS

BULLETIN OF
THE AMERICAN CANAL SOCIETY

BULLETIN NUMBER 43

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

NOVEMBER 1982

PRESIDENT'S MESSAGE

We closed our Fiscal Year on October 1, 1982 with a fluid balance in our checking and savings of \$5087.50 as compared with \$4772.78 on October 1, 1981, according to Charlie Derr's Annual Treasurer's Report. Thus it would appear that we are holding our own, until you remember that a special bequest of \$1000 was paid us by the Ted Sherman Estate during the past year. All this has made it necessary to ask for a slight increase in our dues in 1983. We are happy to report that, to date, dues checks are coming in at the normal rate. One ACS member, George W. Waugh, Rochester, N.Y., writes: "My compliments on a brief, clear, succinct (dues) statement. Most of my mail requires help of an accountant, a lawyer and a secretary to handle! Here is my \$10 for 1983 dues. See you on the Canal!"

We are happy to welcome into LIFE MEMBERSHIP Robert L. Schuyler in Philadelphia, David G. Barber of Middletown Springs, Vermont, and Avery Wolfrum Jr. of Palatine, Illinois. This brings to a total of twenty-one our ACS Life Membership List. (For the other eighteen, see page six of AMERICAN CANALS No. 39). We are grateful to all of them for this expression of confidence.

The death of any of our members is always an unhappy event. Our statement to Edward J. Ludwig III of Elton, Maryland came back with a note from his wife: "Mr. Ludwig passed away May 13, 1982." We will remember Ed as an ardent canal buff and the Author (1979) of a fine book: *The Chesapeake and Delaware Canal*, of which I am proud to own an author-autographed copy.

Comments continue to come in on our new book, *Towpath to Tugboats*. Edwin D. LeRoy, Chatham, N.J., author of the *Delaware and Hudson Canal* (1980), writes: "The back cover (canal boat crossing the Lackawaxen Aqueduct, C. 1890) brought back pleasant memories. I have walked across this Aqueduct many times before it was destroyed, about 1938. This photo was widely sold as the last boat on the D. & H. Canal, which it was not. This is the first time I have seen the full length print, with New York State in the background..."

Our thanks to ACS member Frederick Haupt III, of Washington, D.C., for his fine write-up on the AMERICAN CANAL SOCIETY in his column "The Past is Prologue" as published in the *Virginia Country* magazine for Sept.-Oct., 1982. Fred told all about ACS activities and its publications, over the years.

Nuf sed, except to wish all of you a Happy Holiday season, and the best possible New Year in 1983.

Bill Shank

NEW CANAL BOAT IN INDIANA



The Canal Boat "BEN FRANKLIN" carries passengers in season on a 40-minute trip to the Millville Lock through the Aqueduct on the Whitewater Canal at Metamora, Indiana. The boat was built under the direction of Amos B. Schwartz of Alexandria, Indiana. Indiana State engineers drew up the specifications and provided blueprints based on documentary research. The BEN FRANKLIN is 48 feet long and 13 feet wide, weighs 15 tons, has 13,000 brass screws, and 4,000 board feet of lumber. Since the canal does not have a turn around, the boat has a rudder at both ends. It hauls 70 people and is pulled by two horses. The cost was around \$80,000. The photo above was made in Mr. Schwartz's workshop upon completion of the boat several years ago, and during a surprise visit of Myron Floren of the Lawrence Welk orchestra, who was touring the area. Mr. Swartz is the gentleman shaking hands with Myron.

CANAL CALENDAR

December 11, 1982 — (1:30 P.M.) Lecture by Dr. Richard Joseph Dent, Archeologist, on recovery of lock remains from George Washington Canal, Great Falls, Virginia (Visitors Center, Great Falls, VA.) Sponsored by Virginia Canals and Navigation Society. Meeting includes a morning tour of the G.W. Canal at 11 A.M.

January 22-23, 1983 — Annual Business Meeting of Steamship Historical Society of America in New York City. Details from Alice Wilson, 414 Pelton Ave., Staten Island, NY 10310.

March 26, 1983 — Second Annual Canal Symposium sponsored by Lafayette College and Center for Canal History and

Technology at Easton, PA (details covered in separate article, this issue.)

May 6-8, 1983 — Joint tour of the Pennsylvania Canal Society and the New Jersey Canal Society along the Eastern Division of the Pennsylvania Main Line Canal, Columbia to Amity Hall. Contact Bill Shank, 809 Rathton Road, York, PA 17403 for details.

June 27-July 1, 1983 — Joint trip of the New Jersey Canal Society and the Delaware & Hudson Canal Society along the path of the original Erie Canal. Estimated price \$250 includes bus, overnight accommodations and meals. Reservations by 15 December to Paul Ross, 18 Circle Ave., Ellenville, NY 12428.

American Canals

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"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 \$10.00. Individual copies may be purchased at \$2.00.

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PETERBOROUGH MUSEUM

The Peterborough Centennial Museum and Archives of Ontario, provides a refreshing and informative place to visit the year around. One gallery of the museum is given over to the Museum of the Trent-Severn Waterway, created by the Peterborough City Council in 1980. From September to June the museum is open weekdays 10-5, weekends 12-5. Family fare is \$2, adult \$1, senior citizens and senior students 75¢, junior students 50¢, under 5 free. Memberships to the museum are available. Write to PO Box 143, Peterborough, Ont. K9J 6Y5 or telephone (705) 743-5180.

MIDDLESEX EXHIBIT MOVES

From Larry Henchey, President of the Middlesex Canal Association, Billerica, Mass., comes the following report:

"We were sorry to see the Museum of Transportation in Boston close its doors this summer. It was an ambitious effort for a special-purpose museum, but it could not make ends meet financially and has had to seek smaller, less expensive facilities. As a result, we have dismantled our Middlesex Canal exhibit and returned the artifacts and canal models to our archives at the University of Lowell. The good news is that the exhibit materials will not remain in our archives for long. A Middlesex Canal exhibit will be on display soon at the National Park Service storefront location at 171 Merrimack Street in Lowell. We are currently negotiating final arrangements with the Park Service and hope that the exhibit will be in place very soon."

Larry also describes plans for their Annual Canal Walk in November, which apparently went off well, as usual. (For details of Middlesex Canal Assn. activities write P.O. Box 333, Billerica, Mass. 01821.)

RIDEAU LOCKS REBUILT

On September 7, 1982, the reconstruction of the Rideau Canal locks 1, 2 and 3 began. As a result the entire flight of eight locks situated next to Chateau Laurier is closed to visitors. In contrast, Parks Canada is encouraging the public to visit the Ottawa Locks and to observe the reconstruction activity. A special viewing platform for the public will be erected across lock 6 and exhibits installed on site to compare construction and engineering techniques, "then and now".

Upon completion of the first three locks in June 1984, the Ottawa locks will once again

be opened for navigation and the remaining five locks reconstructed individually in future winters so as not to interfere with navigation. In sum then, the only Rideau locks that will be closed as a consequence of the reconstruction project are the Ottawa Locks 1-8 beside the Chateau Laurier and only from September 1982 to June 1984.

(Above item quoted from "Of Steam and Stone", a Parks Canada newsletter.)

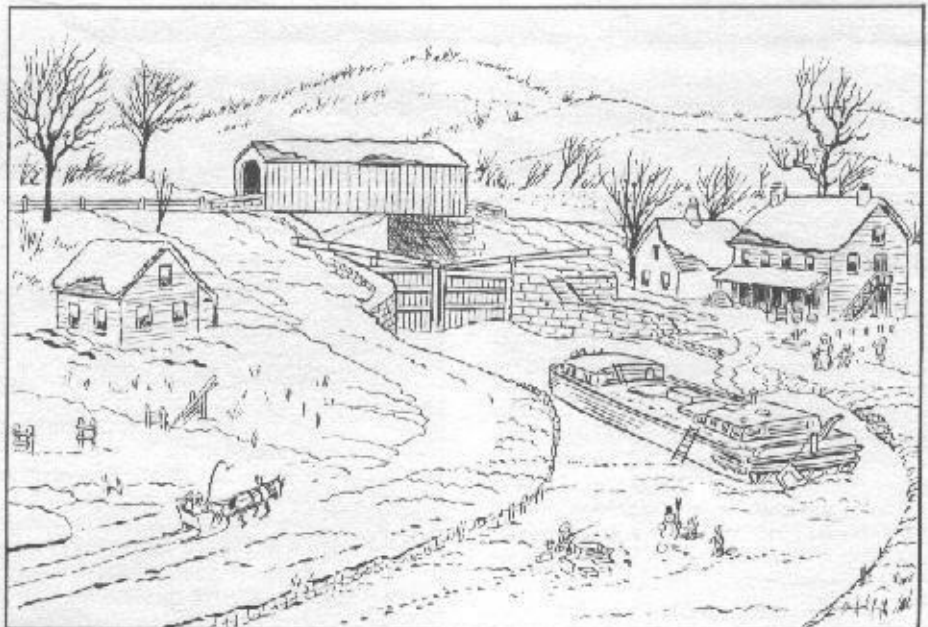
MYSTERY LOCK PHOTO

Grace Elliott has submitted a xerox copy of a stereoptican slide that may be of a Delaware and Hudson Canal lock. Unfortunately, the xerox copy cannot be reproduced here. Ms. Elliott said, "The center picture is the best. It shows a lock gate with an arched construction on top. It is a hinged gate but there is no balance beam. There seem to be chains running the length of the lock along the top. The gear house in the rear is similar to D. and H. I have seen an arch similar on a D. and H. lock but not on the gate. However, the gear mechanism on the D. and H. Canal was for a drop gate, which this isn't. The arched construction appears to be part of a cat-walk along the top of the gate. (Ed.)

Anyone desiring to view the xerox of the slide and render an opinion is invited to request same from Ms. Elliott at 300 N. Ohioville Rd., New Paltz, NY 12561, or from the Editor, American Canals.

WANTED—CANAL INDEXERS

Anyone interested in helping with the Canal Index Committee is requested to write to Terry K. Woods, Chairman. Much of this exciting work has been done, but much more remains to be done. Terry's address is 6939 Eastham Circle, Canton, OH 44708.



We are indebted to Patrick M. Reynolds for the accompanying fine sketch, which he entitles "Ice Bound on the Pennsylvania Main Line Canal". It is the lead-off illustration in his just-published "Pennsylvania Profiles" Calendar for 1983 (selling at \$2.00). Pat has also just published Volume Six of his syndicated "Pennsylvania Profiles" Series, which he titles "Pennsylvania's Hectic Heritage" @ \$2.81. Write the Author-Illustrator at Red Rose Studio, Willow Street, PA 17584. (Add 75¢ for shipping.)

PCS GROUP TOURS NORTH BRANCH CANAL

Eighty three canal buffs joined the Pennsylvania Canal Society Tour of the Susquehanna North Branch Canal route October 15-17 in Wilkes-Barre, PA. Headquarters for the event was the just opened Station Motel in the central city. Most of the group were lodged in converted railroad cars; two suites to a car. The old Station building itself, with its several restaurant facilities, served two dinners and breakfasts to the group while there. The accompanying photos (taken by Bill Shank) show the points of interest.

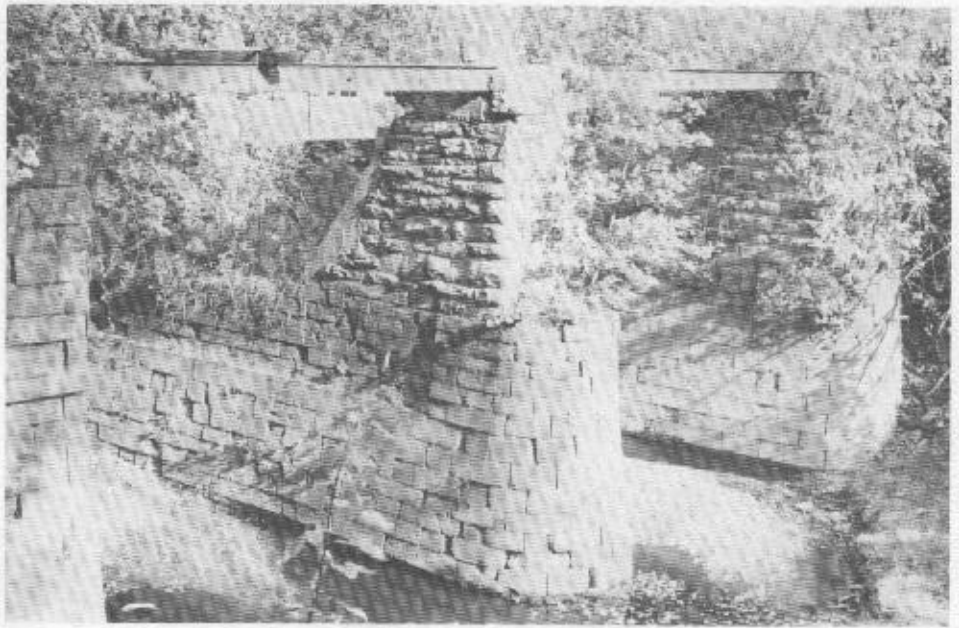
Friday evening the canal buffs were entertained by slide shows and movies at the nearby Wyoming Historical and Geological Society Museum. Saturday Tour Guides were Charles Petrillo, Damon Young and Terry Woods. Terry, past president of the Ohio Canal Society, also gave the Saturday evening lecture on the history of the North Branch Canal system.



West Portal of Lock Number 8 on the lower North Branch Canal at Nanticoke. This lock raised canal boats 1.93 feet to the level of the "Wide Water" above Nanticoke Dam, after a 56-mile trip from the junction basin of the three Susquehanna Canals at Northumberland. Major coal-loading facilities for the boats returning down-river were located at Nanticoke Basin.



Part of the tour group visits Vosburg Tunnel, near Mehoopany, originally built by the Pennsylvania and New York Canal and Railroad Company (now part of the Lehigh Valley Railroad).



Ruins of the Mill Creek Aqueduct, where the North Branch Canal, after being joined by the canal feeder from the Mill Creek Dam (upstream) crossed the creek on its route to the north. Several railroads have taken advantage of the sturdy piers of the aqueduct to run their lines across Mill Creek. (See details on page 4 of AMERICAN CANALS #40)



Foundation for the Engine House at the highest plane of the Ashley Railroad Planes, top of Moosic Mountain on Route 309. Annie Bohlin was in charge of the Ashley Plane Tour on October 17th.

CANOEING AT PORTAGE

Portage, once an important link in a waterways trade route that stretched from the Great Lakes to the Mississippi River, celebrated the days of the early explorers and traders over the Labor Day weekend with "Old French Days." Included in the celebration was a seven-mile canoe race held on the Wisconsin River and the Portage Canal. Because the Portage Canal Society could not clean up to the Fox River, it was not included in this year's race. The Wisconsin River, Portage Canal, and the Fox River are ideal for canoeing and have interesting historic backgrounds as well. Canal buffs in the area (or canal and river enthusiasts) can contact Frederica Kleist, 528 West Cook St., Portage, WI 53901.

CANAL SYMPOSIUM

The Center for Canal History and Technology and Lafayette College will co-sponsor the Second Annual Canal History and Technology Symposium on Saturday, March 26, 1983. The Symposium will be held at Lafayette College and it will include the presentation of six papers. Among the papers that have been presented for inclusion in the Symposium are:

"Anthracite and Slackwater: A Study of Pennsylvania's North Branch Canal and its Extension", Terry Woods, ACS Director and Historian of the Canal Society of Ohio.

"Charles Ellet, Jr. and the Canal vs. Railroad Controversy", Professor Spiro G. Patton, of Penn State University's Berks Campus.

"The Glendon Iron Company and its Community", Dr. Charles Waltman, M.D.

"The Effect of the Morris Canal on the Growth of Waterloo Village, N.J.", Kevin Wright, former curator for Waterloo Village Foundation, Inc.

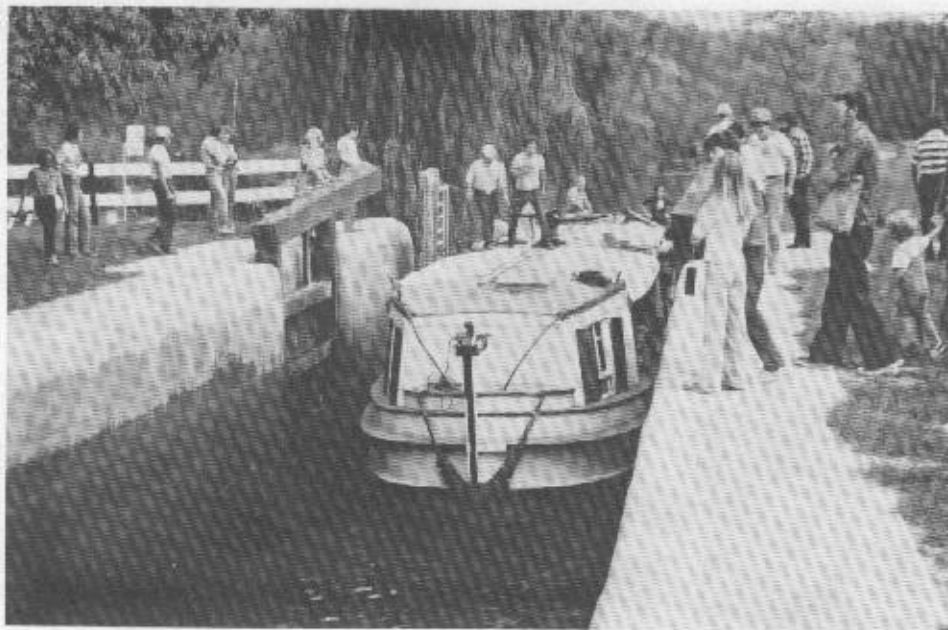
"The Delaware and Hudson Canal Company's Gravity Railroad", Dr. Edward Steers.

"The Engineering Careers of Josiah White and Erskine Hazard", Donald Sayenga of the Bethlehem Steel Corporation

"The Union Canal and its Pine Grove Extension", Richard Pawling

All of these papers will be included in the Proceedings, which will be published on the day of the Symposium, and included in the registration package. The registration fee of \$25.00 also includes morning coffee and doughnuts, lunch and a wine and cheese party at the nearby Canal Museum. For registration information write the Center for Canal History and Technology, Canal Museum, P.O. Box 877, Easton, PA 18042.

WORKING LOCK ON OHIO & ERIE DEDICATED



The St. Helena II entering the south end of Lock #4 at Canal Fulton, Ohio. This Lock has been fully restored to working condition, so that St. Helena passengers may experience the process of "locking through".

By Terry K. Woods

Lock #4 (Mill Lock) on the Ohio & Erie Canal was officially dedicated on August 8, 1982. The festivities were to begin at 3:30 P.M., but General Abrahams, of the Ohio National Guard, electrified the crowd gathering in Canal Fulton's Community Park by arriving via jet helicopter. He promptly stepped out of the 20th century conveyance and through the raindrops into the ST. HELENA II, an authentic reconstructed 19th Century Ohio & Erie Canal Boat.

Other dignitaries arrived and took refuge from the driving rain within the boat, but soon discovered that the sunshade covering the passenger carrying decks was just that, and had never been designed to fend off rain-water. But we started off toward the lock pretty much on schedule and long before the plodding mules, Kity & Katy, had pulled us our allotted mile, Mother Nature ceased raining on us and even condescended to let a bit of sunshine through the clouds here and there.

As we approached the Lock, I was expecting a bellowed, "HEADWAY" from the young captain, a sign that his craft had sufficient momentum to reach and enter the lock, and a signal for the bowman to unhook the towline from the starboard deadeye and fling it to the towpath while the ST. HELENA II entered the open lock on her own. I'd forgotten there was to be a dedication and we were all to disembark for the ceremony. Instead we coasted toward shore and gently touched ground at the towpath bank where the gangplank rattled noisily through its windless ratchet, hit the earth with a thud, and we all scrambled ashore.

The General spoke first as an honored guest. Last spring, when county officials were unable to correct the low water problems since the feeder canal crosses county borders, it was General Abrahams who "suggested" to the Wooster National Guard Con-

tingent that something be done. Apparently a General's suggestion carries as much weight today as it did when I was in the Army.

Congressman Ralph Regula spoke next. It was Congressman Regula who, as the Village Solicitor from tiny Navarre south on the canal, walked the 30-odd miles of canal within the county back in 1964 with Al Simpson - State Editor on the Canton paper. Al, with his weekly column, *ALONG THE TOWPATH*, cajoled and enticed nearly everyone in the area into awareness of what the Ohio & Erie Canal was, and could be. Al Simpson, more than anyone else, can be credited with getting the Canal Boat Building project begun. Al was hard at work in Washington and unable to attend.

Gale Hartel, Past Director of the Canal Fulton Heritage Society and now President of the Canal Society of Ohio, and Norman Sponseller, representing the county commissioners, were the last formal speakers. Then came the symbolic cutting of a ribbon across the lock's upper gates and we all trooped back aboard the ST. HELENA II for a ride through the lock.

The "locking through" procedure has changed a bit in the last 175 years or so. It's still done in an extremely smooth and efficient manner, but the keynote now is comfort. There's no Paper Mill quota to catch, so the operation is slower, and more personnel are used. Two snubbing posts have been installed on the berm side of the lock in addition to the original two and all were in use to ensure that the ST. HELENA II kept a steady keel while in that hydraulic elevator.

The descent is surprisingly smooth, with very little tendency for the boat to wallow in the rapidly shifting currents; a tribute to the efforts of the young crew. The opening of the lower gates of a lock have been described by one fanciful writer as being like "the curtains of a stage opening on a new and imposing scenic vista." He wasn't far from wrong,

though right now the beautiful vista is somewhat obscured by the Canal Fulton Sewage Disposal Plant. That, too, is changing. A new plant is abuilding and within two years both the channel and atmosphere will be clearer.

The turn-around and trip back up through the lock went equally well, except for a few minutes required to fish some floating brush away from an upper gate so that it didn't close properly. As we slipped out of the now concrete chamber, (part of an attempted 1908 rebuild of the canal), a pretty young hostess began cutting the special cake that was aboard and serving it with the lemonade that had been available the entire trip. A young man dressed in cuffed shirt and Kelly Green vest began picking on a banjo and the boat and its passengers slipped back into a time of relaxed calm. I could have been wrong, but just as the ST. HELENA II rounded a bend obscuring our view of the lock, I'm almost sure I heard - echoing up the valley - a far away, but strongly bellowed - "HEADWAY". (Terry Woods is an ACS Director and Chairman of the ACS Canal Index Committee).

CANADIAN SOCIETY MEETS AT KINGSTON

The Canadian Canal Society held its first annual meeting and field trip at Kingston and on the Rideau Canal on October 8-9, 1982. It was appropriate that the canal activities took place on the Rideau Canal as that waterway is celebrating its 150th anniversary this year.

On Friday, October 8th, the Marine Museum of the Great Lakes at Kingston held a reception, followed by a slide presentation about steamboats on the Rideau Canal "The Sound of Her Whistle" by Brian Tychie, Park Canada interpreter. The business meeting for Canadian Canal Society members centered around the theme, "What have we done, and what should we be doing in the next two years?" The business meeting was followed by a talk on the Wolf Island Canal, centering on the economics of the pre-railroad era.

After a box lunch at the Lockmaster's House and Blacksmith Shop at Jones Falls, the group cruised on the Rideau Canal from Jones Falls to Chaffeys Lock. During the trip Brian Tychie talked with the group about lock building in the area and restoration of the Davis Lock. In the evening, the "Die Hards" met over dinner to continue to discuss the priorities and objectives of the society.

Bill Shank, President of the American Canal Society, Don Smithies, President of the Canadian Canal Society, and Lou Cahill, Canadian ACS Director, have been having joint discussions about the possibility of a combined field trip of the two national Societies - possibly at Peterborough, Ontario. You will be hearing more about this in the near future.

It appears that the Canadian Canal Society is off to a great start, and all canal enthusiasts wish them the best of success.

UNION CANAL TUNNEL ON TV

Earl Leiby, President of the Lebanon County Historical Society, appeared on WGAL-TV (Lancaster, PA) on November 1, 1982 with a short talk on the Union Canal Tunnel, filmed at the site of this oldest existing tunnel in the U.S.A.

AMERICANS ON THE BRITISH CANALS

By Thomas F. Hahn

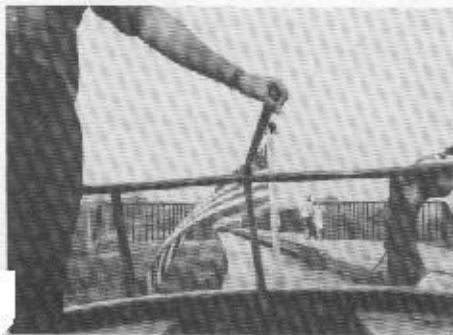
This rainy day in October, with its subdued shades of brown and golds mixed with pleasant greens, is reminiscent of our canal trip in England and Wales last month. It is particularly fitting that I write an account of the trip today as my wife Nathalie and one of our friends who was with us on the boat, Dottie Dittmar, are serving a typical pub lunch at our house, temporarily converted to an English pub. The menu is the "Ploughman's Share" consisting of homemade bread, cheese, pickled onions, chutney and beer.

We have traveled the waterways of England before, this being the sixth year that we have done so, usually for several weeks at a time. Previous trips were in John Atkinson's MARY JANE and Tom Sewell's PHOBOS. We have covered much of England and Wales though we have not been on the canals to the north, such as the Leeds and Liverpool Canal over the Pennines. This year we used the ROSEDALE, a hire boat provided by Anglo-Welsh of Market Harborough.

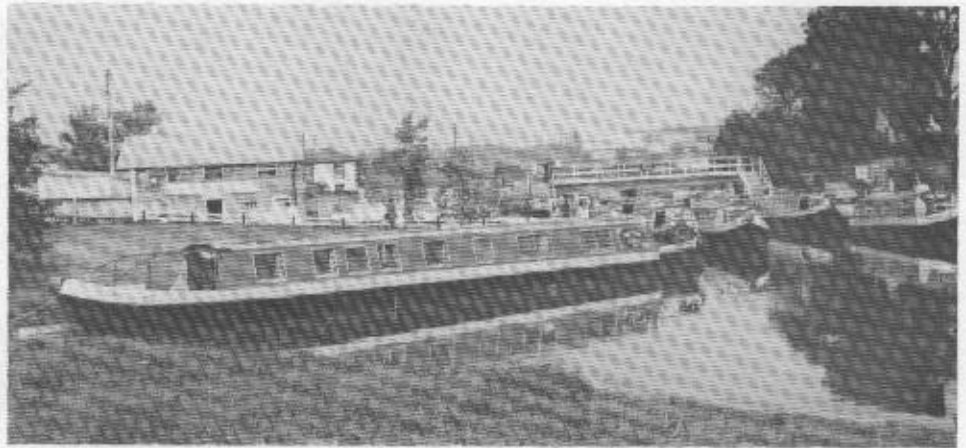
Waterways trips in hired boats in Great Britain vary from plush hotel boats where meals are catered under very genteel circumstances and the passenger does not work unless he wants to for the experience of it, to boats such as the PHOBOS, which come with a boatman, to the self-hire type where the boating customer and his "crew" do all the driving of the boat and the operation of the locks. In England and Wales the locks are operated by boat crews except on rivers where it is necessary to have regular, professional locktenders. On some canals where there are concentrations of locks, there are locktenders whose function is to help conserve water, to prevent the locks and their adjacent areas from overflowing, and, to help keep the traffic flowing but keeping the boats sorted out.

Prior to taking a canal vacation, the boater has to decide what country to visit, what canals and rivers to ply, what hire boat company to use, and whether to take a hotel boat, a crewed boat without meal catering, or a do-it-yourself variety. A part of that decision depends on one's age, experience, preference, and ability to pay. Some like to pay less for less comfortable circumstances in order to extend their vacations.

Hotel boats provide the luxury of well-prepared meals and not having to drive the boat, operate the locks in inclement weather,



Departing the Pontcysyllte Aqueduct on the Llangollen Canal. This aqueduct passes 121 feet over the River Dee.



Anglo-Welsh Boats at their base at Trevor, Wales on the Llangollen Canal, ready to be taken out by boating vacationers.

push the boat off the mud, etc. One can usually join a hotel boat as an individual and find suitable companionship. They are particularly nice for older people or for those who might have physical difficulties working the boat. The hotel boat has the disadvantage (to the hardened canal enthusiast) of operating only a few hours a day, having a fixed schedule—which is, of course, satisfying and more comfortable to some not having the "feel" of historical canal boating (some might argue with this), by operating the boat yourself, and, generally more expensive.

Our preference is for taking the less expensive self-hire boat and using it longer to get more for our money. On such a boat, one can get started each day when he wants, and stop when he wants along the way, and at the end of the day, depending on the consensus of the "crew."

We like to use the canals and rivers of the United Kingdom because it is a relatively easy and reasonable country to get to, though even better when Freddie Laker was in business, keeping the Transatlantic air fares quite low. In the U.K. there is excellent inland transportation, generally much better than in the United States. This ranges from the high-speed intercity trains to long-haul busses, to local busses to the village taxi. In the U.K. there are about 2,000 miles of navigable inland waterways from which to choose, concentrated in rather a small geographic area. Additionally, there is the advantage of easy shopping and the common English language.

Just where one travels, that is, on what particular waterways, is not very important. They are all great! We prefer the narrow canals to the broad canals, and all canals to rivers, but that is a matter of individual taste. It is useful to make the decision early, however, so as to have ample time to read up on the history of the waterway and territory through which one passes. Fortunately, there are good publications for each. People in the United Kingdom tend to make their vacation plans early, so it is also well to make reservations several months in advance.

There are many hire boat firms from which to choose, from very small, recently organized ones, to the larger, well-established enterprises. Some provide better services and boats than others. The prices charged vary according to the month and season. Every com-

pany has to start somewhere, so it would probably be prejudicial to say that one cannot get a good boat and service from the small, recently established hire firm. When in the country, one can check out various firms in advance, and others can be chosen on friends' recommendations. For the non-resident of the United Kingdom, I would recommend choosing an older, well-established firm, such as Anglo-Welsh, Limited, which firm has the additional advantage of owning and operating its own boats rather than chartering the boats of other firms. This firm also includes all charges in its established price ranges, so that one knows exactly where he stands before and



This lighthouse marks the entry of the Shropshire Union Canal into the Manchester Ship Canal. These structures are now a part of the Ellesmere Port Boat Museum.

after the boat trip. Sometimes boats have to be returned to their base of origin and sometimes they can be returned to another base of operations, depending on the policy of the company and the length of hire. The former is the general policy.

One also has to make a decision as to the size of the boat hired, that is, one used by a couple to eight or more people. Two people can operate a boat and the locks, but it is not easy to do so. Easier, and more fun, is for four or more to share the running of the boat and the opening and closing of the locks. We encountered a few boats with couples shouting directions and other imprecations to one another. Alternatively, we passed couples who obviously had been canalling for years and enjoying it immensely.

(Continued on Page Six)

AMERICANS ON THE BRITISH CANALS

Getting there and back is (or can be at least) half the fun. For the enterprising and/or the penurious there are ways to find bargains in air fares, usually through organizations who charter trips or from others who have already found them. One can usually get a seat on British Air, Pan American, or TWA standby on the day of the flight by going to the airport early on the desired date of departure, but you can't count on it. For those who want to be sure, an advance reservation should be made. Many travel agencies are very good at finding both preferred rates and assured means of travel.

Our trip this year began at Trevor, the Anglo-Welsh base on the **Llangollen Canal** (or Welsh Canal) in Wales. Our travel companions were our friends from Shepherdstown, Dottie and retired navy captain Lou Dittmar. We were probably the only boat on the waterways which had two captains aboard at the same time.

The base at Trevor is typical of the beehives of activity that take place at each hire boat firm on Saturdays when groups of boaters are returning their boats in the morning and other groups are taking the boats out in the afternoon. All of the fueling, maintenance, and cleaning has to be done in a five-hour period. At Trevor, eighteen boats are serviced in that length of time. The operation is similar to a pit stop at a large car-racing track where teams of experts efficiently scurry through their varied tasks, "Ship-shape, Bristol fashion." The bane of any hire boat fleet operator is the customer who has a problem which he hasn't reported during the week. Miraculously, at 3 p.m. the boats were ready and eager groups of boaters began their canal boat adventures.

For those who have done it before, little instruction is needed, but for those who are boating the first time, the company provides more detailed and explicit instructions. Most of this is also contained in the instruction manual, but practical demonstrations on operating the engine and the equipment aboard is necessary. If mechanical trouble develops enroute, a phone call to the base br-

ings a repair crew to correct the difficulty in quick order.

Most of the boating parties departing Trevor brought clothing and provisions from their homes in their own vehicles, but for people like the Hahns and Dittmars, what we took had to be carried in our luggage, so we had to be selective. Most people the first time out (and yes, even veteran travelers!) tend to take more than they need. In addition to our clothing, we always have an abundance of guides and maps to add to the weight. Combining the canal trip with a week's conference in London, visits with friends in Nottinghamshire, Leicestershire, Devon, and Cheshire, and visits to other parts of the country necessitated a variety of clothing, nice for some places, medium for others, and rougher (more substantial and warm) clothing for the waterways, as well as crossing over two seasons. Early on we enjoyed an unseasonably warm and sunny period, but the last two or three weeks were damp and cool. There are always the unexpected things that happen as well, such as my helping John Atkinson take his boat from France across the English Channel and up the coast to Felixstowe, with a side trip up the River Stour, habitat of artist John Constable.

The Village of Trevor has two small provision shops from which one can get sufficient supplies to set off with. At most small places, one can find similar shops. Our Rose's Lime Marmelade ended up at the Anglo-Welsh office and our eggs in a boat described by the shopkeepers as being run by "some lads from London." Eventually everything ended up in the larder, where it should have.

Usually there is a stretch of canal to sort out things and get used to the boat, but at Trevor one immediately crosses over the spectacular Pontcysyllte Aqueduct, constructed 1795-1805 by Thomas Telford 121 feet above the Dee River. This is undoubtedly the most exhilarating canal experience in Great Britain. Shortly thereafter there is the lift bridge at Froncysyllte, typical of the other lift bridges to be encountered. And then the Chirk Aqueduct over the River Cerlog, completed by Telford in 1801, the first major structure to use the natural (hydraulic) Roman Cement



The Shropie Fly, a pub on the Shropshire Union Canal, is unique in that it has a portion of a narrow boat as its bar.

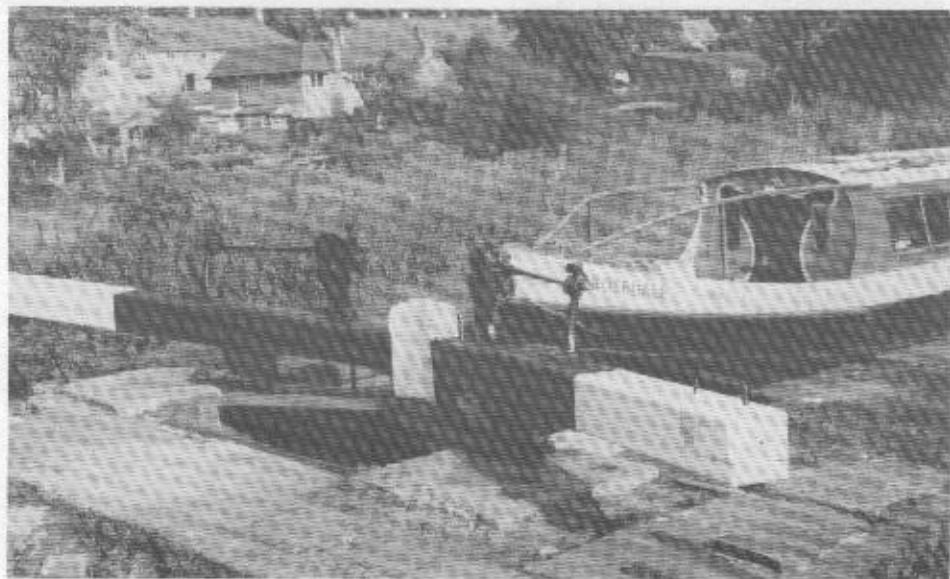
discovered by James Parker in 1795. The discovery and use of natural cement was one of the greatest developments in inland transportation, enabling mortar to set under water and to provide masonry impervious to water. Just before this aqueduct is the Chirk Tunnel, which gives one a taste of one of the many tunnels used to get through the mountains and hills of Great Britain.

Our boat was the **ROSEDALE**, typical of the Anglo-Welsh hire boats. As with most well-equipped boats, the **ROSEDALE** has a diesel engine, hot and cold running water, modern toilets, and cooking and refrigeration facilities. We were impressed by the cleanliness of the boat in particular. Canal boat living is fairly comfortable, but naturally not as roomy as living in most homes. There is adequate privacy, but most people would probably feel more comfortable with their own family or friends, or at least with those with the same habits and preferences.

One of the delights of self-hire canal boating is the flexibility of stopping whenever you want to, to take advantage of the many interesting places along the way. Near Chirk, for example, in season one can visit the c1310 Chirk Castle, or explore Offa's Dike or Wat's Dyke, ancient fortified walls stretching across the country. Even before departing Trevor one can take a bus, taxi or Anglo-Welsh mini-bus to visit the delightful Canal Museum at Llangollen, operated by David Wain. This museum was the recipient award for the best tourist attraction of the year.

The Welsh scenery is spectacular, not unlike West Virginia, with beautiful valleys and smoke curling out of nearby cottages on a damp evening. The 46-mile-long Llangollen Canal is rather shallow, particularly at the Trevor end. A break in the canal presently prevents travel up the final three or so miles to Llangollen. Breaks in the canal and problems with tunnels, lock, and other structures were obstacles to be overcome in the commercial canal operating days, and they remain problems today. Alternative routes are usually possible, however.

Meals on the canal can be quite varied, depending on the circumstances of the time and place of occurrence. Many people eat their meals aboard the boat, but most cooks prefer a vacation with something more than a change of sinks whenever possible. Boaters need some supplies aboard since they are



Details of the paddle-raising gear and the balance beams of Compton Lock, one of the oldest locks in England on the Staffordshire and Worcestershire Canal.

sometimes out in the boonies at meal time, and normally it is best to have breakfast aboard. There are also usually opportunities for places to eat all along the way. For example, on the first afternoon out of Trevor when we came to the first locks (Marston Locks), we spied a sign that said the occupant of the lock house offered take-away fish and chips, ready in fifteen minutes. We took advantage of the food, which was ready within a few minutes after going through the lock, plus having a friendly visit with the lady who did the cooking, and her cats.

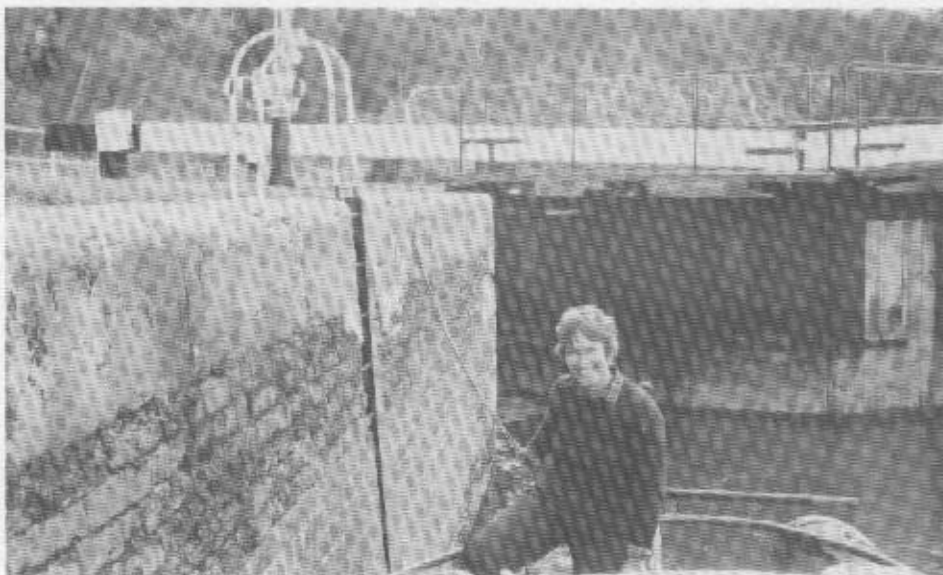
Another of the delights of the canals is the variety of the wildlife. On our first morning out we saw many rabbits on a bank of the canal, followed by geese flying overhead and then more geese in a field mixed with blackbirds; many pheasants in cut-over fields; cranes which always flew ahead of the boat; the beautiful kingfisher; the English robin, smaller than its American cousin; and, the common moor hen, equally at home in the water or in adjoining fields. Perhaps the most unusual birds we observed were the European lapwings, sitting statue-like in a field, the birds all facing the same direction.

As a gesture of hospitality, Anglo-Welsh provided us with an American flag to fly as our ensign. The second day out, while stopped at a pub at Wrenbury, someone came to the pub and asked whether we belonged to the boat "with the American flag" which had broken loose from the mooring pins from the wash of passing boats and was adrift blocking the channel. Thereafter, we learned to fly the flag only when we were reasonably sure that we would not create an international incident. At the end of the voyage someone slipped aboard and stole the flag, undoubtedly an ancestor of some frustrated individual who had been unable to obtain one at Yorktown some 200 years ago!

We always enjoy a walk to the village and towns along the way. At Ellesmere, for example, there stands the old canal maintenance yard, and farther along the sign of the "Shropshire Union Canal Company" on the side of a building, and the row houses once occupied by canal employees. Down the line of the Shropshire Union Canal (which linked Birmingham with Chester) at Nantwich, we enjoyed the half-timbered buildings and had onion and cheese pastries from the bakery, on the village green.

The trip on the Llangollen and Shropshire Union canals was familiar territory, and this was the fourth trip on the latter, for the Hahns. However, it is just as enjoyable to experience the familiar as the new. For example, on a trip several years ago the canal row houses mentioned at Ellesmere were unoccupied and badly in need of repair. This time they were all in repair and well maintained and occupied by happy tenants (at least they looked happy). And, though we had passed Nantwich three times before, we had never gone into the town. This time we had time to do so twice and it is now one of our favorite English towns.

Shortly after leaving the Shropshire Union Canal for the Staffordshire and Worcester Canal near Birmingham we entered new territory. We bypassed the 21-lock climb into the old industrial parts of Wolverhampton and Birmingham (the "Black Country") where we had been before in order to proceed as far south as possible before returning back to home base. The Staffs. and Worcs. Canal connects the Trent and Mersey Canal with the



A typical lock on the Severn River. The river locks usually have locktenders because of their size and the changeable conditions on the rivers. Nathalie Hahn is at the tiller.

River Severn at Stourport, a part of James Brindley's "Grand Cross" to connect the major rivers and their ports by means of canals, through the heart of England. At Compton Lock stands the first lock built by Brindley in the late 1760's. It gives one a good feeling to be able to use such an old structure. As is common, the canal engineers built these locks of brick rather than of stone as is common in the United States. An unusual feature of the Staffs. and Worcs. bridges over the locks is the slot in the middle of the bridge decking (making the bridge a cantilever) to allow the tow rope to pass through so that the rope did not have to be unhitched from the horse or boat while passing under the bridge.

At Hyde Lock the occupant of the lock house sold the best scones that we had while in England. And, that evening we ate in what we considered to be the most unusual place of the trip, the Whittington Inn, a nice walk from the canal. The Inn was built as a manor house in 1310 and first became an inn in 1783. Just as we have "George Washington Slept Here" historic places, so has England. In this area places where King Charles II stayed in his six week escape from defeat at the Battle of Worcester in 1653. Whittington Inn was one of those places.

Ordinarily one does not encounter bad situations on the canals, but there are sometimes unusual ones, such as the morning on the

Staffs. and Worcs. Canal when we encountered a very large tree which had fallen directly across the canal the previous night. Thanks to the salvage effort of Captain Dittmar, we had the tree removed before a British Waterways Board maintenance crew arrived to take over.

A good rain slicker with a hood is handy on the waterways whether one is driving the boat or walking into town. Most British people bring their Wellingtons (rubber boots) with them, but that is too much to carry for those traveling with suitcases. We prefer to use sneakers and to let them dry in the hot locker when they get wet. When driving in the rain, a good, hot cup of coffee or tea helps to keep the damp away, and you get a feeling for what it would have been like boating in "the old days."

Though we prefer the tranquility of the narrow canals, rivers offer the luxury of having locktenders to operate the locks, offer a change of scenery, and having a different type of boating. Unless a river is in flood, in which case one should not use it, or there is a tide, rivers are not much different to use than canals. An advantage is that there are not usually mud flats where there is a channel and there are few weeds. Travel downstream is about twice as fast as on a canal, but twice as slow going upstream.

This trip we traveled on the Severn River from Stourport, the terminus of the Staffs. and Worcs. Canal, to Worcester. That was as far as we could travel comfortably and to return to base with a safety margin, and also have the fun of spending the day in that delightful city. Of interest there are good restaurants, the theater, the marvelous cathedral dating from 1074, and the home of Royal Worcester Porcelain.

A canal boat is a nice place to entertain friends by providing a day's outing on the canal or river; observing the passing scenery, and the working of the locks and the driving of the boat, by those so inclined, provides ample entertainment for all. The facilities for preparing food are simpler, but then, no one expects a banquet on the water.

(Concluded on Page Eight)



ROSEDALE passing through the unique Bratch Locks on the Staffordshire and Worcestershire Canal.

AMERICANS ON THE BRITISH CANALS

(Concluded)



You needn't be very old to become a boat operator. A cup of tea also helps, says canaller Georgina Handford.

More and more frequently now, the pubs in England and Wales offer simple meals. This is a nice way to have a break from the boat, to take a nice walk to the pub, and to enjoy meeting other people and to see the interesting interiors of some of the pubs as well.

A joy of canal boating is that the boater can hop off at locks and bridge holes (where the canal narrows) to take a walk along the towpath to the next stopping place, enjoy a side jaunt along an adjoining country road, or take longer cross-country jaunts, catching up with the boat at some pre-determined place. Toward the end of our trip I took an exciting hike along the abandoned Cambrian Railway from near Whitchurch in Shropshire through a corner of Wales to Oswestry, Shropshire. One stretch led across a peat bog with its completely different flora. At some spots farmers had taken over the right-of-way. I entered one unposted area to find on leaving it a sign that read, "No fee for trespassing. The bull will charge later."

At one point Dottie and Nathalie took a jaunt on some side roads and they missed the boat because of a mixup of bridge numbers. When Lou asked a fisherman if he had seen them, the fisherman described them in detail (although the women said that he never looked up) and added that, "One of them was middle-aged and the other a little younger." Since they are the same age, they are still wondering which is the "younger woman" that he had in mind.

As we went along, we began accumulating things. I had taken fairly old clothes for the waterways, so I discarded them as we went along. I wondered why I still had ample underwear, when I discovered that I had been using the drawer of the cabinet that belonged to Captain Dittmar. On our last day in Wales, while driving the boat, I came across a man who had somehow fallen into the canal who was pouring water out of his boots. He seemed a bit surprised when I tossed him my rain slicker which had developed a tear and a couple of other articles of clothing.

On return to Trevor on the second Saturday, we found the weekly "turn-around" process underway, with happy, but tired, vacationers loading up their cars and vans to return to the work-a-day world of making a living. Thanks to Anglo-Welsh, our good boating partners, and the waterways maintained by the British Waterways Board, we once again enjoyed a wonderful vacation on the British canals and rivers. You should try it sometime!

A recent letter printed in *Engineering News Record*, "Taxpayers against Tenn-Tom" (*Enr.* 9/17/81 p. 16), hinted that all taxpayers should be against completion of this waterway. Having a "back of an envelope to scribble on and a calculator," as does the gentleman who wrote the letter, I do not come to that conclusion.

The long-sought link in our nation's inland waterway system has been projected to be, and still remains, cost-effective. The Tenn-Tom will be of great importance to future commerce, energy resources, regional development and national defense. It is clearly in our country's best interests to complete it.

With over 55% of the project constructed to date, the only "absurdity" would be to stop it now. One need only look as far as the economically crippled Mahoning Valley in north-eastern Ohio to see the past results of such narrow attitudes. Today, mile after mile of abandoned mills along the banks of the un-navigable Mahoning River are a mute reminder of what damage other "public serving" waterway foes helped to create in the late 1950s. Then it was the Lake Erie-Ohio River waterway proposal (a project much like the Tenn-Tom in concept) which met defeat by the lobbying of well-organized canal foes.

As always, railroads and other competitive transportation modes are struggling for their own financial well-being, if not for their lives. Nonetheless, the nation's best overall interests must be served by a balanced transportation policy, one which is not derailed by special-interest groups, nor scuttled by those who are against any capital improvement that doesn't fall in their own backyards.

As vital arteries in a balanced transportation system, improved inland waterways have great potential to contribute to our nation's cumulative economic strength. The pressure to move coal on the railroads, waterways, highways and pipelines of the U.S. is severe and the mounting crunch will necessitate an expansion in capacity on a scale without precedent. Fortunately, the Reagan administration views commercial navigation projects and improvements to be among the highest priority of water-related public works. Hopefully, the Tennessee-Tombigbee Waterway will be completed and subsequently permitted to prove waterway critics wrong, as they have often been before.

RONALD D. REID, P.E.

NEW MAP OF D. & H. RAILROADS

Delaware and Hudson Canal enthusiasts will be interested to know that a revised map of the two Gravity Railroads serving that canal is now available. Ed LeRoy, whose book *The Delaware and Hudson Canal* is now in its second printing, was the consultant on map revisions. It shows profiles of both the up-bound and down-bound tracks of Delaware and Hudson Canal Company Railroad, and the same for the Pennsylvania Coal Company Railroad. Both Gravity Road routes are shown in detail (with each plane identified) over the entire area of the northeastern Pennsylvania coal fields and canal junctions which they served. The 17" x 22" map, on good stock, is printed in three colors and is on sale at the Wayne County Historical Society, 810 Main Street, Honesdale, PA 18431.

CENTRAL EUROPE WATERWAYS



ACS Director Bob Mayo sent us this interesting clipping from the November 4th, 1982 issue of *Engineering News Record*. It revives again the long-controversial proposed connection between the North and Black Seas in Europe and extensions.

Construction of a 320-mile connection between the Danube, Oder and Elbe rivers that would vastly expand Europe's freight-carrying inland waterways is viewed in a study by the Geneva-based United Nations Economic Commission for Europe (ECE) as "expedient, technically feasible and economically advantageous."

The study urged the connection's three riparian states—Czechoslovakia, Poland and Austria—to work out a basis for preparing an agreement among themselves on the project.

However, a senior ECE official said that a start on the project "is not for tomorrow." He said that no consultations have taken place, yet between the three riparian states, adding, "In the context of today's economic situation, particularly in Poland, I see little hope for this project for some years."

Estimated cost of the project in 1978 dollars is \$4.3 billion in capital investment plus \$3.8 billion for construction. Financing would require extensive western credits, according to the ECE official—an unlikely prospect in view of the already huge western debt of Czechoslovakia and Poland. But the Danube-Oder-Elbe connection would not require western technology, ECE experts say.

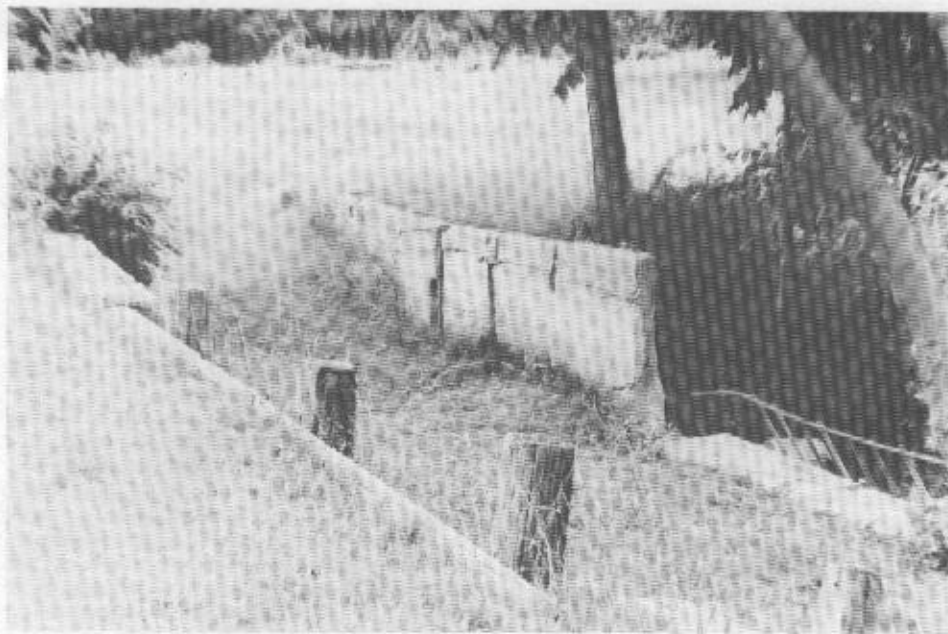
The study indicates the project could be completed in 15 years but recommends dividing the work into two stages over 20 to 25 years. The connection between the Danube—beginning near Bratislava in Czechoslovakia—and the Oder would be completed first.

The job includes about 280 million cu. yd. of cut-and-fill and some 10 million cu. yd. of concrete, according to the study. Recommendations call for locks able to handle barge trains 445 ft. long.

In another East-West waterway operation, hopes for completing West Germany's Europa Canal rose with the recent change in that country's government. Led by Chancellor Helmut Kohl, the new government is viewed as favorable to getting the half-finished project under way again. The previous government had stopped work on the 106-mile artery, citing budget-cutting reasons for the halt.

When completed, the Europa Canal will carry traffic between the North Sea and eastern Europe in a linkup of the Rhine and Main rivers with the Danube.

THE CLINTON-KALAMAZOO CANAL



Ruins of the Clinton-Kalamazoo Canal at Yates Cider Mill near Rochester, June 1982. Photo taken from the north side of 23-Mile Road. (Photo by Howland Fisk.)

By Howland W. Fisk

The Clinton-Kalamazoo Canal project was the first large public works undertaking by the new state of Michigan in the late 1830's. Spurred by the success of the Erie Canal in New York, backers of the project envisioned an artificial waterway stretching across the state, making use of the water of the Clinton and Kalamazoo Rivers, thus linking Lakes St. Clair and Michigan. The 1837 legislature, new and inexperienced, authorized this project as part of a master plan for canals connecting the infant state's population centers of the time. Believing that the state's expenses could be paid out of receipts from the canal and other state transportation projects, the legislature approved a "Five Million Dollar Loan" bill to sell bonds to finance the canal building. They instructed the 20-year old Boy Governor, Stevens T. Mason, to negotiate loans from Philadelphia financiers. As it turned out, the finance company from which Michigan had been borrowing money for the canal went bankrupt, and so did the State Treasury. Lack of funds forced the canal building to be stopped after it had made considerable progress across the state.

The canal was started with a "spurt of enthusiasm". Actual digging began on July 20, 1838. Mason, the Governor, was on hand to turn the first shovelful of dirt at a point just off Cass Avenue near Mt. Clemens. Shovelful-by-shovelful, the 20-foot wide ditch stretched slowly toward Utica. Scores of contractors were hired by the mile, working in different sections, and each contractor brought in a rough and ready crew of workers. Brawny arms wielding picks and shovels took the place of modern steam shovels and the men literally hacked and dug their way through a vast wilderness and many swamps.

Shouts and risque songs filled the air as the men toiled. Overnight, villages sprang up along the route to offer food, drink, and wild fun to the devil-may-care diggers. Old timers

in the vicinity recall hearing the stories, told by their fathers, of nights of drunken rowdyism, gambling, and robbery. The little "boom" town of Frederick, long since vanished from maps, came to life near the old Moravian Indian village just south of the Weaver Rose houses near Mt. Clemens. Residents anticipated a flood of immigrants and freight. But, like the canal, it was destined for oblivion.

The diggers used picks to loosen the earth, shovels to move it, and wheelbarrows to haul it away, placing it in such a way as to form a towpath paralleling the canal. The plan was to carry goods and passengers on horse-drawn barges. Along the way, men had to build locks and dams out of stone and heavy timbers to overcome the one major obstacle to the canal,

There was a 200-foot drop in terrain from Pontiac to Lake St. Clair.

The days passed and the canal began to snake its way past Utica on a course parallel to the Clinton River. Various kinds of mills and distilleries were hastily constructed along the route as speculators got in on the "easy money".

At Yates Crossing near Rochester, an aqueduct was constructed which carried the canal over the top of the Clinton River at right angles. It was the first time that the canal crossed the river and it was strange to see two streams cross each other and not touch! From Yates Crossing, the canal wound through farms, across roads, and through hills until it finally entered the once navigable part of the Clinton River in Bloomer State Park. Work came to a halt at this point. The state's funds had run out.

My research turned up different dates when the project actually was halted. Some accounts give 1842, others 1843. The records show that the canal opened to barge traffic, but not in the volume that was anticipated. Only two boats reportedly ever used the canal. One of them was a flat-bottomed horse-drawn barge built by Asa Brown, a Rochester carpenter. Brown launched his craft in 1844 with all due ceremony. His invited guests, leading area citizens, boarded the barge. After a mile the barge approached the first lock. It got stuck and was left there. The other boat ran between Frederick and Utica for a short time, but made little or no money.

What went wrong? The State of Michigan withdrew its support because it could not find lenders. The state treasury went bankrupt. Contractors did not get paid, and their workers received nothing. The workers became disillusioned and disgruntled, and resorted to vandalism, destroying much of the construction that they had done. The action of wind, rain, ice jams, cave-ins, and the fast-growing wilderness sounded the canal's death knell. The emergence of the railroads as a better and faster means of transportation didn't help either.

(Concluded on Page Ten)



Ruins of the Clinton-Kalamazoo Canal, Yates Cider Mill, Rochester, June 1982. In the background are several metal beams which helped support the old Aqueduct over the Clinton River just below. (Photo by Howland Fisk.)

CLINTON-KALAMAZOO

(Concluded)

The Michigan Historical Commission used its first commemorative marker on June 26, 1957 to recognize the historic but unsuccessful canal project. On that day, the historic plaque was dedicated at Boomer State Park, appropriately at the end of the canal. The occasion was the annual picnic of the Oakland County Historical Society. The plaque is inscribed with a large map of the canal route and the following inscription:

"This canal, conceived at the peak of the era of canal-building, was part of Michigan's internal improvements program which was announced in 1837. The Clinton-Kalamazoo Canal would make it possible to cross southern Michigan by boat from Lake St. Clair to Lake Michigan."

"On July 20, 1838, construction began at Mt. Clemens amid much fanfare. Hard times, however, soon made it difficult to sell bonds to finance the canal. When the excavation reached this point in 1843, the money ran out, and all work ceased. With the coming of the railroads, support for the canal vanished. The completed part was little used."

Soon after abandonment, title to the land and water rights passed into the hands of the Crissman family of Utica who kept the channel open from Rochester to Utica. The old canal proved useful long after it ceased to be a possible freight and passenger carrier. The Utica Milling Co., founded in 1883, took over a mill built in about 1847 and used canal water for grinding farm produce for over a century. The business was liquidated in the 1960s. The canal was not always reliable during those years, as muskrats constantly burrowed into the canal sides causing them to leak. Spring leaks and winter ice jams caused a change in water pressure and repairs were often needed.

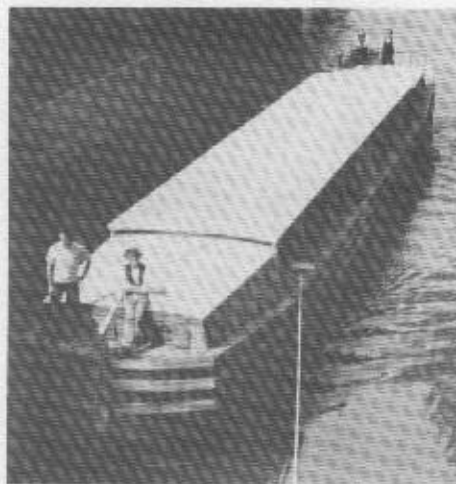
Yates Cider Mill, located at 23 Mile Road and Dequindre, began operation in 1869 when William Yates moved from New York to build a saw and feed mill. To get a water supply, Yates built a wooden dam across the Clinton River to direct water into his mill. The dam has been kept in good repair and can be seen today. The mill has been in continuous operation ever since. The original turbine water wheel and machinery are still being used to operate a cider mill. In the summer and fall, many visitors jam the area every Sunday to enjoy cider and doughnuts.

Little remains of the 12 miles of canal built between Mt. Clemens and Rochester. Despite the passing of 144 years, vivid traces can be found. Much of the canal from Mt. Clemens to Utica consists of weed-choked drainage ditches. Other sections have been covered over or filled in. At Yates Cider Mill you can still see several separate sections of canal channel and ruins of the old aqueduct which carried water over the Clinton. The canal is dried up and filled in with dirt and grass. It is surprising that even this much is visible, considering the encroachment of wilderness and the destruction that took place so long ago.

VIRGINIA CANALS AND NAVIGATIONS SOCIETY

Congratulations are in order for the Virginia Canals and Navigations Society in its activities and its newsletter, *The Tiller*. It is obvious that President Bill Trout and Editor Russ Harding and others are doing an excellent job.

C & O CANAL BOAT CHRISTENED



"The Georgetown"

A new replica of a Chesapeake and Ohio canal boat christened by the National Park Service at its C&O Canal National Historical Park in Georgetown on September 7th, 1982.

The public christening ceremony at Lock #3 dock site was officiated by Dick Stanton, superintendent of the park. Appreciation and other appropriate remarks were expressed by Manus J. Fish, Director, National Capital Region, and Russel E. Dickenson, Director, National Park Service.

In attendance were Martin Atlas, President of the Morris and Gwendolyn Carfritz Foundation of Washington, D.C., which donated funds for the construction and transport of the new boat, "THE GEORGETOWN"; and Robert K. Gray, Chairman, Gray and Company which donated mules to tow the boat. Mr. William Rogers, former U.S. Under Secretary of State, was a surprise visitor to the ceremony.

THE GEORGETOWN was built in 100 days by Fiber Glass Fabricators, Inc., of Pascagoula, Mississippi, who were awarded a contract through competitive bidding initiated in early February to, "Design and construct a historical barge." Proposals were due 23 March. Plans were delivered by William G. Preston, of Marine Power, Inc., Gulf Breeze, Florida, and were based on 1939 plans and measurements of C&O Canal Freight Boat No. 57 in Hancock, Maryland. THE GEORGETOWN has an overall length of 87'2", a beam of 12', and a draft of 1'5". The estimated cost of construction was \$150,000. She has a fiberglass hull.

THE GEORGETOWN successfully completed her maiden voyage less than two hours after she was delivered and placed in the canal. Public service began in September with two-mile rides, including lock passages. Another boat, THE CANAL CLIPPER, is also operated by the National Park Service at its Great Falls Park on the canal.

Captain Tom Hahn, industrial archaeologist, was an early consultant on the project with three firms submitting bids. He in turn recommended the services of Carroll Gantz, of Easton, Maryland, former Chairman of the American Canal Society Canal Boat Committee and designer of the ST. HELENA in Ohio, to Mr. Preston regarding authenticity of the new design. Mr. Gantz attended the christening ceremony and adds some editorial comments which reflect his own opinion!

"THE GEORGETOWN meets all the technical and functional requirements defined by the National Park Service, and surely will provide a popular public recreational feature to the park. Unfortunately, thousands of passengers and onlookers will be deprived of important historical accuracy and emotional experiences due to NPS' insensitivity to design quality.

"For example, the basic historical configuration of the C&O Canal Barge consists of three small cabins, with open cargo decks between. NPS specifications required an unbroken rigid roof covering the entire boat, which, in fact, is higher, by about a foot, than the actual small cabin roofs. Not only is this roof too tall and incongruous with the 'look' of a C&O Canal barge, but it completely obscures passenger visibility upwards, and onlooker visibility downward into the boat.

"In Georgetown such upward and downward visibility is vital to the enjoyment of the site! Without it, passengers are confined to views of lock walls, and onlookers often confined to a view of a white roof not unlike the top of a Greyhound bus. Despite conscientious alternative design proposals offered by Mr. Preston to solve these historical and aesthetic problems, NPS rigidly adhered to design specifications presenting them.

"Secondly, visual construction details on board are less than mediocre. They are poor. One sees standard contemporary construction materials such as 2' x 4' s, 4' x 4' s, and siding which is fitted and finished less carefully than a typical residential house framing. One sees department store light fixtures, cast aluminum rope cleats, park benches, and other reminders of the 20th Century—all of which detract from the sense of history promised before the ride by mules and carefully period-costumed crew.

"One can forgive such carelessness in reconstructions built by volunteers, in small communities, under severe budget limitations, as many have been. But in the context of Historical Georgetown and our Nation's Capital, it seems almost an affront to visitors from all over the world!"

CHAMPLAIN CANAL TOUR PLANNED

ACS Director, J. Hayward Madden, has arranged a three-day tour of the Champlain Canal on the "Emita II" June 25, 26 and 27th, 1983, with the full cooperation of the American Canal Society and the Pennsylvania Canal Society. The trip will be limited to fifty passengers on the charter boat "Emita II" leaving Albany and running to Whitehall, at the junction of the Canal and Lake Champlain, and returning to Albany. The group will be housed for two nights at a fine old hotel in Glens Falls going and coming. Approximate cost of the entire trip, including all meals, transportation and over-night accommodations—three hundred dollars. For full details contact Hayward Madden at 5847 Decker Road, Livonia, New York 14487. Cut-off date for reservations is February 1, 1983. (Publisher's note: J. Hayward Madden was recently elected Vice President of the newly-formed Canadian Canal Society.)

THE THAMES BARRIER IS WORKING

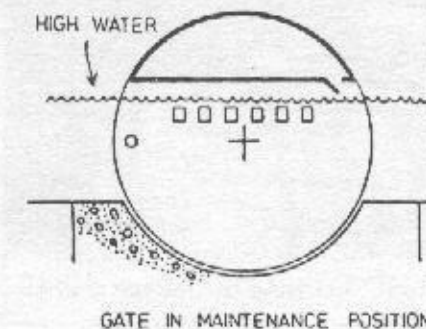
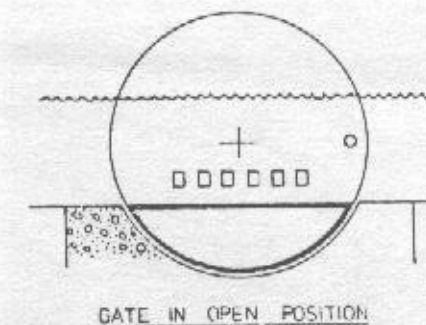
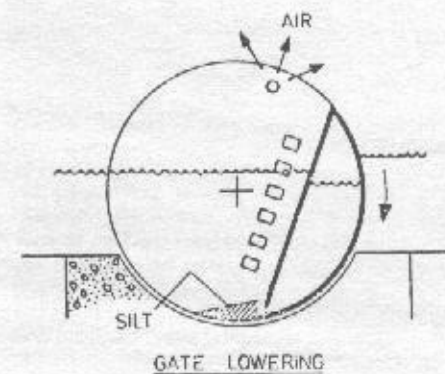
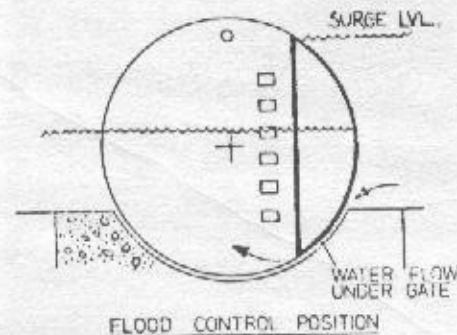
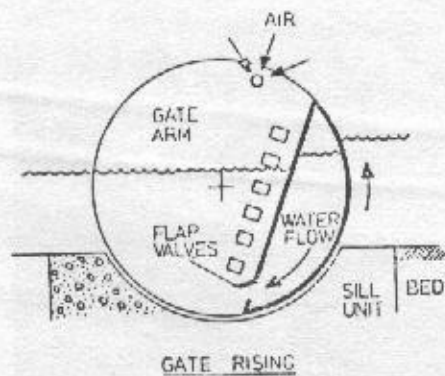
By Roger W. Squires

Navigation on the tidal section of the Thames was brought to a halt for over eight hours on Sunday 7th November 1982, when the ten moveable gates on the new 450 million flood barrier were raised to hold back the high tide. This was one of a series of trials of what is claimed to be the world's biggest moveable flood defense barrier. The first, but secret, trial was completed at dawn on 31st October 1982. The results of that secret test proved that London could be protected from flooding. Currently, the ten gates all have to be operated individually from each pier, which houses an auxiliary control panel. When the works are completed next Spring all the gates will be controlled from a central switch board housed on the south bank.

The construction of the Barrier has been underway since 1974, but has been 'dogged' by disputes. It has its origin in an Act of Parliament which was gained by the Greater London Council in August 1972. The site was chosen in Woolwich Reach, some 14 kms downstream from London Bridge, because of its good approaches for navigation from both directions and also offered good foundation conditions in the chalk bedrock.

The Barrier was designed to allow navigation for vessels up to 20,000 tons GRT. Four main navigation openings of 61 m were provided in the design. Rising sector gates were chosen to close these main channels. This type of gate is segmental in section and lies in a recessed sill in the bed of the river when in the open position. Its movement is achieved from end structures which rotate about massive shafts, which are built into the piers at either side of the opening. The gate spans are unsupported between the piers, and this is the factor which limits the size of the opening for this type of gate. Closure of the gate is effected by rotating the whole structure about the pivots. The operating mechanism consists of twin hydraulic cylinders and pistons, provided at each end of the gate, which are connected by piston rods and links to a radius arm which rotates about a pivot. The hydraulic cylinders and pistons are arranged so that one piston thrusts on the radius arm below the pivot while the other pulls on the arm above the pivot.

The rising sector gate is an innovation patented by Mr. C. DRAPER of Rendel Palmer & Tritton and Sir Bruce White Wolfe Barry and Partners, and has the great merit of being recessed in the river bed when open so providing a clear water channel. At the same time it can be easily moved to a closed position by the rotation of the gate arm through 88 degrees. Rotation through a further 92 degrees raises the gate leaf to a position clear above the water to allow for inspection, cleaning and maintenance. Access to the Gate Axle Piers can either be gained by walking across the gates when they are in the maintenance position, or through twin tunnels that have been built within the main sills. Sill access tunnels are linked to the shore workshops by subways which also carry the power and control cables that link the individual hydraulic rams to the central control room to allow fully automated operation of the Barrier in times of flood conditions. The Barrier will only be operated in times of flood risk and it is not going to be used to impound the tidal section of the River Thames through central London,



which is always navigable by smaller craft at any stage of the tide.

Operation of an individual gate takes about 15 minutes, but in order to allow for a staggered start of the various hydraulic power packs, total closure of the whole barrier from the central control point will take about 30 minutes. To meet the requirements of the Port of London Authority 1 1/2 hours warning has to be given to shipping before the Barrier is closed. Before any boat passes through the barrier, even when the gates are down, Captains must gain authority from the barrier control. There is no charge for boats passing through the barrier, which has been financed out of Land Drainage Funds, and it has already become a prime tourist attraction for those who cruise downstream.

CLASSIFIED ADS

OHIO CANAL BOAT PLANS used as the basis of reconstruction of ST. HELENA II, in Canal Fulton, Ohio, 1970. 1/4" to the foot, printed on antique green paper suitable for framing 17" x 23". \$6.00.

and, **OHIO CANAL BOAT WATERCOLOR PRINTS** in full color. Used in the reconstruction of ST. HELENA II 17" x 23", printed on watercolor paper suitable for framing. \$3.00. Both by designer of ST. HELENA II, Carroll M. Gantz, 13 Woodland Drive, Easton, MD. Add \$3.00 for shipping.

CANAL TRIPS IN FRANCE—For the first time, American canal enthusiasts can travel the canals and rivers of France at economy rates. Waterway Exploration now offers exciting trips during the months of May through October in the M.S. OUDERZORG. This ship was built in 1929 at Roermond on the river Maas, and carried cargoes all over the European waterways. It has now been converted to pleasure use by Chris Ryle of England and offers the following accommodations: A forward cabin with two single berths, two spacious double cabins, and one large cabin for four persons, a large saloon and a galley, and generous deck space crew's quarters.

Waterway Exploration offers the comfort of a spacious, well converted Dutch barge with its own professional crew at a price that compares favorably with the smaller, cramped, plastic boats common in France. If your canal society books the entire boat with ten berths, it can receive a five percent rebate for society use. This can also apply to other charitable organizations. The individuals of each such group will receive a five percent reduction.

The OUDERZORG plies the tranquil rivers and canals of France providing a unique vacation to absorb the French atmosphere away from the crowded tourist places and package deals. Walk or cycle along the tree-lined towpaths, explore the narrow winding streets of the Medieval towns, sample the delicious foods, and soak up the sun. The OUDERZORG is 94'6" long, and has a beam of 14'6".

The price per person varies, according to the month, from about \$110 to \$120 per week. For a brochure with a map of the waterways taken, attractive illustrations, a layout of the boat, the complete itinerary dates, and prices, write to: Capt. Dr. Tom Hahn, American Agent, Waterway Exploration, P.O. Box 310, Shepherdstown, WV 25443.

"BIG CHUTE" ON THE TRENT-SEVERN

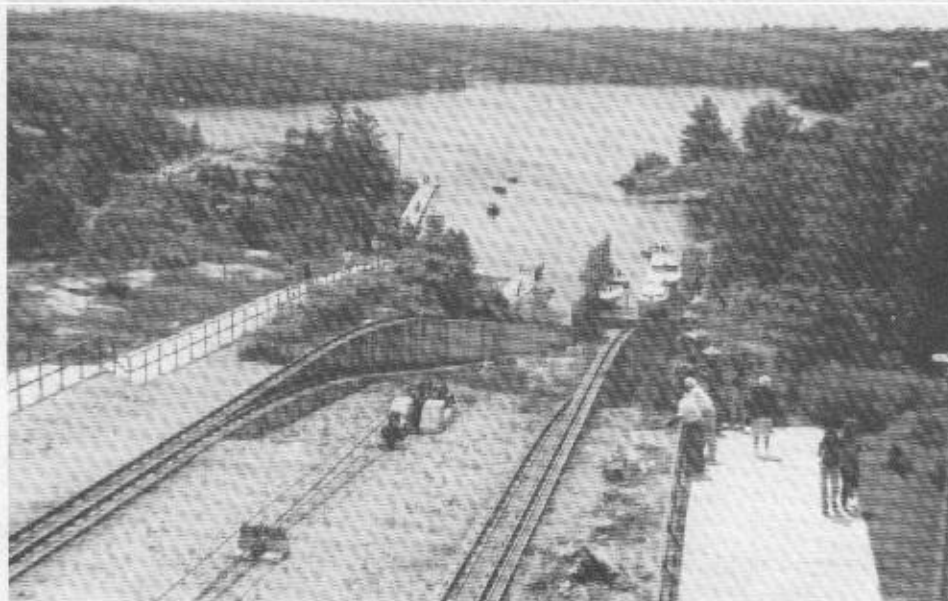


Boat Carriage at Big Chute showing the double tracks entering the water beneath it.

As Member Walter L. Meseck sent in several photos of the new Marine Railway at Big Chute on the Trent Severn Waterway in Ontario. He writes, "Several years ago I went over the old railway on our way to Georgian Bay. The new one is quite an improvement and quite a piece of work. While the old one was smaller and did the job, it had one fault: When you were going down the long hill, head first, any water in the boat exhaust pipe and muffler could run forward and into the engine making it impossible to start again. The new cradle remains horizontal and eliminates that problem. The new railway...is quite complicated and all hydraulically controlled. The slings and shores, which hinge out of the bottom of the car, are all controlled by buttons in

a console on the wings. It does, however, have six men operating it. At least there were six on Sunday. Maybe that is because it was a busy day. (Mr. Meseck's address: 2100 Linwood Avenue, Fort Lee, NJ 07024).

(Publisher's Note: There have been previous articles published in AMERICAN CANALS on the Trent-Sever Waterway and Big Chute in particular: Issue #32, page 4; and Issue #35, page 3. We refer our readers to these articles for further details. However, the two photos by Mr. Meseck, published here, show extremely well the double track and carriage supports which hold the boats in a perfectly horizontal position, during their trip from one level of the waterway to another).



Offset tracks of Big Chute "going over the top", showing the reason that all boats are held level during the lifting operation.

ILLINOIS MICHIGAN CANAL MAY GO "ON THE BLOCK"

(The following article appeared in an Illinois newspaper in April of 1982. ACS Member, Dr. Robert Whalen decries the fact that most of the old Illinois-Michigan Canal Route may be sold to private interests and disappear from the historic scene forever).

Just a few weeks ago the La Salle river came up and flooded the "bottom" road. This will be the only vehicular access to the towpath on the Illinois-Michigan Canal at the La Salle-Peru end of the canal now that the Lock 14 bridge is being demolished by the Illinois Department of Conservation. This flooding has happened before and no doubt will happen again. Mother Nature has a habit of repeating herself.

Yes...the Lock 14 bridge in La Salle is coming down. No matter that it has a practical use as well as historic significance or that it could be improved both in appearance and usefulness by a little effort and a small amount of money. It will disappear like the old "Q" railroad bridge which stood nearby.

As to the much-touted Illinois-Michigan Canal Corridor Concept, we disassociate ourselves from the newly-introduced legislation, H.R. 5665 and S.2157. We especially object to Section 13 giving the canal back to the State of Illinois.

Does anyone doubt that Big Business or Special Interest groups who have land adjoining the canal will not succeed in buying or dealing for canal land from the state and thus remove it from public ownership. (The original legislation creating the canal stated that it should stay in public use and a reverter clause has caused the State of Illinois to lose title to the canal when it started to dispose of parts of the canal.)

What is the record to date in our area by the State of Illinois in providing maintenance on canal lands? The Hennepin Canal was given to the State in 1947 by the Corps of Engineers — 35 years ago. The newspapers have chronicled a dismal story.

The Illinois-Michigan Canal was transferred in 1974 and virtually nothing has been done in spite of many studies. Indeed, the federal government's record is even more lamentable. The return of Illinois Taxpayers' dollars in the form of National Park Service and Lands is a city lot (Lincoln's Home) in Springfield.

The Citizens of Illinois lose again with the proposed bills H.R. 5665 and S.2157.

A quest (in this case over 10 years) for the restoration of a historical treasure, a multi-use recreational area where the land is free and the canal is intact for at least 60 miles, a truly economical resource...all this in our own backyard.

Was it an impossible dream?

Roy Kurkowski & Bob Whalen - Two local boys who did not carry a big political stick.

ERIE CANAL AT THE WORLD'S FAIR

In submitting an article on the Erie Canal, The Reverend N. H. Wooding, MD., asks if there is any ACS member who remembers someone singing Erie canal songs at the transportation section of the World Fair at New York some 45 years ago?

(Dr. Wooding's address is The River Bend Clinic, 11 South Main St., Halifax, VA 24558).