AMERICAN CANALS

BULLETIN OF
THE AMERICAN CANAL SOCIETY

BULLETIN NUMBER 34 | Editorial Address – Box 310, Shepherdstown, W.Va. 25443 | AUGUST 1980

A SUMMER COOLER

This ice skating scene is on the *Rideau Canal* in Ottawa, Canada, the Capital City. The spire to the left is the Canadian Parliament Building. The spire to the right is the Laurier Hotel. Between the Parliament Building and the hotel is the famous flight of eight locks that runs from the Rideau Canal to the Ottawa River. North of the bridge and to the right is the old train depot. In the summer time this area makes a fine docking and tie-up for over night boat camping. There is also a very good museum in the locks area. The City of Ottawa was once known as Bytown (After engineer John By). It is said that that Queen Victoria chose this Indian name over that of Col. John By's. (Bev. Wm. Morant, ACS)

TRANSPORTATION LIBRARIES DIRECTORY

The Special Libraries Association, Transportation Division, 235 Park Avenue South, New York, N.Y. 10003, has published a 221-page directory ($10.75 ppd) but the only canal libraries listed are the Canal Museum in Syracuse, and the Massachusetts Maritime Academy (Cape Cod Collection: see American Canals 17:5). There are also listed a number of libraries with some inland waterways interest but they are missing some good canal collections. Make sure your favorite canal library is listed in the next edition by asking them for a questionnaire.

PRESIDENT'S MESSAGE

Sales of our new book – BEST from AMERICAN CANALS – continue. Recently we have been receiving a number of orders and inquiries from the Great Lakes area – as a result of publicity given our book by marine publications there.

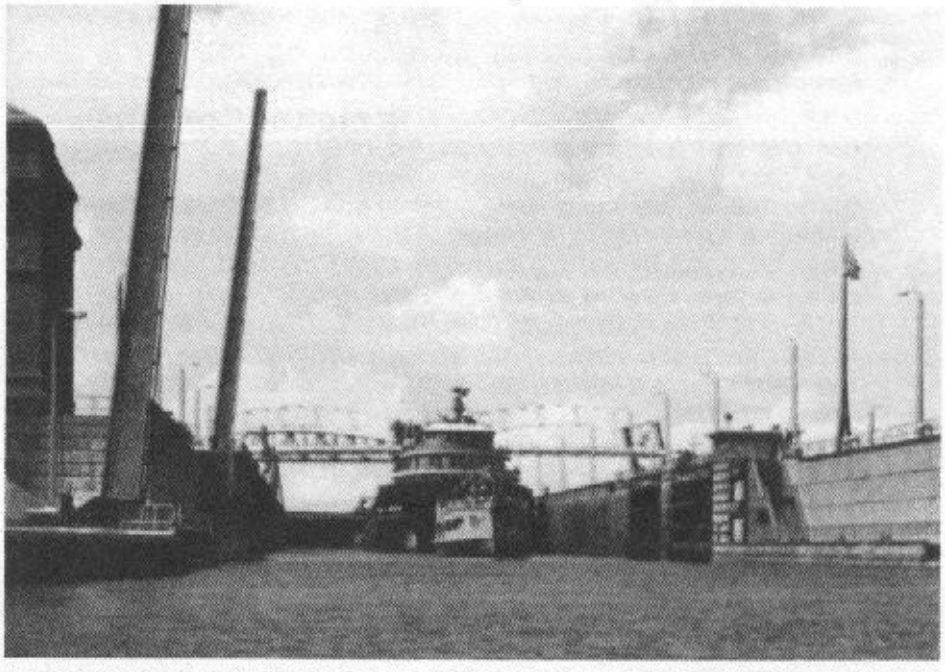
We welcome, into LIFE MEMBERSHIP in ACS, Dr. Nathaniel H. Wooding of Halifax, Virginia. Our Life Membership list now stands at twelve – two from Canada, one from England, and the balance from the USA. We encourage other members to follow the example of these special members, not only as an expression of confidence in the future of ACS, but as a hedge against future cost increases. ($100. will put you on our permanent mailing list.)

Peter Stott, former Chairman of the ACS Canal Index Committee, has now turned over to me his voluminous files, and I am studying them to determine how much additional work is necessary to complete the excellent job which he began eight years ago. Already I have heard from several of our members who wish to help complete this important work. No doubt we will want to publish the final product for the benefit of all ACS members, as well as individual canal societies, throughout North America.

Our Canal Calendar indicates that there are still many interesting events coming up during the balance of the Summer and early Fall. We encourage all canal societies to keep us informed of their activities – in advance! Best wishes to you all . . .

Bill Shank

"Soo Locks" Pass 20,000 Ships a Year



Bill Etchberger, of Lebanon, Pa., recently visited the "Soo Locks" at Sault Ste. Marie, Michigan. He sent us the above picture of the largest and newest of the five, parallel locks which raise or lower ocean-size vessels the 23 feet of difference in level between Lakes Superior and Huron. The Poe Lock, named for Civil War Engineer-Officer, Colonel Orlando M. Poe, was constructed in 1968, with a width of 110 feet, a length of 1200 feet and a depth of 32 feet. The Soo Locks pass more freight tonnage than any other locking system in the World, with an average of 15,000 ships a year through the four American Locks and 5,000 a year through the Canadian Lock. Coal makes up the bulk of the westbound cargoes, with iron ore and grain making up much of the eastbound shipments. Some vessels carry as much as 68,000 tons of freight in a single cargo.

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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SECRETARY-TREASURER – Charles W. Derr, 117 Main Street, Freemansburg, PA 18017.

What is Happening Here?

We had two responses to the photograph captioned "What is Happening Here?" John C. Vanderlip (2767 Greenvalley Dr., Toledo, OH 43614) (in summary) stated that the cabin construction and the number of men shoveling indicated that it was an Ohio state maintenance boat; that the overgrowth on the towpath indicated that the canal was in its waning years; that the workers' dress put the photo between 1905-1912; and, that the number of planks and activity indicated an extensive filling operation. He concluded by stating that the level could have been on any Ohio canal.

The other reply was from James E. Kuth (2914 Scarborough, Cleveland Heights, OH 44418) who stated that the mystery photo was almost identical to one he had, the caption of which was "Between Five and Eight Mile Locks, South of Cleveland, 1898." And, "From the Collection of Frank Trevorrow from Inches Collection in Lake Erie Marine Museum." Jim Kuth added, "The boat shown is well-known to *Ohio and Erie Canal* buffs as the State Repair Boat active in the northern section until the flood of 1913 closed the final operating section of the canal. The photo I have clearly shows the men on the boat throwing dirt from the boat onto the bank, the towpath side. I have assumed the bank was being fortified with fill but this is a suspect conclusion."

(We would like to receive other "What is Happening Here" or "Where is It" type mystery photos, whether or not the sender knows the answer. Editor.)

CANAL CALENDAR

August 15, 16, & 17 – Coshocton Canal Festival. Contact: Nancy Lonsinger, 381 Hill St., Coshocton, Ohio 43812.

August 23-24 – Old Canal Days Festival, Sandy & Beaver Canal Restoration, Magnolia Ohio. Contact: Terry Woods, 6939 Eastham Circle, Canton, Ohio, 44708.

September 17 – Canal Society of New Jersey Meeting – "Paterson – A Native Son's Rediscovery" by Bill Moir, Contact: Wm. J. Moss, P.O. Box 127, Fanwood, N.J. 07023.

October 4-5 – Fourth Annual Canal Days Festival, Riverside Park, U.S., Rt. 52, West of Portmouth, Ohio. Contact: Scioto Valley Canal Society, Inc. Box 502, Portsmouth, Ohio 45662.

October 5 – Tour of Great Falls District & Paterson Architectural Canal Society of New Jersey. (Bill Moss).

October 10-12– Pennsylvania Canal Society Tour, Chesapeake and Delaware Canal, (from Wilmington). Contact: Dr. "Zip" Zimmerman, 1361 River Road, R.D. # 1, Yardley PA 19067

October 15 – Showing of various North American Waterways films; Sutton College, Sutton, England; sponsored by U.K. Section of A.C.S. Contact: Dr. Roger Squires, Bailiffs Cottage, 4 Manor Way, Beckenham, Kent BR3 3LJ, England.

October 17-18 – Canal Society of Ohio Tour, Miami & Erie Canal, Piqua to Dayton. Contact: Terry D. Wright, Safety Bldg., Troy, Ohio 45373.

November 21 – Meeting of Canal Society of New Jersey. Speaker: Wm. H. Shank, P.E. (Bill Moss).

Knights Complete Third Trip on English Canals

Mr. and Mrs. Ernest Knight, of Raymond, Maine, used the above photo of their crossing of the Pontcysyllte Aqueduct in England as their 1979 Christmas Card. They spent two weeks in May of 1979 (their third English canal trip) on the narrow boat "William Pitt', which they hired from Premier at Acton Bridge. They traveled "up and down" on the Anderton Lift, to Chester on the Shropshire Union, to the Harecastle Tunnel, and to Macclesfield, in addition to the Llangollen.

EMBARGOED

LONDON– APRIL 30, 1980– Little Venice on the Grand Union Canal in London was the venue to-day of the launch of the "Keep Britain Tidy" Campaign to abate littering of the seas and inland waterways. Welcoming the guests, Sir Frank Price, Chairman of the British Waterways Board, said:

"Keeping our waterways tidy is a constant problem for the British Waterways Board. Thousands of people spend their holidays on our canals. They generate domestic rubbish on their boats just as they do at home, but on a boat there's no back-door and no refuse bin outside it. Thousands of others fish in our waterways which involves much casting of bread upon the waters, and most bread comes wrapped. Our towing paths are freely available for walkers to enjoy, and they too add their quota of litter. Also there are those who deposit their heavy rubbish in our canals – anything from a TV set to a motor cycle. They put it in, and we have to take it out.

"We are in the business of providing recreation both for overseas visitors and residents. Neither we, nor they like litter and dirt. We support the campaign of the Keep Britain Tidy Group to achieve a tidier Britain and are delighted to be associated with to-day's proceedings at Little Venice." (British Waterways Board News Release)

EDITOR'S CORNER

Congratulations are in order for Editor Sheila Doeg and the British Waterways Board for their 100th issue (in May) of *Waterways News*. I always look forward to my copy as do many of you. For others, I recommend a subscription at 2.45 pounds per year surface mail or 4.30 pounds airmail payable to British Waterways Board, Melbury House, Melbury Terrace, London NW1 6KX, England.

Congratulations also to the Virginia Canals and Navigation Society on the publication of the first issue of their newsletter, *The Tiller*. Several years ago Bob Bush asked me about the interest in forming a canal society in Virginia. I told him that it was a great idea, and why didn't he do it? He and several others took up the challenge, forming their society in 1977. And now Acting President Bob Bush has turned over the reins to George Higgs. One of their major projects is to encourage the preservation of the oldest extant canal locks in the United States on the *Potomac Canal* at Great Falls, Virginia. Dues of $5 a year include the quarterly newsletter edited by Russ Harding. (Send dues to Virginia Canals and Navigation Society, c/o Mrs. Vivienne Mitchell, 625 Pomander Walk, Alexandria, VA 22314.)

In May Bill Shank, Bill Trout, and I discussed ways of increasing the amount of information contained in *American Canals*. As printing prices precluded increasing the number of pages we decided to include less costly inserts whenever possible, such as Charles Hadfield's trip on the American waterways in the May issue. Other inserts will follow when appropriate. Let me know whether or not you like the kind of articles and information we provide, and if not, what you would prefer. There are two subjects which will be covered more extensively in the near future. One is biographical sketches or longer articles on canal engineers, a suggestion of ACS Member T. Gibson Hobbs. Another subject which I would initiate is more on canal industrial archeology, with emphasis on archeology, engineering, architecture, and canal boat operations. As always, I encourage your contributions on these and other canal-related subjects.

Capt. Tom Hahn

REVERSIBLE HEAD LOCKS

by Alexander C. Brown

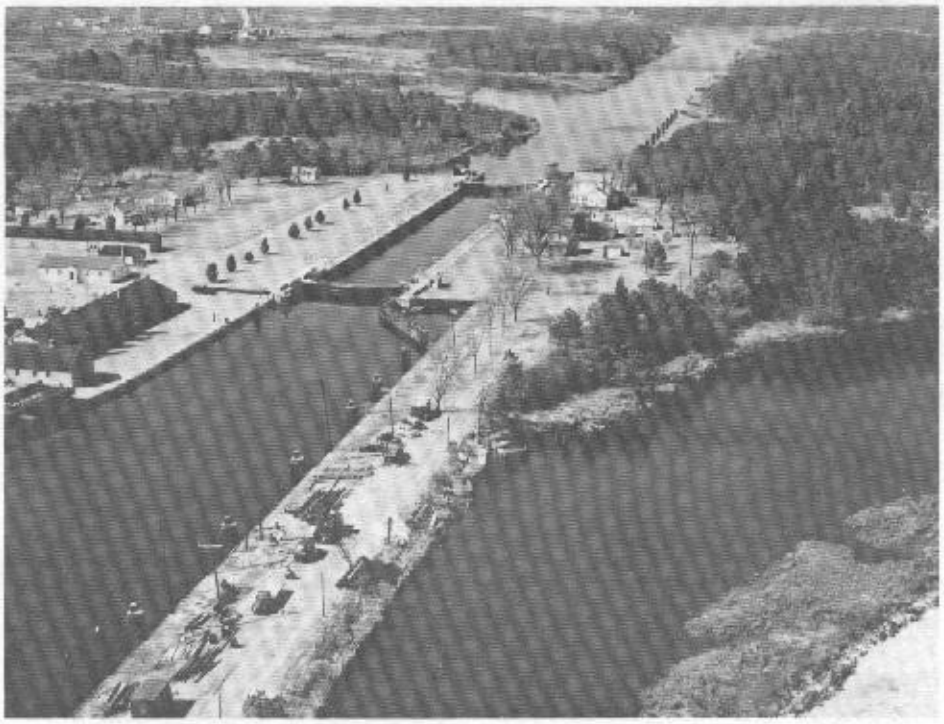
(An article in American Canals *No. 30 (August 1979) entitled "A Footnote to 'Champlain to Chesapeake'" started a set of correspondence between the author, Alexander C. Brown, and ACS Member Jim Wilson concerning reversible head locks on canals other than the* Albemarle and Chesapeake Canal. *In this article, Mr. Brown discusses reversible head locks with which they are familiar. Readers are encouraged to comment on these or other reversible head locks. Ed.)*

Although the Albemarle and Chesapeake Canal Company's presumption that their 220-foot reversible head lock "was the first ever constructed" might well have applied in 1859 when it opened, subsequently other reversible head guard locks have been built along Atlantic Seaboard waterways as well as some such structures on the lower Mississippi. Apparently, however, the present Albemarle and Chesapeake Canal lock at Great Bridge, Virginia, built in 1932, is still the largest to be equipped with double sets of gates at both ends of the lock for daily operation, which was the claim I made for it in AMERICAN CANALS, August 1979, p. 6. The existing Great Bridge Lock measures 600 feet in length and its original 75 feet in width was narrowed only slightly to 73 feet when a replacement north wall was constructed inside the original one in 1974. The original 1859 lock at Great Bridge survived until 1917 when the canal was widened. Then, for a 15-year period, there was no lock and the currents surged back and forth in the canal unimpeded. But with boat operators and local residents bitterly complaining, the present lock was provided by the United States government in 1932.

Since reversible head locks are comparative rarities, the following are listed here. Another tide control lock in active service today is the *Shinnecock Canal* lock in Suffolk County, New York, some 30 miles southwest of Montauk Point, Long Island. This canal is about a mile long and connects Great Peconic Bay with Shinnecock Bay whose tidal phases at the eastern end of Long Island Sound apparently are not synchronized. The present concrete guard lock which replaced a smaller wooden one is located about midway in the canal. It measures 250 feet long by 41 feet wide with a depth of 12 feet over the sills. In summer, the canal serves a large and enthusiastic clientele of local motorboats, but little through traffic. The present 1968-built concrete guard lock which replaced a smaller wooden one installed in 1938 is located about midway in the canal.

Another reversible head lock with a more commercially oriented reason for being is on the narrow St. Peter's Canal at Cape Breton Island, Nova Scotia. This waterway connects Bras d'Or Lake with St. Peter's Bay not far from the coal export city of Sydney. The canal is about a third of a mile in length and the tidal lock midway along measures 270 feet by 48 feet by 18 feet over the sills. As at Great Bridge, Virginia, four pairs of mitered gates handle tidal fluctuations of about two feet.

Other locks in the United States capable of handling a small amount of reverse water head are presently found on the lower Mississippi and become serviceable when occasionally the river is unusually low, for generally the river is higher in elevation than the surrounding navigable waters. These locks do not have two sets of gates for normal reversing with each change of tide, however, but rely on pie-shaped sector gates which, turning on a partially circular track, are capable of being opened during a slight reverse head. The locks, however, are comparatively large.



An aerial view of the Albemarle and Chesapeake Canal lock at Great Bridge, Virginia, built in 1932. The photograph was probably taken in the early 1940s. (Corps of Engineers photo)

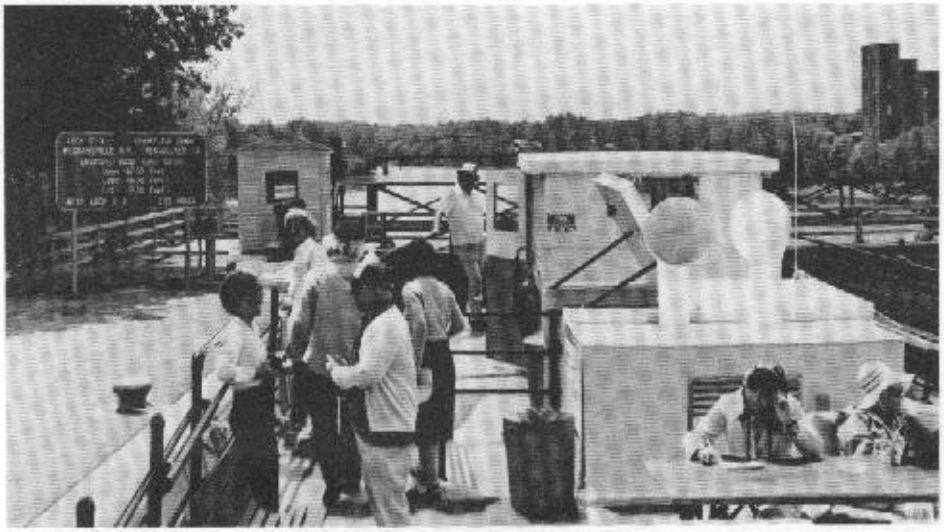
The *Inner Harbor Navigation Canal,* or *Industrial Canal,* connects with the Mississippi by a 640-foot long, 75-foot wide lock situated along the New Orleans riverfront. The *Harvey Lock* on the Harvey Canal, and the Algiers Lock where the Intracoastal Waterway enters the Mississippi, are of similar width, 75 feet, and measure 425 feet and 797 feet in length respectively. Both are of considerable industrial importance. The Vermilion Lock in the Gulf Intracoastal Waterway west of Morgan City, Louisiana, 56 feet wide by 1,200 feet long, has drop gates which can be wedged against the head of water in either direction.

This whole area is a maze of both natural and artificial waterways and locks are needed at several points, and under varying conditions. Apparently, however, the Great Bridge Lock is the largest of the reversible head locks regularly serving diurnal tidal variations the year round.

(We have in hand an article on the Shinnecock Canal Lock dated 1968. We would be pleased to have someone update this article. Write to Editor, American Canals *if you are interested in the task. Ed.)*

Detail of the west end gates of the Albemarle and Chesapeake Canal lock at Great Bridge, Virginia in 1973. It appears that it was low tide in the Southern Branch of the Elizabeth River, and high water in the lock and the Virginia Cut of the A&C Canal. (Photo by Alexander C. Brown)

Cruising New York State's Inland Waterways



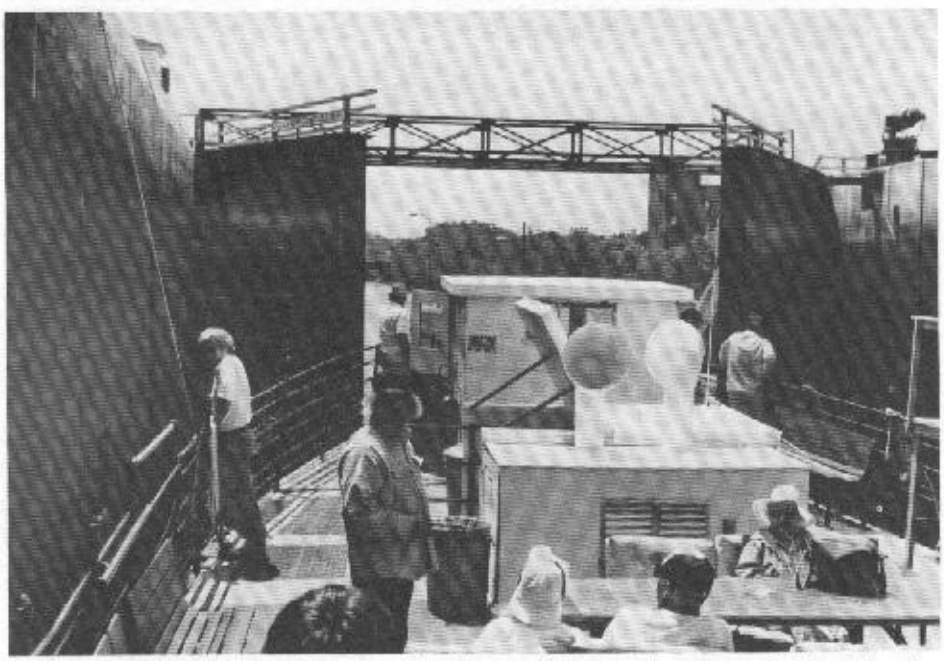
The Emita II enters Lock Number "C-3" on the Champlain Canal, headed downstream for Albany. The sign-boards at the Champlain locks clearly indicate the Number and location of each lock, the water elevation above and below, and the mileage to the next lock.

by Bill Shank

The State of New York is perhaps the only place in the Northeast where inland commercial waterway traffic still exists over nearly the same routes followed by the historic canal system of 150 years ago. In the early 1800's the State asked for federal help in building its fabled "Erie Canal" – didn't get it – and went ahead on its own. It has been going it alone ever since! The State of New York is one of the few places in the United States where the Corps of Engineers (except for one, lone, tidewater lock at Troy, N.Y.) is *not* in control of the waterways. The rest is maintained and operated by the Waterways Maintenance Subdivision of the State Department of Transportation at Albany. It is known officially as the "New York State Barge Canal System". It includes the Erie Canal, from Troy to Towanda; the Champlain Canal, from Troy to Whitehall; the Cayuga and Seneca Canal, from Montezuma to Geneva; and the Oswego Canal, from Three Rivers to Oswego.

The entire 527-mile system is still open to commercial traffic, now consisting primarily of industrial fuel-oil barges, built to fit the locks (with inches to spare). In recent years, however, passenger traffic had been limited to small pleasure boats and a few tour boats, running for short distances out of major cities along the waterways.

About five years ago, the Mid-Lakes Navigation Company, Ltd, with headquarters in Skaneateles, N.Y., set about to offer charter "Packetboat Service" on various sections of the Barge Canal System. They began with scheduled three-day trips between Syracuse and Albany on the "Emita II," a former ferry boat. In 1978 they decided to extend their coverage to the western section of the Erie Canal, from Syracuse to Lockport. To do this, they had to make drastic alterations to the "Emita II" to pass under the extremely low bridges in the Rochester area, cutting off much of the superstructure, including a portion of the pilot house.



A few minutes later, the Emita II casts off its lines and prepares to move out of Lock Number "C-3" as the lower gates swing open. Captain Peter Wiles is visible in the left center.

A year ago, they extended their chartered trips to include the Champlain Canal (3-day trip), as well as the Oswego Canal (1-day) and the Cayuga-Seneca Canal (2 days).

Having just returned from my third trip on the Emita II, along the Champlain Canal, I highly recommend any of these trips to canal buffs (and others) who wish to enjoy the beauty of up-state New York from the deck of a 50-passenger packet boat – not to mention the experience of "locking through" countless of the efficiently operated locks of the New York State Barge Canal System.

Don't expect to "dress for dinner" on board the Emita II; the atmosphere and relationship between Captain Peter Wiles, his crew and passengers is most informal. All meals are served, either on board, or in the shade of a convenient tree on shore. At night, the crew moves your baggage to a motel, or hotel, near the most convenient docking point. From time to time the Captain makes a "P-A" commentary on points of interest on shore, and is quite approachable to answer any questions, about almost anything, historical or current. He is a most knowledgeable and interesting personality. After twenty-four hours with passengers and crew on the Emita II, you begin to feel like "family" and can appreciate the close relationships which must have developed on the canal boats of 100 years ago!

For further information on the Emita II and its sailing schedules, write Mid-Lakes Navigation Company, Ltd., P.O. Box 61, Skaneatles, N.Y. 13152.

Some Bibliographic Notes About Locks, Dams and Canals.

Every time I visit a big city library, I head for the main card catalog and look up the key words CANALS, LOCKS, and DAMS. My fingers are calloused and scarred by paper cuts, but I have reached some conclusions. Everybody seems to have several books on the Erie Canal; mostly written for "popular interest" with little data. The many similar canals built, and long abandoned, elsewhere are commemorated only in nearby regional libraries. And the most difficult material to find is about canalized rivers; locks and dams built to improve river navigation. Many rivers were so improved in the nineteenth century, but little has been written about these early public works. Especially when the improvement has since been abandoned, the written record seems to vanish with it.

Here are a few notable exceptions which canal buffs can have fun searching for.

1. HISTORY OF THE CANAL SYSTEM OF THE STATE OF NEW YORK (etc.) 2 Volumes. By Noble E. Whitford, Resident Engineer, State Engineers Dept. Supplement to the ANNUAL REPORT of the State Engineer and Surveyor of the State of New York, for the Fiscal Year Ending Sept. 30, 1905. Pub. by State Legislative Printer, Albany, 1906.

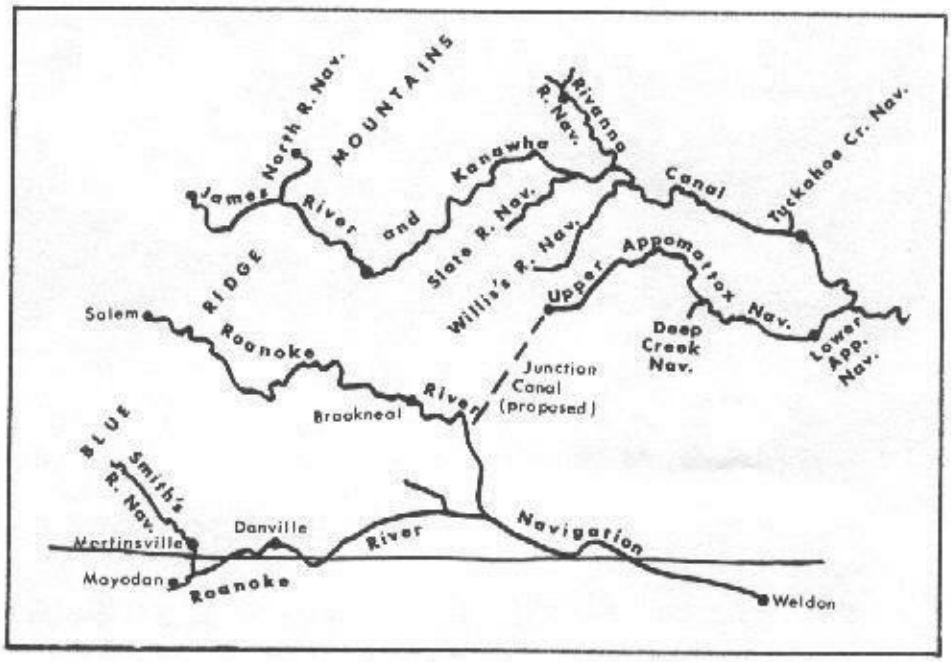
Every canal buff in New York State knows about "Whitford's Books", but somehow their existence is not well known elsewhere. Volume 2, pages 1465 thru 1475, are large pullout sheets tabulating detailed information about all canals, existing or abandoned, as of 1905. About 20% of the entries list lock and dam information about canalized rivers.

(Continued on Page Six)

IS THE JUNCTION CANAL A MYTH?

by Dr. Bill Trout

One of the unsolved mysteries of Virginia's pioneer days is whether there really was a *Junction Canal* between the *Roanoke (Staunton) River*, and the *Appomattox* at Farmville. Such a canal is clearly shown on several maps of the last century, and rumor has it that boats did use this route. There was even a "Junction Canal Company", incorporated in 1825. But so far no evidence at all has been found in the company's reports, and in other material in the State Library, that the Junction Canal was anything but a dream. The truth probably lies somewhere in-between. It is hoped that this article will encourage someone to do some good field work and library research to discover the truth about the Junction Canal.



There is no doubt that a Junction Canal was a highly desirable link in Virginia's early navigation system, from Revolutionary War times, because the settlers in the Roanoke River valley were in a difficult situation, isolated from the big market towns and coastal shipping. The first settlers in Virginia had no transportation problem because they colonized the coastal plain, where everyone was close to water transport to haul away tobacco, grain and other products. As soon as settlers moved inland, above the fall line, the rivers were used for transport, by sturdy wooden batteaux, 60 feet long and 6 feet wide, designed to manouver through rapids and shoals down to the market towns such as Richmond, Petersburg, Fredericksburg and Georgetown. Unfortunately for the people on the Roanoke, however, their river emptied into North Carolina's Albemarle Sound, which was cut off from the sea by coastal sandbars so there was no port to speak of. People of the region were forced to send their produce overland to the James or the Appomattox, on roads which often left heavy loads hub-deep in mud. The preferred method was water transport, so the solution was to link the Roanoke either with Petersburg, via the Appomattox, or with Norfolk, via the Great Dismal Swamp.

The efforts of the Norfolk merchants, helped by Patrick Henry, did in fact result in the construction of the *Dismal Swamp Canal*, which opened about 1814 and drew the trade of the Roanoke, Dan, and Albemarle Sound to that city. But even so, a Junction Canal to the Appomattox was still seriously considered.

The Junction Canal route was the shortest connection between the Roanoke and the Appomattox, about 40 miles long, following two streams misleadingly called rivers on some maps, with a watershed or divide in between. The route began on the Roanoke near Randolph, in Charlotte County, followed the *Little Roanoke River* (sometimes called Roanoke Creek) up past the town of Drakes Branch, and Charlotte Courthouse, to the junction of present-day county roads 604 and 651, at Little Roanoke Bridge, where according to one map there was a portage over the divide to the headwaters of the *Buffalo River (or Buffalo Creek)* in Prince Edward County, near the county road 667 bridge. From there the Buffalo descended to Farmville, which was at the head of the Upper Appomattox Navigation, one of the earliest navigations in the country, from the 1740's, which took boats the 100 miles down to the port of Petersburg.

It is reasonable that the Junction Canal route was used by settlers of the Roanoke River valley from the earliest times; they probably poled their boats along the Little Roanoke and the Buffalo when the water was high enough, and portaged in between. Perhaps even in these times some navigation improvements were carried out on these rivers: clearing fallen trees, straightening bends, deepening channels, perhaps even building flash locks – about which more later. The first serious thinking about building a canal along this route came in 1812, when Virginia and North Carolina were squabbling about who would make the Roanoke navigable. Since parts of it were in both states, interstate co-operation was required and eventually a joint Roanoke Navigation Company was formed. Meanwhile, getting to Norfolk meant going through North Carolina, and with a Junction Canal this lengthy detour would be avoided. The famous engineer Benjamin Latrobe offered to make a survey for the Canal for $5,000, a big sum in those days, but his offer was not taken up. By that time, North Carolina had begun attempts to make Plymouth, at the mouth of the Roanoke on Albemarle Sound, a major port, to take the trade away from Virginia. This further stimulated interest in the Junction Canal, which would by-pass North Carolina, and in 1818, in response to a "Petition by the citizens of the counties lying between the Appomattox and Roanoke Rivers," a survey was carried out by the State Engineer. However, the Upper Appomattox Company, which was asked to undertake construction of the canal, declined to do so. Finally, in 1825, the Junction Canal Company was incorporated especially for this project, and another survey was made in 1826 – the field notebook is still in the State Library.

Unfortunately for canal enthusiasts, however, North Carolina decided about that time to give up trying to stop the trade at Plymouth; and Virginia decided that in any event the Junction Canal would not divert enough trade to make any difference. Also the Roanoke had by then been made navigable around the falls at Weldon, by a canal with locks and a magnificent aqueduct which can still be seen there; and the Roanoke itself was almost navigable by then to its maximum extent, for 244 miles up to Salem. In his annual message at the end of 1826, Governor John Tyler recommended that the Junction Canal project be abandoned, and that any navigation improvements be limited to the Buffalo River. In spite of continued requests, that apparently was the end of the Junction Canal.

The question remains, what if any navigation improvements were ever made along the Junction Canal route, and what can be seen today? It seems clear that in spite of the old maps, there was never a continuous canal linking the Roanoke and the Appomattox, not to mention a proposed 1½ mile tunnel! Surely, however, canoes and batteaux used the route when the water was right, with a portage over the divide and some navigation improvements were probably made through local efforts, so were never mentioned in the State records. A report in 1827 mentions several cuts on the Buffalo, made by local landowners. Where are these cuts? Are they the ones recommended by Governor Tyler in 1826? Are there any mentions of such improvements in the county courthouses or other local records? Are any locks noted on old plats? Do any signs remain on the ground of navigation improvements, or of portaging over the divide? The topographic maps of the *Little Roanoke* show suspiciously straight channels. Are these descendants of early navigation improvements, or are they recent drainage projects? We know that in 1933-34, Spring Creek, a branch of the Buffalo, was channelized for drainage purposes, so this is a modern development and prevents us from learning if, as according to rumor, boats once poled up Spring Creek to a mill there.

If there were any locks along the Junction Canal route, they were probably flash locks, as described by the State Engineer in 1826:

> The locks were to be similar to those used on the Willis's River, consisting of "jetties extending from both shores towards each other, leaving between them a sluice of suitable size and construction to be closed by a gate turning round horizontal hinges: this being raised to hold up the water of the stream, is let down for the passage of boats, which are either carried down by the rush of the current; or, if ascending, must be pushed up against it, when the first impetuosity has somewhat diminished. This mode of improvement suits only rivers which afford but a small body of water, such as can flow through a sluice that may be closed by a light gate. The scarcity of water in such streams requires, that several boats should be held ready to rush at the same time through the sluices, during the temporary flood and swell produced by the water that had been accumulated while the gates were up. This system of navigation is evidently applicable only to a descending trade; and it seems to be the most expedient that can be adopted for the present on Buffalo river."

On the *Willis's River*, in Cumberland County, one can still see, at low water, sparse remains of the low rock dams or "jetties", and wooden posts of the drop-gate frames. Is there anything similar on the Buffalo or Little Roanoke? Look carefully at low water, and search through the old records. If you find anything, we would like to know!

C. & D. MUSEUM ADDS NEW MODEL

Interior of the Chesapeake and Delaware Canal Museum at Chesapeake City, Maryland, which includes a new working model of the pump and water wheel which supplied water to the old, upper canal level.

There's a unique new star in Maryland's galaxy of tourist attractions this year. A star within a star actually, the outer being the completely refurbished Army Engineers' *Chesapeake and Delaware Canal Museum at Chesapeake City, Md.*; the inner being the Museum's new working model of the pumping machinery and water wheel that once helped maintain the water level in a no longer existent lock.

The Museum, located in south Chesapeake City off Maryland Route 213, is in the original boiler room of the pumphouse complex, which was designated a National Historic Landmark in 1965. Ten years later the American Society of Mechanical Engineers designated the pumping machinery itself a "National Historic Mechanical Engineering Landmark."

The model, constructed on a scale of ½" equals one-foot, is about three-by-five-feet in size. It is operated by a pushbutton, which activates the two miniature steam engines that turn the water wheel. Water is scooped up and sloshed out through the axle area of the wheel. In real life the water would have been pumped into the nearby canal to maintain the water level. The original water wheel, which can still be seen, measures 38-feet in diameter. It's 12 buckets could lift 1,200,000 gallons of water into the lock every hour.

In addition to the miniature pumping machinery, the museum contains models of a floating showboat, the "Adams", typical of those that once plied the waterway, two Corps of Engineers dredges, the Hopper Dredge Hains and the Pipeline Dredge Guthrie, an Ericcson Line steamship, and a typical barge. There is also a collection of models of typcial Chesapeake Bay craft.

A large mural dominates one wall of the Museum and shows a boy riding a mule that is towing a barge through the Canal during the last century.

The Chesapeake and Delaware Canal was opened to traffic in October, 1829. At that time there were four locks, two at Chesapeake City (later turned into one), another at St. Georges, Del., and one at what was then the eastern entrance at Delaware City, Del. The latter remains and is now the centerpiece of a lockside park.

The Canal was purchased by the Federal Government in 1919 and responsibility for it's operations and maintenance was given the Army Engineers' Philadelphia District. Three modernization programs by the Engineers have transformed the Canal into a lock-free waterway 450-feet wide and 35-feet deep from the Delaware River entrance at Reedy Point (two miles south of the original entrance at Delaware City) to deepwater in upper Chesapeake Bay.

The Canal, one of the busiest in the world in terms of transits, trims 300 miles from the trip between Philadelphia and Baltimore. More than 40-million gallons of fuel oil are saved annually by commercial vessels using the shortcut provided as the waterway.

The Engineers operate the Canal from their office on the south bank at Chesapeake City. Twenty-four hours a day, seven days a week, a dispatcher uses both radio and closed circuit TV to maintain contact with ships using the waterway. Visitors to the Museum are welcome to walk the few feet to the Dispatcher's Office and take a look at the way traffic is controlled.

Beginning Sunday April 13th, 1980 the Museum will be open seven days a week from 8 a.m. to 4:15 p.m., through late November. The Museum will be closed however, on Thanksgiving, Christmas and New Year's day.

When you visit the Museum and walk through the doorway between the exhibit area and the steam engine room, look up. Never mind why; just look up. (U.S. Army Corps of Engineers News Release, dated 4 April, 1980)

Biographic Notes

(Continued from Page Four)

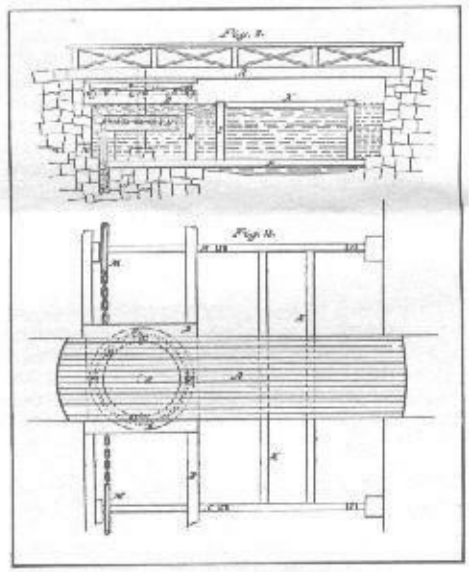
2. CONGRESSIONAL DOCUMENTS, 63d Congress, 2d Session; SENATE DOCUMENT #559. Titled: GOVERNMENT LOCKS AND DAMS. "Showing location, number, miles from mouth, (etc.) each lock and dam in operation July 1, 1913". Did you know there were 27 locks on the Fox River in Wisconsin? The average library has this buried under the file entry of "Government Documents" with no cross-index card for any of my key words. I found it while examining some old Congressional Documents to see if there was any reason to keep them. A real sleeper! But try your nearest big city library with the secret numbers above as key.

3. THE OHIO RIVER; Charts, Drawings and Description of Features Affecting Navigation. Government Printing Office, 1935. Pages 332-390 give a mile-by-mile listing of every landing, bridge and creek mouth. Amongst these you will find all the locks on every tributary of the Ohio from the Allegheny to the Tennessee. The information as of 1935 is a valuable update to reference (2) above.

There it is, folks! Good hunting!

(Jim Wilson, ACS)

Canal Swing Bridge



John Selser, of Williamsport, Pa. filed the above drawing in the U. S. Patent Office, October 29, 1861 as an "Improvement in Self-Opening Canal Bridges". Selser placed a water-level frame "K" on each side of the bridge, which, when struck by the prow of the canal boat, would be forced below the water surface, turning two gear wheels "M" which rotated the bridge "A" out of the way! (Submitted by Richard L. Mix of Williamsport, Pa.)

Roger Squires Visits Canada

Our enthusiatic U.K. Director, Dr. Roger Squires, has just returned to England from a tour of the Canadian Canals, including the Trent and Severn, the Muskoka Lakes system, the Rideau and parts of the Seaway. His new slides, made during the trip, will augment the American Canals talks which he is already making in England. He tells of the coming IWA Rally in London, and has also given assistance to Keith Kroon, of Rochester N.Y., and Bill Gerber of Chelmsford, Mass., in their canal trips in England. Roger is also eyeing a possible group French canal trip.

(Roger W. Squires, Bailiffs Cottage, 4 Manor Way, Beckenham, Kent BR3 3LJ ENGLAND.)

Water Projects Funding

President Carter has signed into law the 1980 Appropriations Act for the Army Corps of Engineers. The legislation allocates $2.8 billion to the Corps so that it can carry out a variety of duties essential to the economic well-being of the U.S. Included in the legislation are provisions to construct nearly $490 million dollars worth of navigation projects on the inland waterways and in the coastal harbors. There are over 55 separate navigation projects listed in the legislation, the most prominent of which are Locks and Dam 26 at Alton, Ill., and the Tennessee-Tombigbee Waterway in Alabama and Mississippi.

More than 100 miles of the Tennessee-Tombigbee Waterway were open to navigation in March from its southern end at Demopolis, Alabama, north to Columbus, Miss. pending the raising of the water level at the Aliceville Lock and Dam. Almost $1 billion of the estimated $1.67 billion Federal cost of the entire project is now under contract.

The first stage of construction at Locks and Dam 26 near Alton, Ill., is the building of a cofferdam on the Missouri shore extending 1,000 feet into the Mississippi. Completion in 1981 of the $41.7 million contract will restrict the river to a 700 foot width along the Illinois shore.

(Alden W. Gould (ACS) from the *Seafarers Log* and the Fort Myers *News Press.*)

ROEBLING AQUEDUCT ACQUIRED BY NPS

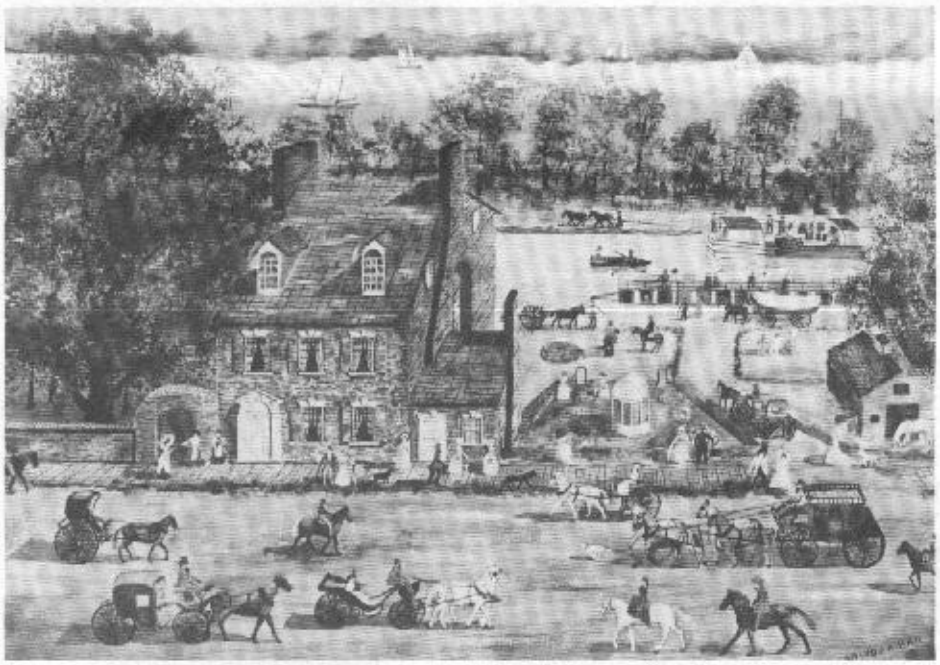
John Roebling's 1848 Aqueduct, on the Delaware and Hudson Canal, was converted into a highway bridge when the canal was abandoned.

The Delaware Aqueduct between Lackawaxen, Pennsylvania and Minisink Ford, New York, the oldest existing suspension bridge in America and one of the few bridges still privately owned, was recently purchased by the National Park Service and became part of the Delaware River Scenic and Historic District. Built in 1848 by John A. Roebling, who later built the Brooklyn Bridge, the aqueduct was originally a link in the Delaware and Hudson Canal. In 1899 it became a vehicular bridge when competition from the railroads bankrupted the canal company.

The bridge has weathered its 130 years remarkably well. Tests show the tensile strength of the 8½-inch-diameter cables undiminished; and the massive masonry piers, designed to support 130-ton barges laden with coal, are barely taxed by the 50,000 cars that now rumble over the roadway of 14-inch timbers each year.

NPS plans to install an interpretive exhibit at each end of the bridge, describing its function as part of the D & H Canal. (Dotti Venity (ACS) from *Americana,* Sept-Oct. 1979)

ANOTHER MINDERMAN "ORIGINAL"



This painting is a re-creation of the Francis Scott Key Mansion in Washington, D.C. as the artist envisions it may have appeared in the heyday of the *Chesapeake & Ohio Canal* seen in the rear of the house. The painting, a watercolor, is the latest in a series by Earl Minderman, Washington area artist, entitled "Vistas and Visions – Today and Yesterday on the Chesapeake & Ohio Canal."

This mansion was built in 1802 and was in the possession of Key and his heirs from 1805 to 1843 when it was sold. The house was on "M" Street, just west of Key Bridge which connects the District of Columbia with Virginia across the Potomac River.

The author of the words for "The Star Spangled Banner" lived in this house for many years and his nine children were born there. He greatly resented the disturbance caused by the construction and operation of the C. & O. Canal in his backyard. The Canal was started July 4, 1828. Key also opposed the construction of an aqueduct designed to carry canal boats over the Potomac to Virginia and carried his case all the way to the United States Supreme Court where he lost. (The Chief Justice, Roger Taney, was a brother-in-law.)

In its latter years, the Key Mansion was allowed to deteriorate badly. In 1907, Admiral George Dewey, "The Hero of Manila Bay," led a group seeking to purchase and restore the Mansion but they failed to raise the necessary funds. The end of the historic Mansion came in 1949 when it was torn down to make way for a freeway.

Maritime Reporter/Engineering News

KNOW YOUR ACS OFFICIALS

Capt. Thomas F. Hahn (U.S.N. Ret.)

It is high time that we tell our members something about the remarkable Editor of *AMERICAN* CANALS, who was also the chief "spark plug" in organizing the American Canal Society in 1972. *Capt. Thomas Frederick Hahn* (U.S. Navy, Retired in 1972) has a most impressive educational, civilian and military work history, as well as an unbelievable number of foreign languages in which he is proficient. He was born in Topeka, Kansas, Nov. 6, 1926.

He holds Bachelor's Degrees from University of Texas and Shepherd College; Master's Degrees from Goddard College and West Virginia University; and has also attended the Universities of Kansas, Southern Methodist, George Washington, American, Maryland, Maine, Vermont, and Rennselaer Polytechnic Institute. He *ws first in his Navy ROTC graduating class in* 1948.

His military experience began as an Aviation Radio/Radarman in World War II; later he served on board a battleship, three cruisers, a destroyer and destroyer escort. In the Korean War he served on a *mine-sweeper and a patrol craft. In* Vietnam he was head of a naval security group in southeast Asia. His military honors include the Legion of Merit Award, two Navy Commendations and five Secretary of the Navy Unit Citations. He received the Outstanding Naval Reservist Award in 1956.

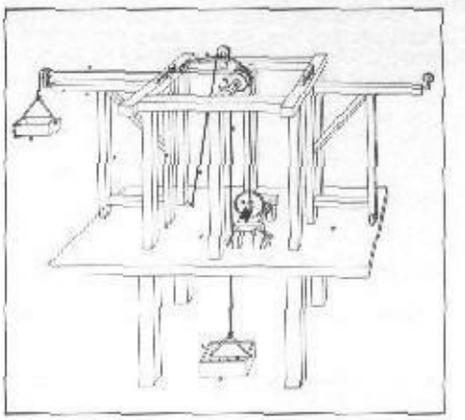
His civilian work has included research in the extraction of manganese from steel slag; military *intelligence* work in telecommunications for the Signal Corps Intelligence Agency, and G-2, U.S. Army; Management Assistant for the George Washington Parkway (NPS); Supervisory Ranger for the restored section of the C & O Canal; and Industrial Archeologist for National Capital Parks.

I first met Tom Hahn about ten years ago, when he was still on active duty in the Navy at Ft. Meade, Maryland and was impressed by his keen interest in canals, the C. & O. Canal in particular. He was then Chairman of the Level Walkers of the C. & O. Canal Association, as *well as Editor of their newsletter* "Along the Towpath".

Mike Handford's "Machine Navigation"

Until our English member *Mike Handford* published Volume 1 of THE STROUDWATER CANAL in 1976 (now available complete in one volume), little was known about a peculiar early version of this canal which he calls the *KEMMETT NAVIGATION* after its principal promoter, to avoid confusion. In September 1978, Mike led the first field trip in living memory, and the first American, along the navigation's four-mile length.

The navigation was intended to carry coal from the Severn River up to the prosperous woolen industry in Stroud (which even provided the scarlet cloth for Turkish fezzes), a distance of 10 miles along the River Frome (or Stroud Water). The river was to be straightened, and locks *installed at the 14 mill dams along the route.* But the Frome is a tiny river and the mill owners absolutely refused to allow any water flow to be used for navigation, so the solution was a "Machine Navigation" – instead of a lock at each mill dam, a platform was provided, with a patented double crane to transfer containerized *cargo from boats on one level, to boats on the* next. Construction began in 1759 but ceased in 1763 after work had progressed on perhaps 5 mill dams over a 4-mile stretch, because it was soon found that the cost of labor, to make the transfers, made the enterprise uneconomical. You can still find (with the help of sketch plans in *Mike's book) the probable locations of the* "machines" at some of the mill dams, and you can see remains of ox-bows in the fields, cut off two centuries ago when the river was straightened for navigation. Fortunately, by 1779 the STROUDWATER CANAL – a proper cut with locks – was completed to Stroud and later, with *the THAMES & SEVERN CANAL, it formed an* important navigation route across England which lasted into the 1940's.



Thomas Bridge's patented machine for lifting containerized cargo from one canal level to another. The bucket, below, was filled with water, lifting the cargo via the two, wheeled cranes on the platform above. The ratchet and crank, at the center, is a safety device.

The fate of the Kemmett Navigation was similar to that of our own Slate River Navigation in Virginia, which was actually begun at least three *times, but each time was foiled by the* mill owners, who would not allow locks in their dams. It is thought that the Slate River Navigation was put to use to some extent by transferring cargo from one boat to another across the mill dams, but evidently no one thought of installing permanent cranes or "machines" to do this. Perhaps readers *know of other examples of navigations actu*ally begun but stopped by mill owners, or with interesting consequences.

But the Kemmett Navigation may still have a part to play, as part of the route of a restored Stroudwater Canal, which will have to be partially *relocated to avoid the disruption of a modern* highway interchange. Since 1973, the Stroudwater, Thames & Severn Canal Trust (with Mike Handford as a founder) has been restoring, bit by bit, the Thames & Severn Canal and has now begin work on the Stroudwater, completing a valuable cruising link across Britain. Anyone in*terested in joining the Trust and receiving their* bulletin, THE TROW, is welcome to send 5 pounds to the Secretary, Mrs. M.A. Boakes, 1 *Riversedge,* Framilode, Glos., England. If you can't get over to work on the restoration you can at least read about Captain Horatio Hornblower's trip along the canal, reported in HORNBLOWER AND THE ATROPOS (*the late C.S. Forester was* one of the early canal enthusiasts, and spent three months on a trip from London to Llangollen *and back).*

(W.E. Trout, ACS Vice President)

OLDEST CANAL VESSEL IN THE U.S.

The ex-canal tug LOOKOUT (#15080) has *become the oldest vessel in commercial* registry in the United States. The prior holder of the title, the MAJOR HENRY BREWERTON, built in 1857, has been scrapped. Now 118 years old, LOOKOUT had worked on several east coast canals, but is presently based at Norfolk, Va. Views of this vessel appear on *page 98 of The Delaware & Raritan Canal* and page 137 of *Champlain to Chesapeake*, both by Bill McKelvey.

Subsequently, it was my pleasure to act as Tom's publications advisor in connection with his *excellent "Towpath* Guides to the C & O Canal," and his subsequent canal-related publications, as part of our joint venture, the "American Canal & Transportation Center."

In the meantime, Tom had advocated, to both Dr. Bill Trout and myself, the need for a national *canal organization which could* act as a central distributing agency for canal preservation news throughout North America. The result was the birth of the American Canal Society in January of 1972, with Tom as our first President.

Under Tom's enthusiastic leadership, we pub*lished our first newsletter in March of 1972,* and have since increased our membership from three persons to nearly 600. In July of 1978 Tom stepped down as President of ACS to devote more time to the collecting of material for AMERICAN CANALS, and also to the accumulating of credits towards his Doctor's De*gree. He continues to write and publish new* books on canals. His latest: "The C & O CANAL BOATMEN, 1892-1924".

Bill Shank

Last of New Jersey Barges

The year 1979 marked the end of an era when the last two surviving canal barges from the New Jersey canal era became "no more." The M/V J. B. WRIGHT (97' x 21½') was towed up the *Raroon Creek and dismantled.* (See photo in Feb. 1980 *American Canals.*) Her sister, the M/V WRIGHT BROS., sank in *Guatemala* last summer. The former was built in 1919, the latter in 1923. A few salvaged parts of the J. B. WRIGHT are displayed at the museum of the Canal Society of New Jersey at *Waterloo, New Jersey.*

(Bill McKelvey from *Ripples*)

ITEMS OF INTEREST TO CANAL ENTHUSIASTS

BUILDING AMERICAN CANALS by Dr. Paul K. Walker of the Office of the historian, U. S. Army Corps of Engineers, Washington, D. C. 20314, Part 1 - The Federal Period, in the Winter 1979-80. WATER SPECTRUM: Part 2 will be in a future issue. WATER SPECTRUM is published quarterly by the Corps of Engineers and is $5.50 a year from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402; single copies $1.40.

THE PATH BETWEEN THE SEAS by David McCullough originally published at $17.95 is now available from Barnes & Noble, 126 Fifth Ave., NY NY at $5.95 plus $1.95 shipping, total $7.90.

The following is from the manuscript catalog of The Western Reserve Historical Society: Harvard University, Graduate School of Business Administration, Baker Library, Account books of canals, New England and Ohio, 1821-1876, 4 v. Ledger of the Walter Queechle Canal, Vermont (1821-1837), recollections and abstracts (1821-1876) from the Laws and Act of Incorporation for the Cumberland and Oxford Canal, Portland to Lake Sebago, Maine; 1 vol. (1825-27) of rules and specifications relating to construction of Ohio Canal; and 1 letter book (1835-38) of the Blackstone Canal, Pawtucket, R.I. containing letters relating to regulation of flow of water through canal. Gift of Mrs. Howard Corning, Thos. A. Jenckes, Jr., Phillip I. Milliken and Richard S. Russel, 1932 and 1938. MS 60-3000.

BARGE TALK, the newsletter of Floating Through Europe, published four times a year at $5 to Barge Talk, Floating Through Europe, 501 Madison Ave., New York, NY 10022. Consists mostly of advertising for the firm.

CRUISING THE ERIE CANAL, a 6-page article by Fales, appeared in the Jan. 1980 issue of SEA magazine.

THE WELLAND CANAL: HISTORICAL RESOURCE ANALYSES AND PRESERVATION ALTERNATIVES, by Michelle Greenwald, Alan Levitt, and Elaine Peebles, Toronto, Ontario, Can. Historical Planning and Research Branch, Ontario Ministry of Culture and Recreation, Heritage Planning Study 1, 2nd (Rev.) ed., 4th reprinting 1979 $4.00 paper.

This is one of those rare occasions when a Government publication becomes an enjoyable reading experience! It is one of a series by the Historical Planning and Research Branch, Province of Ontario, and its subject matter is first-class material.

The document is a complete chronology, 1829-1979, of the history, development, construction, improvements, bridges, tunnels, locks, bypasses, feeders -- in fact, the evolution of all four of the canals to date.

The quality, quantity and choice of photographs is excellent; these are complemented by a detailed assortment of maps, sketches, drawings, diagrams and charts. All the graphics are tied in with a well-written text, and the presentation is in large format, an 8 x 12 inch volume of 175 pages. It is noted that steps are being taken to preserve certain areas of the canals as historical and/or archaeological sites.

(David C. Austin in Inland Seas: Journal of the Great Lakes Historical Society, Vol 35, No 4, Winter 1979)

EXCERPTS FROM CANAL ERA CLAIMS REPORTS

Many of us have experienced the confusion of traffic accidents and have had to summarize correctly what happened in a few words on insurance or accident forms. The following responses would have been typical during the American towpath canal era:

*Coming home, I took the wrong path and fell into a canal that wasn't there before.

*The other canalboat collided with mine without giving warning of its intentions.

*I thought the drop gate was down, but I found it was up when I ran my boat thru it.

*I collided with a stationary boat coming the other way.

*The mule backed thru our cabin wall and into my wife's face.

*A swimmer hit me and went under my boat.

*The work boat was all over the canal; I had to swerve a number of times before I hit him.

*I pulled away from the side of the canal, glanced at my mother-in-law and headed over the bermbank.

*In my attempt to kill a horsefly, I smashed into the miter gate.

*We were heavily loaded with containers of merchandise. As I reached a curve, a box sprang up, obscuring my vision. I did not see the other boat.

*I had been running my boat for 13 years when I fell asleep at the tiller and had an accident.

*I was on my way to the boat yard with stern trouble when my rudder gave way, causing me to have an accident.

*As I approached the lock, a stop signal suddenly appeared in a place where no stop signal had ever appeared before. I was unable to stop in time to avoid the collision.

*To avoid hitting the fender of the boat in front, I struck the bermbank.

*My boat was legally tied up as it drifted into the other canalboat, sinking it.

*An invisible canal packet came out of nowhere, struck my vessel, and vanished.

*I told the canal police that I was not injured, but on removing my hat, I found that I had a skull fracture.

*I was sure the old fellow would never make it to the other side of the bridge when I struck it.

*The New York boatman had no idea which direction to go, so I ran into him.

*I saw the slow-moving, sad-faced bridgetender as he bounced off the bow of my boat.

*The indirect cause of this accident was a little captain of a small boat with a big mouth.

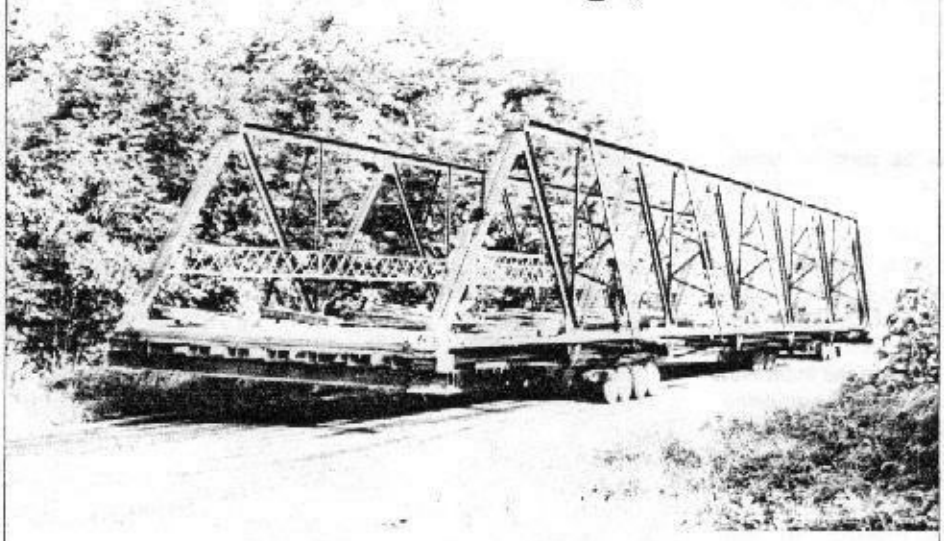
*I was thrown from my boat as it left the aqueduct. I was later found in a ditch by some stray cows.

*The bridge abutment was approaching fast. I attempted to steer out of its way when it struck the front of my boat.

Insert for AMERICAN CANALS, August 1980 (Courtesy of Bill McKelvey)

Insert for AMERICAN CANALS, August, 1980

Have Bridge, Will Travel



Along a canal, historic preservation sometimes calls for unusual measures. Such was the case this past summer when two metal truss bridges that had spanned the Hennepin Canal were moved intact by the Illinois Department of Conservation.

When the U.S. Army Corps of Engineers built the Hennepin between 1890 and 1907, they spanned it with more than sixty bridges, and when, in 1976, those bridges began to be replaced, it was agreed that at least one example of every bridge construction and truss type would be preserved. Fourteen of those bridges were preserved and restored on their original sites, and in 1978 one bridge was disassembled and moved in pieces, which proved impractical.

That was why the Illinois Department of Conservation hired Jeffery Builders and House Movers, Inc. of Wyanet to move intact the last two bridges to be saved. The first bridge (pictured above) was moved from its original location at Tiskilwa to Wyanet—a distance of about ten miles. The 98-foot, pony Warren truss bridge drew some stares as it rolled along the road, but spectators would have been even more impressed had they seen the delicate process of lifting the bridge from its abutments and sliding it onto the roadway. The second bridge—a 110-foot, through riverbed Pratt truss bridge—was moved in a similar manner, traveling from the vicinity of Mineral to a spot near Sheffield.

Mary Yeater Rathbun
Canals Interpreter
Division of Historic Sites

The items on both sides of this sheet are reproduced through the courtesy of HISTORIC ILLINOIS, Volume 2, Number 4, for December 1979.

Federal Maritime Grant to Help Finance Restoration of Lock 14

Did you know that Illinois has a maritime heritage?

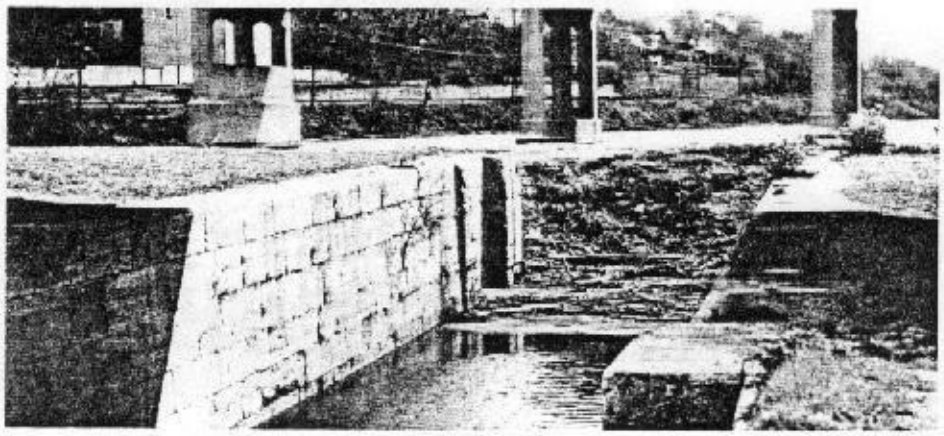
Most of the eighty-four Maritime Heritage Preservation Grants recently awarded by the U.S. Interior Department this year went, logically enough, to California, Massachusetts, and other coastal states. But one of those grants, for $113,555, was awarded to the Illinois Department of Conservation. It will be used to reconstruct, restore, and rehabilitate an operable nineteenth-century canal lock on the Illinois and Michigan Canal.

Funds from the federal grant will be matched by state funds to finance the reconstruction of Lock 14 at La Salle. Designed in the 1830s, that lock was one of fifteen numbered lift locks on the main line of the I & M Canal, which was completed in 1848 and extended ninety-six miles from the south branch of the Chicago River at Bridgeport to the Illinois River at La Salle.

Chicago, Ottawa, La Salle, and Joliet—those are four of the Illinois cities that might never have amounted to much without the I & M. The canal placed Chicago on a continuous waterway that stretched from New York to the Mississippi River, making the city a transportation center and contributing to its growth as a livestock and grain market. Other cities along the canal, including Joliet, Ottawa, and La Salle, also grew and prospered, and by 1855 the state's demographic balance had shifted northward. But as the nineteenth century drew to a close, canal traffic declined, and when the Illinois Waterway opened in 1933, the I & M was closed to navigation.

Plans for the Lock 14 project, which is scheduled for completion in two years, provide for an accurate reconstruction of the lock's four wooden gates, as well as the restoration of its walls and oak floor. The four gates are entirely missing and will be rebuilt in accord with research done by Conservation Department Assistant District Historian Peter Rathbun and DOC's Canals Interpreter Mary Rathbun. The lock's stone and masonry walls and its wooden floor, which are structurally sound, will be stabilized, and deteriorated sections carefully repaired or restored, work that will necessarily require the recovery and use of nineteenth-century building techniques.

When fully restored and operable, Lock 14 will become part of the interpretive program on the I & M Canal State Trail. The State Trail includes the western end of the canal's towpath between Joliet and La Salle (roughly sixty-two miles) and is being developed by the Conservation Department, which oversees the old canal, as a hiking and bicycling trail and as an outdoor museum, one of the few places where Illinoisans can still see an important part of their maritime heritage.



Lock 14

Lock 14 Project Begins

Archaeological excavations on Lock 14 at La Salle began on October 18, according to Alan Downer, Acting Staff Archaeologist for the Illinois Department of Conservation's Historic Sites Division. Those excavations are the beginning stages of a project that will restore, reconstruct, and rehabilitate the nineteenth-century canal lock, which was one of fifteen numbered lift locks on the old Illinois and Michigan Canal.

This fall, two or three shallow trenches will be dug perpendicular to the lock on the canal's south side in an effort to locate the canal towpath, said Downer. The path, which was probably ten or fifteen feet from the canal, is no longer visible. Downer has already begun two, and plans to begin two or three more, shallow pits roughly ten meters square on the canal's banks. He is looking for information on the location, nature, and dimensions of canal fittings such as the snubbing posts to which canal boats were tied or the footings of the footbridge that once crossed the canal. Likely sites for those test pits were identified by project consultant Thomas F. Hahn, a canal specialist and past site superintendent of the Chesapeake and Ohio National Historic Park.

Although winter weather will interrupt this fall's excavations at the canal, archaeologist Downer plans to resume work next summer. Dewatering the lock, he will then excavate within the lock's chambers and at both of its ends.

Information uncovered by archaeologists will be used to guide the restoration, reconstruction, and rehabilitation of Lock 14, a project being funded, in part, by a $113,555 Maritime Heritage Preservation Grant awarded to the Conservation Department by the U.S. Department of the Interior. Funds from the federal grant are being matched by state funds to finance the project.

Completed in 1848, the I & M Canal extended ninety-six miles from the south branch of the Chicago River at Bridgeport to the Illinois River at La Salle. It reached its peak in the mid-nineteenth century and was closed to navigation in 1933, when the Illinois Waterway opened. Today, the I & M is under the care of the Illinois Department of Conservation, which is developing the old canal as an outdoor maritime museum and a recreation area.

Insert for AMERICAN CANALS, August, 1980