AMERICAN CANALS

BULLETIN OF
THE AMERICAN CANAL SOCIETY

BULLETIN NUMBER 26 | Editorial Address – Box 310, Shepherdstown, W.Va. 25443 | AUGUST 1978

OUR NEW PRESIDENT

Bill Shank (right) receives the coveted "Engineer of the Year" Award from "Sax" Lorenzi, President of the Pennsylvania Society of Professional Engineers, at the recent Annual PSPE Convention in Erie, Pa.

The new president of the **American Canal Society,** William H. (Bill) Shank is a native Pennsylvanian, born in Pittsburgh and educated in the public schools of Erie, Philadelphia and Harrisburg. He later attended Mercersburg Academy and then Lehigh University where he obtained a B.S. Degree in Mechanical Engineering. He did post graduate engineering work at the State University of Iowa as part of his stint in the Army Engineer Corps. Part of his Army duty included an assignment with the Manhattan Atomic Bomb Project at Oak Ridge, Tennessee. Following World War II, Bill returned to civilian work in York, Pennsylvania, where he became involved in engineering publications, advertising and sales promotion work for various industrial and engineering firms.

In 1968, Bill became a free-lance advertising and public relations consultant. The esteem with which he is held in the engineering field (he is a licensed Pennsylvania Professional Engineer) was recognized formally this year when he was named 1978 State Engineer of the Year by the Pennsylvania Society of Professional Engineers.

It is only natural that Bill Shank has a keen interest in canals, as his family has been associated with the Pennsylvania canal system for five generations. His great-great grandfather built some of the first canal boats to navigate the Susquehanna Division Canal; his great-grandfather owned and operated a canal travelers' hotel in Liverpool (Penna.); and both his grandfather and father worked around canals, the former as an employee of the Pennsylvania Railroad and the latter as a civil engineer running surveys.

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PRESIDENT'S MESSAGE

First, a word of congratulation to Capt. Tom Hahn for his hard work in the conceiving of the **American Canal Society,** organizing it, getting it incorporated and promoting it throughout the United States, Canada and the United Kingdom. As a result of Tom's efforts, we can now call ourselves a truly "international" organization of some 525 active, dues-paying members, all of whom enthusiastically support the aims and objectives of the Society.

Tom Hahn will, of course, continue to serve as Editor of **American Canals.** All contributions of photographs and editorial material should be sent to him, care of Box 310, Shepherdstown, West Virginia, 25443 – his headquarters, when he is not traveling the canals of Europe or relaxing at his summer "retreat from the heat" in Aurora, Maine.

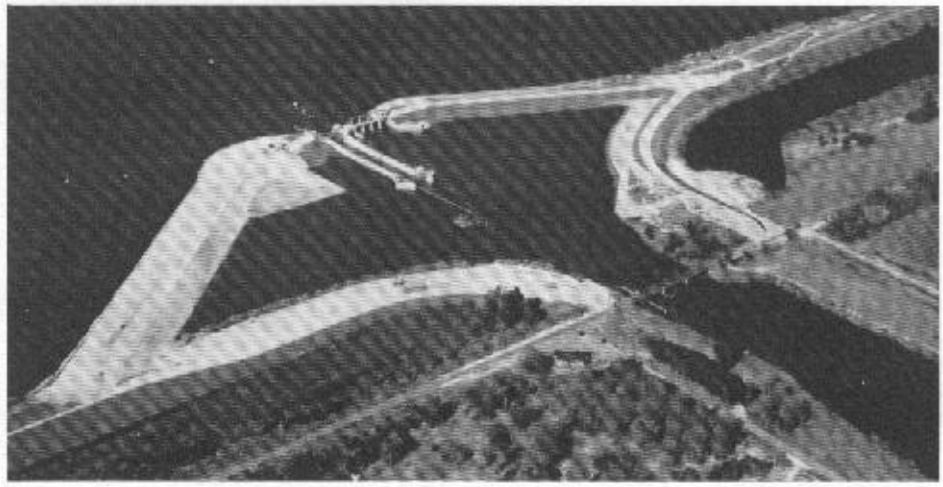
Bill Trout and I are both deeply indebted to Charlie Derr and his wife for taking over the demanding jobs of both Secretary and Treasurer of the **American Canal Society.** Any communications about routine matters involving new subscriptions, changes of address, or dues should be sent to Charlie at 117 Main Street, Freemansburg, Pa. 18017. Bill Trout will continue as our "one-and-only" Vice President, and Editor of the **American Canal Guide,** another section of which is nearly complete. Bill continues to maintain his contacts with canal societies and canal enthusiasts, world-wide, from his working headquarters in Duarte, California. He also expects to make an extensive tour of European canals and artifacts on a combined business-pleasure trip in the near future.

A hearty, and well-earned word of thanks also, to the many dedicated Directors, Committee Chairmen and Members of **American Canal Society** – too numerous to list here – who have lent their moral support and have contributed so heavily to the success of ACS and its various publications, with their words of advice, information, maps and photographs for the **American Canal Guide** and **American Canals.** Peter Stott deserves special commendation for the many long hours he has expended in organizing and cataloging endless canal questionnaires and data, as head of our Canal Index Committee.

As in any volunteer organization, rising costs of printing and mailing plague us. After having (at first) been turned down by the U.S. Post Office on our application for "Non-Profit" mailing status, we appealed, and were finally granted the special third-class bulk rate, as a Non-Profit Educational and Scientific organization. We hope this will permit us to continue to hold our dues structure the same in 1979 as they have been for the past few years, unless printing costs rise further. I might add that your dues money comes back to you, heaped up and running over, in the form of the excellent quarterly bulletin which Tom Hahn has been providing, with clock-like regularity, ever since the **American Canal Society** was formed.

As your new President, I promise all of you that I will uphold the high standards of performance set by Tom Hahn, so that the **American Canal Society** will continue to be recognized as the principal source of information on navigation canals, historical and current, in the Western Hemisphere.

Bill Shank



This unusual photo of the new lock at the *Lake Okeechobee* entrance to the *St. Lucie Canal* in Florida was submitted by ACS Director Alden Gould.

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 $6.00. Individual copies may be purchased at $1.00.

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ALEXANDRIA CANAL EXHIBIT

Vivienne Mitchell, ACS, Vice Chairman of the Alexandria Archeological Commission and Wanda Dowell, acting curator at the Ft. Ward Museum in Alexandria, Virginia, are shown at a special exhibit of the museum. (Photo by Armistead Perry).

To draw attention to a proposed canal park at the Tide Lock in Alexandria, Fort Ward Park has set up an excellent exhibit which will run through September, in their museum building at 4301 West Braddock Road in Alexandria. From I-95, take the Seminary Road exit east 1 mile, left up North Howard Street to West Braddock Road then right to the park. Hours are 9 to 5 daily, noon to 5 Sundays. The exhibit includes Lola Abell's painting of the lock, Sam Cash's model of a canal lock, and even a heavy stone from one of the canal aqueducts, over Four-Mile Run, to show what the tide lock is made of, all necessary because the lock is still several feet underground, so no one can see it. So little remains aboveground of the **Alexandria Canal** that Bill Trout was lucky to find two cut stones last year in Four-Mile Run, near the old aqueduct which has been torn up for many years. The stones were found while the modern culvert under the railway yards near the Potomac was being widened by De Leuw, Cather & Co. for the Corps of Engineers. The then Resident Engineer, Mr. Nick Carter (now Mr. Kevin Holness) had the stones moved to safety, and this year with the help of one of the engineers, Ron Fraumeni, one of the stones was moved to Fort Ward. We hope that the other stone, a large one, will be placed with a marker next to the site of the Four-Mile Run Aqueduct on a bike trail now under construction.

Readers interested in canal engineering problems and in interpreting canal remains will like the following item about the Tide Lock from the canal company's 1851 report: "Owing to the settlement of the outlet lock since its construction, the depth of the water in the level above it is so much reduced as to render it difficult for boats of heavy draught to pass over the lower miter sill of the next lock above. To obviate this difficulty, 12 x 12 square timbers have been bolted on to the coping of the outlet lock, increasing the depth of the water in the level above one foot."

Sure enough, if you look at the Brady photograph of the lock in **AMERICAN CANALS #22,** p. 4, you can see wooden timbers laid on the coping stones, something to watch for when the lock is finally dug out someday! Perhaps there are still signs of such timbering on other locks in the U.S. which were raised in this way.

Our New President

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Bill is the author of various books on transportation history, among them THREE HUNDRED YEARS WITH THE PENNSYLVANIA TRAVELER, THE AMAZING PENNSYLVANIA CANALS, HISTORIC BRIDGES OF PENNSYLVANIA, VANDERBILT'S FOLLY, GREAT FLOODS OF PENNSYLVANIA, INDIAN TRAILS TO SUPERHIGHWAYS, HISTORY OF THE YORK-PULLMAN AUTOMOBILE, and YORK COUNTY HISTORIC SITES AND TOUR GUIDE.

Bill has been a vice president of the Pennsylvania Canal Society and is currently a director of that organization. In addition, for six years he was the editor of **Canal Currents,** the publication of the Pennsylvania Canal Society. In 1971, Bill joined Capt. Tom Hahn and Dr. Bill Trout in the formation of the American Canal Society, of which Bill Shank was Vice President/Secretary for nearly six years.

In 1973, Bill collaborated with Capt. Tom Hahn, a canal historian and Industrial Archeologist, in establishing the American Canal and Transportation Center. That joint venture has produced twenty different historical works by both authors.

Bill has been assisted in all his endeavors, professional and voluntary, by his wife Ruth, who served also as Assistant Secretary of the American Canal Society.

We all welcome Bill to his new position as President of the Society and know that he will bring us new talents and enthusiasm.

Canal Calendar

Sept. 16, 1978 – Canal Society of New Jersey tour of Morris and Lehigh Canals at Easton, Pa.
Sept. 24, 1978 – D & H Canal Sesquicentennial, High Falls, N.Y.
Oct. 6-7, 1978 – Tour of Monongahela Navigation by Pennsylvania, Ohio and New York Canal Societies, Pittsburgh, Pa.

Stabilization of Scholarie Aqueduct on Erie Canal

Scholarie Crossing State Historic Site, Fort Hunter, Montgomery County: Plans to stabilize the Scholarie Aqueduct, built in 1841 as part of the **Erie Canal,** have been finalized. This work will require removal of the earth fill that forms the towpath on the Aqueduct as it crosses Scholarie Creek. Before this stabilization work commences, the layers of earth fill that form the towpath are being excavated and profiled to record archeological evidence of different stratified towpath levels and original surfacing materials, if any. The excavations indicate that no special surfacing material or paving was used on the coarse gravel towpath, but that apparently it was periodically levelled to remove ruts and new fill was brought in.

THE SOUTH WILLIAMS CANAL

by Hans A. van Lith

It is just a little more than 150 years since the **South Williams Canal** in Holland was opened 26 August, 1826 by King William I of Holland and Belgium. This king did a lot for the development of trade and traffic in the two countries, which were united at the time.

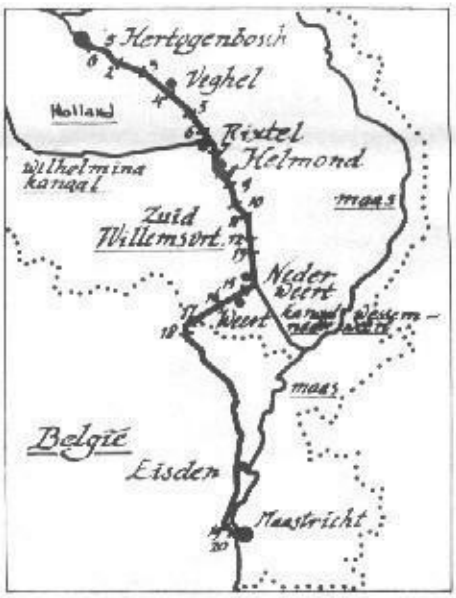
The 'Zuid Willemsvaart' – which is the name in the Netherlands language – begins in Hertogenbosch, the capital of the Dutch province of Noord Braxbant. From there the 123-kilometer-long canal goes south and crosses the Netherland/Belgium border and then goes back into Holland and ends in the River Maas just before the Maastricht, capitol of the Dutch province of Limburg.

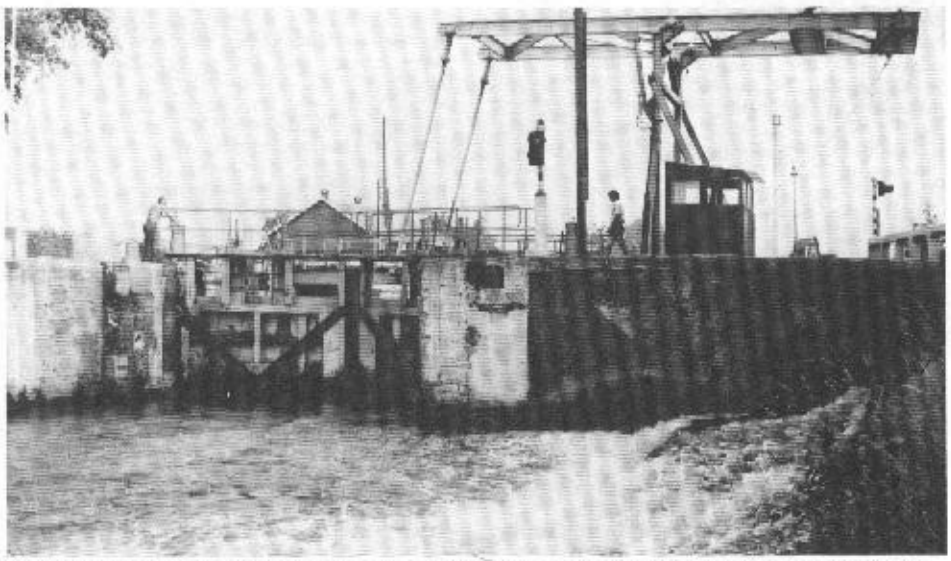
Lock "Zero" in Hertogenbosch, the most important one on the Canal.

Guillotine lock on the South Williams Canal, electrical and modern.

After the fall of Napoleon, Holland became free and got William I, a member of the Oranje Nassau family, on the throne and Belgium became a part of the Netherlands. King William saw clearly the importance of developing trade and traffic, and stimulated industry, the railways and the canal building. One of the projects was making the South Williams Canal. Why? The city of Hertogenbosch was a centre of traderoads coming from Amsterdam and Rotterdam and going to the south (Belgium) and the east (Germany). There were good waterways to the north, but only bad roads to the south. With a good canal people could avoid the road troubles. Construction was both started and completed in 1826 at a cost of about 4½ million guilders, which is now about two million dollars!

There was a big celebration when the king in person opened the canal. A number of ships with many flags entered the lock at Maastricht for the first trip on the canal. The 5th regiment light dragoons played national hymns and marches.





A complex lock and lift-bridge arrangement (Lock No. 18) near the Belgium-Holland border.

It is a pity, but the troubles between Belgium (which wanted to be independent) and Holland soon stopped traffic on the canal. It took many years before the relations between the two countries were better again and the Zuid Willemsvaart could be reopened.

At present, about thirty ships daily in both directions pass through the canal, but the Zuid Willemsvaart is becoming too small as the tonnage of the vessels gets bigger. There are plans to widen the canal and the work has already started at some places. The skipper who goes from the beginning of the canal at Hertogenbosch to the end at Maastricht passes through nineteen locks, the difference in water level on both sides of the South William Canal being about forty meters! Most of the locks have to be opened and closed by hand. The Netherlands Ministry of Transport and Public Works has employees on all locks and bridges along the canal. Near the Belgium border and near Maastricht

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ICS FIELD TRIP ON THE HENNEPIN

Illinois Canal Society Field Trip on the Hennepin Canal, 20 May 1978. Shown are some of the ICS members at the old boatways (boat repair facility) on the north side of the summit level of the Hennepin Canal mainline approximately 17.7 canal miles from the Illinois River. Mary Yeater, canal researcher for the state of Illinois, is in the center of the photo; John Lamb, ICS President, is to her right. Others are also ICS members or interested parties. The concrete building in the left background is an original canal structure; one of the work buildings situated at the boat ways. (Photo by Peter Challinor)

Canal Boat Remains Nominated for Nat'l. Hist. Record

Bill McKelvey, Chairman of the ACS Canal Boat Remains, Hulks, Wrecks, etc. Sub-Committee reports that three canal boat remains have been nominated by the Connecticut Historical Commission to the National Register of Historic Places. All three hulks are presently located in Bridgeport, Conn. just south of the Stratford Avenue Bridge.

The ELMER S. DAILEY is a wooden canal boat built for service on th **Erie Canal** and later fitted with diesel power for pushing other barges. It was built by William M. Follette in 1915 at Tonawanda, N.Y. It is the only known surviving Erie Canal boat. It was later known as the CLAIRE B. FOLLETTE.

The PRISCILLA DAILEY was built in 1929 at Whitehall, N.Y. on the **Champlain Canal** for Anthony O'Boyle by master carpenter William J. Ryan. It is one of only a few surviving wooden canal boats. It was later known as the ELIZABETH E. NEWELL.

The BERKSHIRE NO. 7 was built in 1935 in Brooklyn, N.Y. by Jacobson and Peterson for Stewart J. Dailey. Though probably never used on a canal, it is of historical (canal) significance in that its design was derived directly from 19th-century canal boats.

Efforts are underway to raise all three boats and to place them in suitable locations, depending on their condition. The American Canal Society played a part in the nomination and discovery of these boats. (See McKelvey, "Canal Boat Remains," **American Canals** No. 18, Aug. 1976.)

Put a Canal on Your Checks!

During the six years of our society's existence, the secretary and treasurer have processed thousands of members' checks and a few of these have even had canal scenes on them. To give credit to the members and banks with canal checks, we hereby list those which come to mind, and would like to know about any others.

This year Henry Abraham and Larry Pitt sent us **Erie Canal** checks from the "Spirit of America" set made by the Deluxe Check Printers, Inc., 20961 Knapp St., Chatsworth, CA 91311. A lot of banks have these but the company informed us that they are being phased out and won't be available next year. These checks were only available as one of a series in each check book; the canal scene was not available separately.

An **Illinois & Michigan canal** scene was available some five years ago, from the Heritage National Bank of Lockport, Illinois. This was a good try but John Lamb tells us that it left something to be desired, such as a rudder for the boat!

Arthur Eno informed us that the Canal National Bank in Portland, Maine, may not have a canal scene on its checks, but it is a genuine canal bank, chartered to finance the Cumberland & Oxford Canal. And we know of one canal organization – the **Delaware & Raritan Canal** Commission – which has a canalboat and mule on its checks.

The only personal canal check which we know will be available for a long time is from the Washington County National Savings Bank, in Williamsport, Maryland, on the **Chesapeake and Ohio Canal.** According to Mr. Maynard L. Patterson of the bank, the C & O Canal scene was the idea of the late Mr. Stewart C. Swartz, a salesman for the supplier, the Oscar T. Smith Co. of Baltimore. Every time Tom Hahn writes you a check, you will get to see a copy of the canal scene, taken from an old photograph.

Corps of Engineers' Histories Available

One of the Corps' most worthwhile projects has been the publication of Bicentennial histories of its districts and laboratories. Altogether, 32 have been published at last count (with 35 to go), although some are already out of print or are in the process of revision. A number of these are of particular interest to canal enthusiasts, especially the outstanding ones by Dr. Leland Johnson (Louisville District, $6, Huntington, $13.75 hardback, $9.75 paper, and Pittsburgh and Nashville in press), canal enthusiast Frank Snyder's Philadelphia District ($5.75), and Ronald Tweet's Rock Island District ($5). These are available postpaid from the respective districts, payable to Treasurer of the United States. Others now available are Alaska ($3), Galveston ($6), Kansas City ($2.50), Los Angeles ($4.75), Memphis ($10), New Orleans ($1.60), Tulsa ($4) and Walla Walla ($2). Baltimore and St. Louis are in press. Sacramento ($7.25) is available from the Government Printing Office, #008022001026. Contact the districts if you are interested in the Albuquerque, Honolulu, Portland or Seattle Districts or the Pacific Ocean Division. Histories being updated or in preparation include the Baltimore, Far East, Little Rock, Mobile, Nashville, Pittsburgh and Savannah Districts. Other histories include the Coastal Engineering Research Laboratory, Kingman Bldg., Fort Belvoir, VA 22060 (being updated); Construction Engineering Research Laboratory, Box 4005, Champaign, IL 61820 (o.o.p.); Engineer Topographic Laboratories, Fort Belvoir, VA 22060 (available); Mississippi River Commission, Box 80, Vicksburg, MS 39180 ($3.50); Nuclear Cratering Group (o.o.p.), and the Susquehanna District, c/o the Baltimore District (available). We have not heard yet from the Canaveral District.

We would like to thank Mr. Ward Rinehart of the Corps' publication WATER SPECTRUM, and Dr. Albert Cowdrey of the Historical Division, for supplying us with an up to date list of published histories.

The South Williams Canal

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there are two modern locks, which have electrical, vertical-moving doors.

The Zuid Willemsvaart is a very picturesque canal. From Hertogenbosch it goes straight south. On the borders there are many trees and wild flowers. At some places there is an historical marker warning skippers to slow down. Veghel is an industrial village, with important trading companies, handling grain and food for animals. Many ships from France and Belgium arrive here.

South of Veghel there are smaller locks and small bridges. Near Nederweert there is a larger lock with about a five meter lift. After passing a modern electric lock, the canal crosses the Belgium border. Border 'stones' are on the canal sides. Along the Belgian part of the canal (also called the South Williams Canal) there are many industries and coal mines. Passing through a valley, the Zuid Willemsvaart re-enters Holland and goes to the river Maas which it enters through the new Lock Bosscheveld. The last part of the South Williams Canal proper goes to the city of Maastricht, where the original exit to the Maas is located. It was there that King William I opened the canal one and a half centuries ago. Now you only see a few houseboats there. The rest is silence, a great contrast with the activities on the other parts of the Zuid Willemsvaart. (Mr. van Lith, ACS, is an offical of the Netherlands Ministry of Transport and Public Works. Address: Oosterloostraat 11, Voorburg 2271, HE, Holland.

THE HENNEPIN CANAL (Part Seven)

By Mary M. Yeater

(This article is the seventh in a series on the **Hennepin Canal,** formerly the **Illinois Mississippi** Canal. Part Seven is a continuation of "Forty-Four Years as a Commercial Waterway." Part Eight to follow will cover the years since 1951. Mary Yeater is a professional Historical Researcher for the State of Illinois.)

In the mid 1920's, the State of Illinois started improving the Illinois River from Utica to Lockport. The end of the Hennepin Canal's problems seemed to be at hand. Expectations for the canal rose. Local interest was aroused once again. Private entrepreneurs already established along the canal benefited from the publicity accruing to the Hennepin Canal as a result of the Illinois River work. Other businessmen, perhaps hoping to get established before it began to boom as a commercial waterway, set up firms and began to offer services of various sorts connected with the canal. Annual commercial tonnage stopped fluctuating so much and leveled out at low, but steady, rates (averaging 10,000-15,000 tons yearly). By the late 1920's, use began to pick up noticably. In 1929 the canal had its all-time highest use: 30,161 tons. Although this is only 1/600th of the canal's maximum capacity, it is a significant increase in volume over previous years.

By 1930, however, not only had the Great Depression begun to make its mark on commerce in general but the full significance of the Illinois River improvements was beginning to dawn on local residents and businessmen. Commercial tonnage carried on the Hennepin canal decreased by nearly 40% from the previous year; only 18,142 tons were transported in 1930.

The navigation structures being constructed on the Illinois River were larger than those on the Hennepin Canal, scaled to fit with improvements which the Corps had already made on the Illinois and Mississippi Rivers. Locks were to be 600 feet in length and 110 feet in width. Such capacious structures would certainly eliminate the bottleneck created by the small and deteriorated Illinois and Michigan Canal; the Illinois River Project in conjunction with the Chicago Sanitary and Ship Canal provided a spacious route to Chicago. The Hennepin Canal, which was not a commercial success because it was too large, was now, ironically, going to be too small.

Even though it was the shortest one, the Hennepin Canal was not the only all-water route between the Great Lakes and the Upper Mississippi Valley. It was possible to pass from the Great Lakes via the Chicago Sanitary and Ship Canal to the Illinois and Michigan Canal and from there into the Illinois River. Traffic could proceed down the Illinois to the Mississippi and then head up the Mississippi. As long as the Illinois and Michigan Canal was still in service, there was little advantage in traveling that longer alternative route despite the fact that it was more capacious once through the bottle-neck. Without a change of vessels at LaSalle, Illinois, the traffic on either route was limited to virtual packetboat size by the Illinois and Michigan Canal's facilities. Consequently, most users opted for the shorter route via the Hennepin Canal.

Once the Illinois River project replaced the Illinois and Michigan Canal, however, capacity would no longer be restricted on the longer alternative route. The completion of the improvements from Lockport to Utica would mean that the entire Illinois River and the Chicago Sanitary Canal had the same capacity as the modernized Mississippi River navigation facilities. Shipments much larger than those it was possible to carry on the Hennepin Canal could travel to and from the Upper Mississippi Valley with ease on the alternate route. Units involving more than one small barge (or two at most, and that was extremely awkward) could not travel the Hennepin Canal with its extensive number of small, manually-operated locks and its narrow channel with many sharp bends.

Mechling Barge Lines operated two rigs on the Hennepin Canal in the late 1920's and early 1930's: the *Junior* and the *Harold Grant*. Shown here is the *Harold Grant* in 1934. (Photo courtesy of Mr. Ivan Howlett, Sheffield, Illinois, who worked on the *Harold Grant* in 1934-35.

Meanwhile, commercial activity continued to decline. The years 1932 through 1936 were a major period of inactivity on the Hennepin Canal: a total of only 35,513 commercial tons were carried during the whole five year period. The inactivity can be related in part, of course, to the Great Depression. The specific downward cycle was, perhaps, set in motion by a major break in the canal bank in 1932. This forced the closing of the waterway for significant portions of the season. In 1933 the Lockport to Utica improved section of the Illinois River was actually opened to navigation. Much as had been feared, traffic moved to the Illinois River. A major factor, however, was the fear of being trapped on a commercial backwater. Business and commercial interests did not want to be involved with a project clearly labeled "loser." And without active participation and cooperation by the private sector – shippers, manufacturers, etc. – the Hennepin Canal did not have a chance.

In 1937 the Rock Island District of the Corps of Engineers finally finished study of the Hennepin Canal and were ready to offer analyses and recommendations for it in light of the opening of the Illinois River to large scale shipping. The report concluded that the existing canal was incapable of attracting any appreciable amount of traffic because of its physical limitations. Simultaneously, the engineers stressed that if their proposed plan of enlargement was carried out, the existing limitations of the canal would be removed. The new facilities could be comparable in navigation dimensions to both the Illinois and

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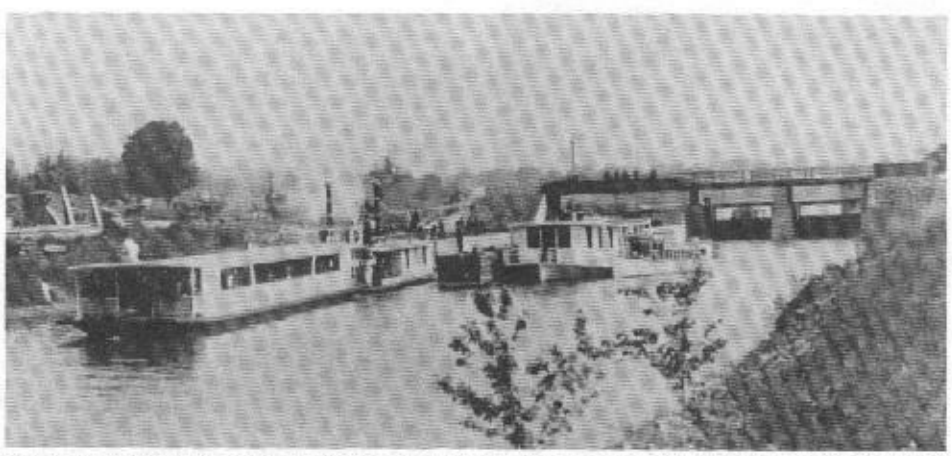

Passenger excursion boat service began early on the Hennepin Canal. The excursion boat *Clara* and the steamer *Bedes* are shown leaving the guard lock at the head of the Hennepin Canal feeder line. May 21, 1908. Photo courtesy of the Rock Island District, Corps of Engineers.

UNUSUAL CARGO FOR A & C CANAL

Canals have carried all sorts of strange cargo, but undoubtedly one of most unusual and one of the largest must be this Ultra Large Crude Carrier-1 leaving Great Bridge lock on the Albemarle and Chesapeake Canal and heading down the Southern Branch of the Elizabeth River bound to the Newport News Shipyard. This huge structure is the deckhouse and bridge wings of the carrier, which, when completed will be 1,187 feet long and will hold three million gallons of crude oil. The tugs pushing are the EVELYN DORIS and the TIM KELLEY. Canal enthusiasts are awaiting Alexander C. Brown's new book on the Albemarle and Chesapeake Canal which may be completed by the end of the year. (Photo by Alexander Brown, ACS).

HENNEPIN CANAL

(Concluded from Page Five)

Mississippi Rivers and, therefore, large enough to attract a great deal of commerce. The Rock Island District engineers predicted even more success for their improved Hennepin Canal than their predecessors had for the original project. They estimated initial commerce would be close to 1,700,000 tons annually.

Perhaps in response to this encouragement, commerce began to pick up again. Grain continued to be moved on the canal. Sand and gravel pits on the right-of-way were doing more business. Several barge lines connected to the sand and gravel industry – most noticably the Mechling Barge Lines – began to expand. Furthermore, in 1937 the International Harvester Company began moving small shipments of steel and scrap iron through the Hennepin Canal in route from the Wisconsin Steel Company plant on the Calumet River near Chicago to their Farmall Tractor Works at Moline. The shipments averaged 7,000 tons annually.

The Chief's Office took little immediate action on the Hennepin Canal proposal. Perhaps to force the issue as had been done so successfully in 1916 in relation to an adequate Chicago connection, the engineers reported that the Hennepin Canal should be abandoned if the enlargement was not carried out immediately. To emphasize the crisis nature of the situation and the limited use it received, the canal was allowed to deteriorate considerably; in 1938 no funds were used for rehabilitation work. In 1939, the Washington Office of the Corps of Engineers finished their review of the Rock Island District's proposals and arguments. They concluded that enlargement was not economically justified at the time. The Office of the Chief of Engineers, however, did not recommend abandonment.

Commercial traffic continued to travel the Hennepin Canal. This traffic, however, consisted mainly of local commodities being moved within the canal's immediate vicinity. During World War II, only one regular Hennepin Canal carrier held an Interstate Commerce Commission license. That licensee, Ray Howlett, ran a small push boat he had built himself specifically for operation on the Hennepin Canal. He transported the International Harvester Company's steel and scrap iron from Chicago to Moline on small hopper barges owned by International Harvester.

Throughout the early 1940's, agitation for and against modernization of the canal continued. In 1945, the Board of Engineers for Rivers and Harbors presented an unfavorable report on the modernization proposal. It concluded that the cost would be too great and the value doubtful.

Perhaps as a result of this pronouncement, in 1946 another major decline in commercial use began. For example, as soon as wartime regulations controlling farm implement manufacture were lifted, the International Harvester shipments ended. Howlett, the company's contractor on the route which included the Hennepin Canal, later explained that the government's decision not to modernize the canal convinced him there were no prospects for successful commercial traffic on it. After Howlett ceased operations, no freight service operated on the Hennepin Canal in conjunction with other waterways. All traffic was local and even that was meager: only 866 commercial tons in 1946 and 394 in 1947.

Consequently, on April 7, 1948, the Corps of Engineers issued a navigation notice which put the Hennepin Canal on a limited service basis. Although this allowed the Corps of Engineers to reduce the labor force, it did not solve the problem of commercial usage. In 1948 no commercial tonnage at all was reported. In 1948 and 1950, the only commodities moved were those used in maintenance of the canal itself.

In spite of the dismal commercial fate of the Hennepin Canal in this period, there was still traffic on the canal. Recreational navigation increased in the post war years. From its opening in 1907 to the present, the Hennepin Canal has been used as much for recreation as for commerce. The Corps of Engineers' rules and regulations for its operation stated that the canal lands were purchased for the purposes of navigation and construction, and for the exclusive use of United States government employees. But the canal was always used for other purposes and by other than government employees. Fishing and picnicking were always common along its banks. Fish caught in the Hennepin Canal still hold Illinois records. Swimming, too, was popular. Fishing and swimming were actually prohibited only in the lock chambers. There were even organized recreational programs along the canal. For example, in 1911 the Rock Island YMCA began holding swimming classes there.

Passenger excursion boat service also started early. The greatest passenger use occurred between 1916 and 1918; the highest usage came in 1918 with over 35,000 passengers. It was, however, discontinued well before World War II because it was not profitable. It later years, most passengers traveled in pleasure crafts.

By 1950, the Hennepin Canal was so deteriorated that in some places pleasure traffic was all that could pass. Only 3.5 feet of water remained in the Rock River section of the main line while only four feet flowed in the feeder. But the Rock Island District Office of the Corps of Engineers, which directly administered the canal, still refused to authorize more than minimal maintenance. It seems they continued to contend that if modernization was not carried out, abandonment had to begin. The threat of abandonment kept at least the recreational users of the canal lobbying Washington in favor of modernization.

It was not all that surprising then that when the Corps of Engineers conducted its next major national housecleaning, the Hennepin Canal came up for discussion. In 1951 the Corps suspended lock operations and eliminated nonessential maintenance expenditures on seven canalized waterways which afforded little or no benefit to general commerce and navigation. The Hennepin Canal was on the list. On June 20, 1951, the Division of Engineers issued a public notice that the canal would be closed to commercial navigation after June 30, 1951. It remained open to recreational use. Simultaneously, the Rock Island District Office began a detailed study of effective disposal of the canal property. Washington still did not accept Rock Island's contention that the fate of the Hennepin Canal involved a simple "either-or" choice. The engineers at Rock Island were instructed to search for alternatives to either modernization or abandonment. Fortunately, they found one. (To be concluded.)

EARLY CANAL BOATS ON THE JAMES RIVER AND KANAWHA CANAL

by T. Gibson Hobbs, Jr.

(Part two)

An interesting listing of canal boats titled "CANAL REGISTER" first appears in the August 9, 1841 issue of the Lynchburg Virginia Newspapers and is continued in most of the issues thereafter. These list the name of the boat followed by the name of the captain.

The listings below are reproduced just as they appear, including the misspellings, errors and typographical mistakes, plus possibly some of my own.

It will be noted that while the packet boat Jos. C. Cabell is shown there is no listing of the John Marshall in these registers. Whether it was out of service because of lack of business, repairs or did not come up as far as Lynchburg is not known. The ad listing it in operation with the Jos. C. Cabell continued throughout the year.

Only in the Register of August 12, 1841 was the listing of tonnage and tolls of the freight boats included. It will be noted that captains were sometimes changed or rotated on some of the boats.

In 1857 Mr. E. L. Chinn was Superintendent of Repairs of the First Division. This covered the line from Richmond to Joshua's Fall dam. His report of work done during the year was included in the report of Colonel Thomas H. Ellis in his President's Report to the Twenty Third Annual Report to the Stockholders in October 1857. Mr. Chinn said his force was divided into 13 squads of various types of workers, one of which was the supply boat Joseph C. Cabell. He stated further that in addition to other work his carpenters had "fitted up the interior of the supply boat Joseph C. Cabell." He said of his hands employed as boatmen "three work the supply boat." He mentions also a cook for the supply boat.

He further states that "being able to carry most of the company's freight and officers in its own boat, promises, I think, from the experiment thus far, very favorable results." This latter probably refers also to the supply boat Cabell.

It seems likely that this supply boat was the original Joseph C. Cabell packet boat converted to this service. It is probable that it had been replaced with a more modern and expensive boat.

Here then is the listing of "Comings and goings" of canal boats at Lynchburg from the "CANAL REGISTER" of 1841 (boat name first; captain's name second):

ARRIVED – Aug., 1841, Columbia, Devinny; Ohio, Jameison; Jno. Randolph, Crumpecker; Jos. C. Cabell, Lockett.
CLEARED – Aug. 5th – Wm. L. Lancaster, Harrington; Flying Lucy, Staton.
Aug. 6th – Josephine, Lilly; Jack Downing, Lewis; Columbia, Devinny.
Aug. 7th – John Randolph, Crumpecker; Commerce, Branham; Lynchburg, Fields.

ARRIVED – Aug. 9th 1841 – Kanawha, Snedaker, with 16 tons paying, $58.23 toll; Tennessee, Bailey, 17 tons, $49.34; Elizabeth, Wilson, 21 tons salt, $44.44.
CLEARED – Aug. 10 – Tennessee, Bailey, 42 tons $151.02; Kanawha, Snedaker, 41½ tons $137.95; Old Virginia, Taylor, 35 tons, $106.67.

ARRIVED – Aug. 12th – Wm. L. Lancaster, Harrington; Old Dominion, Pamplin; Holker.
Aug. 13th – Jas. Madison, Peters; Buchanan, Armsworthy.
Aug. 14 – Enterprise, McGiffin; Lynchburg, Fields; Richmond, Eubank,
CLEARED – Aug. 11th – Victoria, Perkins; Pioneer, Pellet; Exchange, Graves.
Aug. 12th – Elizabeth, Wilson.
Aug. 13th – Raleigh, Cowell; Highlander, King; Clayton & Burton, Ash; Mountaineer, Staton; Wm. L. Lancaster, Harrington.
Aug. 14th – Columbia, Devinny.

ARRIVED – Aug. 19, 1841 – Ohio, Jameison; Pocahontas, Grant; Josephine, Lilly; Union, Jenks; Champion, Puryear; J. S. Cabell, Lockett; Farmer, Crouch; Mohawk, Quarles; John Randolph, Crumpacker; Flying Lucy, Staton; Kanawha, Snedaker; Davy Crockett, Doughty; Jack Downing, Huckstep.

CLEARED – Aug. 14 – Old Dominion, Pamphlin; Holker, Beale; Enterprize, McGiffin.
Aug. 16th – Jas. Madison, Peters; Richmond, Eubank
Aug. 17th – Jno. Randolph, Crumpecker; Farmer, Couch.

This unusual photograph is of Locks 27 (mile 185.1) of the Chain of Rocks Canal (mile 184.2-194.0) of the Mississippi River. The locks are near Granite City, Illinois. (Submitted by John Purcey of "Scientific American.")

ARRIVED – Aug. 23, 1841 – Pioneer, Pellet; Highlander, King; Virginia, Minor; Tennessee, Bailey; Elizabeth, Wilson.

CLEARED – Aug. 18 – Champion, Staton; Ohio, Jamieson; Lunchburg, Fields; J. C. Cabell, Doughty.
Aug. 19 – Union, Jenks.
Aug. 20th – Pocahontas, Grant – Virginia, Minor – Mohawk, Quarles – Davy Crockett, Phelps – Kanawha, Snedaker.

ARRIVED – Aug. 30th – Old Virginia, Taylor – Old Dominion, Childress – Gen. Harrison, Clarke – Wm. L. Lancaster, Harrington – Jno. Randolph, Crumpecker.

CLEARED – Aug. 26 – Experiment, Goodwin.
Aug. 27 – Elizabeth, Wilson – Gen. Harrison, Clarke

ARRIVED – Sept. 2 – Kanawha, Snedaker – Flying Lucy, Staton – Raleigh, Cowell – Claytor & Burton, Ash – Davy Crockett, Crumpecker – Mountaineer, Staton – Highlander, King – Holker, Beale – J. C. Cabell, Lockett – Buchanan, Armsworthy – Richmond, Eubank – Josephine, Oberson.

CLEARED – Aug. 28th – Buchanan, Armsworthy.
Aug. 30th – Lynchburg, Fields – Ohio, Cloas.
Aug. 31st – Kanawha, Snedaker – Flying Lucy, Staton.
Sept. 1 – Richmond, Eubank.

ARRIVED – Sept 6th, 1841 – Champion, Staton – Mohawk, Quarles – Tennessee, Bailey.

CLEARED – Sept. 1st. – Highlander, Lockett.
Sept. 2nd – Pocahontas, Grant – Claytor & Burton, Ash – Ben Franklin, Pamplin
Sept. 3rd – Davy Crockett, Phelps – Champion, Staton – Mohawk, Sneed-Holker, Noell.
Sept. 4 – Josephine, Oberson

ARRIVED – Sept. 9 – Buchanan, Armsworthy – Lynchburg, Fields – Ohio, Jemison – Gen. Harrison, Clark.

CLEARED SEPT. 6 – Wm. L. Lancaster, Harrington.
Sept. 7th – Enterprize, McGriffin – Old Dominion, Childress – Pioneer, Pellet.
Sept 8th – Buchanan, Armsworthy.

ARRIVED – Sept. 13th – Ohio, Cloar – Exchange, Bland – Jos. C. Cabell, Doughty – Gen. Harrison, Clark

CLEARED – Sept 9th – Lynchburg, Fields
Sept. 10th – Gen. Harrison, Spiller.
Sept. 11th – Ohio, Cloar

No Canal Registers were included in the September 16, 20, 23, 27, 30 and October 4, 7, 11, 14 and 18, 1841 issues. The President's Report to the Seventh Annual Meeting of the Stockholders in December 1841 mentioned that a break in the canal near what is now Six Mile Bridge on October 1 suspended traffic for about three weeks. From the above dates it appears that some other cause may have suspended travel for nearly the same amount of time in September. In June a severe storm and flood had done considerable damage and suspended traffic for some time until repairs could be made. The papers made no mention of any canal problems.

(Editors note – This listing from the Lynchburg "CANAL REGISTER" for 1841 will be concluded in a future issue of American Canals.)

BOOK REVIEW

"CAPE COD CANAL"

THE CAPE COD CANAL, by (Prof.) Robert H. Farson. Pub. 1977 by Wesleyan University Press, Middletown, Conn. 177 pp. Illus., maps, biblio., index. $14.95.

Soon after the Pilgrims settled at Plymouth in 1620, they began trading with the Narragansett Indians. The trade route was by canoe, including a portage across a low spot at the "shoulder" of Cape Cod. Miles Standish, during his coastal explorations, examined the portage location, and suggested digging a ditch to connect the two bays. Somehow, the Pilgrims never got around to it. About once each generation since, surveys were made, charters granted, but no digging was done.

After the Suez Canal was opened, and the Panama started, people finally began to think more seriously about a Cape Cod Canal. August P. Belmont, the financier who built (and operated) New York's first subway, became interested. He bought an 1899 franchise (under which no work had been done), and digging began in 1907. Contractors ran into the usual unforeseen difficulties, and the two-year construction period became seven. The canal was finally opened in 1914, a few weeks after the Panama Canal opened.

The original canal of 1914 was privately owned, and all vessels (even government ships) were charged tolls. The design dimensions were 100' bottom width, 200' at the surface, and 25' depth. Actually the depth was only 15' in 1914 when opened, and dredging continued. Three low-level bridges with drawspans crossed, carrying two highways and a railroad. Traffic was slow to use the canal, due to the tolls and the limiting depth. Only small vessels could get through, and they paid small tolls. In 1915, the passenger steamers BUNKER HILL, MASSACHUSETTS and OLD COLONY began using the canal, when the depth had reached 20 feet.

World War I, and the appearance of German submarines off Cape Cod, caused a rapid increase in canal traffic. On July 21, 1918, a submarine attacked the tug PERTH AMBOY off the Cape, and set her afire. The next Day, President Wilson ordered the Federal Railroad Administration to seize and operate the canal.

When the war ended, August Belmont refused to take his canal back, for the reason that it had been condemned and paid for, and he was no longer interested in owning a canal; the real reason, of course, being that the canal had never made money as a toll operation. The Government continued to operate the canal. Passenger service returned, with the famous BOSTON and NEW YORK, as well as ships of the Savannah Line and Merchants and Miners. In 1934, enlargement began to dimensions of 480' bottom width and 32' deep. New high-level bridges were constructed. The improvements were completed in 1940, and proved of vast benefit to World War II traffic. Buzzards Bay became the formation area for convoys, which then proceeded to sea via the canal, saving some 100 miles of exposure to possible submarine attack. The canal continues in use today, as a valuable shortcut for ocean-going vessels.

Roughly half of the book is devoted to pictures, many of which carry credit lines to the Steamship Historical Society of America. (Review by Jim Wilson, ACS, reprinted by permission Steamboat Bill.)

D & H Canal Sesquicentennial

The Delaware and Hudson Canal Historical Society extends to all of you a cordial invitation to come to High Falls, N.Y. on **Sunday, September 24** to help us celebrate the sesquicentennial year of the canal's opening. We will have a full day of varied programs to please both canal buffs and everyday citizens alike. The program is finalized and is as follows:

11 A.M. – 5 P.M.	Exhibit of Manville Wakefield's paintings
11 A.M. – 5 P.M.	Museum tours
11 A.M. – 5 P.M.	Flea Market
1:00 P.M.	"Canawler" film
1:00 P.M.	Five locks hike
1:30 P.M.	Puppet show (Canal story for older children and adults)
2:00 P.M.	Sesquicentennial pictorial quilt raffle ticket picked
2:30 P.M.	Masonic reenactment of the laying of the keystone
3:00 P.M.	Canal songs by folk-singer Bob Lusk
3:30 P.M.	Un tableau vivant

The picturesque village of High Falls has many antique shops and several fine restaurants to add to your day's activities. We are easily reached. From Kingston (NYS Thruway Exit 19) proceed South on Route 209; turn left on Route 213; proceed to High Falls. (About 15 minutes driving time from Kingston) From New Paltz (NYS Thruway Exit 18) Turn left from thruway exit onto Route 299; turn right on Route 32 North; at Rosendale turn left onto Route 213 to High Falls.

Julius W. Murphy

It is with deep personal regret that I announce the passing, on June 13th, 1978, of my good friend, Julius Murphy of Pittsburgh, an active ACS member and a Director of the Pennsylvania Canal Society. For many years Julius edited the "GLASS-ZETTE," house magazine of the Glenshaw Glass Company, in which he frequently published articles on the Main Line Canal at Pittsburgh. Upon retirement, Julius spent much time in historic research and wrote a number of fine articles on canals and other nineteenth century means of travel in western Pennsylvania, which were published locally.

Bill Shank

The Cape Fear Canoe Trail

Tom McCloud of the Carolina Canoe Club, P.O. Box 9011, Greensboro, N.C. 27408, has prepared a flyer with map and guide to an historical canoe trail along the Cape Fear River from Deep River to Fayetteville, N.C., a distance of 55 miles, passing the sites of 13 locks and dams (see the American Canal Guide, Part 2). ACS Historic Site Markers have been placed at all the sites, visible to canoeists on the river, to identify the sites and provide some orientation and historical perspective. This is the first canoe trail to be thoroughly marked with ACS markers. Up to now it has been extremely difficult to locate historical sites, especially overgrown ones, while canoeing or hiking. ACS would be glad to provide markers at cost for other canoe or hiking trails, or to be placed at individual sites to provide identification and an address to contact. At 50¢ each, ppd from Bill Trout, these markers are inexpensive enough to be used freely and replaced as needed.

Recreation Trails

The Department of the Interior is assisting in the development of abandoned railbeds, estimated at 15,000 miles, into bicycle, hiking, and jogging trails. One of these trails will stretch from the Hudson River Bank near Center Island to the Crescent Station in Colonie, N.Y. There it will link with the Colonie recreation trail leading westward along the **Mohawk River** and the old **Erie Canal.** Other trails will link with the **Delaware-Raritan Canal** in New Jersey and with the Towpath Bike Trail planned along the **Lehigh River** in Pennsylvania. (New York Times, 3 May 1978).

Portage Canal Clean-Up

In spite of continued opposition to the dredging of the Portage Canal at Portage, Wisconsin; repair of the Wisconsin River locks, and the dredging of the Wisconsin River by the Wisconsin Department of Natural Resources (an official of which was recently quoted as saying that "members of the Portage Canal Society are living in the past,") a canal clean-up was held this summer through funds provided for by CETA (Comprehensive Employment and Training Act) of the federal Department of Labor. Work was partially overseen by Portage Canal Society President Henry Abraham. In fairness, the DNR was in favor of the cleanup and supervised the work of CETA employees. The situation is made even harder by a dispute over the ownership of the banks of the canal at Portage. Perhaps members of the DNR should take a trip to the nation's capital at Washington, D.C. where the phrase "The past is prologue" is inscribed on the building of the Archives of the United States!

I & M Canal Boat Remains

Dave Carr, Site Superintendent of the Illinois and Michigan State Trail, recently discovered between three and five canal boats on the bottom of the canal when a portion of the canal was dewatered because of weather. As a paper factory leases water rights in that reach of canal, water was reintroduced almost immediately, but after aerial photographs were taken. Plans are to de-water the canal when next the paper factory shuts down for re-tooling or repairs, at which time archeologists will measure and document the boat remains. The boats may be raised, if an examination shows this to be feasible.

Women's Canal Expedition – A Bust

A UPI article of 3 Nov. 1976 (LOS ANGELES TIMES) described an all-female expedition to explore the wilds of South America. A part of the mission of the group was to seek out a "lost canal," said to have been dug in the late 18th century. The three-month expedition was to explore the giant Atrato swamp in Colombia.

As a follow-up, Bill Trout wrote to the UPI office in London which stated that "the expedition returned in total disarray . . . They found no lost canal." The letter finished (so help us) ". . . I fear it was pretty much a bust."