

# AMERICAN CANALS

BULLETIN OF  
THE AMERICAN CANAL SOCIETY

BULLETIN NUMBER 52

Editorial Address — 809 Rathton Road, York, Pa. 17403

FEBRUARY 1985

## PRESIDENT'S MESSAGE

The passage of the first "tow" through the Tenn-Tom Waterway came as a surprise to all of us who have been watching the progress of this new waterway, as we weren't aware that it was so close to being operational. However, this should not detract in any way from our interest in the formal dedication of the Waterway, June 1, 1985. Remember, it was April 25, 1959 that the first vessel passed through the St. Lawrence Seaway, but not till June of the same year that Queen Elizabeth and President Eisenhower formally dedicated the new international waterway.

Already we have had a number of ACS members writing us about our participation in the June 1 ceremonies at Columbus, Mississippi. One of our members, Addison W. Austin, has indicated he would take his Trawler "Yankee Doodle" to Columbus as a possible participant in the flotilla of boats which will be passing through the locks. He has offered to take one couple with him ("first come, first served"). His address is P.O. Box 680, South Norwalk, CT 06856. He may have room for a few more on the day of the ceremonies. It has been suggested that ACS rent a bus to pick up passengers at various points in northeast USA. If there is any interest in this idea, write me at 809 Rathton Road, York, Pa. 17403.

Charlie Derr has indicated that most of our members have now paid their 1985 dues, and our Treasury is in good shape. He also reports the following new LIFE MEMBERS: **Mary Alice Quigley** of Trenton, New Jersey; **Master-Sergeant William H. Culin** (ret.) of New Florence, Pennsylvania; **Warren Greatbatch** of Clarence, New York; and **Paul John Rich** of Doha, Qatar, Arabic Gulf. This brings our total ACS Life Membership to forty-eight! We thank all involved for this excellent financial support of our efforts. . . .

Plans for our joint meeting (May 17-19, 1985) with the Canadian Canal Society at Peterborough, Ontario are shaping up very well. We have a real "jewel" in the person of Doug Stewart, who, as Central Area Manager for the Trent-Severn Waterway, is in an admirable position to make the best possible arrangements for our stay at Trent University; our participation in the seasonal opening  
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## FIRST "TOW" THRU TENN-TOM



Scene at the Columbus, Mississippi Lock and Dam on the Tenn-Tom, January 18, 1985. The "Tow" of the Waxler Towing Company of Memphis is shown edging its way into the 110-foot wide by 600-foot long lock, which is standard for all ten locks on the Tenn-Tom.

**MOBILE, ALABAMA** — Jan. 18, 1985 — The 234-mile-long Tennessee-Tombigbee Waterway, the new waterway connecting inland USA with the Gulf of Mexico, is now open to through transit by commercial and pleasure boat traffic.

The waterway is available 24 hours per day, seven days per week. It is operated by the Army Corps of Engineers (who issued this official announcement.)

The northern end of the Tenn-Tom is on the Pickwick Lake portion of the Tennessee River and near the common borders of Alabama, Mississippi and Tennessee. At its southern end the waterway connects at Demopolis, Ala. with the Black Warrior River which flows southward to the Gulf of Mexico at Mobile.

The opening became effective at 8 p.m., Jan. 16, with the completion of a transit by a commercial tow selected by drawing to be the first to make the complete trip from one end of the new waterway to the other.

The tow, operated by Waxler Towing Company of Memphis, Tenn., won the drawing and began the transit up the

man-made waterway the morning of Jan. 14. It carried 64,000 barrels of petroleum products loaded at New Orleans and destined for Sheffield, Ala., on the Tennessee River. The tow arrived at Sheffield at noon on Jan. 17 after participating in a number of ceremonies along its route.

The waterway will reduce water distances from some parts of the inland U.S. to the Gulf to Mexico by as much as 800 miles.

Construction of the Tenn-Tom waterway was begun by the Corps of Engineers in December 1972 and completed last December, 21 months ahead of schedule.

*An Associated Press release describes the historic event as follows:*

**MOBILE, Ala. (AP)** — The Tennessee-Tombigbee Waterway opened to commercial traffic Thursday as four barges carrying petroleum products passed the dock where President Nixon announced the \$2 billion project nearly 14 years ago.

"It was a hot, sprinkling day in May" of 1972, said Alabama State Docks Director  
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# American Canals

BULLETIN OF THE AMERICAN CANAL SOCIETY

"DEDICATED TO HISTORIC CANAL RESEARCH, PRESERVATION AND PARKS"

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

Annual subscription to "AMERICAN CANALS" is automatic with a minimum ACS dues payment of \$10.00. Individual copies may be purchased at \$2.00.

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The Erie Canal Museum, Syracuse, New York, plans the reconstruction of an eighty-foot Line Canal Boat, which will be built in the Weightlock Chamber of the Museum. The boat will be positioned as it would have appeared prior to weighing, and has been designed to be boarded by visitors. All construction will be fully authentic, based on studies of a Canalboat Archeological group.

## FIRST "TOW" THRU TENN-TOM

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Robert Hope, recalling Nixon's visit. "There were times when we didn't know if it would be finished."

The 234-mile waterway, connecting some 16,000 miles of inland waterways on a shortcut from the mid-East region to the Gulf of Mexico, drew years of legal challenges from environmental groups and railroad interests.

Congress scrutinized the project repeatedly during budget hearings, as critics called it a financial boondoggle, with manmade channels ruining scenic waters.

Advocates said it would be an economic bonanza, providing a cheaper barge route for shipments between the Gulf and coal, farm and industrial sites in the lower mid-East, and helping rural Alabama and Mississippi river towns.

### TENNESSEE-TOMBIGBEE WATERWAY NAVIGATION CHARTS

Copies of the official navigation charts of the Tennessee-Tombigbee Waterway may be obtained from:

The District Engineer  
U.S. Army Engineer District, Mobile  
Corps of Engineers  
P.O. Box 2068  
Mobile, AL 36628

Payment (\$14.95) may be made by check or money order payable to: FAC, Corps of Engineers, Mobile. PAYMENT SHOULD ACCOMPANY REQUEST.

### TENN-TOM DESCRIPTION

Length - 234 Miles  
Depth - Maximum 9 Feet  
Width - 320 Feet  
Locks - 110 Feet x 600 Feet, (10 Locks)  
Barges - 2 barge tow configuration. Speed: 6.0 mph average.  
Tow size: 565 feet x 105 feet x 8 1/2 feet draft.

The first barges, decorated with red, white and blue pennants, were loaded with 64,000 barrels of petroleum products bound from New Orleans to Sheffield, Ala. A Coast Guard jet zoomed overhead, water cannon sprayed, and cannon at historic Fort Conde boomed out a salute in honor of the barges' arrival.

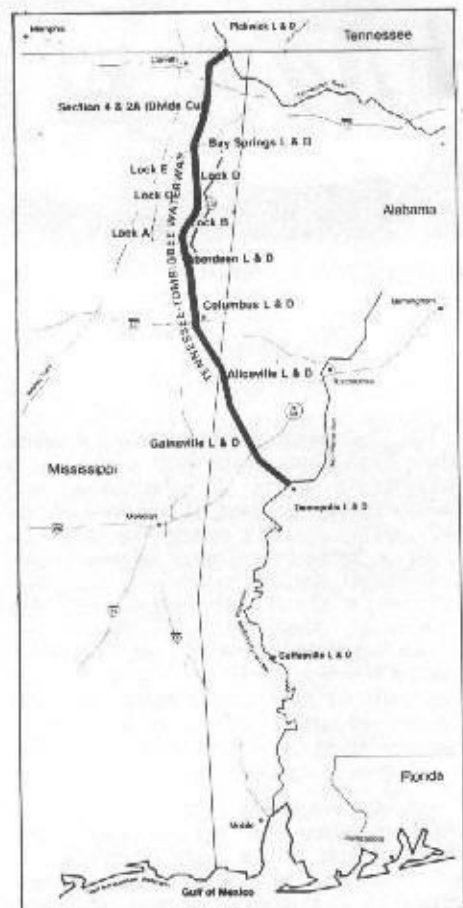
Waxler Towing Co. of Memphis won the honor of shipping the first cargo during a Jan. 4 drawing sponsored by the Army Corps of Engineers.

Eddie Waxler and his twin brother, Billy, accepted a key to the city from Mobile Mayor Lambert Mims, who joined Hope and others on a two-hour barge trip from McDuffie Coal Terminals in Mobile Harbor to the dock.

"It was 1,200 miles the old way, up the Mississippi River. This will be 637 miles. We figure it will reduce the trip by 40 percent," said Billy Waxler.

He said the area around the waterway would "open up" with grains elevators and coal shipments after shipments increase on the waterway.

The official dedication of the new Waterway is scheduled for June 1, 1985 at the Columbus Lock and Dam, Columbus, Mississippi. Administrator Donald Waldon has extended a personal invitation to all ACS members to attend. (Editor)



### TENNESSEE-TOMBIGBEE WATERWAY TYPICAL MILEAGE SAVINGS

#### MILEAGE CHART

Ports Via:	Mississippi River (miles)	Tenn-Tom (miles)	Distance Savings (miles)
Pensacola to Chattanooga	1541	771	720
Mobile to Paducah	1061	666	395
Pittsburgh to Birmingham	2396	1567	829
Gulfport, MS to Decatur, AL	1229	628	601
Chicago to Mobile	1567	1258	311
Nashville to Mobile	1266	871	395

## PRESIDENT'S MESSAGE

(Concluded from Page One)

ceremonies of the Waterway; an inspection tour of the famous Hydraulic Lift Locks; and a boat-ride up the canal north of Peterborough, including the locks between Peterborough and Lakefield - not to mention the Lift-Lock itself. It should be an experience none of us will quickly forget!

Full details are being prepared by Doug Stewart, who will be sending us (and the Canadian Canal Society) a flier and "return form", listing all events, room accommodations, meals and all costs. This will be mailed to you (for return to Doug) at least six weeks prior to the meeting.

Hope to see all of you in Canada, and later, in Mississippi!

Bill Shank

# HONOLULU ROTARIAN TOURS ENGLAND VIA CANAL

By R. A. Mitchell, Jr.

"You got here how?" "Yes," I said, "by canal on our narrowboat." This is the way the conversation usually began soon after my arrival at a Rotary meeting each week as my wife and I cruised through northern England on their beautiful inland waterways.

My explanation usually ran like this: During previous holidays in England we had enjoyed hiring canal boats. At the end of those fortnights we had to return home before we had seen as much as we wished of England's more than 2,000 miles of canal.

So we decided that after we retired and no longer had deadlines to meet we would buy our own narrowboat and cruise as long as we could find canals to discover. We estimated that this would take three or four summers, and at the end of that time we would sell our boat.

In May of 1983 our dream was fulfilled. We were introduced to Rotarian Derrick Davison at Sawley Bridge Marina at Long Eaton, Nottinghamshire, and he made arrangements for us to buy a 38' boat that suited us perfectly. Within a week we were cruising down the River Trent and on our way to crossing the Pennine Mountains.

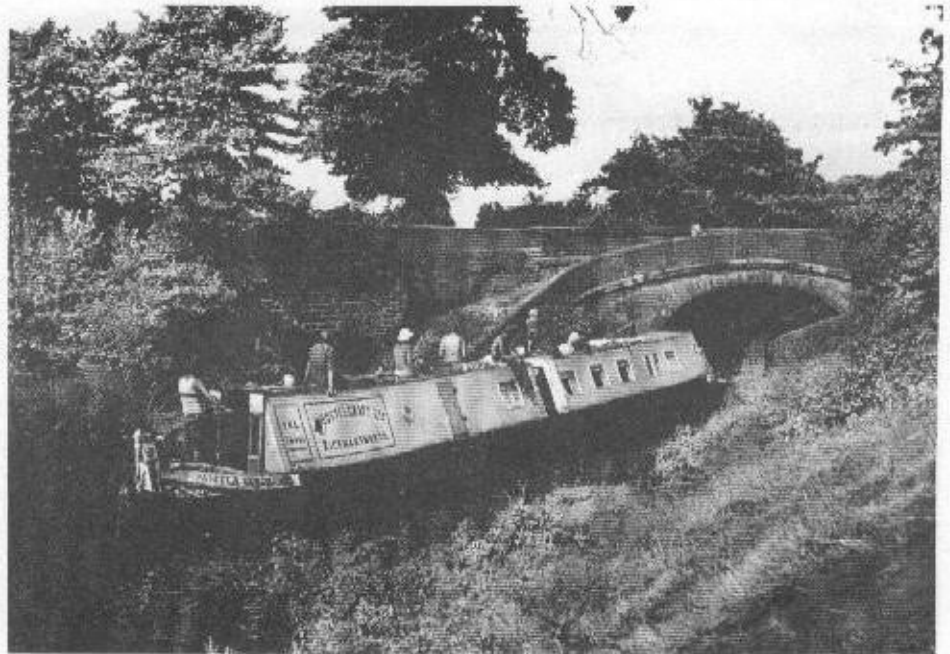
After giving my Rotarian host this description of how I came to visit his club he would of course ask the name of my club. When I said that I was from the Honolulu Club the reply was usually the same, "You're joking!"

After assuring him that I did try to practice the "Four Way Test" my host enjoyed introducing me to the other members. Always I was made to feel so very welcome which was usually helped by a pint of delicious beer that for some unknown reason the English had misnamed "Bitter".

This exchange of questions and answers took place each week through June, July, August and part of September as I visited one Rotary club after another in their charming towns and villages. By consulting my copy of Rotary International's Directory I could easily determine which club I would be near on its meeting day.

Because the canal runs through the center of many towns I was able to moor our boat within a few minutes walk of the meeting place. Then I would change from my jeans and sport shirt to jacket and tie which usually prompted raised eyebrows and appropriate remarks from people on neighboring boats.

My English Rotary experience began at the Castle Donington Club. It was an evening meeting at an 18th century hotel which was originally a stately manor home. Fellowship began over the customary pint and continued through a leisurely dinner. There was none of the rush that is sometimes sensed at luncheons in USA when members are understandably anxious to return to their offices. I'll never forget how welcome I was made to feel by the club's president, Ron



Typical "Narrow Boat" on the Macclesfield Canal in England, somewhat longer than the one purchased by the Mitchell's. The bridge in the background is Roving Bridge, near Congleton.

Billings. After presenting me with a banner (even though I didn't have one to exchange) he noticed that I wasn't wearing a Rotary pin. He good naturedly reminded me that my lapel would look better with the pin he then presented to me. I proudly wore it at 12 more Rotary meetings.

Over and over again the people of northern England showed their friendliness in such a variety of ways that I told them they had what in Hawaii we call the Aloha Spirit. Rotarians were especially warm and went out of their way to make us feel welcome. Let me tell you about several of many ways our lives were touched by their warmth.

After the meeting at York, Jim DeLittle took me on a tour of the plant his grandfather built to make wood printing type, and then he accompanied me back to our boat. During our conversation my wife made an off-hand comment that we didn't have a proper mirror. The next day Jim and his wife arrived with a mirror he had made using 1000 year old wood that had been excavated nearby at an old Viking site.

The town of Worsley is where the Duke of Bridgewater and engineer James Brindley began the British canal system. Rotarians meet at the Dukes "Old Hall" which has been converted to a fascinating restaurant. Acting president Jack Winterbottom, on hearing of my interest in canal history, asked his wife, Betty, to collect us the next day to take us on a tour of the Duke's dry docks where his boats were built. That evening she invited my wife to be her guest at a meeting of "The Inner Wheel", the club for wives of Rotarians with similar service goals. It is a great idea and I know of no U.S. counterpart.

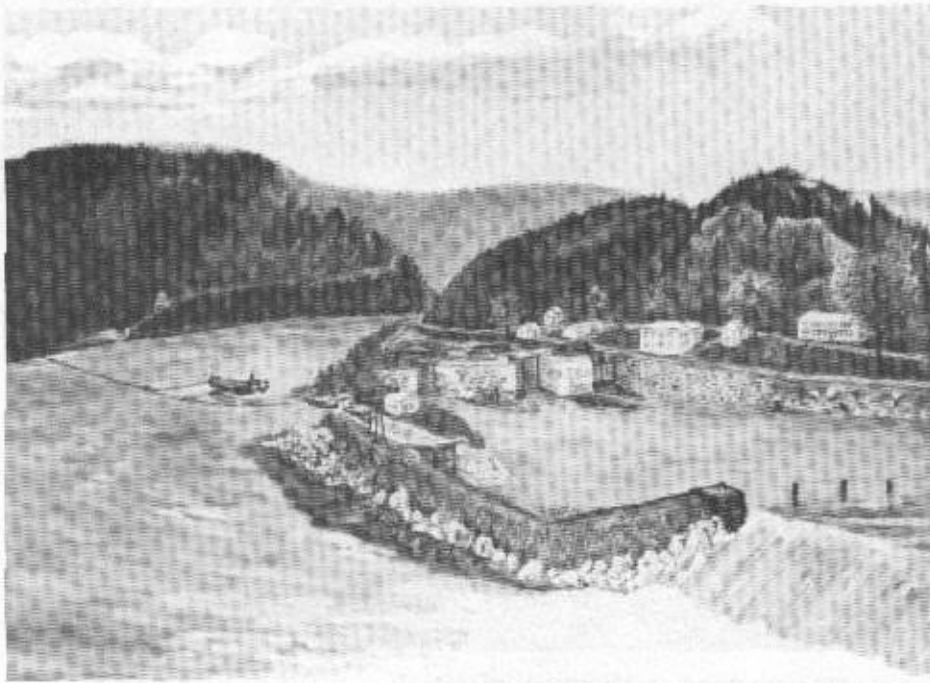
After mooring our boat at Stone, I walked two blocks to the Crown Hotel, an old coaching inn. The speaker was a Rotary Foundation scholarship winner from Indiana who described her year studying music in Wales, and how Rotarians had been so very helpful to her. As a Paul Harris Fellow I was deeply impressed by the rapport that so obviously existed between the American guests and her English hosts. After lunch my host, Barry Tunnicliffe, not only took me on a tour of his printing plant and drove us to the Wedgwood factory for its tour, but invited us to dinner at his home! It was a memorable evening. His wife, Bernadette, cooked a delicious meal over which the conversation flowed with warmth and affection. We learned a lot about how they live, their schools, church work and their children's hopes and dreams, and we shared our thoughts on the same subjects. As we departed Barry summed it up so well when he said an exchange like this is "what Rotary is all about".

Later I found myself reflecting about Rotarians who visited our club in Hawaii but weren't given this privileged look at our family life. My wife and I now feel that we have a deeper understanding of English people and their customs and opinions because of their willingness to share with us. If other Americans show the same degree of interest in them that we did, we know that they, too, will receive a warm welcome.

By the time our circular cruise over the Pennines brought us back to Long Eaton where we had arrived in May we had travelled over 500 miles, negotiated 263 locks (many of these we operated ourselves), went through 4 tunnels (the longest of which was 1-2/3's miles and the only light was from our boat's head-

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## REMINISCENCES OF THE LEHIGH CANAL, 1840-1856



A painting, by the late C. P. "Bill" Yoder, showing the confluence of the Lehigh and Delaware Rivers at Easton, Pennsylvania. On the extreme right is the Lehigh Canal Dam, with its spillway into the Delaware River. Next on the right is the reservoir which fed the Delaware Canal. In the center are the feeder locks and water supply flume to the Delaware Canal, which can be seen downstream in the distance. At the left is a canal boat, being towed from the outlet lock from the reservoir across the Delaware River to the Morris Canal entrance, on the New Jersey side.

*This is the conclusion to the article by W. H. Gausler of Philadelphia (1912) which began in Issue Number 51 of AMERICAN CANALS. It reveals many names, places and dates of activities long forgotten on the Lehigh Canal.*

Up to 1856 there were these transportation lines, namely: the Red Line, Cook's Line, Hecker, Long & Co.'s Line, and the W. H. Gausler Line. Peter Huber, Sr., a merchant of Allentown, had a line of coal boats in the forties; Pretz, Guth Co. had a line of three boats plying between Allentown and Mauch Chunk, supplying the merchants of the coal region with flour, feed and other merchandise in exchange for coal. Later Huber's Line was operated.

About this time (1856) I organized the firm of Pretz, Gausler & Co., and built the planing mill at Third and Union streets in Allentown, and opened a lumber yard at the same place. In 1858, this firm lost, by a freshet, \$8,000, with no insurance.

On June 6, 1862, I lost, by a freshet, my house, lumber yard, coal yard and boats. My family got out of the house at 1 o'clock in the morning with only their night clothing. All went down the Lehigh River. There was not enough left to build a fire. I was at Key West at the time with the Forty-seventh Regiment and did not hear the news for a month.

This freshet broke the banks and destroyed bridges and boats of the Lehigh canal from White Haven to Easton, Pa. The canal from Mauch Chunk to White Haven was abandoned and the Jersey

Central Railroad was built to comply with the charter of the Lehigh Coal and Navigation Company. It took three years to complete the railroad and the people from Mauch Chunk to White Haven were deprived of any communications with the general market for three years.

The officials connected with and superintending the Lehigh Coal and Navigation Co.'s mines and canals were: — Mr. Wm. Sayers, Sr., was weighmaster at the weighlock at Mauch Chunk from 1830 to 1860. He lived in the stone house above the weighlock between the Lehigh River and the canal. He was the father of Robert and Wm. Sayers, Jr., of the Lehigh Valley Railroad.

Billy Knowles, who died at South Easton, early in the forties and was succeeded by Douglas and later Leiserring. Billy Zane, as we called him, was superintendent from South Easton to Mauch Chunk from 1830 to 1860, and traveled by horseback weekly on the towpath from South Easton to Mauch Chunk and return.

John Brown was the superintendent from Mauch Chunk to White Haven for more than 25 years, up to 1862, when the freshet of June 5th broke the canal, which was not rebuilt. The travel between Mauch Chunk and White Haven was by packet boat connecting with the Susquehanna Railroad from White Haven to Wilkes-Barre over the mountains and plains, and from Mauch Chunk to Philadelphia, via Allentown by stages.

The most noted stores to supply the boatmen with food and provisions from

Easton to White Haven were Abram Cortright, Freemansburg; Saeger, Keck & Co., Allentown; J. W. Fuller, Catasauqua; Peter Laubach's store at Laubach's Mill; Benonie Bates; Geo. Weber's store at Siegfried's Bridge; Kuntz's store at Treichler's; Thomas Beck at Lockport; Jacob Benninger's store at Walnutport; Thomas Craig at Lehigh Gap; Bowman's store at Parryville; Louis Weiss at Weissport; Geo. Fegley at Penn Haven, and Thomas Broderick at Rockport, Pa.

The best places to procure bread were at Peter Laubach's store and Wentz's Lock at Treichler's. The loaves were large and round and made of rye flour. Six loaves would last the round trip of two weeks, and cost about three shillings. Our expenses for one boat for one trip from Mauch Chunk to Philadelphia and return were \$3.00 for provisions and horse feed.

Bacon (or flitch) cost 4c per pound; shoulders 4c, ham 6½c, butter 12½c, coffee 12½c, brown sugar 4c, potatoes from 2 to 3 shillings per bushel, oats from 2 to 3 shillings per bushel, hay and stabling over night 1 shilling, and other provisions and feed in proportion.

Coal, lumber, iron, slate, flour and distilled whiskey were the principal products for freight to the then leading market, Philadelphia, and store goods for the return trip in the forties and fifties.

Up to 1843 the boats ran on Sunday, the canal being the only means to bring freight to Philadelphia. Boating was carried on from the first of April to December. Nearly all boatmen kept going day and night, boats being so numerous that the canal seemed to be a solid mass of boats. The different coal operators offered premiums for one year to the boat that brought the most coal to Philadelphia. This was contested by about four boats, myself being one of them. We never tied our boats, nor stopped day or night during the boating season; this was done to get as much coal to market during the eight months of boating as possible.

The salary of a boat captain was from \$14 to \$20 per month; bowsmen from \$8 to \$14 per month, and drivers \$5 per month.

On approaching locks we blew a tin horn to give notice to the lock tenders. Some boatmen became expert in blowing this horn. At Mauch Chunk, where the boats were loaded by chutes the different sizes of coal were indicated by the tin horn. *Soft coal, lump coal, egg coal, chestnut coal, stove and steamboat coal* were brought from Summit Hill by the Gravity Railroad, now called the Switchback. The coal shipped from Penn Haven was brought via the Beaver Meadow Railroad from Beaver Meadow and Hazleton Mines from Rockport by Gravity Railroad from Buck Mountain. The coal from Asa Packer Mines at Nesquehoning was brought by Gravity Railroad from Nesquehoning to the dam above Mauch Chunk and transferred to boats.

*(Concluded on Page Five)*

(Concluded from Page Four)

Coal was also shipped from White Haven by boats brought from Wilkes-Barre by Gravity Railroad over the mountains by planes about 1843.

Boat building was a great business, carried on by John Warg, who was succeeded by Geo. and Aaron Bachman, at Freemansburg; by John Rice at Bethlehem; by Thomas Beck at Lockport; by Thomas Craig at Lehigh Gap; by Conrad Craver at Weissport; and by Mr. Miller at Mauch Chunk.

The Lehigh Coal & Navigation Company had boats built by the different boat builders which they rented or sold to boatmen, payable by installments, with interest. By this means the company got coal to market and many boatmen became owners of boats.

The boatmen often encountered danger from high winds at Easton dam at the weighlocks, the chain dam and Lehigh Gap. Nearly all the dams above Mauch Chunk, Turnhold, Hetcheltuth, Oxbow, Stoney Creek and others, were dangerous to navigate in high water and winds. The dams and locks above Mauch Chunk were from fifty to sixty feet high, and some backed the water two miles.



The "Switch-Back" Railroad which brought coal down to the Lehigh Canal at Mauch Chunk. It had two inclined planes; the one at the Mount Pisgah ascent is shown here. In the latter days of operation it became a tourist attraction, and delivery of coal was interrupted frequently to transport a load of passengers over its 18-mile route.

## Rumania Pins Hopes on New Canal



The following item was clipped from a recent issue of "Dun's Business Month" by Bill McKelvey. The accompanying map shows the proposed canal routes from the Black Sea to the North Sea.

According to Rumanian President, Nicolae Ceausescu, the new forty-mile canal recently opened between the Danube River city of Cernavoda and the Black Sea port of Constanta will play a key role in strengthening the country's fragile economy.

Besides lopping 230 miles off the shipping route to the Black Sea through the meandering Danube estuary, the \$2 billion canal, which took the Rumanians eight years to construct, will irrigate thousands of farms in the arid Dobrogea region and generate 20 million kilowatts of electricity. It is also expected to attract many new industries — especially to a free-trade zone that will be established at the mouth of the canal at Constanta Sud, which Bucharest planners hope to develop into a major European port.

Government officials also are counting on the canal to boost Rumania's waterborne trade with Central and Western Europe and generate welcome hard-currency revenues from transit fees. And once West Germany builds its proposed canal link between the Main and the Danube, thus opening a direct water link between the North and Black seas, they expect heavy traffic on the Rumanian section.

Western shipping experts, however, doubt that the canal will be as productive as Ceausescu suggests, since the trade the Rumanians want to divert to the Danube — that between Western Europe and the Middle East — is for the most part not suitable to barge transport. Thus they expect the three new river ports Rumania is building to handle the extra traffic to have many idle berths, at least in the foreseeable future.

On September 30, 1984, the Never-sink Valley Area Museum invited the public to attend a dedication of the "First Canal Boat to be constructed for use on the Delaware and Hudson Canal in over 85 years", at the D. & H. Canal Park, off Route 209, Cuddebackville, New York.

## Thailand Considers Nuclear Digging of Isthmus Canal

ACS Director Hayward Madden calls our attention to the following Associated Press release published November 18, 1984:

BANGKOK, Thailand (AP) — Engineers are restudying a proposal to use nuclear devices to blast out a canal across Thailand's Kra Isthmus, a long-dreamed-of waterway that would shorten ship travel between the Indian and Pacific oceans.

On the drawing board here is a 60-mile canal across the isthmus near the border of Malaysia. Two centuries ago the rulers of what then was known as Siam studied the possibility of a canal farther north on the isthmus as a protection against invasion by the neighboring Burmese.

Currently, all ships, including oil tankers on the vital Japan-Middle East run, must swing around Singapore at the tip of the Southeast Asian Peninsula and pass through the narrow Strait of Malacca between Malaysia and the Indonesian island of Sumatra.

Proponents say the Kra canal would not only shorten the route by about 930 miles, or up to two days of sailing, but would transform the now jungled isthmus into a key economic hub of Southeast Asia, one of the world's fastest growth areas.

Envisioned is a canal zone studded with industrial estates, commercial enterprises and a major "Asiaport." The latest plans call for a two-lane canal, 1,200 to 1,500 feet wide and more than 100 feet deep, a passageway that could accommodate vessels of up to 300,000 tons.

The plan, which is the result of a 1973 study, places the western end of the canal at a point 18 miles north of the Thai city of Satun. The eastern end would be at the northern edge of the Lake of Songkhla, near the port of Songkhla.

Also under study is a proposal for nuclear excavation, never before employed outside the Soviet Union.

# THE MIDDLESEX CANAL

*This is the conclusion of an article sent us by ACS Vice President Bill Gerbar, which started in AMERICAN CANALS Number 51. It is reprinted from the July 1984 Issue of PREVIEW MAGAZINE.*

## Baldwin mansion

Perhaps the most magnificent site rests quietly along Route 128 where Route 38 crosses. For those who care to take the time, there stands the original mansion of Colonel Laommi Baldwin, first superintendent of the Middlesex Canal and famed militia commander of April 19, 1775, after whom the Baldwin apple is named. During the summer, there is a replica of a typical canal boat tied to the shore in front of the mansion, having recently been completed by Leonard H. Harmon, chairman of the Middlesex Canal Association.

The association was formed in 1962 under the leadership of Arthur L. Eno, Jr., of Carlisle, whose law office is in Lowell. Its major purpose is to acquire, restore and preserve all extant remains of the canal and to establish along the route of the canal a park or parks for public recreational and educational use. This has been done to some extent with stone and brass markers in many places, restoration of certain areas such as the aforementioned Shawsheen Aqueduct, and establishment of a canal park along Route 129 just before it joins Route 38, just beyond the Billerica-Wilmington line.

The association has also worked closely with allied groups such as the Billerica, Chelmsford, Burlington and Woburn Historical Societies and the Woburn Minute Men in helping to acquire, restore and maintain certain of the yet visible traces of the canal.

## Association's goals

According to Eno, "We have accomplished much since 1962 but our goals are still incomplete. We would like to restore as much of the canal as is possible, and

actually open it to the public for use as a canal as it once was."

A large collection of the association's historical material is on deposit at the Lydon Library at the Lowell Technological Institute portion of the University of Lowell, including paintings of the canal as it was, manuscripts and photographs, and many of the old log books, both of the ships and of the toll booth keepers' records. These show the frequency of use, the amounts charged for passage, with a record of the names of the ships which made the voyage up and down the canal.

## Thoreau Brothers Trip

Much has happened to the Middlesex Canal since that Saturday, August 31, 1839, when Henry David Thoreau and his brother John set out from Concord on that trip that was to form the basis of Henry's first book, "A Week on the Concord and Merrimack Rivers," published 10 years later. Henry was then 22 years old, and John 24.

Unwittingly, the Thoreau brothers, in making their passage through the canal, broke several of the regulations, and it's doubtful they ever knew this had occurred. Their boat was smaller than the required dimensions of between 40 and 75 feet in length. Their boat did not bear a name or number as required. Their boat was not drawn by the prescribed horse or oxen. They should not have been traveling on the Sabbath unless they were returning to their homes, and they broke the speed limit by traversing six miles of the canal in one hour, thus exceeding the stipulated rate of not more than four miles per hour.

Thoreau wrote in his journal (later to be published as the book), "All through the Concord, Bedford and Billerica meadows we had heard no murmur from its stream. But now at length we heard this staid and



**Loammi Baldwin (1745-1807) Chief Engineer and Superintendent of the construction of the Middlesex Canal. He is shown in his Major's uniform, as a member of the American Revolutionary forces — saw action in the battles of Lexington, Long Island and Trenton. (Courtesy Middlesex Canal Association.)**

primitive river rushing to her fall, like any rill. We here left its channel, just above the Billerica Falls, and entered the canal, which runs, or rather is conducted, six miles through the woods to the Merrimack, at Middlesex; and as we did not care to loiter in this part of our voyage, while one ran along the tow path drawing the boat by a cord, the other kept it off shore with a pole, so that we accomplished the entire distance in little more than an hour. This canal, which is the oldest in the country, and has an even more unique look beside the more modern railroads, is fed by the Concord, so that we were still floating on its familiar waters. It is so much water which the river lets for the advantage of commerce."

## C. & D. LOCKS

In the last issue of AMERICAN CANALS, we published a photo of the locks on the Chesapeake and Delaware Canal being removed, and asked if anyone could "date" the photo. In reading through the Corps of Engineers brochure on the C. & D. recently we noted the following passage: "In 1921, the Army Engineers began widening the canal to 90 feet, deepening it to 12 feet, provided a new entrance at Reedy Point, Delaware, excavating some 16 million cubic yards of material, removing the locks, and constructing one railroad and four highway lift bridges. The operation was completed in 1927 . . ."



**Ruins of the Middlesex Canal Aqueduct, which carried canal boats over the Shawsheen River. The site has been declared a National Historic Civil Engineering Landmark, and stabilization work has been done here.**

## Railroad Uses Tunnel Built for Canal

By Alexander Crosby Brown

As a follow-up to his article "J.R. & K. Tunnel Threatened" in the last issue of AMERICAN CANALS, Alexander Crosby Brown has sent us the accompanying picture of the other tunnel mentioned in his story. The details of how the Mason Tunnel was adapted for a railroad, instead of a canal, are told in the following excerpt from an article he wrote in 1970 for the Daily Press of Newport News, Virginia.

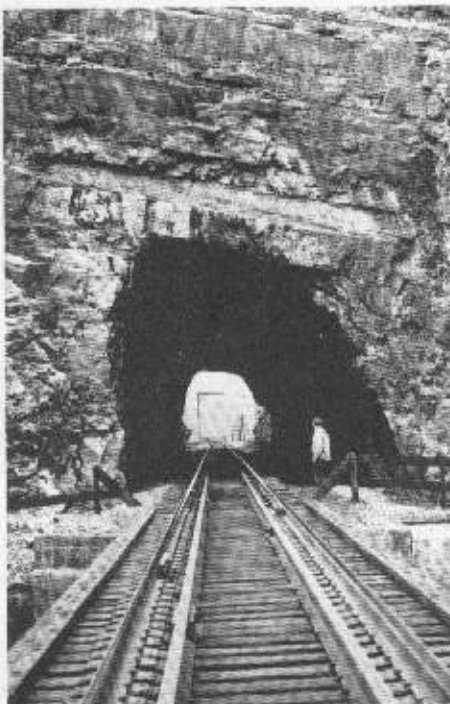
The James River - Kanawha Canal continued a precarious existence in its already completed divisions, but all work stopped west of Buchanan after 1856. In 1878, following a series of particularly disastrous floods which had wiped out long stretches of the canal, the James River - Kanawha Company gave up the ghost. Its properties and rights-of-way west of Buchanan, along with both the Mason and Marshall Tunnels, were conveyed to the newly formed Buchanan and Covington Railway which was itself badly damaged by flood before the line could be completed. In 1880, the Richmond and Alleghany Railroad Company acquired the bankrupt Buchanan and Covington.

Railroad construction gangs immediately commenced to lay ties along the former towpaths. When the engineers got to planning the stretch between Buchanan and Eagle Rock they followed much of the preliminary canal route and were happy to find the completed Mason Tunnel was suited to their use. Accordingly, they erected iron railway trestles across the aqueduct foundations and, enlarging the tunnel, they laid the tracks to run through it at which time it became known as the Thompson Tunnel. The Chesapeake and Ohio absorbed the Richmond and Alleghany in 1887 and since then the tunnel has been merely designated Little Tunnel.

Passenger trains using the James River Division of the C&O were discontinued 14 years ago, but the majority of the 160-car coal trains bound for Newport News ply the long, easy grades that parallel the curving James from its source down to tidewater. Except for railroad men, then, Little Tunnel is seldom seen and rarely visited. It may be reached, however, by an exceptionally narrow, rocky road which crosses the ridge on top of the tunnel some five miles northward from the village of Springwood.

The view from the top of the ridge is a fine one, after which it is not too difficult to climb down to the south portal and walk through the tunnel and come out on the north bridge. Railway trestles make me giddy, but I did walk out far enough along the tracks to get a photograph of the north end of the tunnel and to wonder how many people might be left who realized that, when the 115-year-old Mason Tunnel was completed, boats not trains were supposed to emerge from it, or who had recalled the illustrious career of John Young Mason.

Not many, I should imagine!



A photo made by Alexander Brown in 1970, showing ACS Vice President Bill Trout posing at the North Portal of the John Y. Mason Tunnel. This 198-foot long tunnel was inherited by the railroad, along with the uncompleted Marshall Tunnel, when it purchased the J. R. & K. Canal right-of-way. Mr. Brown was standing on the Chesapeake and Ohio Railway Viaduct, leading into the tunnel, and across the James River, when making this picture. If the canal had been completed, the bridge in the foreground would have been a 320-foot Aqueduct!



The SANDPIPER being delivered at Toledo, Ohio, prior to transporting 4000 people along the Maumee last year. She is a steel-hulled replica of an Ohio canal boat of the 1800's. (Photo from The BLADE, Toledo, Ohio.)

## ANOTHER OHIO CANAL BOAT

by T. K. Woods

Ohio's fourth canal boat replica, the SANDPIPER, was launched on July 13, 1984 onto the Maumee river at Toledo. Though of the same general lines as the state's first canal boat replica, the ST. HELENA II, the white-hulled, green-trimmed SANDPIPER is Diesel Powered to operate upon the river and steel hulled to conform to Coast Guard regulations.

The brainchild of Bob Brooks and Don Roth, two Toledo businessmen, the SANDPIPER is 65 feet long, 16'-6" wide, 11'-7" high and draws 32" of water. She has a dry weight of 37 tons. She was fabricated, beginning early in January of 1984, by Anderson Inc. of Maumee, Ohio. She carried her first official cargo — the Mayor of Toledo, City Councilmen, John Vanderlip representing the Canal Society of Ohio, and approximately 60 paying passengers on August 10th. The very next day 16 members of the C.S.O. 'sailed' in the SANDPIPER.

The SANDPIPER's abbreviated 1984 operating schedule ended on October 30 after nearly 4,000 people had enjoyed a canal boat ride on the river. She was put up on blocks at the World Trade Terminal for the winter, but come the first warm days of May, Toledo's first canal boat replica will again begin plying the waters of the Maumee river past the old Swain creek canal outlet to Promenade Park at Toledo's rejuvenated waterfront area.

The SANDPIPER will make hourly trips up and down the river between 11:30 a.m. and 5:30 p.m. each day from its dock at Promenade Park at the foot of Jefferson Ave. Adults will be charged \$3.50 for each trip and children under 12 will pay \$2.00. Special Charters and Dinner Tours may also be arranged.

# SCHUYLKILL CANAL RESTORATION

By Larry E. Whyte

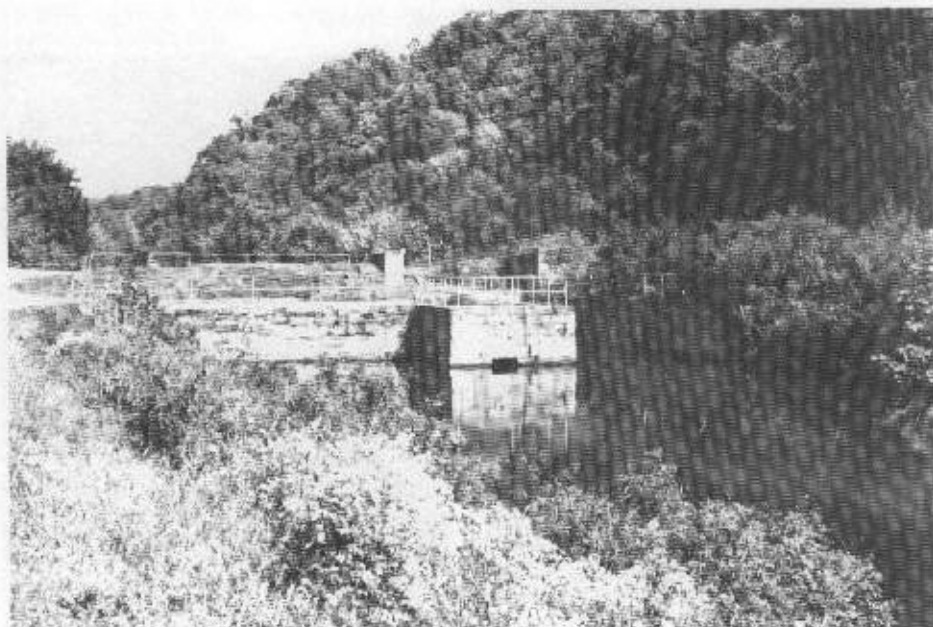
The Schuylkill Canal Advisory Committee is continuing its efforts to preserve and restore a two-mile watered section of the Schuylkill's historic waterway. Located in Mont Clare, Pa. (Montgomery County), the section, known as the Oakes Canal (after canal engineer Thomas Oakes who laid out this section during the initial construction phase of the early 1820's) includes Black Rock Dam, Lock No. 60 nearby, and the locktender's house dating from 1839. The committee was instrumental in developing public support that led to the leasing of these properties by Upper Providence Township for use as an historic and recreation area. Grant monies were secured with the assistance of the Montgomery County Planning Commission, and necessary repairs were made to the lock house last year that rendered it weather-tight.

The Township provided funding for re-installation of the plumbing and heating systems, and work is progressing at this time to complete the rehabilitation of the building's interior, with the expectation that a resident caretaker will be able to move in before the snow flies. Several applications have been received by the Township and are under review, with a final selection in the offing. S.C.A.C. conducted a survey of the canal reach which parallels the nearby Schuylkill River and recommended the installation of two locking gates to prevent unauthorized entry of motor vehicles on the towpath. Trash-dumping and vandalism plagued these areas prior to erection of the gates.

Recognizing the need for a strong local support network S.C.A.C. initiated an outreach effort this spring that identified individuals and businesses willing to aid the township in its efforts. The result of this campaign which included a mass mailing complete with window stickers, was the formation of **Friends of the Schuylkill Canal**, a non-profit (soon to be incorporated) organization with an enroll-



A typical sign erected by the Schuylkill Canal Advisory Committee along their restored section of the waterway.



Lock Number 60 of the Schuylkill Navigation, located at the head of the Oakes Canal. To the right is the 18' x 110' chamber which was enlarged to this dimension in 1846. The stone wall on the left conceals the outlet bay of the earlier "twin lock" which was altered to serve as a feeder by-pass to the lower canal reach. (Photo by L. Whyte, 1984)

ment now approaching 300 individuals and businesses from the local area. Monetary contributions were received in amounts ranging from \$5.00 to a \$2000.00 award presented by the Phoenixville Area Chamber of Commerce (located across the river in Chester County)

As support grows for this project, Committee members are turning their attention to the lock structure itself. The extant lock chamber is constructed of finely-dressed native brown sandstone, quarried nearby, and set in close beds of hydraulic cement. While the gates and wicket gear were removed and an earthen and rubble-stone dike placed in the lock about 20 years ago to hold the upper level, the lock is in excellent condition and a prime candidate for complete renovation. The extant chamber was built to the 18' x 110' dimensions during the 1846 canal enlargement program on the site of a former "twin" lock designed by Edward H. Gill. Much of the stone contained in this lock dates to the earlier period, and can be identified by the hammer dressing of the broached and rebated ashlar which was specified by Gill during the earlier lock doubling phase of the 1830's.

The twin locks formerly occupying this site were not identical twins, according to dimensions provided on a map in the State Archives: one was built to the 90' x 15' standard dimensions of the Pa. state canals, while the other conformed to the original 90' x 17' dimensions of the Schuylkill Navigation. A portion of the earlier twin lock is visible adjacent to the enlarged companion, and contains a sluice gate which controls the flow of water into the lower level. A stone bearing the date 1839 appears at the head

of this chamber. The stonework in evidence here is a fine example of nineteenth century craftsmanship produced at a time when the Schuylkill Navigation was one of America's most profitable enterprises. Its significance today as a historic landmark, representative of Pennsylvania's great contribution to the canal age is beyond question. Efforts are now under way to include Lock No. 60 on the National Historic Register and to develop a plan for its eventual restoration. Inquiries about the project may be addressed to the Schuylkill Canal Advisory Committee, 1301 Black Rock Road, Box G, Oaks, PA 19456.

Further background material on this project may be obtained by reading the article on page 12 of *AMERICAN CANALS* No. 47, November, 1983. (Editor)



John Hughes (left) Chairman of the Schuylkill Canal Advisory Committee and ACS Member Larry Whyte proudly display the Community Betterment Award granted to them by the Phoenixville Area Chamber of Commerce, along with a check for \$2000 to be applied to their project. (Photo by W. McGregor)



## NEW CANAL PUBLICATIONS

**THE BUILDING OF THE PANAMA CANAL**, In Historic Photographs — by Ulrich Keller. An excellent selection of photos from the archives of 10,000 pictures taken by Ernest Hallen, official photographer of the Isthmian Canal Commission, from the time of abandoned machinery left by the French to the completion of the canal in 1914 by the Americans. A ten-page introduction and complete and detailed captions by the author, on each photo published. 8-1/2 x 11 paperback, 116 pages; \$10, postage and handling included, to Canal Captain's Press, 103 Dogwood Lane, Berkeley Heights, NJ 07922.

**THE CHESAPEAKE AND OHIO CANAL**, Pathway to the Nation's Capital — by Thomas F. Hahn. This book is an abbreviated assembly of some of the best books published by the author on the Potomac and C. & O. Canals over the past 14 years. It includes excerpts from Hahn's "Life on the C. & O. Canal"; "C. & O. Canal Boatmen"; "George Washington's Canal at Great Falls"; "C. & O. Canal Old Pictures Album"; "Canal Boat Children"; "C. & O. Canal Illustrated History" and Hahn's well-known "Towpath Guides to the C. & O. Canal". 87 old photos, sketches and maps provide illustrations to go with the excellent text, for a total of 280 pages. Bibliography and Index included. \$21, shipping cost included. American Canal & Transportation Center, P.O. Box 310, Shepherdstown, WV 25443.

**A CANADIAN ENTERPRISE, THE WELLAND CANALS**, "Merritt Day" Lectures. Different aspects of the history of the various Welland Canals have been considered by three of Canada's noted scholars on the subject — Dr. James A. Gibson, Dr. John N. Jackson and Dr. James J. Talman. Their papers were presented in 1978, 1981 and 1982 at the "Merritt Day" event, annually sponsored by the St. Catharines Historical Museum. Their papers have been edited into one 74-page volume, illustrated with over 50 photos, sketches, maps and charts. An 8-1/2 x 11 paperback, it sells for \$8.95, postage and handling included. St. Catharines Historical Museum, 343 Merritt Street, St. Catharines, Ontario L2T 1K7, Canada.

**THE COLUMBIA-PHILA. RAILROAD**, And Its Successor — by William Hasell Wilson, C.E., 1896. Wilson was an Engineer on the location and building of the Columbia Railroad for the Pennsylvania Canal Commissioners as part of their "Main-Line" Canal-Railroad System connecting Philadelphia and Pittsburgh, 1828-1857. Later he was Resident Engineer for the same railroad after the Pennsylvania Railroad purchased it from the State. His experiences are colorfully recorded in this book which he wrote in 1896 and which has been reprinted, with 45 old photos and sketches from the 1800's in this 1985 version. Tables and data on both the Columbia and Allegheny Portage Railroads included. A 72-page paperback, it sells for \$6. American Canal and Transportation Center, 809 Rathton Rd., York, Pa. 17403.

**THE OTTAWA RIVER CANAL SYSTEM (1984)** — by Normand Lafreniere, presents the history of this canal system up to 1963. Background of the river canalization construction of the canals, changes to the system, and its commercial use. Available in both English and French. \$5.25 in Canada; \$6.30 outside Canada; Canadian Govt. Publishing Centre, Supply & Services Canada, Hull, Quebec K1A 0S9. (Make checks payable to the Receiver General for Canada.)

**DELAWARE AND RARITAN CANAL STATE PARK: Historic Structures Survey, Vol. 1.** Prepared for the Canal Commission by Gibson, Bauer and Amon, June 1982. An 800-page book with scores of illustrations and highly detailed maps, including the architectural significance of important buildings in the surveyed communities along the canal. \$8, to the D. & R. Canal Commission, CN 402, Trenton, NJ 08625. (Make checks payable to the State of New Jersey.)

### "THE OLD RAGING ERIE . . . THERE HAVE BEEN SEVERAL CHANGES"

A Postcard History of the Erie And Other New York State Canals (1895 to 1915).

by Harry L. Rinker

Send for brochure of all waterway titles.

CANAL CAPTAIN'S PRESS  
103 Dogwood Lane  
Berkeley Heights, N.J. 07922

### HISTORICAL SKETCHES FROM "THE IRON WORKER"

by William R. Dunn and T. Gibson Hobbs, Jr.

A fine tribute to the industries in Lynchburg, spawned by their location along the James River and Kanawha Canal. A very-well illustrated 8-1/2" x 10-1/2" paperback, its 208 pages contain much of historical interest to residents of South-Central Virginia. A 13-page feature section is titled "From Canoe to Packetboat", and deals with the Canal. Another ten-page section is titled "The James River". Four-color cover. \$16.25, including postage, to Lynchburg Historical Foundation, % Gibson Hobbs, 3204 Landon Street, Lynchburg, VA 24503.

A clipping received from ACS Vice President Bill Trout dated October 28, 1984 indicates that the Great Basin at Richmond Virginia has yielded the remains of more boats, 14 months after six canalboats were found in the excavation for the first building of the James Center.

## Honolulu Rotarian Tours England

(Concluded from Page Three)

light), operated so many swing and lift bridges that we lost count, and crossed over almost as many aqueducts (the highest of which was 100' over a river).

Most of our cruise was through lovely English country-side and inviting forests. Usually the nearest road was either too far away or the canal was hidden by trees with the result that visiting motorists didn't have any idea of what they were missing. Even if they did see a section of a canal they whizzed by so fast that they only caught a glimpse.

In our smugness we knew that we were seeing so much more as we meandered "down the cut" at the speed limit of four miles an hour. Moor hens were fun to watch as they scooted for cover under the reeds growing along the side. Swans with their little gray signets were often begging and we were glad to oblige. And there was always time to offer bread to a mother duck as she escorted her recently hatched family of ten or more balls of paddling down.

In the late afternoon, when we had cruised far enough for that day, we would steer to the tow path side, often under a beautiful old tree, and moor for the night with entertainment supplied by the songs of forest birds.

The pace is slow and of course wouldn't appeal to those who are happy only when setting speed records, or seeing how many miles they can travel in a day. But those who have learned that slower is frequently better will understand why we are looking forward to returning to England's canals.

R. A. Mitchell, Jr. is a member of the Rotary Club of Honolulu. His home address is P.O. Box 298, Volcano, Hawaii 96785.

## CANAL RECORDS AVAILABLE IN ALBANY

A communication recently received by ACS from the New York State Archives at Albany indicates that the Archives hold over 1,000 cubic feet of records, 1810-1939, relating to the construction, maintenance, and operation of the Erie, Champlain, Oswego, and other canals in New York. (All canals were combined into the State Barge Canal System in 1903.) The records include minutes of meetings, 1816-1889, of various canal administrative bodies—the Canal Board, the Board of Canal Commissioners, and the Commissioners of the Canal Fund. In addition, there are survey maps and field notes relating to canal routes; plans for improvements and alterations; accounts of payments for construction and maintenance; and lists of canal boats and passengers.

Anyone wishing a detailed 13-page listing of the records on the New York State Canals may obtain it by writing the Office of Cultural Education, New York Education Department, 10A46 Cultural Education Center, Albany, NY 12230.

## CANAL BOATMEN'S REUNION



Shown here are most of the "Old Cannallers" who assembled for the Reunion of the Delaware and Raritan Canal Company employees at Princeton.



Capt. Bill McKelvey (with the Mike) presents the "Robert F. Stockton" plaque to Robert F. Stockton, Esq., a direct descendant of the first President of the D. & R. Canal Company. In the background (left to right) are Capt. Robert Swope, Richard Arner, Capt. Carl E. Eklof, Sr. and James Brown (seated.)

On June 24th, 1984 an "Old Cannallers Reunion" was held for the boatmen and employees of the Delaware and Raritan Canal Company at Princeton, New Jersey. It was part of a series of events commemorating the 100th Anniversary of the Canal. Capt. Bill McKelvey was the organizer and master of ceremonies. Most of the activities were held in and around "Morven", the home of Robert F. Stockton, the first President of the D. & R. Canal. A plaque was presented to Robert F. Stockton, Esq., a direct descendant of the above, in connection with a steam tug of the same name. The latter was "The first commercial vessel to be screw-propelled, and the first iron-hull vessel to cross the Atlantic."

Present at the Reunion were: mule drivers, lock tenders, boat carpenters, canal boat captains, canal boat fleet owners, yachtsmen, authors, barge owners — from a three-state area — including those who worked or traveled on the Erie Canal, the Lehigh Canal, the Delaware Canal and the Delaware and Raritan Canal. It was a time for long-tales and reminiscing — an event which will probably never be repeated!

## Great Miami River Corridor

*The following item is extracted from the January 1985 Newsletter of the Great Miami River Corridor Committee-Miami/Shelby Counties in Ohio. Anyone wishing to assist with this project can contact the Committee at their headquarters in the Safety Building, Troy, Ohio 45373.*

Preservation of the Lockington locks remained atop our list of priorities in 1984. Three projects were directly related to this effort.

The first was our continued maintenance of this area using General Relief workers supervised by the Shelby County Coordinator.

More than 1100 man-hours were spent mowing, clearing underbrush, and removing stumps from within and between these limestone structures.

Secondly, the Great Miami River Corridor Committee has signed an Agreement to manage the Lockington Locks State Memorial.

As of August 1st, our duties now include development of programs and activities to promote the historic significance of the site as well as routine maintenance of the property.

Finally, the Ohio Historical Society has appropriated a small amount of money in its Fiscal Year 1986-87 Capital Improvement Plan to install shoring of the masonry block walls comprising the lock chambers and to erect safety railing.

However, the Committee is continuing to encourage this effort by exploring possible alternative approaches.

## Virginia Canal Activities

By Dr. Wm. E. Trout III

The canal world has been a busy one in Virginia during the last two years. When I "retired" in October 1982 I had planned to finish my book on the canals of Virginia, and then go back to work. But in August 1983 my plans were interrupted when Jimmy Moore and I found the James River Canal batteaux in a building excavation in Richmond's canal basin — the earliest canalboats yet found in this country, according to Bill McKelvey, Chairman of our ACS Canal Boat Committee. This October, excavation was begun for a second building in the basin so we have been on the job every day, checking each shovel full of dirt before it goes out. Already we have found a Civil War Era rowboat, fragments of about seven more batteaux and a freight boat, hundreds of shards of china and tinware from Richmond's canal era, and two lost cargoes — a pile of 19 grindstones and a huge bale of leather.

The basin, first opened in 1800, is said to have been up to 50 feet deep in places, so deep that sunken boats were evidently left undisturbed, and lost cargoes very difficult to recover. Last year we even found a bridge over a narrow gully in the basin bottom, proof that the bottom had been undisturbed all these years. And the bridge was made of the bottom and side planks of an old bateau, still pinned together with wooden pegs, laid upside down over some logs — can't beat that as an early boat, pre-dating the filling of the basin in 1800, and taking us back toward the invention of the original James River Bateau in 1771. We have been told that the batteaux used in the southern states — Georgia and the Carolinas — were derived from the James River Bateau, as perhaps were the keelboats used on the Ohio and Mississippi.

A major spin off of the bateau dig has been the building of a full-scale replica, the COLUMBIA, which has not only navigated 150 miles of the James from Lynchburg down to Richmond, but also won the grand prize as a float in the Tobacco Festival Parade, and has been featured on a "Batteau on the James"

*(Concluded on Page Eleven)*

ACS Secretary Charlie Derr, has called our attention to the formation of "The Friends of the Roebling Bridge" with headquarters at P.O. Box 100, Barryville, NY 12719. Their objectives, as outlined by President Eileen Donaldson, are: "The encouragement . . . of the development of John Roebling's Delaware Aqueduct, and surrounding and associated historic features . . . the encouragement of the public's appreciation of these features . . . and all things associated with . . . the former Delaware and Hudson Canal, and the townships of Highland and Lackawaxen."

## Virginia Activities

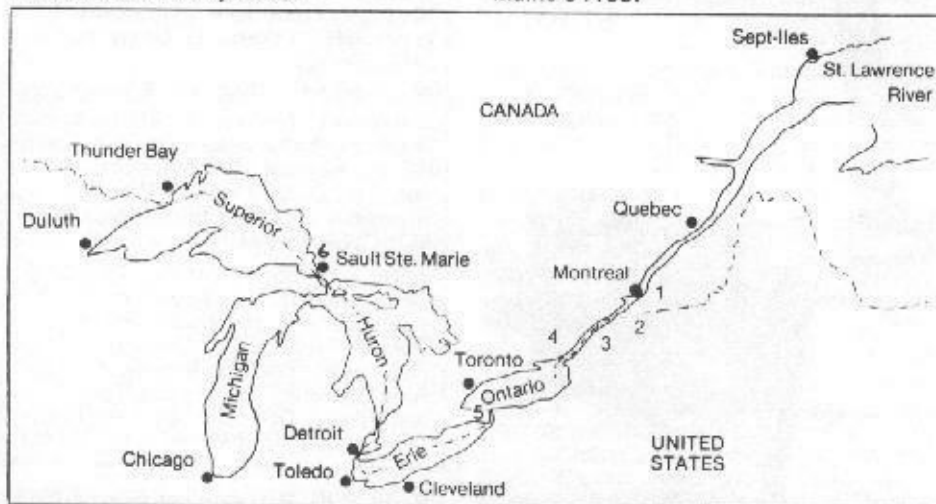
(Concluded from Page Ten)

T-shirt and on a souvenir print given out at the grand opening of Richmond's Marriot Hotel. It also appeared at river festivals in Lynchburg and Scottsville. Several communities are gearing up to build their own bateau; we need one for boat trips on the canal through Richmond.

We are also gearing up for the next VC & NS annual meeting, tentatively scheduled for April. Since 1985 will be the bicentennial year of the organization of the James River Company under George Washington, we will be meeting in Richmond for a public celebration and an appropriate ceremony at the "Lower Arch," the gateway to the earliest canal system in the United States. We have already started stirring up interest by conducting Sunday afternoon tours of the Lower Arch area including Three-Mile Locks and the Byrd Park Pump House. ACS members are particularly invited - call me when you come to Richmond, so we can give you a special tour!

Also available are "James River Canal Bicentennial" T-shirts. Each shirt front has our logo over the heart, and on the back is "James River Canal Bicentennial 1785-1985" over a portrait of our Honorary President, George Washington, and a bateau. Pick up a shirt from me at 35 Towana Road, Richmond, VA 23226 (288-1334) or at a VC & NS tour or other function, for \$6. We can also mail them, at a dollar per order for packing and postage; Specify size (Men's S, M, L, XL) and your first three choices of shirt colors - white, light blue, yellow, red, and tan. In addition to the publicity, each shirt will net us \$2 if we sell all of them! So get one for a friend!

These are just some of the canal activities going on in Virginia these days. You-all come on down and join us!



The St. Lawrence Seaway in 1984 celebrated its Twenty-Fifth Year of operation. Officially opened to traffic April 25th, 1959 and shortly thereafter formally dedicated by Queen Elizabeth and President Dwight Eisenhower, this combined venture of Canada and the United States is one of the most important artificial waterways created since the opening of the Panama Canal in 1914. It has made it possible for ocean-going ships to travel 2342 miles into the heart of the North American Continent, previously limited to "lakers" only. Locks shown on the map: (1) St. Lambert and Cote Ste. Catherine (Canada); (2) Lower and Upper Beauharnois (Canada); (3) Snell and Eisenhower (USA); (4) Iroquois (Canada); (5) Welland Canal, eight locks (Canada); (6) "Soo" Locks, in parallel, four (USA), one (Canada).

## C. P. "BILL" YODER 1892 - 1985

We note with considerable sadness the passing of a canal buff, well-known to canal society members in Pennsylvania, New Jersey and New York State; C. P. "Bill" Yoder, of Nazareth, Pa.

An electrical engineer with General Electric, Erie County Electric Co., and Niagara-Hudson Power Corp., he was involved in the testing of electrical mechanisms for the Panama Canal, and held a number of electrical patents in his own name. He spent a summer on the Erie Canal in a houseboat built by his father, circa 1910.

Bill was Curator of the Pennsylvania Canal Archives in the Canal Museum at Easton, Pa., from 1966 to 1980. He wrote "Delaware Canal Journal; A Definitive History" in 1972. His picture is shown with the Canal Boat Reunion group on page ten.

## CANAL DIORAMA COMPLETED

From a recent issue of the Newsletter of the Cumberland and Oxford Canal Association comes the following item:

Stephen R. Alyward, a native of Portland, Maine, now on active duty with the U.S. Army, recently completed a remarkably accurate scale-model of the C & O Canal which depicts a section of the canal at Little Falls, with a lock and canal boats. Capt. Alyward now plans another model of the canal showing the aqueduct over the Little River in Gorham.

Anyone interested in learning more about the activities of the Cumberland and Oxford Canal Association is invited to contact Joel W. Eastman, Secretary and Treasurer, 35 Lester Drive, Portland, Maine 04103.

## D. & R. "SESQUI"



Part of last year's celebration of the Delaware and Raritan Canal Sesquicentennial was a re-enactment of the canal's grand opening in 1934. In the bow of the boat, taking part in the Pageant, are (left to right) Capt. Bill McKelvey (as Ashbel Welch, D. & R. Chief Engineer); Peter Vroom (as Governor Peter Vroom - a distant relative); and Larry Pitt (as Col. James Nielson). (Photo by James Amon, Executive Director, D. & R. Canal Commission.)

**ENGLISH NARROWBOAT** - Hand-crafted to scale, 3'2" in length. Fully painted and equipped as a working Birmingham and Midland narrow boat called JUBAL. Built to plans by a model maker while in a British prison several years ago. One of a kind. Hull is built of hundreds of wooden match sticks. \$300.00.

**OHIO-ERIE CANAL BOAT ST. HELENA** - Built to scale (1cm = 1') by a professional model maker. Completely equipped with human figures and cargo. Length 24". This is a real beauty. Wooden carrying case. \$500.00.

**CHESAPEAKE AND OHIO CANAL FREIGHT BOAT** - Built to scale, 2'10" in length. Made according to drawings done of BOAT NO. 57 which was measured in 1939. Another boat by model maker while in prison in England. Fully outfitted as a working boat. \$300.00.

**CHESAPEAKE AND OHIO CANAL FREIGHT BOAT** - Built to scale, length 24". By the same builder as the Ohio-Erie boat above. With stand. \$175.00.

**D & H COMMEMORATIVE BOTTLES** - 1970 violet Roebling Aqueduct; 1969 blue Gate House; blue Ground Breaking Ceremony; green Simeon Dupuy Canal House; olive Two Hundred Years of American Independence. \$20 each.

**CHESAPEAKE AND OHIO CANAL COMMEMORATIVE BOTTLE** - Has freight boat leaving Harpers Ferry Lock. Green. \$20.00.

American Canal and Transportation Center, P.O. Box 310, Shepherdstown, WV 25443.

# AMERICA'S FIRST CANAL

ACS Vice President Bill Gerber has been digging into old Massachusetts records on behalf of Charles Hadfield of England, and discovered an interesting item, written by Edward Rowe Snow for YANKEE Magazine, written in March of 1966. We publish here the following excerpts from this account, feeling that it may help clear up the question of the oldest navigational canal built in the New World. If any of our readers know of an older canal in North America, please tell us about it! (Editor.)

New England mariners from almost the beginning of Pilgrim history have dreaded rounding the Gurnet Peninsula opposite Plymouth Harbor in bad weather, as they entered or sailed from Plymouth Harbor. After losing several vessels of their colony, the early Pilgrims decided to attempt digging a canal from the north part of Duxbury into southern Marshfield.

Actual original record taken from volume eleven of the Plymouth Colony Laws of 1623-1682, page 25 reads: "It is ordered by the Court that the Cut at Green Harbor for a boat passage shalbe made eightene foote wide and sixe foote deepe. And for the manner howthe same shalbe donn for the better ordering thereof it is referred to the Governr and Assistante wth the help of John Winslowe, Jonathan Brewster, John Barnes, Christopher Waddesworth aswell to portion every man equally to the charge thereof as also to order men that shall worke thereat, than tenn men may worke together there at once, and the Gounor or whom he shall appoynt shall oversee the same that it may be well formed."

After laborious efforts, the Break Through, or Cut River, as it has been called since, was completed (about 1636). Probably it saved the lives of scores by offering a quiet inland waterway between Plymouth, Kingston, Duxbury, and Marshfield, and avoiding the dangers of the North Atlantic.

From an historical point of view, the records indicate that the Pilgrims thought long and carefully about digging this first American canal.

Quoting from the *American Magazine* for the year 1837:

"The Cut River, so called, is in the town of Marshfield, county of Plymouth. It is not a large river; generally from three to five rods in width; and it extends, (in a very circuitous course like most other rivers and creeks) upwards of three miles. Its general course is from west and northwest, to the east and southeast. Within fifty years, the bed of the river near the sea, and the outlet, (which is into the ocean about half way from the Gurnet, at the entrance of Plymouth harbor, and Scituate) has become changed and entirely filled up at the distance of eighty or one hundred rods."

Actually, the Pilgrims were able from the very beginning, during periods of new moon and full moon, to navigate (at high

tide) shallow-draft craft from Plymouth to Green Harbor, Marshfield. Even before 1630 they were anxious, nevertheless, to cut through with enough depth in the canal to make America's first artificial waterway practical during all times except extreme low water.

I have spent hour upon hour delving into the records of the early Pilgrims and believe that I have uncovered most of the material which explains how the men of the 17th Century dug the canal so that it could be used 20 hours out of the 24.

The most important period of canal construction was in the Winter of 1636. At the General Court held at New Plymouth in that year it was ordered by the court — the actual hand-written record of which is reproduced above.

Year after year, especially after great storms swept the coast, the Cut River had to be "cleaned out" and, by the time of the article already quoted from the *American Magazine* of 1837, the later-day Pilgrims were having their troubles keeping the waterway navigable.

By 1850 most craft were large and substantially built, enabling them to go around Gurnet Light and thus avoid the Cut River altogether. Nevertheless, the first American canal in history is a pleasant reminder today of early Pilgrim industry.

## St. Lawrence Seaway



As part of the 25th Anniversary Celebration of the opening of the St. Lawrence Seaway last year, pictures such as these were circulated to the international press. This photo shows the seagoing tanker HUBERT GAUCHER moving through Lock Number One on the Welland Canal — a familiar sight along one of the world's most important inland waterways.

## CANAL CALENDAR

**March 31, 1985** — Annual Meeting of the Delaware and Hudson Canal Historical Society. (Time and place to be announced)

**April 8, 1985** — Museum Annual Meeting, Neversink Valley Area Museum, Cuddebackville, New York.

**April 12-13, 1985** — Canal Society of Ohio Spring Tour on the summit of the Miami and Erie Canal. Friday Evening Meeting to start. Bus Tour on Saturday includes the Sidney Feeder and sources of water for summit level. Headquarters: Holiday Inn, Sydney, Ohio. Write David A. Neuhardt, 425 East Sixth Street, Dayton, OH 45402.

**April 19-20, 1985** — Combined meeting of the Virginia Canals and Navigations Society and the Pennsylvania Canal Society, Wolf Trap Motel, Vienna, Virginia. Program includes a tour of the Potomac Canal and a ride on the C. & O. Canal Boat. Write George Higgs, 4133 North 25th Street, Arlington, VA 22207.

**April 27-28, 1985** — Pennsylvania Spring Field Trip of the Canal Society of New Jersey. Includes Pottsgrove Manor, Hopewell Village, Joanna Furnace, Schuylkill Canal Aqueduct; overnight at Hamilton Plaza Hotel in Allentown; Lock Ridge Furnace Museum, Mack Truck Museum, Lehigh Canal lock and restored CNJ Railroad Station. Write Bill Moss, Box 127, Fanwood, NH 07023.

**May 17-19, 1985** — Combined meeting of the American and Canadian Canal Societies at Trent University, Peterborough, Ontario. Lectures and tours on the Trent-Severn; official opening ceremonies; tour of the famous hydraulic lift locks and boat rides through the lift and up the Waterway. Write Doug Stewart, Central Area Manager, Trent-Severn Waterway, P.O. Box 399, Lakefield, Ontario K0L 2H0, Canada.

**May 25-27, 1985** — International Waterways Festival at Re-Furbished Boat Museum, Ellesmere Port, South Wirral, England. For full details write Ian M. Gall, Festival Director, 78 Liverpool Road, Eccles, Manchester M3 0WA, England.

**June 1, 1985** — Official Dedication Ceremonies for the Tennessee-Tombigbee Waterway at Columbus Lock and Dam, Columbus, Mississippi. For details, write Darlene Scogin, Assistant Administrator, Tennessee-Tombigbee Waterway Development Authority, Drawer 671, Columbus, Miss. 39701.

**BARGE** (Bi-Recreational Association for the Restoration of the Great Erie) publishes a newsletter — "The Canawler". Objectives of the group: create greater public awareness of the importance of the Erie Barge Canal System, assist with obtaining funding for its maintenance, discourage talk of its possible abandonment. Headquarters for BARGE are: 72 Harvington Road, Tonawanda, New York 14150.