PRESIDENT'S MESSAGE

It has been over 13 years now since the founding of the American Canal Society in 1972. We all owe a great debt to Tom Hahn and Bill Shank, who not only piloted the society through its formative years but also edited and published our quarterly bulletin American Canals. For most people, our bulletin is the society; it is the national canal magazine, our window on canal activities and research nationwide, and a medium for action. Over the years, Tom and Bill have put an enormous amount of effort into this publication. Both the quality and the quantity are impressive. My file set of these bulletins, and the canal flyers and other goodies sent with them, is three and a half inches thick and weighs eight pounds! You now hold in your hand the fifty-fourth issue of American Canals, the latest in the long series which began 13 years ago. Fortunately for the society, although our slate of officers has changed, we have not lost Bill Shank's considerable talents as an author, editor and publicist; he will continue his role as editor and publisher of the society's mainstay, American Canals. A tip of the boatman's cap to you, Bill!

It goes without saying that in an all-volunteer society such as ours, without a paid staff or even a head office, our progress depends entirely upon the energy and input from our members. You, by reading this far, have just passed the "cultural" test and are hereby qualified to contribute your talents to the society! Our quarterly bulletin can be as good as the articles, clippings, photos, letters and announcements you send to Bill Shank; and the society's other projects can go nowhere without your help. The work of one individual can make a great difference. This is your society. Its future is up to you.

Since this is a good point in our development to take stock of our projects and progress, I have asked the chairmen of our various committees to let us know what they have been doing and what assistance they may need. You will be seeing these reports in future issues of the bulletin. Most of these committees need more help and input from the membership, and their work needs to be put to good use. You undoubtedly have ideas of your own for new projects, improvements.

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TENN-TOM DEDICATED

Tremendous mitre-gates of the lock at Bay Springs, Mississippi, where vessels and barges are raised or lowered 84 feet, making this one of the highest mitre-gate lift locks in North America. The Bay Springs Lock and Dam are located at the south entrance to the so-called "Divide Section" of the Waterway, 414 feet above sea level.

By Walter L. Meswick

The Tennessee-Tombigbee Waterway has now been finished, dedicated and is open for business but it was not all that easy. From its very inception it was plagued by lawsuits, injunctions and a reluctance on the part of Congress to make the necessary appropriations, so it wasn't until December 1972 that President Nixon broke ground for the start of construction, with an appropriation of One Million Dollars. The U.S. Army Corps of Engineers, who drew up the plans and made the feasibility study, estimated the final cost would be

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MORE ON THE ELBLAG CANAL
Patterned After The Morris

In the May 1985 issue of AMERICAN CANALS, page 2, we published a photo of the inclined plane on the Elblag Canal near Danzig, Poland, and asked if any of our readers could tell us how it operated. We have had two responses, from ACS members in Great Britain - Tony Benson and Charles Hadfield who have both written, with further details. We publish both letters.

Tony Benson says: "The construction of this canal started in 1844. It runs for 163 km between Elblag and Ostrebro in Poland (in 1844 they were Elbing and Ostrebro in Prussia). In 1850, one of the engineers, a Herr Steenker, visited America to inspect the Morris Canal. However, the mechanism of the Morris Canal incline was not entirely approved and the machinery was redesigned for use on the Kanal Elblaski."

"As far as I know these inclines are still in working order, powered by their waterwheels. There is a passenger boat service on the Kanal Elblaski which together with the inclines forms a tourist attraction."

Charles Hadfield writes: "In what was then East Prussia and is now Poland, the Oberland or Elbing (now Elblag) Canal was built between 1844 and 1860 from the Frisches Haff by Elbing and the German Lake to Deutsche Eylau (Czermna). Taking 62-ton barges, it originally had seven locks and four inclined planes with rises of 20m to 24.5m.

"The planes still at work to carry tri-hoats with two tracks of 32.5mm gauge, on which run cradles each carried on 4-wheeled bogies. These are hauled up by a wire rope at some 1m per second, power being provided by the weight of the descending cradles and by a waterwheel. The cable continues under water from the bottom of each incline for some 80m before rising past one wheel, over a second at right angles and back past a third (all three set in the middle of the canal) before returning to the other cradle. In the upper position, again at some distance from the top of the plane, the cable wheels are set to the side of the canal where the waterwheel is. In 1861, a fifth incline, that nearest Elbing, and in this case powered by a water-turbine, was built to replace five of the seven locks."

Small Boats in Large Locks

Figure 1: A solid and relatively inexpensive fender can be constructed of wood and then covered with some canvas or carpeting to protect the side of your boat from being damaged by a lock wall.

Locking a small pleasure vessel through the large locks of our modern inland canals in the USA can be a frightening and even a dangerous experience for those unfamiliar. Make sure your boat has adequate fenders aboard (see above sketches) which can be used as you climb or descend along the lock wall which is assigned to you by the Locktender. Make sure you understand all the rules and regulations of the particular canal on which you are traveling, ahead of time. For complete information, read the article "Locking Through With Ease" by Charles E. Wood, which appears in SAIL magazine for February 1984. (This safety note suggested by ACS Director Bob Mayo.)
A gaily-decorated Corps of Engineers boat from the Mississippi takes part in the dedication ceremonies at the Columbus, Mississippi Lock. (Photo by Walter Mesneck.)

(Continued from Page One)

$323,000,000.00 which would be recovered over a period of 50 years in the shape of jobs, new industry and services. The original plans called for a canal 170 feet wide, which along the way was increased to 300 feet, the locks being 110 feet by 600 feet. The final price tag came to $1,200,000,000.00, the largest and most expensive project ever undertaken by the Corps. During construction there were 76 Prime Contractors and 1250 Sub-Contractors involved with a work force of about 5000 men. The statistics relative to the amount of steel and cement used are astronomical and the amount of rock and soil moved, particularly in the land cut, exceeded that moved in the building of the Panama Canal.

Proposed by the French

The concept of a waterway connecting the Tennessee River with the Gulf via the Tombigbee and Black Warrior Rivers is not new. It goes back to the time when the French occupied the region, saw its advantages but I presume the height of land just south of the Tennessee River stopped them. It was again considered during the administration of President Grant but there again nothing came of it until Nixon broke ground in 1972 and things got underway.

In view of the publicity the dedication ceremonies received in the press plus the notices in AMERICAN CANALS I decided to drive down for the event. After all, I missed the Panama Canal and St. Lawrence Waterway dedication so decided to take this one in. Although it was a two-day affair I gave myself an extra day so I could look over the locks and dams between the Tennessee River and Columbus, Mississippi, 8 of the 10 in the new system. I was quite impressed. Some of the dams are quite large and very substantial looking. Everything was brand new, freshly painted and neat as a pin. I was invited into one of the control towers so could see just what made it all tick. Everything is controlled remotely by buttons and switches and has an interlock system so you can’t make a mistake. Television cameras afford visibility, and contact is maintained by radio and telephone. The log book showed there had been a reasonable number of lockages even though many were for pleasure boats. At the time the waterway had been in operation only 6 months so the commercial traffic should increase as the routing pattern is changed to take advantage of the new route.

Access Roads

I had anticipated some difficulty in gaining access to the various locks and dams by road until it became obvious roads had to be built to gain access to the construction sites. These roads have now all been improved and lead off a north-south road that runs parallel to the waterway on its east side. Each side road is well marked with a sign indicating the location of the lock.

Since the waterway was finished about 6 months ahead of schedule the first tow passed through the Columbus Lock on January 18th, 1985 but the official dedication ceremonies did not take place until the weekend of May 31st and June 1st at Columbus. It was quite an affair and the people of Columbus and northern Mississippi did themselves proud. It was estimated 40,000 people took part. On the shoulder of the dam, an area of about 70 acres, were about 6 big circus type tents in which were exhibited displays by hundreds of manufacturing companies, schools, universities, chambers of commerce, civic groups and government agencies. The usual souvenir shops and refreshment stands were well represented. Since both days were sunny, with the temperature in the high 90's, the First Aid Stations and Ambulance Corps did a brisk business with heat exhaustion cases. Through both days entertainment was almost continuous, with music by school bands, rock groups, vocalists and country music groups.

Floating Bridge

This all took place on one side of the waterway whereas the actual dedication ceremonies were to take place on the far side but it just so happens there is no bridge on which to cross. This detail was solved by the Corps of Engineers, who

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Altered pattern of inland waterways travel now available to shippers, passenger and pleasure boats in Eastern USA, with the addition of the Tenn-Tom Waterway. For the first time, there are now two major water routes from the central states to the Gulf of Mexico — one terminating at New Orleans, the other at Mobile. (Map by the National Waterways Foundation.)

(Continued from Page Three)

closed off the waterway for two days and laid down a new type, portable, floating bridge about 300 yards long that went from shore to shore with ramps at both ends. Walking across was like walking on a cement highway.

The actual platform for the dedication ceremonies was located on a large barge, connected to the shore by ramps, and on which were constructed grandstand type seats. This was for the Governors, Congressmen, Senators, Corp Brass and anyone of seeming importance that ever had anything to do with the promotion, legislation or financing of the waterway. You can write your own speeches as the originals went on endlessly and "boring" can't describe them. One Senator (name withheld) repeated himself so often it was like a broken record.

On shore, on an acre of folding chairs within a fenced-in area, were the invited guests. The rest of us sat on the grass. The one event that I thought significant was one taken from DaWitt Clinton's Book when they dedicated the Erie Canal. They had collected jugs of water from 27 lakes, streams and rivers all of which were in Middle America and drained into the Gulf of Mexico. They were all poured into one tank and at the appropriate moment a valve was opened and the water ran into the Tombigbee River, significantly joining them all together.

Parking in Town

The lack of a bridge over the waterway was corrected by the floating bridge.
TENN-TOM — NEW POWER SOURCE?

(Concluded from Page Four)

in the United States. The Canal section consists of 6 Locks and Dams and was cut through what was the headwaters of the Tombigbee River for a distance of 48 miles. With the exception of the Bay Springs Lock the others average about 28 feet in height. The final, or River Section, is a 149 mile segment consisting of 4 locks between Amory, Mississippi and Demopolis, Alabama, a total of 234 miles.

While the waterway accommodated river traffic, land traffic also had to be considered. Many of the old low level bridges were eliminated and in their place 16 new high level bridges were built. Those in Mississippi alone cost $135,000,000, a figure that represents one third of the cost of the original estimate for the entire waterway. In addition there are 6 railroad bridge crossings all of which had to be heightened and lengthened.

Future Usage

Now for the $84,000 question. Will the use of the waterway justify its cost and will it create jobs, new industry and sufficient traffic to return the investment? My answer is “YES”, “NO” and “MAY-BE” because it all depends on several factors. Locally there are coal and ore, lumber products, crushed stone and gravel, grain and soy beans in season; all of which can be transported by barge. But the bulk of the potential traffic is on the Ohio and Mississippi Rivers. To divert this to the TENN-TOM will take a “hard sell” on the part of the local people if they can convince shippers and the tow boat companies that the shorter distance will be an advantage. This advantage could be lost by lost time. The mixed tows on the Ohio River often consist of 15 to 20 barges whereas the tows on the Mississippi consist of from 20 to 30 barges and the grain tows usually are made up of 15 barges. The problem is that the TENN-TOM locks can only accommodate 9 barges per lockage. This means double locking that will be time consuming. So it will be a matter of distance saved against time lost. This disadvantage could be overcome by the use of smaller tows and smaller tow boats since you could build 3 small tow boats for the price of one big one and have a steady flow of traffic. Facilities to handle this increased load at Mobile is a consideration although I understand this work is in hand.

The Aberdeen, Mississippi Dam, which raises the Tenn-Tom Waterway 27 feet, is being considered for a local source of hydro-electric power.

Only time will tell if the waterway will reach its potential but in any event it does add many miles to the already extensive system of navigable rivers, canals and harbors throughout the country, I wish it well.

A five-barge “tow” is shown entering the lock at Columbus, Mississippi. (Photo by Walter Meseck)

AMERICAN CANALS, NO. 54 - August 1966
Just received the May 1985 issue of "American Canals," and thought it was excellent. But then all the issues are excellent. I noted with interest the item about the proposal to make the Blackstone Canal a National Heritage Corridor. I also know that such a Corridor is proposed for the Hennepin Canal in Illinois. Thus a number of very well designed signs with pictures depicting the canal as it was when it was in operation. So the trail is an education in canal history and infrastructure economics. There will be available shortly a self-guiding brochure for the trail. One of the structures on the trail was originally built as a warehouse for the canal contractors, and is one of the oldest structures on the canal. After the canal opened in 1848 it was turned into a grainery and canal store. This building is being restored by a grant from Gaylord Donnelley.

The Canal Corridor area is one of the oldest industrial developments in the midwest, principally because of the canal. Like many older industrial centers it is now experiencing severe economic distress. For example the U.S. Steel plant in Joliet was once the town's most important source of employment, and Joliet was called "steel city." This plant is located on the canal and is now almost completely shut down. This spring US Steel entered into an agreement with the National Trust for Historic Preservation to supply $49,000 for a study of alternative uses and historic preservation of the old plant (one of the first to use the Bessemer Converter).

Along the Blue Island-Chicago Metropolitan Sanitary District plans to use its extensive land holdings to promote recreational and residential development along the Canal. The City Library of Blue Island received a grant to develop a museum for the town.

1986 will be the 190th year celebration of the start of construction on the I. M. Canal. By that time the commission should be fully operational, with a Director and a Headquarters which are mandated by the legislation. The prime need is to bring together these various affairs so that the historical, recreational and commercial assets of the area can be more fully realized.

For more information write: Illinois Canals Society, 1100 Garfield, Lockport, III. 60441; Upper Illinois Valley Association, 535 W. Jackson Blvd., Rm. 550, Chicago, Ill. 60604; Friends of the I. M. Canal National Heritage Corridor, P.O. Box 287, Ottawa, Ill. 61350; I. M. Canal State Park, Gebhard Woods State Park, Morris, Ill. 60450.

John Lamb is also Secretary-Treasurer of the Illinois Canal Society.
Canal Explorer

Dr. Brian Kutner, ACS Life Member of Millville, N.J., is perhaps one of our most avid "Explorers" of old canals in the USA and Canada. Here are notes he has sent us on some of his findings in the Mid-West:

This article is to acquaint "American Canals" readers with several of the lock systems in Southern Wisconsin.

The Yahara River in the Madison area has four locks. The first is Tenney Park Lock. This connects Lake Mendota to Lake Monona and is on the east shore of Lake Mendota. Follow Route 151 (Washington Avenue) to the small canal connecting the two lakes and follow through the park going west to the lock. This is a small chamber with twin gates approximately 15 feet by 60 feet built in 1959 replacing the original 1896 lock approximately 3/4 mile south of here. This has been filled in.

On the SE end of Lake Monona under the Route 12-18 Bridge (Broadway) is the 2nd lock. This is concrete, approximately 80 feet by 12 feet with recesses for miter gates. This appears to be abandoned for at least 50 years. It is badly tilted in (the lock walls are 1 foot high), the concrete is in extreme disrepair and the road bridge is built over about one half of the length of the lock.

The third lock is at Lake Waubesa on Route 51 in McFarland at Babcock County Park. This has no lock tender and is manned on occasion with conventional miter gates and is approximately 12 feet by 60 feet.

The fourth lock is at Lake Kagonsa and is difficult to find on a small county road. If you imagine the lake to be in the shape of a clock, it is located at 3 o'clock. This lock is identical to the lock at Lake Waubesa. The town of Oconomowoc had two locks and is located about 50 miles east of Madison off I-94. One lock connected LaBelle Lake and Fowler Lake and was in the center of town next to the library on Route 151 (Main Street). It was built in 1896 and filled in many years ago. No trace is present. A marine railway was also present here at one time.

The Danforth lock was located between the Oconomowoc River and Lake Oconomowoc at the northern part of the lake (12 o'clock). Go east out of town on Route 18 for several miles. Make a right at Gifford at the light. Make another right at Beach Cross Bridge. At the dirt road, turn right again. The lock is filled in, but many timbers are standing in the water and a small modern spillway is present.

I also located the Chain O'Lakes lock in N.E. Illinois. This is approximately 85 minutes due west of North Chicago. The lock is called McHenry Lock and Dam and is on the Fox River about 3 miles south of Pikes Lake. From Route 120, take Barreville Road south (located west of the Fox) for several miles. Make a left on the State Park Road. This modern lock replaces an early 20th century lock that was several hundred feet away.

NEW CANAL LIFT-BRIDGE

The above photo, as published in CIVIL ENGINEERING magazine for April, 1985 was clipped for us by William Bolhofer, Frederick, Pa. It shows the handsome new liftbridge which has just been completed at Kaukauna, Wisconsin over the U.S. Canal, a navigation channel, with locks, that parallels the Fox River through the City. The new bridge, which carries two lanes of traffic and a pedestrian walkway each side, provides a full lift of 56 feet, and cost $3,324,000.

PORTAGE CANAL LEGISLATION

From Frederick Kleist, Portage, Wisconsin, comes the following item from a local newspaper dated June 4, 1985:

WASHINGTON D.C. — If all goes well, the historic Portage canal will be preserved through federal legislation protecting the Fox/Wisconsin waterway.

For on Monday, Congressman Bob Kastenmeier (D-Sun Prairie) introduced legislation establishing a Fox/Wisconsin Heritage Waterway Corridor Commission to study various ways to protect and preserve the historic Portage Canal/Fox River corridor in Wisconsin.

"The Fox River and Portage Canal area are of great importance to our nation's history," Kastenmeier said. "The Fox River and the link at Portage with the Wisconsin River was heavily used by native Americans and for centuries before it served as a gateway to the Mississippi for early French explorers and fur traders."

Kastenmeier explains that the commission would undertake a study to determine the best means of enhancing and interpreting the various cultural, historical, natural, and recreational resources of the Portage Canal/Fox River corridor, in Brown, Columbia, Green Lake, Marquette, Outagamie, and Winnebago Counties.

Kastenmeier said that the commission will have until Oct. 1, 1986 to make a report on its recommendations on the future of the Portage Canal/Fox River corridor to congress.

NEGLECTED ASSET

Palm Springs, June 9, 1985 — Waterway cruising was depicted as the neglected asset of North American tourism in one of nine papers presented in the Travel Research Workshop, held today during the 16th Annual Conference of the Travel and Tourism Research Association.

The waterway cruising picture was presented by Franz J. Katz, Certified Travel Counsellor, of New York City. He surveyed current waterway passenger shipping in the U.S., Canada and Mexico. There are approximately twenty carriers, operating a total of 99 vessels, ranging in size from 100 tons, shallow draft, to 30,000 tons, deep water draft.

Mr. Katz said that waterway cruising, although growing impressively, suffers from a pervasive national lack of awareness. He asserted that promotion and the absence of media coverage are major contributing causes. He said that public tourism agencies — regional, state and local as well as the U.S. Travel and Tourism Administration — fall to work for awareness. Tour operator packaging of waterway cruising exists only in Hawaii and Alaska.

No national organization of waterway passenger cruise operators is in existence. Mr. Katz called for organization and research to put waterway cruising effectively on the North American tourism map.

Editor's Note: Franz Katz is an ACS Life Member. For his complete article on Waterway Travel in North America, see AMERICAN CANALS, Number 49, May 1986.
NEW CANAL BOOKS

INDIANA CANALS — by Paul Fatou. Original Edition, 1972; reprinted in 1985. This reprint of the late Paul Fatou’s book radius. Mr. Fatou’s comprehensive work on the historic Indiana Canals. Includes the Wabash and Erie, the White- water, the Central and other canals planned by the Hoosier State in its forma-tive years of development. 324 page paperback, this book includes several maps, 24 old photos, appendix notes, an index and bibliography. $11.00 from Purdue University Press, Building D., South Central Courts, West Lafayette, Indiana 47907.

TAKE MY HAND — TEN DAYS ON THE CUMBERLAND AND OXFORD CANAL — by Harold Ticecomb, 1984. A novel based upon an imaginary 1830 voyage of Melissa Johnson on her father’s boat along the C. & O. Canal. The author has painstakingly researched the operating details of this historic canal and the unusual sail-carrying vessels that were used. His book contains authentic sketches of the boats and canal apparatuses. A 230-page paperback, $14.95, from the author at 250 East Bridge Street, West Brook, Maine 04092.

THIS ENCHANTED LAND: MIDDLESEX VILLAGE — Wayne R. Peters, 1984. A novel of the life of a young man in the Middlesex Village community, at the head of the Middlesex Canal in the early 1800’s. Much research into local family and community history has gone into the writing of this book, which includes numerous references to the Middlesex Canal and its impact on the community. A well-written tale of “how it would have been” in the Village, circa 1833, illustrated with local historic photos and sketches. A 216-page paperback, it may be purchased from the author, at 448 Princeton Boulevard, Lowell, Massachusetts 01851 for $7.95.


TOWPATHS TO TUGBOATS — by Shank, Hahn, Mayo and Hobbs. First Edition 1982; Second Edition 1986. So popular is the book that the first edition is out of print. Complete history of canal engineering from antiquity through the historic canal-building periods in England, Canada and the U.S. and into modern times. This edition includes details of the Tenn-Tom Waterway, just opened. Profusely illustrated with maps, drawings and photos, covering a 300-year period, 72-page paperback, $6.00 from American Canal and Transportation Center, 809 R Battlefield Road, York, Pa. 17403.

CANAL WALKS — by Roger W. Squires and Gareth Lovett Jones, 1985. Dr. Squires, with the help of Photographer Gareth Lovett Jones, has produced a unique, handy, hard-cover, 224-page book which provides the hiker or cyclist with an excellent guide-book to some of the most interesting canal towpaths in Great Britain. The book is divided into 12 sections, as follows: (1) the South East, including London; (2) the South and South-West; (3) East Midlands; (4) Central and West Midlands; (5) North-West and North-East; and (6) Wales. The many photographs are artistically arranged to show the best features of the canals. The text is detailed and helpful. 9.96 pounds net in UK only, from Hutchinson Publishing Group Ltd., Hutchinson House, 2-21 Conway Street, London, W1P 6JD, England.

TOM ROLT AND THE CRESSY YEARS — by Ian Mackesy, 1984. Tom Rolt (1910-1974) is recognized as one of the U.K.’s important writers on canal and transport history. His book “Green and Silver” is one of the best available on the Irish Canals. He was a founder member of the Vintage Sports Car Club, the Talylyn Railway Preservation Society and was co-founder of the Island Waterways Association. Mackesy writes about the years when Tom Rolt had his “love affair” with the British Canals, while spending his spare time on the “Cressy”, a steam-driven narrow-boat, from 1929 through 1953. The book contains a Foreword by Charles Hadfield, an index and 35 photos. A 108-page paperback, it sells for 3.96 pounds, with 40 pp for shipping. M & M Baldwin, 98 Kenton Street, London SW6 BLB, England.

MIAMI-ERIE CANAL “CLEAN-UP”

In Shelby County, Ohio, some residents of the village of Newport met on July 15th with the Cynthia Township Trustees to discuss plans for cleaning the half-mile stretch of the Miami & Erie Canal that runs through this area. Since this portion of the canal now belongs to the state of Ohio, some of the suggested improvements, such as dredging the canal bed, cannot be accomplished at the present time. But the trustees had done their homework, having already communicated with the state, and the state is willing to relinquish possession of this portion of the canal to the trustees at no cost, other than for a survey. The trustees are going to assume possession and then seek sources of funding the improvements, the availability of which will determine the extent of work to be done.

According to Sonny Mayer, Newport resident and Shelby County Commissioner, the area has potential to become a nice recreational area.

From “Cry of the Crane”, August, 1985 newsletter of the Great Miami River Corridor Committee, Troy, Ohio.

PANAMA’S “FIRST VESSEL”

by James Wilson, P.E.

On reading such a work as the Guinness Book of Records, one is impressed with the fact that almost anything can be the biggest, oldest, or first of a category. All one has to do is insert the right wessel words, and twist the defibrilator around to the winner you are citing. The question of which was the first vessel through the Panama Canal is an eminent example.

1) In 1912, a batch of barges, for carrying excavated material, were delivered to the Isthmian Canal Commission at Colon. Some of them were urgently needed on the Pacific side. The I.C.C.’s steam tug RELIANCE (ex M.E. SCULLY, ZC02326) sailed from Colon Feb. 11, 1912 with three barges in tow. Arrived at Balboa, via Strait of Magellan, June 17, 1912. RELIANCE returned to the Atlantic side through the canal, Feb. 1, 1914.

2) In late 1913, Culebra Cut was being excavated “in the wet” by dredges, and the soil removed was being loaded into mud barges for removal. No attempt was made to keep the “Atlantic” and “Pacific” barge fleets separate; when loaded, they were towed to dumping areas at sea in whichever direction was expedient at the moment. So some unidentified barge was the actual first vessel to travel the whole length of the canal.

3) The first self-propelled ship to cross was the crane boat ALEX LA VALLEY, Atlantic to Pacific, Jan. 7, 1914.

4) RELIANCE passed northbound, Feb. 1, 1914 as above. This made RELIANCE the first ship to circumnavigate South America - but that’s another record.

5) May 18 and 19, 1914, three barge loads of sugar from American Hawaiian SS Co’s ALASKAN were unloaded from the ship in Panama harbor and towed northbound through the locks of the trench. (The tugs were not locked thru, only the barges). On May 19, tug MARINER made a continuous trip south.

6) Ship CRISTOBAL, of Panama RR & SS Co., made test runs both ways, Aug. 3 & 4, 1914.

7) Ship ADVANCE, Panama RR & SS Co., made test runs both ways, Aug. 9 & 10.

8) Ship PANAMA, Panama SS Co., test runs both ways, Aug. 11 & 12. The “official” first trip was made by ANCON of Panama RR & SS, with cargo and about 200 invited guests on August 15, 1914, southbound. She returned northbound, Aug. 23.


10) August 15, PLEIADES of Luckenbach SS Co., made first northbound passage on a continuous voyage.

Now, gentle reader, you have all the facts. Write your own definition to fit your favorite.

AMERICAN CANALS, NO. 54 - August 1985
BELLOWS FALLS CANAL

by David Proper

While it has been asserted that the first canal for navigation purposes in the United States was the Middlesex Canal between Boston and Lowell, the Bellows Falls Canal in Vermont was chartered four years earlier, in 1791. What is more, the Vermont canal was begun three years before the Bay State project and was completed in 1802 as a part of six different systems of canals and locks along the Connecticut River, constructed between 1791 and 1828.

The Connecticut River, longest in New England, has offered attractive possibilities for transportation in the early colonial period and for untold centuries before that, the great river was used by the Indians on their hunting and fishing expeditions. During the French and Indian Wars it became the avenue over which attackers descended upon settlements along its length, and the sad road over which hundreds of captives made their way to Canada.

Although replaced by railroads and later highways along its banks, the Connecticut River has continued to be of importance to a large part of New England.

First to be chartered along the Connecticut's length, the Bellows Falls Canal was given official recognition by the Legislature of Vermont during its first session after the state entered the union. The formal notice of the company organized to construct the canal was the Company for Rendering Connecticut River Navigable by Bellows Falls, and capital for construction was furnished by three brothers of London, John, Francis and Hodgdon Atkinson. The sum of $100,538 was expended, and control of the canal remained in the Atkinson family until June 18, 1886, when it passed to ex-Gov. S.W. Hale and E.F. Lane of Keene.

Building the canal required 10 years work before a boat passed by the falls in August of 1802. It was described in 1841 as 'not above 300 yards in length, with nine locks, over which a fall on the Connecticut of 42 feet.' With the White River and Waterquechy Canals, it rendered the Connecticut River navigable for about 120 miles above Walpole. In 1771 the property was purchased by William A. Russell of Lawrence, Mass., who associated himself with other business in making use of the river for manufacturing rather than transportation.

The dam and canal were rebuilt for hydroelectric purposes during 1928-1929. The water power potential of the site had been exploited during most of the life of the facility. The construction of railroads in 1849 and 1851 through Bellows Falls itself supplanted the river as a transportation route. There had previously been as many as nine locks at or near this point, and successful navigation was carried on here for years.

Water from the Connecticut River was once diverted in a canal through paper mills in Bellows Falls, Vermont, as shown in this old photo, sent us by Bernard Lamers of Ludlow, Vermont. The adjacent Bellows Falls Canal was one of the first canals on the Connecticut River, to be followed later by the Hampshire and Hampden Canal in Massachusetts and the Farmington Canal in Connecticut. (Rochester Free Public Library photo.)

At one time a number of connecting canals across Vermont and New Hampshire were proposed as a network of commercial routes similar to those the railroad made a reality. Flatboats and rafts were used to move freight and large amounts of lumber up and down the Connecticut River between about 1820 and 1836. Logs were formed into great rafts and floated downstream and through the various canals and locks on their way to mills below.

Larger rafts were constructed in sections and might even carry a shanty aboard where the crew slept and ate.

Some men along the river became practiced in helping river boats through the more difficult and dangerous spots, and this work was sometimes used to help the craft on their way. It was a proud part of our history that Connecticut River navigation played, although the water power possibilities of this and other rivers were destined to play a more lasting role in the economic and social development of the Connecticut River Valley.

David Proper is a trustee of the Historical Society of Cheshire County.

(Submitted by Alan M. Kaufman from The Keene (N.H.) Sentinel.)

*Editor: The first major canal in the USA was the Santee and Cooper opened in South Carolina, 1800.
REVERSIBLE GATES CONTROL HARBOR WATERS

Two-way look at Waxford Plantation, Hilton Head, South Carolina. Looking into the lock from the outer entrance.

By David C. Barber, P.E.

I had the opportunity in April of 1985 to visit two new locks that were built last year on Hilton Head Island in South Carolina. These locks were built as tide locks at the entrances to the harbors and neighborhood canal systems for the developments of Windmill Harbour and Waxford Plantation.

The locks are identical and are made of concrete. Each has flat faced sector gates with the V's at each end pointed towards the chamber. The gates open into rectangular gate pockets. Each set of upper gates supports a bridge for pedestrians and golf carts. The gates are hydraulically actuated and operated from a control panel on the walls which will accept keys held by the staff or plastic credit type cards issued to the boat owners.

The locks are 20 feet wide and have a chamber length of 95 feet of which 80 feet is usable. At mean low tide, the locks have about 6.5 feet of water on the floor with the lower gates open and can lift about 8 feet. At high tide, the water outside the harbors is higher than the harbor level and the lock works in the opposite direction.

Water to operate the locks and fill and flush the harbor and canal systems flows into the harbors through a spillway and conduit system beside the locks at high tide. Each harbor and canal system has an outlet spillway near its far end. Windmill Harbour's protected water area is 17 acres. Waxford Plantation's protected water area is 37.5 acres.

In addition to these two installations, nearby Indigo Run Plantation is also planning a similar system.

MUSEUM ENDOWEDE

The Hugh Moore Historical Park and Museums has received two separate gifts totaling $2,000 from Pfizer Inc. Pfizer's local plant gave $1,000 to be used toward the purchase and renovation of a museum support center. This grant was matched by the Pfizer Foundation of New York City.

This new center will be housed in a building on Spruce and Raspberry streets that the group recently purchased from the City of Easton. It will provide safe storage for the Canal Museum's collections, including those recently acquired from Bethlehem Steel Corp. and the Lehigh Valley Railroad. In all, this new structure will more than double the museum's storage space while at the same time incorporating a research area to allow these collections to be used more fully.

The Canal Museum has received gifts from more than 20 local businesses to help fund this project.

The Museum also received a $50,000 grant from Pennsylvania's Department of Community Affairs.

Similar lock at Windmill Harbour, Hilton Head. View of the lock from the river entrance pier. The lock is reversible for high and low tides.

AMERICAN CANALS, NO. 54 - August 1985
The idea of building a Cape Cod Canal first came up in 1623 from Myles Standish of Plymouth. At that time there were two rivers where the canal is today — the Scusset, which flowed into Cape Cod Bay, and the Manomet River. Flowing into Buzzards Bay. As Captain Standish travelled up these waters to the Aptuxet Trading Post, the geography suggested to him the building of a canal in the valley where the Cape joined the mainland. It was sorely needed. Many a ship lost its men and cargo on the treacherous Nantucket Shoals and open sea outside Nantucket Light Ship. But it was over three hundred years before Myles Standish's dream was realized.

Surveys and plans for building the canal were made from 1823 on, until 1889 when five hundred men employed by the Cape Cod Canal Company began the Herculean task of digging with picks and shovels aided by a Lockwood dredge.

Unfortunately, in spite of the enormous size and cost of the dredge, progress was very slow. Without enough money to finance the project, it was abandoned.

Another attempt began twenty years later, this time by the Cape Cod Construction Company.

William Barclay Parsons, a civil engineer who had designed and built the New York Subway System, 1899-1904, was named Chief Engineer of the Cape Cod Canal in 1908. This major sea-level canal got Barclay's full attention for the next nine years, and conclusively demonstrated that a canal without locks, which he had previously advocated for the Panama Canal, could be built between waters with considerable tidal differences.

The canal was built 25 feet deep and 100 feet wide and involved the removal of 15 million cubic yards of dirt. 20 life-saving buildings of lift bridges and a railroad bridge; a 300-foot breakwater and a 1000-foot sand catcher at the Cape Cod Bay end of the canal.

According to a 1913 publication entitled "A Little Visit To The Cape Cod Canal" the "little ditch" was to "stand as a monument to modern business enterprise and engineering skill (accommodating)... the major part of the commerce of New England."

The end of the story? Unfortunately not. The "little ditch" was too little, even though it had cost over $19,000,000 to build. Currents were strong and dangerous. The narrowness of the canal in combination with its very windy path, resulted not only in inconvenience but also in serious accidents. It was necessary to restrict traffic to one way.

In 1882, Uncle Sam came to the rescue and purchased the canal for a modest $1,160,000. There was still more negotiation. A tremendous amount of work was in store before the canal could be truly effective. In the Depression, this area with bike trails, camp sites and excellent fishing.

A recreation hotline (769-5991) maintained by the Corps of Engineers, informs visitors of weather conditions, tides, fishing and other activities.

Stop in at the Visitor's Center on Academy Avenue in Buzzards Bay, and you will find a model of the canal, a slide show, and an interesting view of the canal control room.

[Editor's note] The above article is based upon material written by Amanda Holmes for the Cape Cod Guide and discovered by J. William Shank while a resident of Boston. Information on Engineer Parsons was supplied by ACS Director Robert S. Mayo, P.E.

THE AMERICAN CANAL GUIDE

This is one of a series of reports by ACS committees, to let our readership know what we are doing and to encourage more participation in our projects.

The American Canal Guide is our series of regional inventories and guides to the canals of North America, both historic and modern, still existing or not. The emphasis is on historic canal parks, potential parks and research sites, and endangered sites. It is intended to be basic material for park planners, historians, archaeologists, and vacationers.

With a copy of our guide, the canal buff should be able to locate interesting canal sites; the local planner should have an idea of the extent and potential of local historic canal resources; and the historian and archaeologist should not be allowed to forget relevant canal sites, even those no longer existing. Complete with maps and references, the guide is a base for further additions and corrections, and a starting point for canal projects of many kinds.

So far, three of these guides have been published. Part 1 covers the west coast, from British Columbia to California; Part 2, the east coast from North Carolina to Florida; and Part 3, the lower Mississippi region from Tennessee to Louisiana and Texas. When you travel through these parts of the country, take a canal guide and let us know of any planners who should have one. Brad Haigh, our Sales Officer, has them for sale at $1, $2, and $3 respectively.

Future guides are Kentucky and the Virginias; the midwest and Great Lakes (north and west from Illinois); Pennsylvania; New Jersey; Ohio; New York; New England; and Canada, ACS has the funds to publish them, but for each guide we need a regional editor to do the hard work. We need to get going if they are to ever see the light. We have almost enough material in our files to complete the Kentucky — Virginia and New England sections, and we have made a start on the midwest region. Please contact me, or better, come down and go through the material with me, if you can help complete any of these regions or start work on one of the other states. Don't wait for us to call you!

Bill Trout
"TRIALS AND TRIBULATIONS"

Vice President Bill McKelvey has done considerable research in court proceeding records in the northeastern states, looking for examples of disputes involving canals. The following case is one taken from the Massachusetts Supreme Court Records for July, 1807. This is the first of a series, entitled "Trials and Tribulations".

MIDDLESEX CANAL CORPORATION
versus
ROBERT M'GREGORE
(July, 1807)

The Court will grant a new trial where evidence has been rejected by the judge, which was proper to have been received under one court of the declaration; although such count was not relied on nor read by the plaintiff at the trial, a general verdict having been given for the plaintiff on all the counts.

Case upon several promises to pay the toll of certain rafts of the defendant's, which the plaintiffs aver to have been transported through their canal. The first count was indebitus assumpsit for 686 dollars, 85 cents, for the transportation of a certain specified quantity of timber and planks. At the last November term, the plaintiffs filed, by consent, two new counts on two promissory notes given by the defendant for the amount of the same toll, and for producing a survey bill of the said lumber from a sworn surveyor. Upon the general issue pleaded to all the counts, the cause was tried before Parker, J., at the last November term. The defendant rested his defence altogether upon the insufficiency of the canal, and offered to prove that, in consequence of an advertisement, by the agent of the canal, that it was sufficient for the transportation of lumber, he was induced to enter his rafts in the canal, and give the notes in the case to secure the toll when the same should have passed through; that the canal proved altogether insufficient, and burst out in one piece, so that the defendant was obliged to take the principal part of his lumber out of the canal, and transport it by other means; and that, from the insufficiency of the canal, he was delayed more than five times the usual term, and put to great expense.

This evidence was not admitted, and a verdict was returned for the plaintiffs, subject to the opinion of the Court upon the right of the defendant to prove the facts stated as above in defence of this action. If the Court should be of opinion that the evidence was improperly rejected, the verdict to be set aside, and a new trial granted; otherwise judgment to be rendered according to the verdict.

Note. It appeared that only the two new counts were read at the trial, although the others remained in the case.

Curia. On inspecting the record, the declaration contains several distinct counts, and a general verdict for the plaintiffs is taken upon all the counts. If there is any one count on which the defendant's evidence, which was rejected, would have been proper, the verdict must be set aside, because legal and relevant evidence was rejected. The first count is indebitus assumpsit for toll for the transportation of a certain quantity of lumber through the canal. On this count it was necessary for the plaintiffs to prove the quality of lumber, for the transportation of which they were entitled to demand toll; and it was clearly competent for the defendant to prove how much lumber he in fact transported, for which he was liable to pay toll. To prove this fact, the evidence, which he offered, and which was not admitted, was legal and proper. The verdict, therefore, must be set aside, and a new trial granted.

CANADIAN DIRECTOR VISITS U.S.A.

During a recent engineering convention in Buffalo, Bill and Ruth Shank were met by our ACS Canadian Director, Louis J. Cahill and friend, Gladys V. Bassett, of St. Catharines, Ontario. Bill Shank snapped the above photo of Lou, Gladys and Ruth at a delightful court cafe in Buffalo - in the Saturn Club, where the four of them spent an evening together.

PRESIDENT'S MESSAGE

(Concluded from Page One)

ment's and directions. Remember, though, we can't take on anything new without your manpower (or womanpower) to go with it.

We have also scheduled a meeting of our Board of Directors at Vice-President Bill McKelvey's home beginning at 9 a.m. Saturday, November 16, the day following the November meeting of the Canal Society of New Jersey. Interested members of the society are welcome to attend.

For directions contact Bill or me. Please send me your comments, suggestions, and offers of assistance so they can be circulated ahead of time amongst the directors and committee chairman and brought up at the meeting.

Bill Trout

CANAL CALENDAR

Sept. 19, 1986 — Lecture on the North Branch Canal and Susquehanna River by Charles Petroll at Canal Museum, Easton, P.A. 8:00 p.m.

Sept. 20, 1986 — Canal Society of New Jersey "Film Night" — including "Canewler", "Towards West", and "Paradise Ditch". Also slide presentation on English Canal restoration work. 7:10 p.m., Allied Corp. Auditorium, Morris Township, N.J.

Sept. 26, 1986 — Society for Industrial Archeology — meeting at Drew University, Madison, N.J. Talks by Bill McKelvey, Lance Metz, Edward Rutsch on Delaware Canal, Gravity Railroads, Coal Mining and the Morris Canal. Contact: Thelma Jorgensen, P.O. Box 429, Hackettstown, N.J. 07840.


Nov. 15, 1985 — Canal Society of New Jersey showing of 50-year-old movie on Delaware Canal "Canals West" and "Down the Old Potomac". Allied Auditorium, Morris Township, N.J. 7:10 p.m.

Nov. 18, 1986 — Meeting of Directors of the American Canal Society at the home of Bill McKelvey, 103 Downewood Lane, Berkeley Heights, N.J. (Details to be mailed later.)