PRESIDENT'S MESSAGE

I am delighted to welcome into LIFE MEMBERSHIP the American Canal Society Michael A. Henwood of Braintree, Mass.; and Irving M. Johnson of Hadley, Massachusetts; and R. Arden Phair of St. Catharines, Ontario, Canada. This brings to seventeen our membership in this special AGD Group, who have now assumed a permanent place on our mailing list, air-mail oversea delivery, and no further worry about future dues increases.

Charlie Derr, our faithful Secretary and Treasurer, reports that between May 1, 1980 and May 1, 1981 our membership climbed from Serial Number 1201 to Serial Number 1996, indicating 78 new members during this period. We have dropped only 46 members for non-payment of 1981 dues, leaving us a net gain of 49 in the past twelve months. Charlie further reports that our savings account as of May 1, 1981 stands at $2464.57, our checking account at $2100 71 for a gross balance of $5582.64.

Our excellent financial standing is due to: (1) the good retention of old members as well as a nice increase in new ones (2) special income from our Life Members, and (3) surprising sales of our book "From American Canals", which has just gone into its second printing!

Our healthy financial situation almost guarantees no dues increase in 1982. It also enables us to offer you an occasional twelve-page issue of AMERICAN CANALS, like this one. Your Editor, Tom Hahn, has a backlog of material which you have been sending him, which is crying for publication. Perhaps we will now be able to get more of it into print. Don't forget; we need good colour and black and white photos or drawings, to accompany your written text. My best to all of you!

Bill Shank

ONTARIO CANAL SOCIETY?

Consideration is being given by members of the Welland Canal Preservation Association and others for an Ontario Canal Society to coordinate and promote activities on a province-wide basis. Ontario holds a special position in North America for the number of former canals which it spawned — the first three Welland Canals, Cornwall and Williamsburg Canals, Desjardins Canal, Georgian Bay Canal, and a canal in Brantford. However, it is just as interesting for the number of 19th and 20th century canals which remain to this day as navigable waterways — Sault Canal, Rideau Canal, Burlington Bay Canal, Trent-Severn Waterway, Welland Ship Canal, and the St. Lawrence Seaway. The American Canal Society strongly supports the formation of such an organization. Those interested in forming an Ontario Canal Society are invited to contact W.C.P.A., 68 Lakeport Road, P.O. Box 1224, St. Catharines, Ont. L2R 7A7

"CANAL TOWN" FEATURED AT FLOWER SHOW

A flower-adorned canal boat floats in its own little pool at the recent Philadelphia Flower Show.

Edward L. Lindemann, floral show designer, welcomes visitors aboard the New Hope Canal Boat replica.

This year's Philadelphia Flower Show focused on a nostalgic canal boat trip to New Hope for show designer Edward L. Lindemann. "I went to school near New Hope," Lindemann says, "I always enjoyed the barge town idea...the main street idea."

So he decided to make a place of New Hope the centerpiece for this year's show. There were nine displays in the canal town exhibit - shops, restaurants, even a band shell surrounded by thousands of blooming flowers. And in the midst was a canal boat floating in its own little bit of canal.

The rental canal boats at New Hope are what inspired "The Barge Party" display constructed for the show by the Allied Florists of Delaware Valley. "In New Hope, you could rent a canal boat," Lindemann says. "There'd be dinner and a band and music to pull the boat...everything you needed for a lovely evening."

And as you looked at the Philadelphia Flower Show's blossom-bedecked canal boat and the cute tables at the bow, each adorned with a bouquet, it was easy to imagine lazy nights at New Hope, enjoying dinner and the music aboard a living replica of the Delaware Valley's canal town past.

(Information supplied by Pat Handrick, Allentown.)
NEW CANAL CLUB FORMED

A new club — the Wahash & Erie Canal Amateur Radio Club — has been formed, and is located at Covington, Indiana. Shown here is a certificate which, along with a history of the club’s name, is sent to radio amateurs who make contact with three members of the new club. Membership in the club consists of individuals from Western Indiana and Eastern Illinois. A special event is planned for the July 4th of this year. At that time the club will set up stations near the actual line of the old canal and papers will be presented to all participating stations. Write Wahash & Erie Canal ARC, c/o Norm Allen K9FAR, 1313 Seventh St., Covington, IN 47932. (Submitted by Gardner Smith, AG9 (K9ALZ) from World Radio, May 1981.)

THOMAS & JULIA MEKK, c/o ALLEN COUNTY FORT WAYNE HISTORICAL SOCIETY, 302 E. RICHARDS ST., FORT WAYNE, INDIANA, 46802.

“WE ARE VERY MUCH INTERESTED IN FORMING A CANAL SOCIETY FOR INDIANA. ONE PROBLEM TO BE CONFRONTED VERY SOON IS WHAT TO CALL IT. ‘GREAT SOCIETY OF INDIANA’ COMES READY TO MIND, AS WELL AS ‘INDIANA CANAL SOCIETY,’ BUT THERE ARE A LOT OF PEOPLE, OURSELVES INCLUDED, WHO LIKE TO LEARN ABOUT RAILROADS, HIGHWAYS, AS WELL AS OTHER TRANSPORTATION, SUCH AS RIVER NAVIGATION. WE FEEL THAT ALL OF THESE SUBJECTS ARE RELATED, AND THAT PERSONS WITH ONE PRIMARY INTEREST IN THE EARLY TRANSPORTATION FIELD MAY NEVER FIND ADVANTAGE IN SHARING KNOWLEDGE WITH PEOPLE WHO HAVE OTHER, SIMILAR INTERESTS. THIS IS ESPECIALLY PERTINENT IN INDIANA WHERE SEVERAL LENGTHS OF THE WASH AND ERIE CANAL HAVE BEEN CONVERTED INTO SUMMER COUNTRY ROADS FOR HIGHWAYS AND RURAL ROADS, AND WHERE THE CANAL PATHWAYS ARE THE ROUTES OF SOME OF THE LIGHT RAIL LINES WHICH WERE SO POPULAR. THROUGH YOU, WE WOULD LIKE TO APPEAL TO YOUR READERS FOR ADVICE CONCERNING THE CHOICE OF A NAME, AS WELL AS SOME PARAMETERS OF SCOPE OF SUCH AN ORGANIZATION AS WE HOPE TO SET UP. ALSO: WE ARE PREPARED TO PUT TOGETHER A MAILING LIST OF PEOPLE INTERESTED IN JOINING. PLEASE WRITE ‘INDIANA CANAL’ IN CARE OF THE ABOVE ADDRESS.”

EDWARD LUDWIG III (Author of “Gateway to Paradise”) 150 E. MAIN STREET, APT. 212, ELKHORN, MARYLAND 21821.

“The second paragraph in your message in the AMERICAN CANALS February 1981 issue fitted exactly with my ideas on the give-away of the Panama Canal... I have written many letters on that sad affair in our Nation’s history, and also on the give-away of American farm land to foreigners at low prices...”

Page Two
The week-end of May 2-3, 1981 saw approximately 35 canal buffs from three states participating in the well-organized Spring Meeting and Field Trip of the Virginia Canals and Navigation Society in Lynchburg, Virginia. Tour Chairman was T. Gibson Hobbs, who made the facilities of C. B. Fleet Company available for the Saturday morning gathering. Gibson was also tour guide for a fleet of cars traveling the James River and Kanawha Canal, from the Roop Ferry Locks east of Lynchburg to the Quarry Falls Dam, near Buchanan — Saturday afternoon and Sunday morning. All the locks, culverts and aqueducts which we visited had been beautifully cleaned up by Gibson ahead of time, so the photographers had a real "field day."

George Higgs conducts the Saturday evening business meeting.

A number of excellent canal boat models were displayed during the Saturday morning session. An interesting slide lecture on the J. R. & K. was presented at the Holiday Inn banquet Saturday evening, after a short business meeting conducted by President George Higgs, during which he found himself unanimously re-elected for another term.

High spot of the Tour was the Staircase Lock (446 and 447) above Roop Ferry which had been buried, but excavated personally by Gibson Hobbs and a team of canal enthusiasts. This double lock is shown in a separate article in this issue. Also fully-restored Lock #7, with its pedestrian access bridge hanging under the Blue Ridge Parkway crossing of the James River, was a real delight to all who followed the National Park Service trail to get there. Nearly perfect weather was arranged for the week-end by the Tour Committee. All in all — a fine affair!

Bill Shank

Restored Lock Number Seven at Battery Creek. The Blue Ridge Parkway Bridge over the James River can be seen in the background. This park, covering a number of acres on both sides of the River, is maintained by the National Park Service.

Part of the Tour Group inspects the well-preserved ruins of the Beaver Creek Aqueduct below Lynchburg.

CANAL FULTON LOCK RESTORED

The Canal Fulton Heritage Society recently announced that a contract has been let by the Stark County Ohio Commissioners to the W. C. Lockhart Construction Company of Akron for restoration of lock #4 which is in a park about a mile south of Canal Fulton on Erie Ave. N.W.

The lock is at the lower end of a stretch of canal used by the St. Helena II, the first of several canal boat replicas operating in the eastern U.S. The restoration will allow the St. Helena to "look through", to go from one canal lock to another. The Ohio and Erie Canal originally had 152 similar locks in its 333 mile course between Cleveland on Lake Erie and Portsmouth on the Ohio River. The canal functioned as a main transportation artery from 1825 until 1873.

$75,000 in funds for the project were acquired through the U.S. Dept. of Housing and Urban Development's Community Development Block Grant Program.

Completion of the project is anticipated in May and public rides through the lock on the St. Helena II should commence in June.
Hardware River Aqueduct on lower section of the J. R. & K. Twin spans, 40' wide. Now in use as a railroad bridge on the Chessie System. (Photo by Preston Leech.)

The canal owned no boats but built, operated, and maintained the waterway free to all who paid the tolls and abided by the regulations. Tolls for 1841, the first full year of operation, totaled $121,000, which was confidently expected to increase rapidly. However, a major flood in 1842, which Cabell said was not likely to occur again for 50 years, did major damage to the bridges, leading to increased expenditures. By 1847, John Y. Mason became president, and the road was still losing money. In 1851, the State of Virginia took over the canal. By 1856, ten locks and several culverts had been completed, much of the skilled stone work being done by slave labor. Cabell and others later recommended buying slaves rather than renting them so that their skills could be retained. However, the railroad was not complete until 1851, and the canal was sold for $625,000. The Grand Junction Canal was completed in 1851, when the canal opened from Lynchburg to Buchanan. It was also more severe criticism from the railroad advocates.

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Still confident that a central water line was the only feasible plan for heavy freight, the canal interest convinced the state to require the railroad engineers to lay their line so the canal could be completed later without interference between the two. In 1857, Edward Lorraine, then chief engineer, completed his survey and beautifully detailed map of the canal route across the mountains. A series of locks was to be lifted to an elevation of 1,810 feet, with a tunnel 2 1/2 miles long piercing the Allegheny backbone. Water to feed this summit level was to be taken from a series of dams on the mountain streams.

In 1854, the Tidewater connection at Richmond was finally completed. Five beautifully cut stone locks and several short lengths of canal provided the 1 1/2-mile passage for canal boats from the basin down to the ship dock on the James below the falls. In spite of floods, a staggering debt and increasing competition from the railroads, total tonnage on the 200-mile canal had increased from about 110,000 tons to over 225,000 tons by this same year. Revenues had increased from about $121,000 to over $200,000 during the same period. In 1860, total tonnage was over 224,000 tons, while total revenues had dropped to easily $199,000 because of rate cutting by the railroads. This freight exceeded that of all the railroads then serving Richmond combined.

In 1854, the canal reported 196 freight boats in operation. There were 75 decked boats, 66 canal freight boats, 66 barge boats, all valued at over $100,000. Sixteen boats for passengers were valued at nearly $14,000. They required 120 horse teams valued at $10,000 and 56 men. A single line was limited to four miles per hour to reduce erosion of the canal banks. The larger freight boats could handle 20 tons. Time from York to Petersburg was 48 hours, 23 miles, to Richmond was about 31 hours, and 33 hours going back up. Travel by packet was lessened and pleasant in good weather. Passengers could not carry arms, and allow in bunks at night in separate compartments for men and women. Barge boats were sounded to visit the lockkeeper to make the locks ready. Passing through a lock took less than 10 minutes for operating the gates and raising or lowering the water one foot. Locks were 100 feet between gates and 15 feet wide, allowing boats over 90 feet in length and 14 feet wide to pass through. As a challenge to the railroads, two packet boats driven by steam with crew propelled were tried in the years 1843 and 1844. The boats caused excessive erosion and the trip was discontinued.

In the 1850’s, the North River branch of the canal was completed to Lexington. A connection was also made with the Rivanna Navigation Company, connecting boats from Charlottesville, Dorns or bridges were also added to permit trade on the south side of the James access to the canal.

Ruins of Locks Number 46 and 47 below Lynchburg, at the Rope Ferry. Locks were rubble stone, lined with planking, built in 1840. (John Taylor photo).

The Author, T. Gibson Hobbs, standing in front of the ring stones of an 8-foot culvert completed above Buchanan in 1856. Stonewalk was never covered by the canal bed, and the creek was never diverted through the culvert. (Photo by Roanoke Times and World News.)

The Civil War affected the canal less than it did the railroads. Not a single piece of rail or rolling stock of any kind was available to the southern railroads during the entire war. The heavy service caused a rapid decline in the condition of their equipment. The canal, requiring mostly wood and stone, was better able to cope with repairs, although labor shortages caused increasing problems. Records report that over $34,000 was recorded for 1864. Being in Confederate currency, however, it was not representative of actual value.

During the war, the Confederate government operated and operated 25 to 30 boats on the canal. It was not until 1865 that the enemy inflicted any serious damage to the canal. In March, General Sheridan’s force of 60,000 men destroyed 34 locks from Cedar Point, above Richmond, to Bent Creek, in the embankments and destroyed or burned numerous farm bridges, some boats, work shops and the like. In the two weeks prior to April 3, 25 miles of the line above Cedar Point had been repaired. Richmond was evacuated ahead of the Yankee invasion on that day, and all repairs were stopped. This canal office at Richmond was burned and many valuable records lost. Repair work was resumed on May 27, and the canal was opened through to Lynchburg a month later.

(Topic Concluded)

ST. HELENA II SUMMER SCHEDULE

One-hour trips on the multi-drawn ST. HELENA II are scheduled every hour on the half hour from 9:30 to 4:30 from May through October at Canal Fulton, Ohio. Group tickets are $1.75 per adult, $1.00 for children six through sixteen. At the end of the day, a self-guided and guided walking tour of Canal Fulton is available. For information call (216) 854-3608 or write Canal Fulton Heritage Society, P.O. Box 884, Canal Fulton, OH 44614.

CANAL CALENDAR

June 20-21, 1961 — Steamship Historical Society of America, Viking Hotel, Newport, RI. Spring meeting and tours of Narragansett Bay and Block Island around the M.V. Yankee, Captain Steve Drilinois, 72 Chander St., Boston, Mass. 02116.

June 29, 1961 — Old-Time Canal Market Days at Fromeensburg, Contact Charles O’Donnell, 115 Main Street, Fromeensburg.

June 28, 1961 — Lehigh River Canal Festival, Glendon section of the Hugh Moore Park, Easton, PA 12:30 to 6:00 P.M.


Oct. 23-26, 1961 — Pennsylvania-Canal Society tour of the Union Canal, Contact Earl M. Eby, 7th & Guilford Streets, Lebanon, PA 17042.

FRENCH CANAL TRIP

ACS Member Michael Handford is organizing a number of one, two or three week trips on the French canals this year as a result of the many inquiries from his earlier articles on French canal holidays.

Members, family, friends or anyone else interested in seeing these fascinating waterways are welcome to join on these holidays. The boat is an electrically-converted nine-meter ex-grain barge owned by a British company. At the time of publishing there were three vacancies during the 15 August - 2 September period when the boat will start from Carcassone on the Canal du Midi and proceed on the Canal du Rhone a Sain on the Mediterranean coast and up the rivers Rhone and Saone to Chalon sur Saone. There may be vacancies at other times. Contact Michael Handford, 6 Spa Lane, Hinckley, Leics, LE10 1JB, England. Telephone England Operator 0456-611608.

CORRECTION

In the last issue of AMERICAN CANALS, we referred to the British Waterways Board movie film as a "16mm film" in sound and color. In the case of the "35mm" size designation, we inadvertently inspired you of the wrong one for it—this should be 16millimeter! The film is really great and we have several showing dates requested already. Get your order in now for your meetings next Fall—give us exact showing dates.
The following article is excerpted from THE AMERICAN ENGINEER AND RAILROAD JOURNAL for December 1884, pages 555-558, and was submitted to us by Carl W. Lawseon, Caldwell, N.J. The three line drawings were published with the article. The woodcut was obtained elsewhere.

In our issue for January, 1883, we illustrated and published a short description of the inclined planes that are in use on the Biwau Canal, in Japan, which were built under the superintendence of Mr. Sakuro Tanaka, of the Imperial University of Japan. At the time of the publication of the article we were not aware that Mr. Tanabe had visited this country as a member of a Japanese commission to investigate the inclined planes in use on the canals of America, with the view of adapting them to Japanese service; but the fact is that this commission made a very careful study of the inclined planes in use on the Morris Canal, and it was from the drawings and memos furnished during this visit that the details of the planes on the Biwau Canal were prepared. Thus did we go abroad to learn the news of home.

It was at the close of the first quarter of this century, before the advent of railroads and when canal transportation still held the preeminent position as an economical method of transportation, that the charter was granted for the construction of the Morris Canal, that was to and did afford a cheap means of transportation for merchandise between the Hudson and the Delaware, and especially as an eastern outlet for the coal of Pennsylvania. To be exact, the charter for the construction of this canal was granted on December 31, 1824, and in the following July ground was broken and the work pushed to completion, which was accomplished six years later, in August, 1831 that is, the canal was finished through Newark, but it was not until 1836 that it was carried through to Jersey City.

In these days of ship canals connecting widely separated bodies of water, the original Morris Canal was of Lilliputian dimensions. As first constructed the depth of the water was only 4 ft., in which boats of 18 gross tons capable of drawing 3 1/2 ft. of water were floated. The breadth of the canal was 20 ft. at the bottom and 37 ft. on the water-line. The locks were naturally of corresponding dimensions, the chambers being 9 ft. wide and 75 ft. long between the miter sills.

Differences in level were overcome, then as now, by both locks and inclined planes, depending upon the lift between the two adjacent levels, but the planes were of the lock as well as of the summit type. There were 23 of these planes all told, of which three were of the lock type and 20 were summit planes. The difference is that the summit plane is one where the incline rises over the brow of the embankment at the end of the canal, and thence passing over it dips down into the water, while the lock plane ends in the chamber of a shallow lock, into which the boat is run, and where, after the gates have been closed, water is admitted raising the level to that of the canal above.

This system was continued until the winter of 1835-36, when all of the summit planes were changed to lock planes. The probable reason for this was that an increase in the length of the boats was in contemplation, and there was a difficulty in carrying a solid boat over the brow of the incline on a single car. The canal remained in this condition until 1841, when the demand for better facilities and larger boats led to the widening of the planes by 2 ft., while the locks were widened to 11 ft. and lengthened to 95 ft. The traffic still continuing to increase, work on the general enlargement of the waterway was begun in 1845, when the breadth of the canal was increased to 28 ft. at the bottom, to 40 ft. at the water-line, and the depth of water made 5 ft. Instead of 4 ft. At the same time the section boats, were first introduced, and these had a cargo capacity of 44 gross tons. These boats are really two separate vessels, but dependent upon each other in that one has the bow and the other the stern with the rudder. They are hinged together at the dock-line by heavy iron bars in a manner exactly similar to that shown on the half section of the car in our engraving. As these boats were of such a construction as to be easily carried over the brow of a summit plane, and as this style of plane is less expensive and can become operated than the lock type, all of the planes west of the summit were rebuilt and converted to summit planes using wire rope in the winter of 1850-51.

The work was, however, begun in the winter of 1847-48, when plane No. 6, west, was so reconstructed. This work was followed at once by the remodelling of all of the planes east of the summit to similar arrangements, but the work proceeded more slowly, and it was not until 1869 that the last change had been made, although it had been commenced in 1852 and continued without interruption until completion.

This enlargement and change in the capacity of the canal was followed at once by the introduction of larger boats in 1860, when 70 gross tons was the limiting capacity. This rating has here only slightly increased since then, and the average cargo is now from 75 tons to 80 tons, with the boat drawing 4 ft. of water.

As we have already said, the canal starts from tide-water level at Newark and runs to Phillipsburg on the Delaware River. In traversing it a boat passes through 16 lift locks and over 12 inclined planes to the summit, which is at Lake Hopatcong. The elevation above the sea at this point is 514 ft., of which 156 ft. were gained in the locks and 758 ft. on the inclined planes. From the summit, the drop to the Delaware at low water is made by means of 11 inclined planes and seven locks, giving a total fall of 100 ft., of which 68 ft. is accomplished by the locks and 92 ft. by the planes. This survey indicates that the Delaware at Phillipsburg is 154 ft. above tide-water. Water is supplied by the Hamhus, Peace, and Wyanock rivers, from Greenwood Lake, which is artificially raised 16 ft. by the canal dam, and from Lake Hopatcong, which is raised 11 ft. above its normal level by similar means. Then there are other reservoirs known as the Cranberry Reservoir, Bear Pond, and the Kuckaway River.
At present the tonnage passing through the canal is from 1,500 tons to 1,600 tons a day and the time required for the passage from end to end, a distance of about 75 miles, is in the neighborhood of four days, with boats lying at night.

Water is used as the prime mover throughout on every plane, and the wheels are geared directly to the drum. In this the machinery at the inclines of the Shwol Canal, in Japan, differs from its American model, in that as electric motor is interposed between the wheel and the winding drum. The wheel, an engraving of which is given in plan and in the section of the power-house is of the simplest type of reaction wheels. Originally the wings were cast solid with the main body of the wheel, but as a slight breakage would cripple and destroy the whole machine, the design shown in our engraving was adopted and is still used. The wheel is of cast iron, and the rollers are arranged with adjusting plates to fix the outflow and power in accordance with the head of water that is available. The opening is 1½ in. horizontally and 1½ in. vertically. The total height of the wheel over flanges is 22½ in. Water enters from below, and while work is being done it takes the weight off from the step that carries it through an auxiliary shaft resting on a step in the trunk, and in contact with a brass block 2 in. thick beneath the main shaft. The wheels are undoubtedly very serviceable in comparison with the amount of power that they develop, which, by the way, has never been measured, but a certain amount of water is required to supply waste and the locks on the lower levels, it is as well to let it run through the wheel as idly through a flume, so that under the circumstances there is no occasion to economize.

The track upon which the car runs has a gauge of 12 ft. 5 in., and is composed of two T-rails 3 ft. high, with a head of the same width and a flange of 4 in., with web being 1 in. thick. These rails are laid on stringers of 5 in. x 9 in. timber set on stone foundations. The hauling rope runs up and down in the center of the track, and is supported by carrying pulleys in the ordinary way. Where it runs under water it passes over horizontal submerged pulleys for the necessary change in direction.

The rope, after leaving the drum, runs out of the house in both directions over the carrying pulleys, beneath the surface of the water, and to the car, where one end is rigidly and securely fastened to one of the cross timbers, while the other is attached to a drum that can be turned to take up any stretch that may occur.

The car, like the boats, is made in two sections, each 32 ft. long over the main longitudinal sills. Each section is carried by four two-wheeled trucks, giving eight wheels to each. The wheels have flanges on both sides of the rail, and are 2 ft. 5 in. in diameter. The truck framing is of cast iron. The main longitudinal sills are 12 in. deep, and on them a side framing of the form shown in the accompanying engraving is built. This framing is 9 ft. 6 in. high, and is strongly braced to withstand such shocks as the detailed arrangement being clearly shown in the accompanying engraving, which shows, however, only one section, the other being coupled up to it by the heavy bars at the right-hand end. The wheels of the car are also controlled by brake-cam passing over them, and operated by the long lever. But in actual practice no use is made of them, as the speed is perfectly regulated at the plane-house.

Two men serve to operate the plane; one in the house and the other on the car. When a boat appears the car is run down into the receiving basin, and the boat floated over it between the frames. When in position lines are made fast to the cleats on the top of the incline frames, a signal given by hand or by a horn at night and in foggy weather, to the man in the house who starts the machinery. The car takes the boat out, and rises up the incline, catches it and carries it to the other level, an operation requiring about five minutes of time. Some of the planes are double tracked, so that a boat can be transferred in both directions at once. But for the most part they have only a single track, like the one at Bloomfield, which may be considered as a typical example of what is done.
The PCS Tour Group at Plane #10 West (lift, 44 feet) maintained by Jim Lee's son.

Forty-eight members of the Pennsylvania Canal Society, with a sprinkling of Canal Society of New Jersey members, convened in Phillipsburg, New Jersey for a tour of the west end of the Morris Canal, the week end of May 15-17, 1981.

Friday evening activities were somewhat dampened by a heavy downpour. In spite of this, a dedicated group of canal buffs assembled at the PCG Canal Museum of Easton, Pa., for a talk by Bill McKelvey on the Morris Canal, plus an inspection of the latest additions to the Museum holdings.

The weather improved considerably on Saturday, and except for a brief shower at Waterloo Village, the day-long bus tour of the Morris Canal, from Phillipsburg Plane Number 11 West, to Lake Hopatcong, went very well.

Our most interesting "stop" was at Plane Number 9 West, which has the highest lift (100 feet) on the Morris western section. Here James Lee, who owns the entire plane area, has done a fantastic job of digging out the old water-turbine pump and shaft, the tail-race tunnel, the turbine chamber and the vertical driving shaft. Most of the group took advantage of the opportunity to crawl through the tail-race tunnel to inspect the turbine chamber (some forty feet below ground surface) where the old Scotch turbine itself rests intact! Plane #9, as well as most of its "sleepers" and even part of the old cable, is maintained in excellent condition by Jim Lee, who never knows when a group of canal buffs may drop in on him! Many parts of the gearing

An old Scotch Turbine from one of the Morris Planes in a permanent shelter at Lake Hopatcong. In the background is the lake outlet spillway, near the old canal feeder.

and cable house, which Jim has resurrected in his archeological work, are also on display.

We enjoyed Jim Lee's company again Saturday evening when he was principal speaker at the Holiday Inn banquet in Phillipsburg, PCG President John Miller was General Chairman for the entire affair, and was also one of the tour guides only assisted by Bill McKelvey President of the Canal Society of New Jersey. Bill was happy to show us, at the Waterloo Village Restoration, the new CSNJ Museum which is a part of that extensive complex. Recently installed in this Museum is an excellent model of a typical Morris Inclined Plane and its water-turbine system. Next stop, says Bill, is a fully-operational working model of same.

Bill Shank

SEAPORT PUBLICATION

Attention of ACS readers is invited to the Spring 1981 Issue of Seaport, the newsletter of the South Street Seaport Museum, which contains two articles of interest to canaliers plus an excellent photo of New York canal boats as a part of a mixed Hudson Flyer tow in the 1890s, miles pulling a canal boat in a photo of the Delaware and Raritan Canal in 1894, and a Harper's Illustration of grain being transferred from a canal boat to a steamer in Brooklyn (Ca. 1873). $2 to Seaport, South Street Museum, 703 Front St., New York, N.Y. 10008. (ACS Director Bill McKelvey, Jr.)

Forty feet underground at Plane #9, Bill Moss (with cap) explains the workings of the old Scotch Turbine, one nozzle of which appears in the left foreground.

Handsome plaque erected by A.S.M.E. at Jim Lee's Turbine Restoration, Plane #9, West.

The visitors climb to the top of Plane #9, where it dips over into the upper level of the canal. Note the old cable on the left, a bit rusty but still intact after lying un-used for nearly sixty years!
FARMINGTON CANAL REMAINS

Park, is about 300 feet of restored canal end compound. Don't forget to visit the Plainville Historical Center on Pierro St.

Next stop is Farmington. The Union Hotel, now a part of Mills Park, is on your left. The aqueduct crossing the Farmington River is located north of the center of Farmington. Both sides are accessible. I have never been in to the west side; these are second-hand directions. Turn left (west) onto Route 4 at Farmington center, cross the bridge, and turn right on Town Farm Road (first right after bridge) and park north of the Farmington Club. The feeder from Unionville should cross the road west to east and join the canal to your right; follow it in to the river and the aqueduct slubmers. These of the era lasted until 1855 when the Corps of Engineers removed them.

If you return to Route 10 and head north to Avon watch on the left for a location sign on the left identifying the aqueduct. If you cross the Avon town line you've gone too far. Just south of that sign you can see the cross the road; follow it in to the river west to the east side slubmers.

The last structure I will mention in Conn. is in Simsbury. Continue north from Avon to Simsbury. Just before West St. comes into Route 10 from the left is the visitor's parking lot of the Ensign-Schickford Co. Park there if you can; on the south end of the lot is the remains of an arch culvert crossing Hop Brook.

If you have the time, I would recommend a side trip to see an aqueduct ca. 1821 in excellent condition and still in use on the Enfield Canoe. Stay on 10 north to Granby and pick up Route 20 eastbound; stay on 20 to intersect 91; take it northbound about 2 miles and get off onto Route 159 north towards Suffield. As you enter the township of Suffield, before or after you cross the RR tracks; I can't remember which, cross the bridge and take your first right (east) onto Papar St. Go to the end of the paved road and walk down the road to the stream. About 100 yards downstream is the aqueduct.

(Prepared by Chester G. Gehman, RFC 3, Winfield, Conn. 06098. Readers having comments or further information on the Farmington Canal are requested to inform Mr. Gehman and/or Editor Tom Price, American Canals. A future issue of American Canals will contain an article on the Farmington Canal by Bernard Heinz, ACS.)

New Clewiston lock built by the U.S. Army Corps of Engineers through Hoover Dike at Clewiston, Fla. (Lake Okeechobee). The size of the lock is 60 x 50 feet. The Industrial Canal is located immediately to the left of the lock. (Submitted by ACS Director Alden Gould, Army Corps of Engineers Photo.)

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The prize-winning "Clayton F. Smith" tied up in Lock Number 14 of the Delaware and Raritan Canal. The "water-walking mule team" can be seen at the rear.

The Raritan River Festival was organized to celebrate the 300th Anniversary of the founding of the Chelsea New Brunswick, NJ. The Canal Society of New Jersey event was of special significance. It was also the 150th Anniversary of the granting of the charter and ground-breaking for the Delaware and Raritan Canal in 1830. The major event of the festival celebration was a parade of boats in the Raritan River, at the northern end of the canal, and the Canal Society decided that they must launch a prominent entry.

Preparations began well in advance, and centered on finding a suitable vessel. The American Naval Cadet Alliance (ANCA), a group which trains boys to be seamen and good citizens, was contacted at their National Headquarters (PO Box 9841) in Cranford, NJ. Capt. Bill McKehey, Chairman of the Society's float committee, was delighted to find that the Alliance had a perfect vessel. It was a 35-foot steel lifeboat complete with a wood deck. The Elling home-built boat, with a capacity of 135 persons, was built on November 1, 1949 by the West Valley Boat Corporation of Port Amory, NJ. - an historic vessel in its own right.

ANCA was happy to loan the boat and allowed Canal Society members to work on it at the ANCA base in Carteret, NJ.

Many weeks of planning and hard work were required to transform the crab looking former ships lifeboat into an authentic appearing canalboat. The entire vessel was painted to simulate weathered wood color and "planks" were scored on the sides utilizing a magic marker. A deck house (complete with curtains and a smoke emitting smoke pipe), tiller/rudder, and a working head powered toilet pump were added. An authentic "night watchman" canalboat light was added on the bow, ingot and deck chairs, and wood log fenders on the sides. Also - a wash tub and wash board; wash line with hanging clothes; stove with coffee pot and frying pan; cotbed; tables and chairs and decorative flower boxes were added. The boat was christened the "Clayton F. Smith of Waterloo, N.J." in honor of the founder and president emeritus of the Canal Society of New Jersey and the Waterloo Village Restoration.

The most unique feature of the completed canalboat replica was its mode of propulsion. It was towed by 4 mules, walking on water.

Actually, the mules were painted on 4 foot by 1 foot waterproofed plywood which was secured to the sides of the 18 foot oarboat/motorboat supplied by the United States Power Squadron member Lieutenant Carlos R. Riker. To the spectator crowds lining the banks of the Raritan River, 4 mules were leaving a canalboat, miracle or not. The mules were undoubtedly spurred on by the crowds cheering ahead of them, just out of reach.

The entry was manned by a full crew, all dressed in clothing typical of the heyday of canal activity. At the helm was Captain Bill McKehey, author of books about the Delaware and Raritan Canal. Bill Moss, current President of the Canal Society was on deck. The "mule drivers" were Capt. Richard and Peter Vroom, both Lieutenants in the Locktown Power Squadron and Canal Society members.

At the conclusion of the parade the "mules" pulled the "Clayton F. Smith" into lock #14, the north outlet of the U & H Canal. It should be noted that although the U & H was officially closed in 1932, at high tide boats can also enter lock #14 at the south terminal of the canal at the Delaware and Raritan Canal Crossroad. The "Clayton F. Smith of Water-loo, N.J." took the prize for best float in the parade and first prize in the history section.

MIDDLESEX CANAL

Horse-drawn COL. BALDWIN packet boat rides can be taken this summer on 21 and 23 July and on 9 and 22 August starting at the Baldwin Mansion in North Brunswick, Meas, at the junctions of routes 38 and 128. Call Lin Harmon 635-3551 for reservations and further information.

Middlesex Canal documents can be viewed at the Lowell University Lyndon Library in the rare book section. Sen. Head Librarian Joe Konyz (Board Member Middlesex Canal Association) and her assistant, Martha Mays.

The Baldwin Mansion is to be made into a restaurant. The Middlesex Canal Association sees that move as good news because it will serve as advertising place for association members.

From TOWPATH TOPICS, Apr. 1981

PORTAGE CANAL SOCIETY

Update of the society: "The Canal Society members are still working hard to preserve the Portage Canal. We have finally come up with the information that there is a right-of-way through the woods, though the numbers have to be assigned to acknowledge the canal right-of-way or go to court. There is also in the Department of Natural Resources' budget $200,000 for a program to preserve the canal from the Wisconsin River. We are looking forward to the start of work on the Portage Canal. It is a very important piece of history. We are not sure how the canal will be preserved, but we are looking forward to the start of work on the Portage Canal. It is a very important piece of history. We are not sure how the canal will be preserved, but we are working hard to preserve it."

Recently I received a letter from Dr. William Trout, III. He suggested that I write about the Portage Canal Society success in showing the Portage Canal to the public. He mentioned that the Society has been an important part of the rehabilitation of the Portage Canal, which has been so neglected. The Portage Canal is only 2½ miles long and England has had a number of miles. I strongly urge canal societies to use the English Side Program.

(Frederica Kleist, Portage Canal Society, 326 West Cook St., Portage, Wis. 53901)

Note: Souvenir slides and accompanying tape are available at ACS Headquarters, 609 Fleetwood Road, York, Pa. 17403.

BOOK REVIEW


As early as 1637, the Massachusetts General Court acknowledged that a canal across the isthmus of Cape Cod "was very necessary for the preservation of men and estates, and would facilitate the communication from the coast to the interior," and a canal was planned.

At regular intervals throughout the next two centuries old canal surveys were dusted off and renewed surveys conducted.

Meanwhile, the "Ocean Graveyard" between Bassway and Wood End exacted its relentless yearly tribute, with 887 vessels reported wrecked at least 105 lives lost from 1785 to 1953 alone. The Massachusetts General Court in 1786 declared that the isthmus of Cape Cod "is the most dangerous coast in the world to be found on the map of the United States." And in 1800, the government who would later change this dubious distinction on Cape Hatteras. What difference to those who have perished on either cape?

The United States had the engineering capability and manpower to dig a navigable channel through the isthmus almost immediately. But it was not until 1907 that financier-sportsman August Perry Belmont (who made his money in insurance and was proudly proud of his Perry blood) put together an adequately funded canal construction corporation. Construction began in earnest some two years later. At last, on the afternoon of 29 July 1914, the sloopshower Rose Stanish, under charter for the occasion to Belmont and his stockholders, led a flotilla of 45 vessels, yachts, boats, and commercial craft into the western entrance of the canal. Sailing through a length of red, white, and blue bunting suspended across the canal near Gray Gables, Rose Stanish proceeded without incident and "in the lowest possible speeds that the water would allow," made the remaining 7.56 miles of "Beltz's ditch" and into Cape Cod Bay. Brass bands and speeches were the order of the afternoon in Sandwich. The dream became reality.

(Continued on Page Twelve)
LeROY CREATES CANAL MEMORABILIA

One of LeRoy's intricate models, depicting a cranking mechanism for operating lock-gates on the Delaware and Hudson Canal.

Ed LeRoy displays several of his many interesting wood-carvings.

Edwin D. LeRoy, 50 Garden Avenue, Chatham, N.J. 07928, has been a student of the Delaware and Hudson Canal ever since his boyhood in the Pocono Mountains, and his discovery that his grandfather owned some canal boats on the D. & H. at Barryville, N.Y. He has hiked every foot of the canal between Honesdale and Kingston, N.Y., and has investigated all its lock ruins, as well as the remnants of the two gravity railroads which carried coal to the canal.

Upon retirement from his job as Assistant for Travelers Insurance Company in 1988, Ed has spent full time using his talents as a writer, artist and sculptor to upgrade his book entitled "The Delaware and Hudson Canal," originally published by the Wayne County Historical Society of Honesdale, Pa., in 1966 and now going into its fifth printing. LeRoy shares his own illustrations for the book and has also created a fascinating series of wood carvings depicting life and mechanical operations on the canal.

Ed was able to interview some of the old D. & H.Canal workers during the 1920's and 30's and was thus able to get first-hand accounts of life on the canal, and details of its operation, all of which he has preserved in his book, sketches and carvings. LeRoy is a frequent canal tour guide and guest lecturer at colleges and canal buff meetings. He is also an active member of a number of historical societies. Reflecting on his activities during thirteen years of retirement, he wonders how he ever had "time to go to work!"

[Note: We are indebted to Willis Klotzbach of Trumon, N.Y., for putting us in touch with Mr. LeRoy.]

WELLAND CANAL COMMEMORATED

On May 9th the Second Welland Canal in Old Fort Delaware, Ontario Canada was commemorated by the placing of a plaque on Look 1. The University Women's Club of St. Catharines donated the plaque.

BOSTON MUSEUM TO FEATURE CANAL EXHIBIT

The Boston Museum of Transportation, located on the Boston waterfront, has announced that it will shortly complete the preparation of a permanent gallery of exhibits reflecting the development and importance of the Middlesex Canal to the history of the region's transportation. The area will contain numerous canal models, artifacts and graphic displays.

This major assemblage of historic Middlesex Canal memorabilia is being made possible by a most generous donation from the Wolman Five Cents Savings Bank. As the area of Winchester and Wolman was the center of the canal's early and commercial life, the local financial institution is most interested in seeing that this important exhibit is successfully carried through to completion.

The Middlesex Canal Association and the State's Canal Commission are serving as the overall technical consultants to the Museum of Transportation for the exhibit.

(Toanpath Topics, April, 1961)
ROEBLING'S FAMOUS AQUEDUCT
A PRESERVATION PROBLEM

A problem facing the National Park Service and the planning team for the Upper Delaware Aqueduct is the preservation and use of the Delaware Aqueduct.

The oldest wire suspension bridge in the nation, it was built by the famous engineer John A. Roebling in 1848.

The bridge originally carried canal boats filled with anthracite from the coal fields of northeastern Pennsylvania to industrial and domestic furnaces of New York.

The future use in the scenic river area is complicated by community needs, incomplete scientific data, overall management plans for the valley and limited restoration funds.

Engineers from the Federal Highway Administration inspected the old structure last August and reported to the Park Service on repairs that needed to be made to the wooden superstructure and the masonry piers.

Unanswered questions remain: How much (if any) deterioration is there within the masonry and cables? Has the movement of the piers, caused by a fire a long time ago, had any long-term effect on the balance and basic integrity of the aqueduct?

What has been the effect of the “sway” caused by vehicular traffic, in contrast to the dead weight of the water-filled aqueduct? Would continued vehicle use cause deterioration?

Since the aqueduct is listed on the National Register of Historic Places, the federal government must be guided by the provisions of the Historic Preservation Act of 1966. As a historic structure within the National Park System, the aqueduct is also subject to NPS policies safeguarding historic properties.

Throughout the planning process, close scrutiny will be given to the future surrounding the Delaware Aqueduct. The planning team welcomes constructive ideas anyone may wish to share. Call or write to the Upper Delaware Planning Team, Box 13, Milanville, PA 18443, (717) 729-1147.

(Submitted by ACS Director Bill McKeel from Our Scenic Delaware, Jan. 1981.)

BOOK REVIEW
(Continued from Page 10)

Despite the hefty tolls originally charged by the Canal Company, the canal showed an operating loss of $1.3 million during its first three years of operation. Out of old custom or for reasons of economy, or both, much of the canal’s potential traffic continued to sail around the Cape. Only a year after the canal opened for service, Belford was willing to consider sale of the canal to the Federal government.

Under new management by the Army Corps of Engineers, the canal was substantially widened to allow for two-way traffic by all but the largest vessels. The canal was dropped to a controlling depth of 32 feet. The troublesome double bend at Buzzard’s Bay entrance was eliminated by the creation of Hog Island Channel.

Robert H. Farron’s history of the canal is concise, workmanlike, and readable. Although Farron, a professor of journalism at Penn State, has relied very heavily indeed on William James Reid’s The Building of the Cape Cod Canal in doctoral dissertation that was privately published, without the scholarly apparatus, for Eleanor Robinson Belmont in 1961 his own lack of scholarly pretension is disarming. Farron’s account of the canal’s day-to-day operations will be of particular interest to those who make frequent use of the canal. The remarkable collection of illustrations Farron has included in this well-produced book amply justify its high hard-cover price.

For the serious student of maritime history, Reid’s The Building of the Cape Cod Canal still remains the best source of information about “Belford’s ditch.” For the general reader, Robert H. Farron’s The Cape Cod Canal will serve nicely.

Llewellyn Hawland, III
(From The Log of Mystic Seaport July 1978. Reprinted with permission.)

British Canal Rally

In England there is a great spirit of canal restoration. To emphasize this great spirit, a flotilla is held each mid-August in a different part of the country. When we attended the Northwich Rally in 1979, there were over 600 boats that had come through thousands of locks. There was a festive air for the full weekend. If you are in the Lancs, Yorkshire area of England this year be sure to save the weekend of 15-16 August to visit the rally. If you can see for Bev and Debbie Morton and we will introduce you to the Inland Waterways Association and other English canal society friends. When you return to the United States, make the restoration spirit work. The one principle to keep in mind is that we can do it if the English can.

(Day W. Morton, 61 W. Bonita, Sierra Madre, CA 91024.)

“MYSTERY PHOTOGRAPH”

Can you identify the canal and the place the photo was taken? Answer will be provided in the August 1981 American Canals. The “Mystery Photograph” in the February 1981 issue of A.C. was the Jacktown Aqueduct on the Juniata Division of the Pennsylvania Main Line Canal, about three miles west of Mt. Union.

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