

AMERICAN CANALS

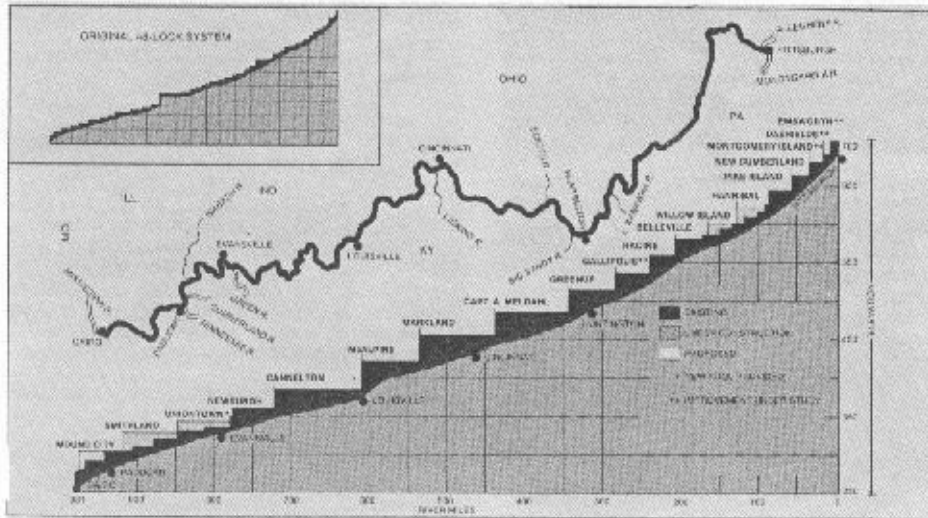
BULLETIN OF
THE AMERICAN CANAL SOCIETY

BULLETIN NUMBER 19

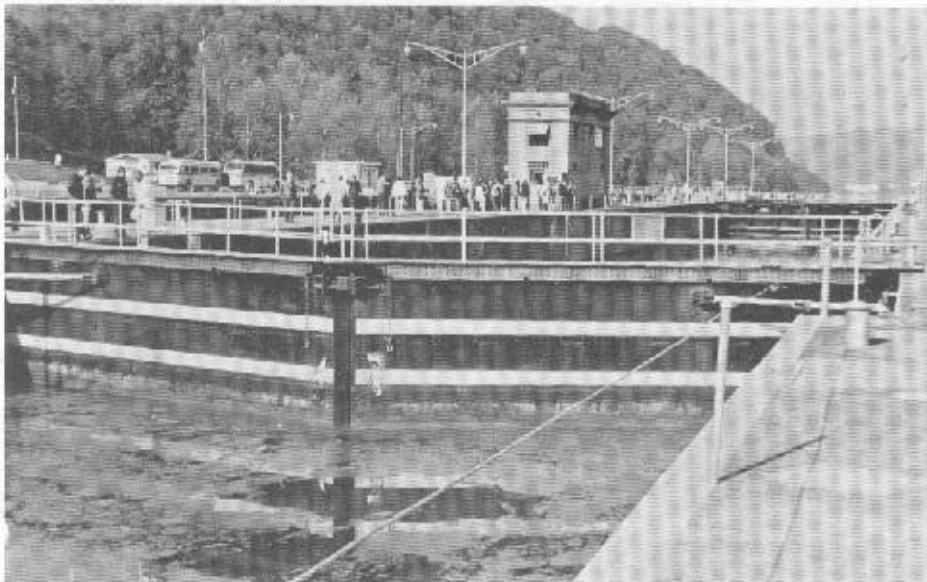
Editorial Address — Box 842, Shepherdstown, W.Va. 25443

NOVEMBER 1976

OHIO RIVER STAIRWAY COMPLETED



The Corps of Engineers, which started navigation improvement of the Ohio River 150 years ago "with dredging over sandbars and removal of snags," has just about wrapped up a \$1.75-billion modernization of the totally canalized 981-mile river. Started in 1955, the massive facelifting involved the replacement of 46 old locks and dams with 19 grated dams and locks bigger than those in the Panama Canal. Eight of the new 110 x 1,200-ft. locks are in operation with their new dams and others are well along in construction. This profile of the Corps' new stairway to Pittsburgh shows how fewer locks cut lockage time by at least 50 hours. (*Engineering News Record*. Submitted by ACS Director Wilbar Hoxie.)



Tour Group of the combined Canal Society of Ohio and Pennsylvania Canal Society gathers between the massive double locks of the Army Engineer Corps at Montgomery Dam on the Ohio River, first stop on the tour May 8th, 1976. (Photo by Bill Shank)

CANAL BOAT REMAINS FOUND

The most exciting thing to happen in a long time as far as canal boat relics are concerned is the discovery of canal boats in a quarry in North Hampton Borough, Pennsylvania.

The **Lehigh Canal**, one of the last to close down in this century, closed down in 1932. One of the problems attending the closure was where and how to dispose of a number of abandoned canal boats. A cement rock quarry partially filled with water in North Hampton Borough on land now owned by the Martin-Marietta Cement Company, provided the solution. The towpath of the Lehigh Canal was breached and boats were floated from the canal to the quarry, where they were sunk.

There have been estimates of from 13 to 50 boats in the quarry, but the best guess at this point in time seems to be about 20. Attempts are being made to raise one or more of the boats. If successful, we hope to have a photo available for the February issue of **American Canals**. The condition of the boats is unknown, though one report by a party entering the cabin of one of the boats was that "it was a little damaged."

(Submitted by Charles Derr, ACS, from articles in the Bethlehem, Pa. *Globe-Times*.)

CHAMPLAIN CANAL PLACED ON HISTORIC REGISTER

Garry F. Douglas, Historian of the Village of Waterford, New York, and Chairman of the Waterford Canal Action Committee, has announced the recent placement of the 1823 **Champlain Canal** from Waterford to Whitehall on the National Register of Historic Places. The effort to achieve Register status for the canal was begun three years ago in Waterford as one step in the hope for rehabilitation of the historic waterway.

The Waterford section of the canal remains in an excellent state of preservation thanks to the fact that it is still maintained and used as a surge basin for the N.Y.S. **Barge Canal** system. A group of Waterford residents and the Hudson-Mohawk Industrial Gateway, a Troy based organization concerned with industrial preservation, have seen in the Champlain Canal an opportunity to create a low cost recreation area. In the fall of 1975 a recreational development study of the canal was commissioned and completed by Saratoga Associates, planning consultants.

(Concluded on Page Six)

American Canals

BULLETIN OF THE AMERICAN CANAL SOCIETY

"DEDICATED TO HISTORIC CANAL RESEARCH, PRESERVATION AND PARKS"

AMERICAN CANALS is issued quarterly by the American Canal Society, with headquarters at Box 842, Shepherdstown, W.Va. 25443. Objectives of the Society are to encourage the preservation, restoration, interpretation and use of the historic canals of the Americas; save threatened canals; and to provide an exchange of canal information.

Annual subscription to "AMERICAN CANALS" is automatic with a minimum ACS dues payment of \$6.00. Individual copies may be purchased at \$1.00.

ACS President and Editor-in-Chief - Capt. Thomas F. Hahn, USN (Ret.), Box 842, Shepherdstown, W.Va. 25443.

ACS Vice President, Secretary and Production Editor - William H. Shank, P.E., 809 Rathton Road, York, Pa. 17403.

ACS Vice President, Treasurer, Associate Editor and Chairman, Canal Parks Committee - Dr. William E. Trout III, 1932 Cinco Robles Dr., Duarte, Cal. 91010.

Chairman, Canal Index Committee - ACS Director, Peter H. Stott, Haines Road, Mount Kisco, N.Y. 10549.

Chairman, Canal Boat Committee, ACS Director, Carroll M. Gantz, 7100 Oxford Road, Baltimore, Md. 21212.

Addition to Canal Society Listing:

Williamsport C & O Canal Club, Inc.
Melvin I. Kaplan, Pres.
1 Fenton Ave.
Williamsport, MD 21795
Membership: \$1

SAM CASH ON TOUR

Many of you have read in American Canals of our ACS Member and model builder Sam Cash, who is in Dartmoor Prison in England. The good news is that Sam will be released from prison in 1978 and will be coming to the United States on a good will canal tour, presenting films, slides and canal talk about the British canals in the spring of 1978.

Sam needs to work up his tour by the end of the year and asks that any organization (it needn't be a canal society - it could be a PTA group, or church group, Woman's club, etc) who is interested drop him a line inviting him to come. The details of timing can be worked out later, but Sam has to justify his trip based on invitations for a visa. Address your invitation to him as follows: Sam Cash, c/o Ruby Fenton, 58 Balfour Crescent, Bracknell, Berkshire, RG12 4HY, England.

Sam has been building canal models for several organizations in the U.S. If your canal organization would like to have a model, write to Sam and talk about it. The cost for materials and shipping is \$150 - Sam's labor is done free with his best wishes for the organization desiring the model.

ERIE CANAL MEDAL



Last year the American Canal Society sponsored the medal minted by the Franklin Mint (Special Commemorative Series) commemorating the Anniversary of the 150th Year of the Completion of the Erie Canal. The obverse is the scene of the opening of the Erie Canal in October 1825 and the reverse is the logo of the American Canal Society depicting the Western Hemisphere. The medal is bronze, 39 millimeters in diameter. This is the last opportunity to buy the medal at the price of \$3.50 plus 50¢ mailing; it is not for sale elsewhere and the die has now been destroyed. There are only a limited number available; the original price applies only through 31 December. Order from ACS Treasurer, Dr. Bill Trout, 1932 Cinco Robles Drive, Duarte, CA 91010.

PENNSYLVANIA CANAL MEDAL



This year the American Canal Society is the sponsor of a medal minted by the Franklin Mint commemorating the beginning of construction of the Pennsylvania Main Line Canal. The obverse is a canal scene with a lock, lock house and a packet boat about to enter the lock, with the logo of the American Canal Society on the reverse. This medal is the last of the Special Commemorative Series done by the Franklin Mint. These medals are already collectors items. This medal is bronze, mint, with a 39 millimeter diameter in a clear lucite medal holder. The price is \$4.50 plus 50¢ mailing, total \$5.00. The supply is limited. Orders now being taken by ACS Treasurer, Dr. Bill Trout, 1932 Cinco Robles Drive, Duarte, CA 91010.

CANAL CALENDAR

May 13-15 - Pa. Canal Society Spring Field Trip on the Chesapeake and Ohio Canal. Tour Coordinator: John Frye, Gapland, MD 21736.

June 4-7 - Retford & Workshop Boat Club (England) 200th Anniversary Rally of the Chesterfield Canal. Write: Mrs. June Rice, Clematis House, Clayworth, Retford, Notts, U. K.

(Deadline for calendar items for the February issue of American Canals is 15 January; Editor, American Canals, Box 842, Shepherdstown, WV 25443)

CAPTAIN'S CORNER

I would like to remind each of you that the American Canal Society is a non-profit scientific and educational institution. Our existence depends on your membership to the society. You can help the society financially by renewing your memberships on time. Our billing and mailing is done by volunteer, slave labor (the Shanks and the Hahns) and it is time consuming and expensive to the society to have to re-bill notices for dues renewals. What would be even more helpful, would be for each of you to consider asking a canal friend to join us. I would be very happy to send a copy of American Canals to anyone whose name you would send me. If we are going to survive the increased costs of our times, we must continue to expand the membership of the society. So far we have just managed to keep our noses above water.

We will continue to have a need for interesting material for American Canals. Particularly needed are canal historic views, but good modern views are also welcome. The size of the photo is not particularly important, but it must be a good, clear photo with a glossy (shiny, not stain) finish. Photos can be returned, if desired, though we like to have photos on hand to illustrate manuscripts which might come in without illustrations. We would also welcome the canal experiences of those of you who were on the canals or whose parents or family members were. Another experience which could be shared is your visit to a canal site and what you found there - particularly to sites not commonly visited.

I hope all of you have had a good fall and that you will take advantage of the coming winter months by visiting old canal remains which are easy to view without foliage (or snakes or poison ivy or the heat). And for those who can't or just don't want to, I hope you find a good canal book or two to enjoy the long evenings coming up.

Tom Hahn, Editor

Canal-Related Organizations

The Great Lakes Historical Society maintains a museum with a collection of ship models, marine relics, paintings and photographs dealing with the history of the Great Lakes. The Clarence S. Metcalf Library in the museum houses an outstanding collection of both published and unpublished documents. The society publishes an illustrated quarterly journal *Inland Seas*. Membership in the society gives admittance to the museum and use of the library, a subscription to the journal and admittance to several programs during the year. The museum is located at 480 Main Street in Vermillion, Ohio 44089, the south shore of Lake Erie, and is open in the afternoons daily, except for winter months when it is open afternoons on the weekend. Admission 75¢ adults, children 25¢. Family memberships (lowest category) available for \$10.

The Blackstone River People's Public Park System, Inc., 207 Mendon Rd., Cumberland, RI 02864 has been organized to build parks along the Blackstone River from Pawtucket, RI to Worcester, Mass. Donations (including membership) \$1 per year. The river is closely related to the Blackstone Canal.

A LOOK AT THE SUEZ CANAL (Part Two)

By J. WAYNE HALSEMA

(The conclusion of an article begun in the August 1976 issue of American Canals)

In the late afternoon we left Port Said for Ismailiya, mid-way point on the Canal and our stop for the night. On the way there we passed over the same depressing devastation as we had seen on the way up. This time, however, the peculiar scenery was mellowed somewhat by a spectacular sunset.

Ismailiya was started from scratch in 1859 as a residential area for the Canal Company's then mostly European employees. The town is located on the banks of Lake Timsah (Alligator Lake). Before the Suez Canal was built, the lake was a dismal marsh, possibly the one called the Reed Sea by the ancient Egyptians, through which the children of Israel may have passed on their way to the Promised Land. Today the lake provides a scenic backdrop for one of Egypt's most beautiful little towns. In addition, the width of the lake provides Ismailiya with natural protection from whatever warfare may be going on in Sinai. From June 1967 to December 1973 Ismailiya was fortunate enough to be located in one of the few places along the Canal where Egyptian and Israeli troops did not face one another at point blank range. The town was protected from the fighting by several miles of water.

Just north of the city on the Sinai side of the Canal is a well preserved section of the Bar Lev Line, the Israeli fortifications built between 1968 and 1970 by an Israeli general bearing the same name. The line is a well constructed string of fortifications along the entire length of the Suez Canal from just east of Port Fuad all the way south to Suez City. The line provided protection for the Israeli position in occupied Sinai until October 6, 1973 when it was overwhelmed by the Egyptian Army. The result of this attack on the Bar-Lev Line was that the Israelis were pressured into pulling back to the mountain passes of central Sinai. This gave Egypt control of both sides of the Canal and allowed the Canal to be reopened.

On our way out of Ismailiya toward Suez City we were stopped by a well-armed policeman. "You cannot use this road", "Why not?" I asked, "It is forbidden" was the reply. "But we have permission" I said, "Pass then" and off we went, with a salute to speed us on our way. The odd thing about this and other encounters along our route was that not once did any of the officials involved actually ask to see our permission.

The road from Ismailiya south to Suez passes along the short stretch of the Canal between Lake Timsah and the Great Bitter Lake. At the village of Devesoir on the northern end of the Great Bitter Lake the road bears sharply right to skirt the edge of the lake.

In the Devesoir area very little above the height of two feet remains standing (with the possible exception of a well-built hanger which is all that remains of an Egyptian forward airbase.) Devesoir bore the brunt of an Israeli counterattack which crossed to the west bank of the Canal at that point and started a hard drive towards Suez City at the end of October, 1973. In spite of this, the area to the south of Devesoir along the western shore of the Great Bitter Lake is a beautifully scenic place. After it leaves the bank of the canal the road to Suez passes through a sector of bright green vegetation. Combined with the bright blue lake, the black desert mountains to the west and the distant convoys of ships on the lake it is a truly delightful sight.



Tom Leishman of West Virginia and Judy Halsema of the District of Columbia, at the Suez Canal in Port Tewfik (Suez). A large freighter passes through the canal in the rear.

Unfortunately about the only people allowed to enjoy this area are the Canadian, Polish, Finnish and Senegalese soldiers of the United Nations Emergency Force who have their base camp a few miles south of Devesoir. The UNEF forces in their blue uniforms are everywhere in the Canal Zone. Their primary function, however, is to patrol an 18 mile wide swath of the Sinai Desert between the Egyptian and Israeli armies.

The UNEF strip separates the Egyptian and Israeli armies. Members of the UNEF are on duty in Sinai for six months at a time. This task carries with it certain touristic privileges. The United Nations troops are the only people in the world who are permitted to drive straight through from Cairo to Tel Aviv, the respective capitals of two bitter enemies.



Christine Cushman of Wisconsin, High School Counselor at the American School in Alexandria, poses with an Egyptian National Guard officer along the Suez Canal at Port Tewfik. Behind them is a destroyed Israeli tank.

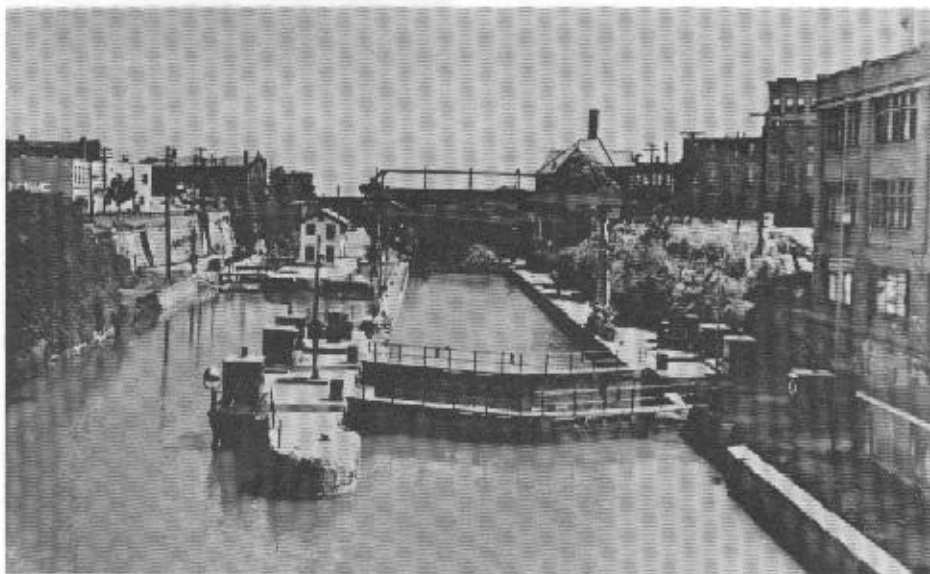
South of the Great Bitter Lake both the Canal and the fortifications begin again. In this sector the great sand mounds which rise on both banks of the Canal are still occupied. (Fortunately for visitors both sides are now held by the same army.) Tanks, armored personnel carriers and professional looking troops were everywhere. Every few miles there was a hole in the line and a ferry to the Sinai side. Most of the passengers appeared to be United Nations soldiers.

About ten miles south of the Great Bitter Lake the Suez road comes out in front of the mounds of fortifications to run right alongside the canal. The road holds this position all the way to Suez City. It is one of the few places on the waterway where the visitor gets the sense that he is visiting a great world crossroads instead of a great world battlefield. Ship convoys glide past in endless procession. Most are freighters loaded to the brim with pre-packaged containers of freight in stacks. A few of the ships are wide-body tankers, not quite super but getting close to that scale. While with the freighters it seems as if one can reach out and touch them, with the tankers this is almost literally true. At one point a tanker passed us on the road. Her gunwhales were less than ten feet away. The canal is to be widened and deepened shortly to accommodate all but the largest of the supertankers.

That another war is still a possibility is demonstrated dramatically in the area between the Great Bitter Lake and Suez. The scenery can be summed up in two phrases, heavily armed and heavily damaged. The front line troops of the Egyptian Army stationed in this sector of the Canal look professional, act professional and in all probability are the finest troops Egypt has to offer. The Israelis are only 30 to 40 miles away in this area and they have stood on this very spot. In October 1973 after breaking through the Egyptian lines at Devesoir, General Sharon's Israeli troops met fierce resistance in this sector of the canal on their way to Suez. For the first time the Egyptians and the Israelis found their positions reversed. The former were on the Sinai side and the latter were fighting the Egyptians from the Egyptian side of the canal. As a result of this bloody contest nothing stands in an area which I can recall as being both populated and prosperous in 1966. Despite all the talk in the Egyptian and World press we saw no evidence of recon-

(Concluded on Page Four)

CANAL WATCHERS



New York State Barge Canal lock at Lockport, N.Y., with old Erie Canal locks (1841) at left. (Alden Gould)

Hi, Canal Watchers! Hope you had a wonderful time this last Summer, 1976 inspecting locks and canals.

How does one enjoy this hobby? If you are new in this wonderful historical-archaeological field as I am, have a good friend or friends who can talk canal lore with you, then study for the fun of learning about the early waterways of the U.S.A. and Canada. At the same time join the American Canal Society to keep abreast of some wonderful canal happenings and projects.

All the above are fun, but the most fun is traveling from one canal and lock area to another in search of interesting artifacts. What does one look for? If you are near a really old canal, look for wood. Is the gate made from wood with only a few parts of iron? Is the lock lined with wood or at least part of it? Is there wood along the canal bank holding the soil in place? If there is wood you are looking at a very early lock and area. Of course ask the local people about the canal and locks. Wouldn't you be flattered if this happened to you?

Next, look for a balanced beam gate. This means that the very heavy beam at the top of the gate extends over the edge of the gate so the gate may be pushed open or closed by hand. A later gate opening device was the rack-and-pinion attached to the gate. It was operated by the lock keeper as he walked a circle around the capstan pushing against a lever, the pinion gear making the gear-rack-draw-bar move the gate open. After the boats were in the lock the lock keeper walked the lever on the capstan in the other direction until the gate was closed.

The balance beam is by far the simplest way to open a gate lock. The pinion gear and rack-draw-bar gave a better leverage. This was especially so when the lock gates grew older, the gates warped and the bearings wore. The extra jamming of the gate was overcome with this newer gate opening method.

Older locks of the towpath days have another interesting feature to look for. At the edge of the lock you will find a number of long U shaped slots, called 'rake burns'. These slots indicate that thousands of ropes dragged at this point as the mule drawn boat was pulled into the lock. Some of the best examples of this type of wear are at the old Erie Canal flight of five locks at Lockport, New York. Here you can easily see

the rope wear slots on the edge of the old stone blocks. Look at the old iron fence and you will see the rope wear marks there also. Here is true history and with very little imagination you can see the old mule and tow boat slip into the lock.

You can enjoy the above as you hop from canal to canal. Question? Do any of you know if there was ever a towpath along side of any Canadian Canal?

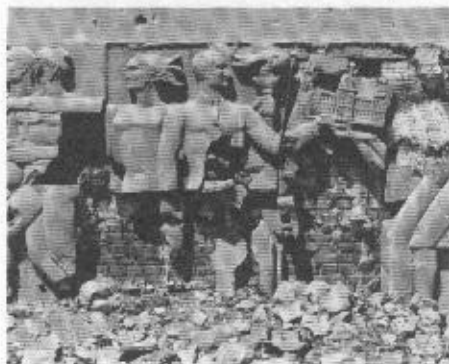
By Bev W. Morant, Chairman, Navigation Committee, 61 W. Bonita, Sierra Madre, CA 91024.

A LOOK AT SUEZ

(Concluded from Page Three)

struction in this area two and a half years after the destruction took place. Even the Canal signal operators are working out of tents pitched next to their ruined signal houses. It is almost as if the people of this area of the Canal Zone are expecting another war.

Entering Suez City was the climax of our trip. The drive into the city is dramatic since on both sides of the road which leads into the northern suburbs lie the hulks of burnt-out tanks, Russian and American. One of these can be seen lying on



Port Tewfik mural commemorating the 1956 nationalization of the Suez Canal, with Nasser facing the torch. Shot up from far side of the canal in 1968-70 war of attrition by the Israelis.

its side in a public marketplace, ignored by crowds of people bargaining for everything from tomatoes to camels in the traditional manner.

Aside from this one reminder of the past it is clear that this city at the southern terminus of the Suez Canal is back in business. The main street was so jammed with people, traffic and construction that it took us twenty minutes to negotiate 500 meters. The town is not impressive despite its fame. With possibly 100,000 inhabitants the best that can be said is that Suez is a typical Egyptian provincial town, hospitable to outsiders, but not really caring what they think.

The town of Suez is removed a mile or two from the Suez Canal itself. It is the oldest city in the Canal Zone, having served from ancient times as Egypt's principal Red Sea port. The physical setting of Suez City is dramatic with the Gulf of Suez shining in the distance at the foot of the vast blackness of Gebel Ataka which looms in the distance.

A few miles to the southeast lies Port Tewfik. Port Tewfik, directly astride the Suez Canal, was at one time the complete antithesis of Suez City. At one time middle class, prosperous and cosmopolitan, Port Tewfik is today completely destroyed. Above the ruins at the southern entrance to the canal all one sees today are huge billboards in English and Arabic directed at the ships on the waterway. Their messages vary. One states "EGYPT WELCOMES YOU AT THE CROSSROADS OF THE WORLD". Another proclaims "WE HAVE OPENED THE CANAL FOR ALL TO USE IN PEACE AND FRIENDSHIP". This is not necessarily an insincere claim. During his visit to Washington in the fall of 1975 President Sedat of Egypt consistently refused to answer questions about Israeli cargos using the Suez Canal. Rumor in Egypt has it that Israeli cargoes are indeed transiting the canal secretly to avoid disturbing Egyptian domestic tranquility. Other exhibits along the bank of the Canal at Port Tewfik are a ruined tank with Israeli markings topped by a huge sign announcing the Arabic equivalent of "WE DID IT". A half mile away is still another billboard, this one advertising Egyptian canned fruit products.

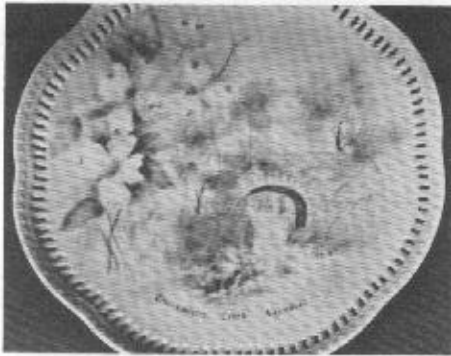
We finished our tour of the Suez Canal by driving to the southern entrance of the canal, located at the tip of Port Tewfik. Looking out over the Gulf of Suez we saw at least 80 ships forming up into convoys. The entrance itself is marked by a huge stone monument to soldiers of the British - led Indian Army who died defending the Suez Canal from the Turks in World War One and the Germans in World War Two. The top of the limestone column has been shattered by artillery fire.

The Suez Canal is once again open and beginning to flourish. Ships pass through the cities of the Zone and the people of the area are again returning to their ruined homes. Industrial projects begun with foreign help are beginning to bring a fair amount of modest wealth to the area. Beyond that the future of the Canal is very uncertain. After nearly thirty years of warfare, including two closings of the Suez Canal, peace is still not in sight. The ruins of past battles and the preparations for future wars are all around a visitor to the Canal. The soldiers in the area are still tense and the police in the area are polite but suspicious. I suspect that it will be many years before the Suez Canal Zone becomes anywhere near normal. The people of the Canal have a very hard road ahead of them.

(J. Wayne Halsema is the Middle East correspondent for American Canals.)

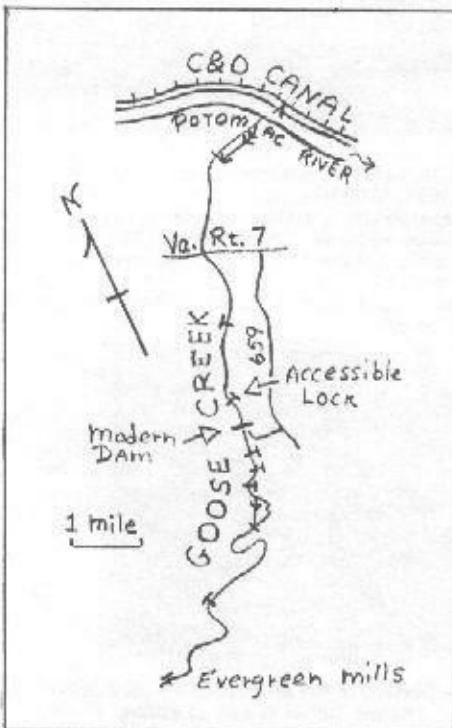
ACS Member Dr. Richard L. Gulliver, of England, writes: "My weekday address is 41, Welsh Rd., West, Southam, Leamington Spa, Warwickshire. This is only a couple of miles from Napton Junction. Advance notice will secure a boiling kettle on the stove, if other ACS members venture this way."

ARTIST PUBLICIZES ROANOKE CANAL



Vivian Wong, a talented artist in Arcadia, California, has just created a beautiful china painting of **Chockoyotte Creek Aqueduct**, to help publicize local efforts to preserve the 7-mile **Roanoke Canal** corridor beside the falls of the Roanoke River in North Carolina. This delicate painting is on a lace plate almost a foot in diameter and was painstakingly done, requiring five separate firings in a kiln. Color slides of the plate have been made and two full-sized framed color photographs have been prepared, one for presentation to the town of Weldon, and one for display in the James River and Kanawha Canal Library in Richmond, and at canal talks. The original plate will be used only for special occasions to reduce the chance of damage, since it is a real museum piece. Readers of *AMERICAN CANALS* and the *AMERICAN CANAL GUIDE* know how ideal the Roanoke Canal is for a linear riverside park between Roanoke Rapids and Weldon. We hope that local efforts to secure adequate funding for such a park or nature preserve will be helped by Mrs. Wong's painting. (Contributed by Bill Trout)

GOOSE CREEK BILL SIGNED



Old locks and dams on the Goose Creek Scenic River (Goose Creek and Little River Navigation).

One of the important sites of the early iron and steel industry was in Wareham, Massachusetts, located in the southeastern part of the state. The early settlers found that if the black muck found in the surrounding swamps and marshland was burned in a certain way, they could obtain bog iron.

The Tremont Iron Works was one of the companies which processed bog iron here, being organized in Boston on 29 March 1845. As waterpower was the prime source of power at that time, the company built in 1845 a large dam on the Weweantic River to power its various mill operations, including plate and roller mills and open hearth furnace and gas and boiler houses. The dam was 800' long, 50' wide at its crest, about 20-25' high and impounded a pond of about 1,780,000 sq. ft. of surface, with a 16' fall of water. An elaborate system of brick tunnels and canals distributed water throughout the complex, but the exact layout and function of each does not seem to be known at the present time, providing a rich field for study for the industrial archeologist.

The Tremont Nail Company and other companies were also located at this site at one time. The Old Colony Railway ran two spur lines to the site, one running the full length of the dam. The site was abandoned by the iron and steel industry in 1924-25, with machinery being moved two years later, followed by the dismantling of buildings. What remains today are the foundations and other underground portions of the complex.

A hydroelectric plant was built at the dam in 1923 to utilize the water previously impounded for the iron and steel industry. The plant was



The Tremont Iron Works at Wareham, Massachusetts, was run by water power channeled through a series of underground tunnels and canals, some of which are visible in this photo. (Alden Gould)

The Goose Creek (Virginia) Scenic River bill has been signed, making that the state's second Scenic River, and, of course just as full of old locks as the Rivanna. Of the six remaining lock sites the best one easily accessible to the public is about half a mile below the Fairfax County High Dam. Go south on county road 659 from VA route 7, just east of the Goose Creek crossing, for 3 miles and turn right on Rt. 642 at the City of Fairfax Water Treatment Plant, to the dam at the end of the road, and walk down the riverbank to the lock. Take your measuring tape along to see for yourself why the records mention that two Goose Creek boats could have locked through the Chesapeake and Ohio Canal River Lock on the Maryland side of the Potomac River. This experiment was probably never tried, however, since as far as we know only one boat was ever built for the Goose Creek and Little River Navigation, and that went up the river once, to Evergreen Mills and is still rotting away there.

TREMONT DAM SITE



This extant 800' long dam was built by the Tremont Iron Works in 1845 to impound water to power its many iron operations at Wareham, Massachusetts. (Alden Gould)

operated by the Plymouth Electric & Power Company to light the streets of Wareham until 1950.

This historic site is now under study through federal and local funding, with emphasis on the foundations of the former mill foundations with their brick tunnels and the canal network. The area is being cleared of undergrowth, with plans for a park.

(Submitted by Alden W. Gould, ACS Director, 5558 Palm Beach Blvd. Lot #114, Fort Myers, FL 33905.)

NO CANAL, MR. SPEAKER!

by L. W. RICHARDSON

We are accustomed to reading contemporary speeches, both for and against canal projects, phrased in the florid and excessive rhetoric of the early nineteenth century. The following is an outstanding example of a very popular method of destroying an opponent's position - through the use of rural humor and exaggeration.

In the 1821-1822 Georgia Legislature, a Bill was introduced, for reasons now obscure, proposing a canal in North Georgia. This waterway would divert the **Chattahoochee River**, whose waters flow to the Gulf of Mexico, to the **Oconee River** and thence to the Atlantic Ocean. A Representative, one John Stebbins, who lived on the lower Oconee, spoke on the proposal, in part as follows:

"What, Mr. Speaker, will become of me and my family, when the **Chattahoochee**, three miles wide, a thousand feet deep, and ten miles higher than the sea, is turned loose at the rate of forty miles a minute, on lower Georgia? Why Sir, it will wash every one of us away, and if we don't get drowned we will wake up some morning and find ourselves a-straddle of logs floating about in the Atlantic Ocean. Yes Sir, the mountains of north Georgia will come tumbling down here and knock our State House into a cocked hat, and people will look out of their top windows to see if old Father Noah is sailing around in his big ship. Besides all this, Mr. Speaker, if we turn the vast volume of water that is in the **Chattahoochee** from the channel where God made it to run, the Gulf of Mexico would go dry, and the fishes, whales, alligators and snakes in it would stink so bad that nobody could live in 10,000 miles of its shore."

The Bill was never again heard from!

"AQUEDUCT BRIDGE" TO BE DEDICATED



1898 photo of the Walhonding Aqueduct in winter. The icicles are a result of water leakage from the canal flume.

A pedestrian bridge was recently constructed over the Walhonding River at Coshocton, Ohio. The interesting part of it all is that the bridge (from which it takes its name) is at the location of the aqueduct which formerly took the **Ohio and Erie Canal** over the Walhonding River. The photo of the aqueduct in winter (provided by Nancy Lowe Lonsinger, Historian, Roscoe Village Foundation) was taken in 1898, whereas the modern one (by Nancy Lowe Lonsinger) was taken this year. The pedestrian bridge and associated trails will be dedicated in the spring of 1977.

HOW TO TELL A HAHN FROM AN UMLAUF

Some of our members may be interested in joining The Permanent International Association of Navigation Congresses, known as PIANC. The membership brochure notes that PIANC "exists for the purpose of studying and improving inland and maritime navigation by organizing International Navigation Congresses and by publishing papers, proceedings and other documents. The word 'Navigation' in the title is used in the older sense; that is, in the sense that canals used to be called 'navigations' and the men who built them 'navvies'. The Association was established in 1885 under the aegis of the Belgian Government and has its headquarters in Brussels. Although its activities were confined initially to inland navigation problems, they were quickly expanded and have included ocean navigation as a second section ever since the 1894 Congress." Membership is \$16 a year but during a Congress year new membership is much more, so join in 1976 since the next Congress will be in 1977 in Leningrad. We have a few membership brochures, available from Bill Trout for 24c in stamps, or write directly to the American Section, PIANC, c/o Board of Engineers for Rivers & Harbors, Kingman Building, Fort Belvoir, Va. 22060.

One of the most interesting publications from PIANC is Ch. 8 on Locks, of their multi-lingual **Illustrated Technical Dictionary**, where you will not only see all the parts of locks and equipment labeled in English and American, but you will clearly differentiate between a hahn and an umlauf (or the same thing, a kraan from a floot).



The new "Aqueduct Bridge" just completed over Walhonding River. (Photo by Nancy Lonsinger)

NORWAY'S TELEMARSK CANAL

Our Correspondent from Frankfurt, West Germany, Kapitan Konrad Nussbaum, writes: "Last year I made a trip on the **Telemark Canal**, the only inland waterway in Norway that can be reached from the sea. Maybe you and your readers will be interested in it, so I send you some folders on the canal."

The folders describe the route via steam-boat between Skien and Dalen, a distance of 138 kilometers. In addition to the canal and 17 lift locks, the boat goes via a series of beautiful lakes.

For maps and free descriptive literature, write to: A/S TURIST-TRAFIKK, N. Hjellegst. 18, 3700 Skien, Norway, mentioning that you are a member of the American Canal Society.

(Kapt. Nussbaum's address is: 6 Frankfurt 60, Gr. Spillingsgasse 21, West Germany)

This is available for 175 Belgian Francs plus 25 B.F. per package (about \$5) from the General Secretary, PIANC, Residence Palace, Quartier Jordaens - Rue de la Loi 155, 1040 Brussels, Belgium.

Champlain Canal

(Concluded from Page One)

The study report divided the Waterford section of the canal into five zones, each with its own potential. In general, the study recommends a low profile type of development involving clean-up work, clearing of the original towpath for use by hikers and bicyclists, and the erection of historical markers to orient visitors to the canal's history. The State of New York has assured Waterford that it will cooperate and assist in the project whenever possible with the loan of equipment, manpower and the use of surplus materials. The state has already completed the erection of two authentic 19th-century feet bridges over the canal in the Village of Waterford.

The Waterford Canal Action Committee is continuing to work with the Town and Village of Waterford in seeking potential funding sources to implement the proposed park development, while also planning to organize volunteer work efforts in the spring to promote interest and involvement.

According to Douglas, the committee has no illusions about the ambitious nature of the project or the current financial difficulties involved in implementing it. But he emphasizes that a comprehensive plan has at least been completed and interest has been raised, and notes that if necessary a slower step by step implementation can be pursued as practical. He termed the National Register listing of the canal, however, as "a great distinction for this historic waterway and an important step towards the eventual realization of the canal's recreational potential."

Middlesex Canal



The famous Loammi Baldwin Mansion (1661-1803) has been moved to its new location on the **Middlesex Canal** (1793-1853) at Woburn, Mass. The house and the adjoining portion of the canal are being restored with initial funds from the city, a federal grant and donations from citizens. (Photo by Alden Gould)



A portion of the **Shawsheen Aqueduct** of the Middlesex Canal is still standing, the lower stone work in remarkably good condition. The canal was carried in a wooden trough, long gone. It is 35' from towpath level of the aqueduct to the river bed. (Photo by Alden Gould)

THE HENNEPIN CANAL (Part One)

by MARY M. YEATER

(This article is the first of a series on the **Hennepin Canal**, formerly the **Illinois-Mississippi Canal**.) The first two articles under the title of "The First Fifty Year Struggle" are concerned with the planning stages before actual construction. Mary Yeater is a historian working for the Illinois Department of Conservation on the historical research of the Hennepin Canal Parkway. The idea for the articles was initiated by Neil Rangen, Ranger, Hennepin Canal Parkway.)

The idea of a Hennepin Canal connecting the Illinois and Mississippi Rivers (on a line approximately parallel with what is now the Western half of the Illinois section of Interstate 80) has its roots in the wave of land speculation that swept through Illinois in the 1830's. The land gamblers who bought, platted and sold the "paper towns" of the State were convinced that Illinois' soil, climate and vast territory could be profitably exploited if inhabitants and enterprise were provided. Most of the adventurers, like Dr. Augustus G. Langworthy who owned extensive property along the eventual route of the Hennepin Canal, argued that these two needs could be met by a liberal system of State internal improvements.

The local interest improvement schemes urged by the land speculators in the 1830's found support in the Illinois State Legislature, especially among the "Long Nine" of Sangamon County (seven Representatives - including Abraham Lincoln - and two Senators). They wanted to transfer the State Capital from Vandalia in Fayette County to Springfield in Sangamon County. Consequently, they threw their conspicuous power behind internal improvement legislation in a log-rolling effort. To put Representatives from Northern Illinois in their debt, the "Long Nine" pressed particularly hard for legislation related to the proposed Illinois and Michigan Canal connecting Lake Michigan via the Des Plaines River to the Illinois River (on a line parallel with what is now the Eastern half of the Illinois section of Interstate 80). Their promotion of this canal also fostered support for the change of capital among Representatives of the lower Illinois River Valley all the way from Peoria to just North of St. Louis because the new canal would put their constituencies on a through-water route from the Great Lakes to the Gulf of Mexico.

In the midst of all this wheeling and dealing Joseph Galer, a former construction superintendent on the Erie and Ohio Canal, arrived in Illinois as a settler. As he later recalled, "In September 1834, I took my blanket and gun and viewed the country from Hennepin to the Mississippi River, near Rock Island, and thought it a natural pass for a canal, as there was a depression all the way across with high land on either side . . . In October . . . I talked with Dr. A. Langworthy about the project. At first he made light of the subject, but on my showing him the advantages that would accrue to him if it was carried out, his having property at Indiantown, now Tiskilwa, he began to see that there might be dollars and cents in it, and so he joined with me . . ." The two men called a meeting of local citizens at the Court House in Hennepin where advantages of their proposed canal were discussed. It was stressed that a Hennepin Canal would be, in effect, an extension of the Illinois and Michigan Canal (that is a canal version of Interstate 80 opening a direct commercial link with the Upper Mississippi Valley).

Although in both their printed circulars and lobbying efforts this Hennepin group tried to co-opt the already established support for the Illinois and Michigan Canal, they were not very success-

ful in securing legislation. Businessmen in Northern Illinois who were the mainstay of agitation for the Illinois and Michigan Canal hoped to cash in on the farm production of newly opened lands in Iowa, Wisconsin and Minnesota. They clearly understood that this proposed Hennepin Canal would reduce the distance from Chicago to the Upper Mississippi Valley at Rock Island by 419 miles. Yet, they could not effectively promote the venture without the backing of the "Long Nine", and it appears that the "Long Nine" did not need the few votes of the Representatives of the sparsely populated area along the proposed route enough to spend large amounts of the State's already over-committed funds there. It is probable that they also were firmly committed to the Representatives of the more populated Illinois River Valley who had been promised a monopoly on Lakes to River traffic. Furthermore, it appears the Northern businessmen could not use their votes on the capital issue for leverage since those votes were already linked to the Illinois and Michigan Canal venture. As a result, the Hennepin group was unable to secure sufficient legislative backing for the 1836-37 session, the climax of the internal improvement craze. When the financial panic of 1837 had set in and speculation was cut short, a Hennepin Canal was still only an idea - not even a definite plan.

During the 1840's and 1850's, the population of the area traversed by the proposed Hennepin Canal increased, particularly near the Western terminus, Rock Island, which had become a booming river port. By 1860 the population was large enough and the commercial potential of the Upper Mississippi Valley was obvious enough that the area's demands for internal improvements had to be met. The Illinois and Michigan Canal precedent had eliminated the possibility of a privately financed venture and the State would not authorize the construction of a canal out of its own funds; instead the Chicago, Rock Island and Pacific Railroad was put through almost directly

over the canal route proposed by Galer and Langworthy in the 1830's.

Despite the railroad, the idea of a canal was not totally lost. Interest in the project was revived during the Civil War when relations between the Union and England were so strained that a war between the two was conceivable. The British had a strategic advantage in that their St. Lawrence and Welland Canals gave them control of access to the Great Lakes. The most direct canal route joining the Mississippi and the Lakes - a route which included a Hennepin Canal - would give U.S. warships a countering advantage. As the possibility of war became more remote, however, the military necessity and thus popular support for construction ebbed.

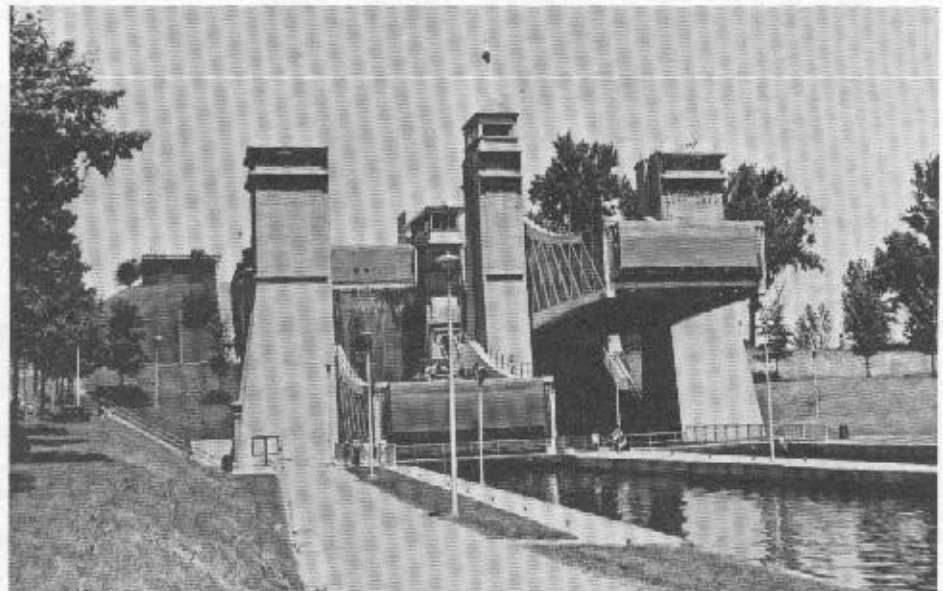
Correction to page six, August 1976 "American Canals":

The Harper's Monthly wood cut for the article "George Washington: Canal Builder" shows "Porte Crayon" (David Hunter Strother) on the way down the Jericho Canal to Lake Drummond rather than the Dismal Swamp. (See Alexander C. Brown: *Dismal Swamp Canal*, pages 81-84.)

A NOTE FOR NON-U.S. MEMBERS

Our bank is charged a large fee for processing checks on foreign banks written in dollars, so please either (1) write checks in your own currency, at the current exchange rate; or (2) have the bank issue a check in dollars on a U.S. bank (which might be expensive to you); or (3) send paper money, either yours or dollars, if you want to risk it. (ACS Treasurer)

World's Highest Lift Locks



This photo was snapped by Tom Hahn this past summer at Peterborough, Ontario, Canada - showing the world's highest lift locks in operation, on the Trent Canal. Boats are raised and lowered from one level to another by means of these counter-balanced, hydraulically-operated pair of huge water chambers, which fit snugly into the upper and lower levels of the canal. Water-tight gates are closed at both ends of the chambers, as well as the lock ends of the canal when the mechanism is in motion. This is something you have to see to believe!

THE PASEO DEL RIO



San Antonio River Walk, San Antonio, Texas

San Antonio's Paseo del Rio, or River Walk, has been used by canal enthusiasts as the very model of one kind of urban canal park, so I went to see it for myself. A ¼-mile oxbow of the **San Antonio River** runs through the city center near the Alamo, in a world by itself well below the streets which cross it. A cut has been made across the oxbow, flood gates (cleverly disguised as ornamental arches) have been constructed to protect the bow from floods, and the whole provided with an exciting maze of paths, arch bridges and mysterious stairways to the surface. Restaurants and quiet places line the river and water taxis and paddleboats glide by. The atmosphere is mind-boggling, especially for a canal park fanatic, and is complete with the almost total absence of protective railings — a sign of sanity in this frustratingly overprotective era. According to the Paseo del Rio Association, few people fall in (the water is only a couple of feet deep) and those have usually overimbibed and have a desire to go swimming. Most of the stonework is WPA work from the depression, with care and imagination hard to duplicate these

days. Here one can wine and dine, or just relax on a quiet bench even late into the night, an amenity for the visitor which makes other cities positively inhospitable in comparison.

As canal enthusiasts can readily appreciate, this valuable park which gives San Antonio its personality was not an accident but the result of lights, hard work and plenty of money, starting with the San Antonio Conservation Society, which was formed in the 1920's to prevent the river from being concreted and used as a sewer!

Canal enthusiasts may shudder at the idea of lowering an historic canal some 16 feet to create a canal park isolated from city traffic, but after visiting San Antonio one can begin to appreciate the value of such a drastic step; it might even bring back some of our culverted or filled-in urban canals, and is worth keeping in mind.

(For information write the Greater San Antonio Chamber of Commerce, P.O. Box 1628, San Antonio, Texas, 78296 — W. E. Trout III, Ph.D.)

U.S. Grant Goes to West Point

U.S. Grant, later General and President, received an appointment to West Point Military Academy early in the Spring of 1839. Grant grew up in Georgetown, Ohio, about 35 miles east of Cincinnati and 10 miles north of the Ohio River. This 17-year-old youth was sent to West Point, apparently much against his will, by steamboat, canal boat and railroad. He tells about this trip in his *Personal Memoirs*.

"I took passage on a steamer at Ripley, Ohio, for Pittsburgh, about the middle of May, 1839. Western boats at that day did not make regular trips at stated times, but would stop anywhere, and for any length of time, for passengers or freight. I have myself been detained two or three days at a place after steam was up, the gang planks, all but one, drawn in, and after the time advertised for staving had expired. On this occasion we had no vexatious delays, and in about three days Pittsburgh was reached. From Pittsburgh I chose passage by the canal to Harrisburg, rather than by the more expeditious stage. This gave a better opportunity of enjoying the fine scenery of Western Pennsylvania, and I had rather a dread of reaching my destination at all. At that time the canal was much patronized by

travellers, and, with the comfortable packets of the period, no mode of conveyance could be more pleasant, when time was not an object. From Harrisburg to Philadelphia there was a railroad, the first I had ever seen, except the one on which I had just crossed the summit of the Allegheny Mountains, and over which canal boats were transported. In travelling by the road from Harrisburg, I thought the perfection of rapid transit had been reached. We travelled at least eighteen miles an hour, when at full speed, and made the whole distance averaging probably as much as twelve miles an hour. This seemed like annihilating space.

"I stopped five days in Philadelphia, saw about every street in the city, attended the theatre, visited Girard College (which was then in course of construction), and got reprimanded from home afterwards, for dallying by the way so long. My sojourn in New York was shorter, but long enough to enable me to see the city very well. I reported at West Point on the 30th or 31st of May, and about two weeks later passed my examination for admission, without difficulty, very much to my surprise." (Contributed by ACS member Robert S. Mayo of Lancaster, Pa.)

CLASSIFIED ADVERTISEMENTS

AMERICAN CANAL AND TRANSPORTATION CENTER

CANAL DAYS IN AMERICA (Drago) — Covers the historic canals of the U.S. Over 150 illustrations, 311 pp. Coffee table size; a nice display piece. \$10.

WATERWAY TO THE WEST (Kirkwood) — The story of the James River and Kanawha Canal. Nice illustrations (24), 32 pp. Last offering at \$1.00.

CANAL ARCHITECTURE IN BRITAIN (British Waterways Board) — 73 outstanding photographs and drawings of canal aqueducts, lock houses, bridges, etc., 40 pp. Oversize 10" x 12". \$3.50.

WATERWAYS WORLD (British Canal Magazine, 64 pp.): Sept. — Featuring Painted Canal Boats, \$1; Oct. — Featuring the Rochdale Canal, \$1; 6 past issues, \$5.

INLAND WATERWAYS OF EUROPE (Calvert) — Covers all the major canals of Europe, hard covers, 156 pp. \$10.

GENESEE VALLEY CANAL (Holton) — One of New York's less known canals, illustrated, 33 pp. \$2.50.

SNUBBING POSTS (O'Donnell) — New York's Black River Canal, illustrated, hard covers, 160 pp. \$5.95.

CANAL BOAT TO FREEDOM (Fall) — Juvenile novel about the Delaware and Hudson Canal, 215 pp. \$2.75.

HIGH WATER CARGO (Dorian) — Juvenile novel about the Delaware and Raritan Canal, 244 pp. \$1.50.

SAMANTHA GOES TO GEORGETOWN ON THE C & O CANAL (Winslow) — An illustrated canal story for children, 30 pp. \$1.50.

Send for our listing of canal and related items.

We continue our offer of a canal publication (of our choice) worth 10% of each order.

(American Canal and Transportation Center, Box 842, Shepherdstown, WV 25443. Add 50¢ for shipping.)

CANAL CRUISES

The Mid-Lakes Navigation Company offers three-day cruises in season aboard the EMITA II from Syracuse to Albany, N.Y. (or return) during which passengers can see portions of the **original Erie Canal**, the lock system and the aqueducts that carry the canal across rivers. Passengers spend the nights ashore in country inns and return via AMTRAK. The vessel goes through a total of 22 locks and travels 160 miles on the **New York State Barge Canal**. Price per person in 1976 \$150-170. Write: Mid-Lakes, RD3, Skaneateles, NY 13152.

Longer 12-day canal-river trips starting or ending in Warren, RI traversing Long Island Sound, the Hudson River, the New York State Barge Canal, the Oswego Canal, Lake Ontario, the St. Lawrence River and the Saguenay River. Prices in 1976 \$490-635. Write: American-Canadian Lines, Box 368, Warren, RI 02885.