PRESIDENT'S MESSAGE

Since our last issue, a new administration has taken over the reins of government in Washington. We wish them well in their attempts to turn around our aging economy around and to help both commerce and industry start moving in the direction of stabilized prices and new job opportunities.

While on the subject of government policy, it seems to me that our previous administration made a critical tactical error in giving away the Panama Canal to a government which may not even exist when transfer time arrives in the year 2000. The Panama Canal represents the greatest military and engineering achievement of all time. Until a better connection can be made between the Atlantic and Pacific Oceans; the United States must maintain control of the route which we built, shortly after the turn of the century, at such great cost. It is essential to our military and economic survival that we do so. If other members of ACS feel strongly on this matter, pro or con, I would be happy to hear from you.

Another matter of government policy is covered separately by our Vice President, Bill Trout, elsewhere in this issue. All of us must be alert to governmental projects which threaten to destroy what few roles of our historic Canal Era remain untouched.

Our new ACS book project — "CANAL ENGINEERS OF THE 1800's" — moves slowly, primarily because of the difficulty in unearthing much biographical information on the lesser-known canal engineers, such as Nathan Roberts, William Miller Roberts, David Bates, Launmi Baldwin, Dr. Thomas Allen, William Braddock, and Samuel Kneese. We know what they did, but very little about their personal lives. If any of our members know of good biographical information on these men, please get in touch with me.

I am delighted to report that our ACS Director, William J. McKeever, Jr., has just agreed to become Chairman of the ACS Canal Boat Committee. Bill will continue the work begun so capably by Carroll Gants of Baltimore, who asked to be relieved of this assignment a year ago. Carroll's excellent "CANAL BOAT CONSTRUCTION INDEX" is still available at a purchase charge of 95c by writing our Secretary, Charlie Derr. Thank you, Carroll, for all your good work! Anyone wishing to assist Bill in his new assignment is invited to write him at 103 Dogwood Lane, Berkeley Hts., N.J. 07922.

We are pleased to report that the American Canal Society has been asked to act as Co-Sponsor, with the Canal Society of Ohio, of a special train trip along the Worthington Canal in Indiana on October 17, 1981. (See separate article) ACS is most anxious to assist in

NEW BRITISH CANAL FILM GIVEN ACS

Sir Frank Price, (left) Chairman of the British Waterways Board, presents the new BWB movie film to Dr. Roger Squires, who accepts it on behalf of the American Canal Society. (Photo courtesy of "Waterways News", BWB publication.)

The accompanying photo shows the official presentation of a new 35-mm, 35-mm, color and sound film entitled "Waterways Our Heritage" to Dr. Squires, ACS Director in the United Kingdom, who accepted the film on behalf of the American Canal Society. Presenting the film was Sir Frank Price, Chairman of the British Waterways Board. The ceremony took place at Melbury House, London, December 4, 1980, after which Dr. Squires gave an illustrated lecture on the Canadian Canals, which he had just visited.

We have reviewed the film here and find it to be a first-class, fully professional production, and we are most grateful to the British Waterways Board for making it available to us. It touches briefly on the historical aspects of canals in the U.K. and the present canal restoration program now going on there; operational features of the canal locks, weirs, and the "titt"; but most of all, the delights of leisure travel on the beautiful canals of the English countryside with all the scenery, sights and sounds which a canal traveler encounters there. It is ideal for showing at meetings of the various canal societies in the United States. We offer it to you on a "first-time, first-served" basis, asking that you indicate your exact showing date, plus prompt return after your meeting. Requests may be sent to ACS headquarters at 808 Rathvon Road, York, Pa. 17403.

Sandy and Beaver Canal Group

A new canal group has recently formed a "non-profit corporation" — the SANDY BEAVER CANAL INC., with headquarters at 495 Carrollton Street, Megislia, Ohio 44643. The President is James H. Crowe (same address); Vice President, Dan Joseph; Secretary and Treasurer — John Joseph; Trustees — John Greer, Art Shilling and Fred Loomis, Jr. They are concerned with the history and preservation of the Sandy and Beaver Canal, which connected the Ohio and Erie Canal in eastern Ohio, with the Ohio River in western Pennsylvania. Some of the canal restoration work they have already done is outlined by Terry Woods in the February 1980 issue of AMERICAN CANALS. Another name for their operation is "The Project 70 Canal Group".
First Welland Canal
151st Anniversary

OLD ERIE RESTORED

The town of Camillus, New York has restored a seven-mile section of the original Erie Canal to a navigable condition, has constructed a replica of the original Silt's Amboy General Store, it is expected to open on Sunday, May 24, and to provide canal boat rides much as on the original Erie Canal. The town invites all canal enthusiasts to visit their Erie Canal Town Park.

[David W. Beebe, D.D.S., A.C., Project Director, 106 East Main, Camillus, NY 13031]

1981 DUES

Our Treasurer, Mrs. C. Dorr, reminds us that there are a few members who have neglected to pay their dues for 1981. With U.S. postal costs continuing to increase, and with the difficulty of maintaining the quality of our newsletter and the cost of distributing it to you, you may wish to consider dues paid by the time of our May 1981 newsletter will automatically be dropped from our mailing list. We have raised our dues since November of 1976, but may find it necessary to do so in 1982 if we cannot count on the support of our present membership.

ENGINEER OF THE YEAR

Robert S. Mayo, P.E., Lancaster, Pa., has been named 1981 "Engineer of the Year" by the Lincoln Chapter, Pennsylvania Society of Professional Engineers. Bob has been an avid canal buff for years. He is a Director of the Pennsylvania Canal Society and has written a number of articles for the PCS quarterly - CANAL CURRENTS, as well as our AMERICAN CANALS. He is presently working with an ACS team on the history of canal engineering in the United States, and is known as an authority on tunnel construction and is welcomed by various groups, including the Society of Civil Engineers. He has written a book entitled PRACTICAL TUNNEL DRIVING, which has been published by McGraw Hill in 1941. He is also a member of the ACS team on the history of canal engineering in the United States, and is known as an authority on tunnel construction and is welcomed by various groups, including the Society of Civil Engineers. He has written a book entitled PRACTICAL TUNNEL DRIVING, which has been published by McGraw Hill in 1941.
CANALS AND THE ENERGY CRUNCH

By William F. Trout

As part of the country's search for new sources of energy, interest is increasing in the use of historic canals for generating hydroelectric power. This might be a good thing where it results in canal restorations and new canal parks, while at the same time putting our old canals back to productive work; but it would be a disaster where new construction and turbine installations are allowed to ruin canals through misguided planning. It is important for canal people to keep up with all of these energy projects and to make their voices heard during the planning process.

A useful source of current information on hydro projects is the SMALL HYDRO BULLETIN, published by the Department of Energy's Division of Hydroelectric Resource Development, Idaho National Engineering Laboratory, P.O. Box 1726, Idaho Falls, Idaho 83416. To get on the Bulletin mailing list, write the Editor, Rose Marie Peterson. Earlier issues have listed, for example, the small-scale hydro contacts in the DOE regional offices, and the latest projects requesting licenses. Of special interest in the August 1983 issue was a report on proposals received by DOE for studies on "Ultra low-head hydro" involving falls in water level of three meters or less in response to their request for "proposals pertaining to concept designs for small-dam, run-of-river canals with power generation equipment."

This new interest in developing low-head hydro technology and devising pre-engineered "mail-order" installations, to keep costs to a minimum, is also of special interest to old mill buffs, some of whom are actually putting old mills back to work; another good source of information is OLD MILL NEWS, an excellent illustrated quarterly available at $5 a year from The Society for the Preservation of Old Mills, P.O. Box 435, Wisconsin, Maine 04574. There is also a section on small hydros in the International Society for Geothermal Engineering's Journal, at $14 from 1835 E. P.O. Drawer 4743, Whittier, CA 90230. For those involved in their own small hydro projects, there is even the Small Hydro Society (at $2 from S.H.S., RD 3, Slippery Rock PA 16057) to help lend pera information, and inspiration.

THE "THREE-MILE ISLAND" LOCKS

Proposed dams along the Virginia waterways, which may affect historic canal and navigation sites, as listed in the "Preliminary Inventory of Hydropower Resources", July 1979. (Map by Bill Trout).

A considerable number of studies for specific site development are already underway by DOE and others, at Corps of Engineers navigation dams, on western irrigation canals, and for example, on the Windsor Locks Canal, the August Canal and the canal network in Lowell. In the case of Virginia, ACS has already had some preliminary inquiries about old canals which might be used for hydropower. One that is receiving serious interest is the Flippensock Navigation Company's canal in Fredericksburg. Fortunately, Tom O'Kane, the City Engineer, is enthusiastic about the canal as an historic site, and assures us that the new plant will be placed in the dam, beside the entrance to the canal, so the stone guard lock will not be disturbed. This also means that the canal into Fredericksburg will not be used as a power canal and can flow slowly for use as a park.

in this case the traditional conflict between power or irrigation (requiring fast canal flow) and transportation or recreation (slow flow) has been avoided. Not so in Richmond, where the James River & Kanawha Canal is already used for hydroelectric power and more intensive utilization is planned, but we think that the road flow will still be safe for downstream canoeing. If anyone has information on this sort of problem we'd like to know about it.

Another important problem will be the temptation for engineers to use old canal lock chambers as low-head turbine sites that had been done in the past in Virginia: this may damage the lock, would make it less attractive for park purposes, and would preclude restoration. This is something which should definitely not be allowed to become standard procedure. The type of turbine used will make a difference: Dr. Schmidt of the Small Hydro Society has suggested that a "bulb turbine" could be used to keep the installation fairly unobtrusive in a way something that can't be done very well with Pelton, Banki or Kaplan turbines, which require housing.

At the present time it is not generally considered economical to use a low-head site which needs a new dam. However, if this would also create a canal park you might be able to use the combination to finance restoration, as an important historical, recreational, and energy saving asset. It goes without saying, canal people, that considerable attention must be given to the possible detrimental affect of rebuilding even a low canal dam, on a river which has returned to a free-flowing state. In fact, this concern constitutes a legal requirement on officially designated scenic and historic rivers, where old dam foundations, locks, canals and bateau sluices have become an essential part of the scenery, and can be used as points of interest along canoe trails (ACS has historic site markers available for marking such trails). Also, DOE's projects must take special note of any sites either or eligible for the National Register of Historic Places, so be sure that your state Historic Preservation Officer is aware of any threatened canal sites.

I think that national policy should go further than this, and require that planning for all river and stream projects include not only an inventory of the usual archaeological and historic sites (such as locks) but a deliberate search

Continued on Page Three
By T. Gibson Hobbs, Jr.

In colonial days, Virginia stretched from the Atlantic Ocean west across the Alleghany Mountains to the Ohio River and beyond. Courting through the center of this vast territory was the James River, with the Jackson River, one of its main feeders, running east from the mountains. A few miles west across the watershed between present-day Covington and White Sulphur Springs, the Greenbrier River and its feeders flowed west into the New River. This great stream, flowing north out of the mountains of North Carolina, was joined below the Greenbrier by the Gauley River to become the Kanawha River just above its great falls. From this breathtaking, 20 foot high cataract, the Kanawha continued on to join the Ohio at Point Pleasant about 485 miles from Richmond.

By 1763, settlers were becoming established in the Piedmont section along the James above Richmond to the Blue Ridge Mountains. Others coming down the Shenandoah Valley from Pennsylvania were settling the upper reaches of the James. West of the Alleghany, there were only explorers and Indian traders. The French, with their Indian allies, were in control of the Ohio River. Roads were poor or nonexistent in this back country and small boats on the James River and its feeders offered the most practical means of moving goods to eastern markets and bringing in supplies. After the defeat of the French in 1763, settlers began moving across the mountains into the Ohio River valley.

In 1770, George Washington made his fifth journey to the Trans-Alleghany region. From Fort Pitt, now Pittsburgh, he boated down the Ohio River and 14 miles up the Kanawha River in search of land. After the Revolution, Washington, in 1784, made still another trip west to find a tile of Settlers moving in. Convinced of the future growth of this territory and the need for connecting it with the east, he addressed a letter, on his return, to Governor Harrison of Virginia. Dated October 10, 1784, it said in part that this country would "be settled faster than anyone ever did, or any would imagine . . . . But smooth the road and make the way easy for them, and see what an infux of articles will be poured upon us; how amazingly our exports will be increased by them, and how amply we shall be compensated for any trouble and expense that we may encounter to affect it." This was to become the justification for all the many canals and railroads attempting to connect east and west during much of the next century.

Acting on Washington's further plea for action during his visit to Richmond in November, 1784, the General Assembly, by Act of January 5, 1785, chartered the James River Company to improve navigation of the James with the ultimate aim of connecting its eastern commerce with that of the Ohio River. This was one of the earliest such efforts in this country. The charter required that Tidewater at Richmond be connected with some type canal past the falls and the river improved for navigation as practical. It was agreed later that the head of navigation should be Crow's Ferry at the mouth of Looneys Creek, just above present Buchanan, about 200 miles above Richmond. When improvements were completed to allow boats of one foot draft to pass during the dry season, tolls would be allowed on all river traffic.

The lure of profits from expected river commerce brought a ready sale of the stock.

Locks 4 and 5 on the J.R. & K. as restored by the Reynolds Metals Company in Richmond. (Photo by Allen Gould.)

and the company was organized August 20, 1785. A survey for the canal at Richmond was made in 1786 by Eliot Lacy. It was not until 1795, however, that the eight miles of canal above Richmond were completed so that river traffic could come into the city. Improvements on the river above were not reasonably complete until about 1800, when full tolls were allowed. Improvements had also been made on the North River to Lexington and on the Rivanna River to Charlottesville. A rough Kanawha wagon road over the mountains had also been completed.

River improvements consisted of cutting sluices through the rocky ledges of the rapids, and sometimes adding low weir dams to channel water into the sluices in the dry seasons. By 1808, river traffic had reached the point where the stockholders were realizing handsome dividends on their stock. Various river boats and flat bottom bateaux in great numbers were poured up and down the river.

That same year Albert Gallatin, Secretary of the Treasury, in his famous report to Congress on Public Roads and Canals, in referring to this project said: "The natural navigation of the river through that extent (from Richmond to Crow's Ferry) is considered better than that of any other Atlantic river above the falls." He was concerned, however, that the Tidewater connection had not been completed, because it was needed to provide the least expensive way to put goods on vessels below the falls. He said, "For coal is in no other part of the United States found in abundance in the vicinity of tide water." (Referring to the mines above Richmond.) How little could he foresee the tremendous coal traffic from the vast mountain back flowing along the James to Tidewater, over a century later by railroad.

In a section titled "Communications Between the Atlantic and Western States," Gallatin was dismayed by the 3,000 foot height of the Alleghany. Since the highest canal in Europe had a summit level only 210 feet above sea level, he concluded that canal passage over the mountains was not possible. Again, he could not foresee the Erie Canal skirting the upper and
of the Appalachian range or tunnels piercing through it. He felt the only answer was river navigation as high as practicable on the eastern and western rivers, connected by artificial roads across the mountains.

In 1816, a contract was made with Aerial Cooke, a contractor from Springfield, Massachusetts, to build a series of 13 locks at Richmond to complete the connection to Tidewater. These were poorly constructed, however, and soon deteriorated to where they were of little use. Meanwhile, the company, while making exceptional profits, showed little interest in spending enough money to improve navigation further, or improve the rough road across the mountains. Largely because of the insistence of the western interests, a commission of 21 members was appointed in 1812 to survey and report on improving the upper James and King and encouraged construction across the mountains to the Kanawha River. Chief Justice Marshall headed a party of about six men. Leaving Lynchburg on September 2, they proceeded up the James by boat to Dunlap Creek at Covington. Hauling the boats by wagon, they followed the rough mountain road up the creek and over the mountains to strike the Greenbrier River past White Sulphur Springs.

They debarked the Greenbrier, in spite of low water, to the New River, then past its 23-foot falls, and on down to the great falls of the Kanawha. The surveyor, Alexander McKendree, required additional elevations and obstructions for each part of the route. Restoring their path, the party reached Lynchburg again about November 1. Their report and detailed map, delayed by the War of 1812, was not acted on until 1816. It was said the route was eminently suitable and desirable. This had much to do with the establishment of Virginia that year of the first Board of Public Works in this country. This board was to prove responsible for most of the roads, river and canal development, and railroads built in the state for the next 60 years.

The state interests urged the James River company to undertake this great project. Failing to get the company to act, the state took control in 1820, and in 1823 took over complete operation, while agreeing to pay handsome dividends to the stockholders forever. Starting in 1817, the State Engineers made a series of surveys of the proposed route. Lemuel Baldwin, the first principal engineer, for the Board of Public Works, surveyed the whole route. In 1818, his successor, Thomas Majors, made several more detailed surveys. He suggested a lock and dam plan as an alternative to river navigation. This was followed by another survey by Moore the next year with less Briggs, a consultant, participating. In 1824, the new and noted state engineer, Caesar Crozet, with Judge Benjamin Wright, then chief engineer of the south, completed Erie Canal as consultant, made still another joint survey, and recommended a canal with turnpike road across the mountains.

In 1827, this was followed by a detailed survey of the best mountain crossing by Capt. William G. McNeil of the Army Corps of Engineers. His was the first survey for an all-water route over the mountains, which he reported to be feasible. This was the plan the canal advocates were to pursue vigorously for the next 50 years.

In 1828, the Erie Canal, under construction for seven years, was completed from Albany on the Hudson west to Lake Erie, a distance of 362 miles. It was an instant success and the greatest transportation improvement this young and expansive nation had ever seen. It set off a great wave of canal building. Pennsylvania and Maryland both started canals to connect the next coast with the Ohio River, while Ohio and Indiana started connections between the Great Lakes and the Ohio River.

Ironically, that same year in England, George Stephenson completed the 132-mile Stockton and Darlington Railroad, and his steam locomotive pulled the first successful passenger train. On July 4, 1828, the C.B.O. Canal on the Potomac River and the B & O Railroad, one of the earliest in this country to follow England's lead, both broke ground to compete for the western trade.

During this same period, the state owned company extended the James River Canal to Mounds Island Dam, 28 miles above Richmond, built a second lock along the tributaries through the rocky and treacherous Blue Flag gorge, and paralleled it with the Blue Ridge Turnpike wagon road. They also completed the 200-mile Kanawha Turnpike road from Covington across the mountains to Charleston and on to the Big Sandy River.

In 1828-29, Crozet made still another survey, to be revisited again by Judge Wright. However, Crozet had become convinced that a railroad was more practical than a canal, while Wright felt the canal with a railroad over the mountains was the answer. Refusing to work together, they filed separate reports. In 1830, Crozet publicly recommended a railroad while Wright presented his canal plan. The canal interest being in the Legislature brought about Crozet's resignation the following year.

By 1832, it became obvious the state-owned company was not going to do the job and should be replaced. Joseph C. Cabell, long an advocate of the canal extension and a brilliant and able legislator, led the effort, resulting in a charter being granted that year for a joint stock company called the James River and Kanawha Company. The charter allowed the options of a canal from Tidewater at Richmond to Lynchburg or above, a railroad across the mountains to the Kanawha River and river navigation to the Ohio River, or a railroad from Richmond to Point Pleasant at the mouth of the Kanawha River.

Guard Lock and House at Lynchburg, Virginia. This lock was in operation until 1940.

It was not until 1833 that Cabell, with the able assistance of Justice Marshall, was able to raise the $6,000,000 in stock subscriptions required by the charter. Of this, the state took $2,000,000, plus $1,100,000 on the value of the old canal properties. Private investors took less than $1,000,000 with Richmond, Lynchburg, and the banks making up the balance. At the first stockholders meeting on May 25, 1835, Cabell was elected president, and the stockholders agreed to a canal to Covington and a railroad across the mountains.

Cabell immediately organized an Engineering Corps headed by the logical choice, he felt, of Judge Benjamin Wright as Chief Engineer. Wright agreed to come west if he could appoint three principal assistant engineers and be allowed time to handle his other considerable contracting work. The first Grand Division from Maiden's Adventure Dam to Lynchburg was laid off in three divisions with a principal assistant engineer for each. Survey parties spent the fall laying out the work, and bids on over half the distance were taken in December, with all the work scheduled to be completed by 1838. First work began on some of the 201 sections in January. 1836 on the Bremo lands of General John H. Cooke, one of the leading stockholders.

In early 1838, Charles Ellet, Jr., one of the principal assistant engineers, succeeded Chief Engineer Wright, who stayed on as a consultant. Suitable labor was scarce, and agents were sent to Scotland and Germany to hire stone masons and mechanics. The financial panic of 1837 caused a slowdown of canal and railroad work north of the Ohio, so that labor, including many Irish plus much slave labor, became more plentiful. That year, over 3,000 men were at work, about one-third being slaves. The year 1838 had an extremely hot summer, causing many white laborers to go north. Later that year, slaves comprised over two-thirds of the labor force.

(Ongoing in the next issue)

On February 1, 1881, the Canal Museum and the Onondaga Historical Association presented a program in underwater archaeology at the Canal Museum at Syracuse, New York in which Dr. Robert Ferrill, Professor of English Medieval Studies at Cornell University and Mr. Ronald Hynes, Director of the Underwater Archaeology Association, spoke on underwater archaeology and the Canal Museum's project to locate and document sunken canal boats in Central New York State. Dr. Ferrill presented an overview of underwater archaeology and Mr. Hynes spoke on his work on canal boats, discussing specific sites and what information that has been learned from them about canal boat design and construction.
RAIL TOUR OF WHITEWATER CANAL

By John W. Drouge

The Canal Society of Ohio will act as host for a tour of the Whitewater Canal October 17, 1980. The tour will be sponsored by the American Canal Society and by the Whitewater Valley Railroad, which will provide transportation.

The Whitewater is in southeastern Indiana. The canal seems to have been one of those minor waterways that went nowhere to nowhere. But Lawrenceburg, Brooklyn, and Connorsville were not sleepy little Hoosier villages bypassed by progress in the early 18th century. They were centers of enterprise in a new state. A canal to give the surrounding agricultural countryside access to Ohio River markets looked like the answer to a really tough transportation problem. Local enthusiasm was hard to quench, in spite of countless delays by state officials, in spite of the panic of 1837, in spite of bad management, in spite of numerous disastrous floods, in spite of growing competition from the railroads. But eventually the railroad won out, and tracks were laid on the towpath.

Now the railroad has had its time of triumph. Now it too has come on hard times and been replaced by the truck and airplane. But the tracks are still there and are used by a restored scenic railroad running alongside a restored scenic canal. The Canal provides ideal transportation for a canal tour since it directly parallels most of the canal.

At the site of one of the aqueducts, located between two stone locks, is the Village of Metamora, restored canal town. A robust mill uses water power from a wheel mounted, as it was a hundred years ago, in one of the locks. The other lock has been fully rebuilt by the state park service, and the "Valley Bell" takes passengers up and down the canal and across the aqueduct. Water flows into the canal from Laurel Dam, just as it did years ago. The restored canal has now served the recreational needs of visitors from Indiana and elsewhere for a considerably longer time than the canal originally provided uncertain transportation for valley citizens to and from Cincinnati.

(For information about the tour, please contact John W. Drouge, 2531 Neil Ave., Columbus, Ohio 43202.)

"POUND LOCKS"

We have frequently encountered and wondered about the term "Pound Locks" in reading about the canals of antiquity. Charles Hadfield, English canal historian, recently explained this for us. We quote Hadfield: "Pound Lock is the ordinary term used here to mean a lock chamber with gates for any design at either end. In other words, a lock that 'impounds' water. It is the opposite of 'flash lock', which uses only one set of gates."

Hadfield also defines other terms used abroad which are unfamiliar to us Americans. "Flashlock used loosely to mean any kind of lock with only one set of gates. I myself distinguish three kinds: (a) true flash locks - a navigation gap in a river weir, closed by a number of (removable) vertically-rising paddles held in a gate-type framework across the opening. (b) Staunches - the opening has a vertically-rising guiltine gate. (c) half-lock or waterscape - a single pair of gate, or just one, which are winched back against the current!" Thanks much, Chas, for clearing up this mystery.

Bill Shank

Albermarle & Chesapeake 125th Anniversary

CANAL CALENDAR


April 24-26, 1981 - Symposium on Canals, Rivers and Railroads, Old County-Fort Wayne Historical Society, 61 E. Main Street, Fort Wayne, Indiana 46802.

April 25, 1981 - Ohio Historical Society bus tour of canal, Columbus area. Write OHS, 171 & 17th Ave., Columbus, OH 43211.


April 26, 1981 - Annual Justice Douglas Hallie, C & O Canal, middle section, C & O Canal Association, 104 Valley Road, Bethesda, MD 20016.

May 15-16, 1981 - Pennsylvania Canal Society Spring Field Trip along the Morris Canal, Western Division, Headquarters: Holiday Inn, Philadelphia NJ. Contact John Miller Whilkaniak Farm, 3107 Farmville Rd., Bethlehem, PA 18017.


ALBEMARLE & CHESAPEAKE 125TH ANNIVERSARY

In September 1980 the 125th anniversary celebration of the beginning of construction of the Chesapeake and Albermarle Canal was held at the Currituck County North Carolina High School at Coinock. This is the town in Currituck County which is intersected by the North Carolina Out of the A & B Canal. Work first started on the canal construction at this point in 1856 although the canal was not opened throughout until their little dispatch steamboat CACYPSO made the first transit on 9 January 1859, towing the iron barge ENTERPRISE.

Currituck residents brought in a variety of pictures and documents to display in the occasion and an exhibit was set up at the school. One of the most interesting items exhibited at the affair was an original 1856 stock certificate of the Currituck County Canal Company of 1856, owned by Mrs. Elizabeth P. Sanderlin. Curiously, the certificate is embellished with an engraving of a Long Island Sound "penguin" steamer, probably the EMPIRE STATE of the Fall River Line, considerably grander than any little paddle that ever passed down Albermarle Sound way.

(Provided by Alexander C. Brown, Director, ACS. Mr. Brown's old book on the Albermarle and Chesapeake Canal, entitled JUNIPER WATERWAY, will be published later this year.)

American Canals, No. 36—February 1981

Mr. and Mrs. Edward W. Dellen, who have enjoyed boating vacations in England, would like to compare experiences with others who have had similar experiences. Their address is 201 Door Meadow Lane, P.O. No. 1, Cheatham, MA 01033.

Jim Lee was recently selected by the American Association for Local History to receive a certificate of commendation for collecting, preserving, and disseminating the history of the Morris Canal. Mr. Lee is particularly noted for his work in preservation of Inclined Plane No. 04.
I. & M. Canal Park

The Heritage Conservation and Recreation Service (HCRS) of the U.S. Department of the Interior is conducting a $130,000 study of the Illinois and Michigan Canal as a recreational facility. The study is expected to offer different strategies for the permanent and management of the canal as a linear park.

The entire 100-mile stretch of the canal from Chicago to LeSueur, Illinois is being studied. At present the canal is a recreational trail and is managed by the Illinois Department of Conservation as such. In the federal government and other public agencies, such as the Illinois Department of Conservation and the NationalHistorical Park or National Historic Trail, bills to that effect were introduced in Congress in the past, but have not yet been enacted. The cost of developing the park has been estimated at as high as $300 million.

Members of the American Canal Society who support federal funding for the preservation of the Illinois and Michigan Canal are advised to contact their own Congressmen and Senators. A list of supporters should also be sent to: Heritage Conservation and Recreation Service, Lake County Regional, Federal Building, Ann Arbor, Michigan 48107.


QUADRANT SLIDE

GATE

C.M. Hillbreth, Patentee.

LOCKPORT

Canals and the Energy Crunch

(Continued from Page Three)

Old patent drawing of George W. Hillbreth's canal gate relay arrangement as used on the historic Illinois and Michigan Canal. In 1847, Hillbreth's patent was successfully contested by George Heath of Little Falls, N.Y. in 1849, who received patents in Michigan and Kent, Ohio. In 1867, Hillbreth's patent was sold to the I. & M. Canal. (Information and drawing provided by Mary Yeater Rathbun, Canal Interpreter, Illinois Department of Conservation.)

3. Mystery Photograph

Which of you readers can provide the answer to the use and location of this canal structure? We know, but would like to have more details on the builder, date of building, what remains, etc. The photo was provided by Robert M. Vogel from his stereoscopic view card collection.


The old Enfield Canal, while primarily a power canal, still locks boats through on the Connecticut River in Suffield and Windsor Locks, Connecticut. This comparatively small, 64-mile canal was built around the Enfield Rapids to lure boats from turning off the Connecticut River at Northampton onto the river downstream.

Canals and the Energy Crunch

(Continued from Page Three)

ow, wing dams and other streambed sites, which should be thoroughly documented if the project continues.

But rebuilding small dams associated with old canals is nothing compared to new big dams, which can destroy miles of canals and tree lines in a single flood. The front door of big dams are over, and as required of a defensible society, the levee system has to be balanced by preserving and protecting at least part of the remaining streams. Certainly, a Corps of Engineers' Colonial should no longer say, as did he in 1945, "You can never stand still in development of natural resources" (Water District History, Vol I, 1975). But now, where the energy crunch is putting more and more pressure on the as yet undeveloped hydroelectric sites, it is even more important to keep watch over those whose misused development would be disastrous. Hundreds of potential sites have already been listed in the 1979 Preliminary Inventory of Hydropower Resources, at least 34 of those listed for Virginia would affect historic canal sites. These reports are available for study in Corps of Engineers offices in Richmond and Richmond.

Windsor Locks, Canal and set of three locks. Off Rt. 159 just N of Rt. 192, Flight of 3 locks, 50 ft. long, 20 ft. wide. Lifts boats 10 ft. each. By boat, go 300 yards, then proceed to canal. Canal continues N through town.

Suffield Aqueduct: northern lock. From Windsor Locks drive N on Rt. 159, crossing RR tracks into Suffield. 1 mile N of Suffield to Suffield Aqueduct, 104 ft. long. Return to Rt. 159 and continue N to Rt. 158. Just S of jct. take road E to river. Park and walk to riverbank and northern lock.

As you can see, in 1976 the Enfield Canal was still working, or at least Robinson thought so. However, in 1980, it looked to me as if the canal had become obsolete to close the gates, and I doubt that they could now be opened.

Submitted by Charles F. Hruska, ACS, 2604 Greeley Ave., Brooklyn, N.Y. 11214. ACS readers are encouraged to see ABANDONED NEW ENGLAND for more details on this and other New England canals.

Page Seven
The restored Bancroft Basin, formerly a mud-filled blot on the landscape, close to the Shakespearean Playhouse at Stratford on Avon, now a popular assembly area for the canal and Avon River Navigation. (From Roger Squires slide-tape now available at ACS headquarters in York, Pa.)

The gentlemen whose photo appears on the front page of this issue rates more than passing attention from any American canal buffs who are concerned about preservation and restoration of historic canals. Born in Wovlyn, Herefordshire, England, January 1940, Roger was early exposed to canals, living as he did in the county through which the Grand Union Canal winds its way.

Roger was graduated from Birmingham College of the University of London with a B.S. in Geography. At the same institution he earned his M.S. in the Economic Geography of the USA, and finally, his Ph.D., with a thesis evaluating the Waterways Restoration Movement in Britain, Ireland and the USA. Part of this thesis was recently published (1978) by Menzies Prute as a 188-page hardback, entitled "CANALS REVIVED!". He is presently working on a book entitled "THE NEW NAVIES", due for publication in 1982. He is a regular contributor to various waterways publications in the United Kingdom, and has written the "DRIFIELD NAVIGATE GUIDE" and other pamphlets on canals and waterways of England.

As though this were not enough for an avid canal buff, Roger is also President of the Waterways Activities Group, based in Birmingham, and an active member of IWA and WPS, as well as at some 16 individual canals societies. His regular job (the job for which he is paid) is Principal Personnel Officer with the Civil Service Department of the government in London. He is also a Fellow with the Institute of Personnel Management. He and his wife live in a restored Bear's Cottage, a Manor House, Besham, Kent BR5 3LJ. We are proud indeed to have Roger as our ACS Director for the United Kingdom.

He is presently master-minding a canal tour and lecture series for both British and American canal enthusiasts, which was outlined in the first issue with your last issue of AMERICAN CANALS, scheduled for August 1 through 19, 1981.

Letters to the Editor

Recently reading Howard Pyle's Classic, "A Merry Adventures of Robin Hood" (Pyle was born 1863-1911), an American with (probably) some knowledge of canals, use "pseude name" to spice up his novel with a reference to a canal-like stream and an obvious towpath.

(Submitted by Edward Hart, ACS, 345 E. McMurray Rd., McMurray, PA 15317.)

Canal Water Flowing at Freemansburg

As the song says, "It's been a long time coming."

But Freemansburg's $89,000 Lehigh Canal restoration project has finally been completed and water is flowing in the canal again.

Dammed in 1972 when Hurricane Agnes breached a section of the Lehigh Dam on Monroe Street, water levels were too low for canoists to use the canal in summer or for ice skaters to use it in winter. Stagnant water beyond the breach was a breeding ground for mosquitoes.

At the prodding of canal buffs such as Freemansburg resident Charlie Derr and other concerned citizens, Borough Council courageously decided this year to do something about the situation. The action was courageous because Freemansburg is not an affluent community, but with the help of state and federal grants, it was able to proceed. Even with those grants, Freemansburg had to go into debt to meet its commitment to the project.

Work got off to a slow start in the summer of 1980 because of heavy machinery getting stuck in the mud, but the contractor, Kichline & Montgomery of Bethlehem, has done an excellent job. The canal bed was dredged to its original depth, the banks have been reshaped, the breach repaired with a steel plug, and a new wooden dam at the canal's Eastern end has been replaced.

Esthetically, Freemansburg's section of the canal is one of the most beautiful spots in the Lehigh Valley, a jewel in the canal park that almost transports one back into the 19th century.

There is still a lot to be done to bring the rest of Northampton County section of the canal up to the quality of the Lehigh Canal. Easton and Freemansburg have recognized the canal's value, but the Bethlehem and Bethlehem Township sections. The city section is plagued by heavy silt, and the township section's not even have water in it.

To restore the entire canal to its former glory is a project that should be pursued by the state and counties involved. It would provide citizens of the Lehigh Valley with a convenient and scenic recreation area. Little Freemansburg has shown the way.

(From Allentown Morning Call)

CLASSIFIED ADVERTISEMENT

Two classic canal novels by Samuel Hopkins Adams: CANAL TOWN (1944) $10; Banner by the Waves (1947) $6.


Canal (Burton & Prcell), Excellent photo coverage of Brit. canals, hard covers, 56 pp., $18.50.

Canal (Burton & Prcell), Excellent photo coverage of Brit. canals, hard covers, 56 pp., $18.50.

Shnell's Guide to British Waterways (Shnell), The most comprehensive contemporary coverage of the U.K. Hard covers, 193 p. (Add $1 per order for shipping. American Canal and Transportation Center, Box 130, Stowerton, WV 25843. British canal and industrial archaeology book listings also available on request.)

American canals, No. 38 — February 1981