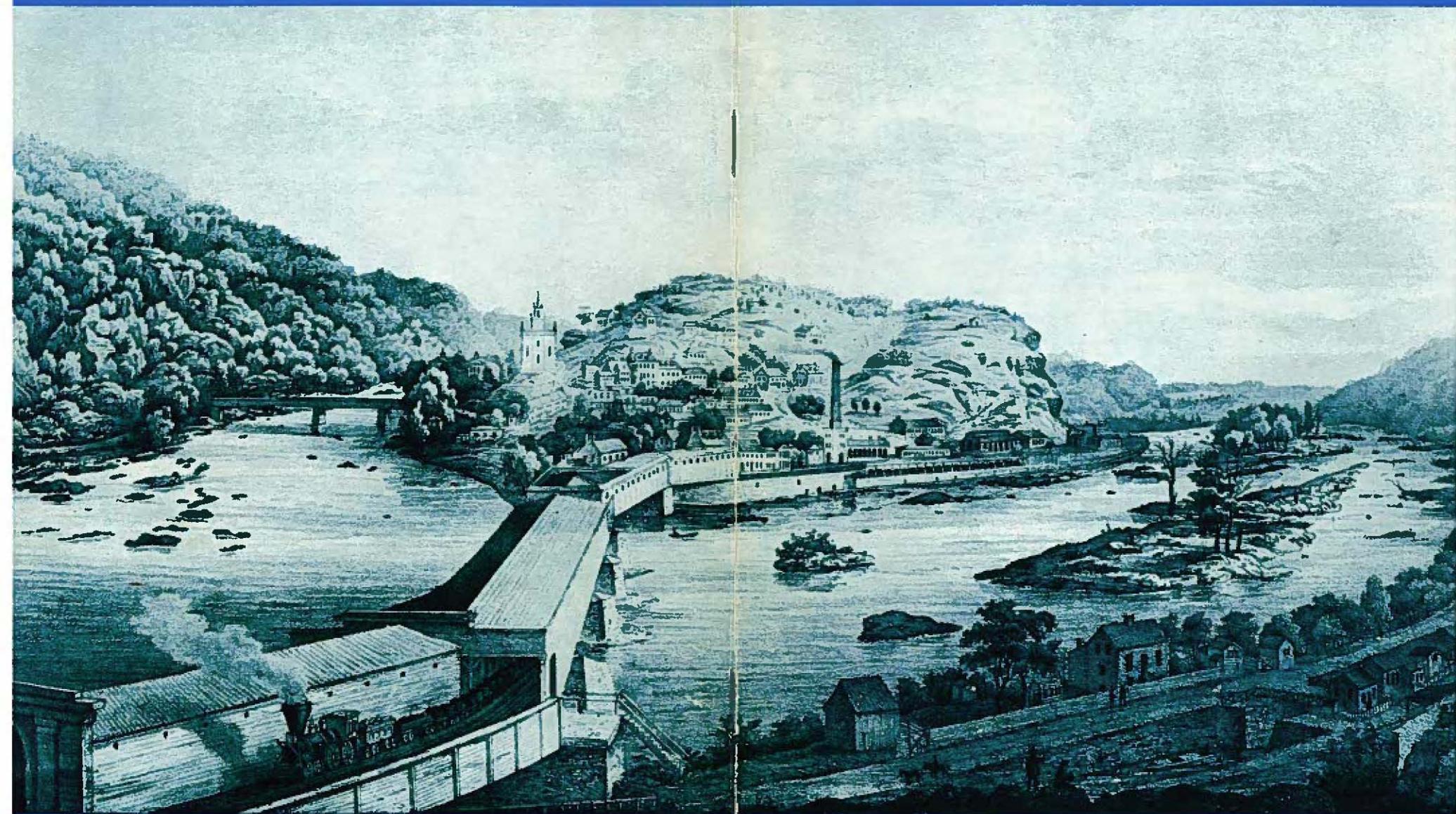


Life On  
The Chesapeake & Ohio Canal  
1859



(Harper's Ferry, Circa 1859)

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*Edited by*

ELLA E. CLARK & THOMAS F. HAHN

J. W. Wrench Jr.

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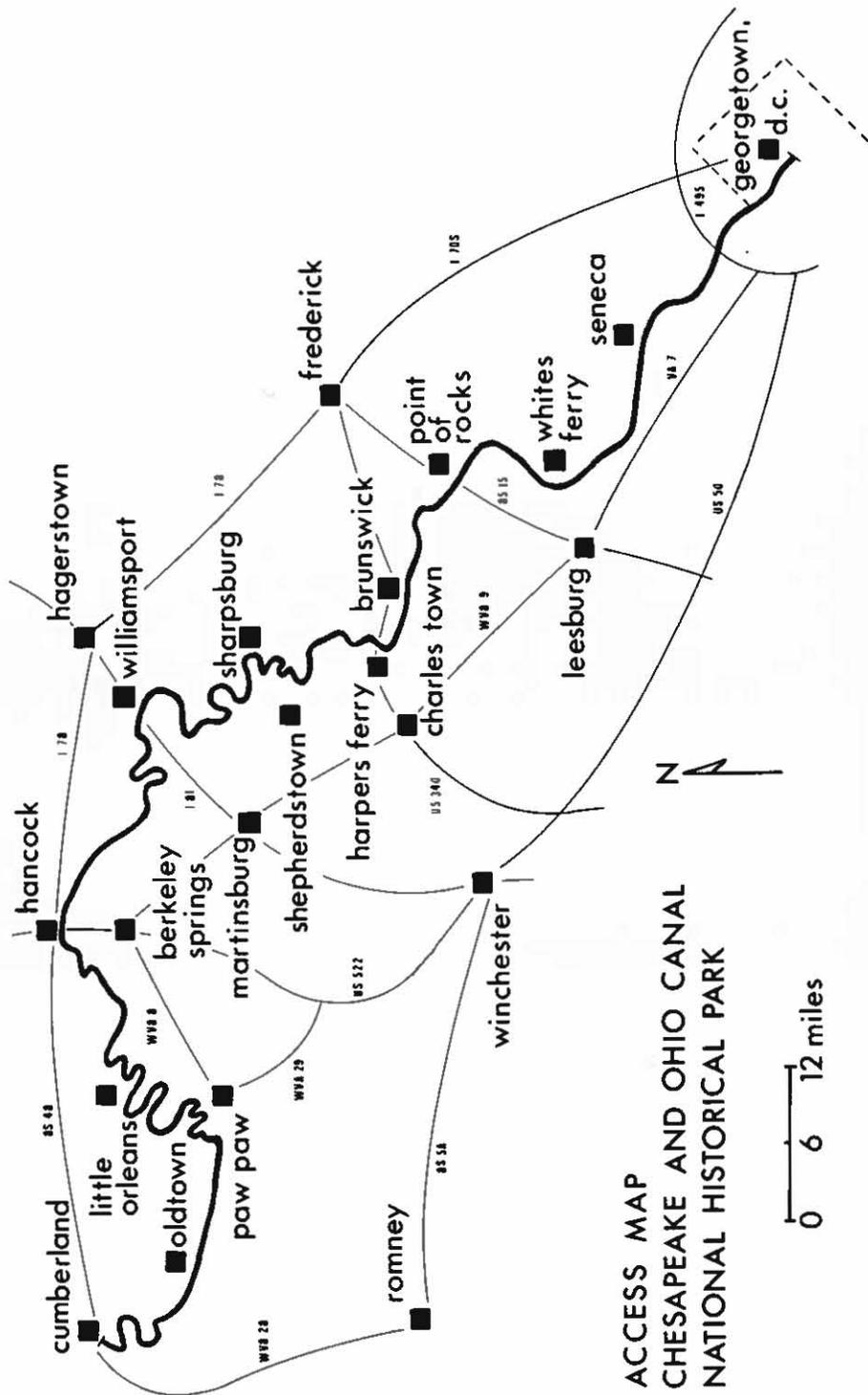
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"The Cabin John bridge, 220 feet long and 90 feet rise, the longest single arch in the world, is one of the wonders of the aqueduct." (This Library of Congress photo is contemporary with the author's narration.)



## PREFACE

Over a century ago, in the summer of 1859, a man from New England, out of work, made the round-trip voyage along the 184½-mile Chesapeake and Ohio Canal from Cumberland, Maryland to Georgetown, District of Columbia, and on to Alexandria via the Alexandria Canal, and return. About 30 years later, he wrote his memories of the voyage. The anonymous manuscript reached the City Library Association of Springfield, Massachusetts at an unknown date. In 1923 it was given to the Library of Congress. The writer apparently gave the manuscript no title. In the Library of Congress it is entitled "Journal of a Canal Boat Voyaging on the Cumberland Canal between Cumberland, Maryland, and Georgetown, 1858." According to the author's first paragraph, he made the trip in 1859. When this unknown boatman made the voyage in 1859, the C & O Canal had been completed to Cumberland only nine years, though construction began in 1828. The canal reached its heyday in the mid-1870s, then declined and went out of operation in 1924. It is now the Chesapeake and Ohio Canal National Historical Park—our nation's only canal national park.

Though there are those still living who can tell us of life on and along the canal in its later operating period, from about 1890 to 1924, there is no one living who remembers the canal before the Civil War. There are many existing records of the Canal Company and other formal and informal documents, which tell us about how much materials cost and the problems of maintenance and operation, but little about canal life in general.

The anonymous manuscript which follows is therefore unique, in that it was written by an observant person who was one of the crew of a mule-drawn canal boat during the early operating period of the canal. Not only did he have the ability to observe closely, but he was also quite articulate and nicely describes life on a canal freight boat along the C & O Canal—how the mules were handled, what the interior of a boat looked like, what they had to eat, how they spent their leisure time, what they talked about—all the things which are seldom recorded, and the things about which we often want to know most. He provides interesting glimpses of the cities of Cumberland and Williamsport, of Alexandria and Washington, together with information about topography and wildlife along the canal.

The manuscript was first edited by Ella E. Clark and published in the *MARYLAND HISTORIC MAGAZINE* of June 1960. The Maryland Historical Society has kindly allowed the reprinting of

this article under the same title, as it is a narrative they also want to be shared. I have done further editing, mainly in the addition of footnotes on canal statistics or technical history. Though there are only one or two photographs extant (to my knowledge) of the canal in 1859. I have taken the liberty of selecting and using a few photographs which show in general what the author was depicting, though generally (but not always) at a later time in the operating life of the canal.

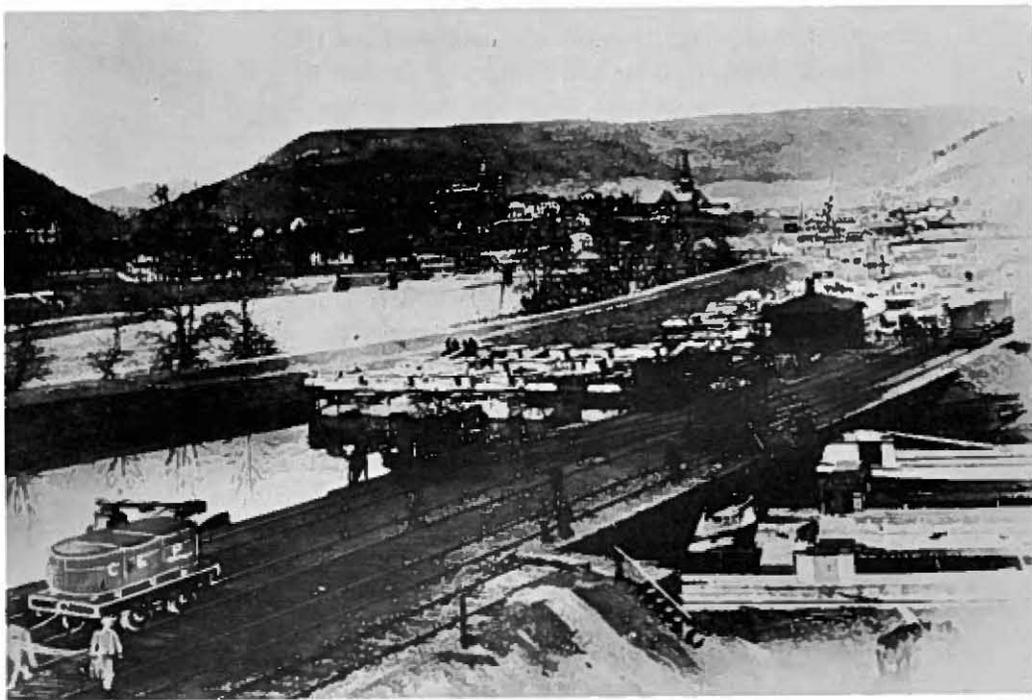
I hope that all of you will enjoy reading this narrative as much as I.

January 1975

Shepherd House

Shepherdstown, West Virginia

CAPTAIN T. F. HAHN, USN (Ret.)  
Industrial Archeologist  
President, American Canal Society



"Cumberland is the mountain city of Maryland. Cumberland at this time had two or three thousand inhabitants and had considerable trade with the back country; it was the center of the eastern soft coal trade."

## The Canal Beckons

I was drifting. The financial panic of 1857 had closed the workshops, stopped the hum of the factories, and all kinds of business was nearly at a standstill. The spring of 1858 found me without employment and as a last resort I drifted into peddling, and all that summer climbed up and down the New Hampshire hills, drifting from town to town as fancy or the state of the trade dictated. In the fall I drifted to Washington to take a position in a hotel remaining there until February then drifted on to Cumberland, Md., at the foot of the Allegheny mountains, where I had friends. I then drifted over the mountains into the Ohio valley where I railroaded a little, and peddled a little, drifting as far west and south as Cincinnati. Then I drifted back up the Ohio river to Wheeling, Va., and over the mountains to Cumberland again where I arrived in June, 1859. The chances were that I might drift around Cumberland indefinitely, as my friends did not want me to go to New England again, and there did not seem to be any work for me in or around Cumberland.

In a short time, however, my friend's brother-in-law, a canal boat captain, came into port, and it was arranged that he should invite me to take a trip with him. This would amuse me and relieve my friends and perhaps at the end of the few weeks it would take me to make the round trip there might be some place open for me. I accepted the invitation and drifted on. The life on the canal would be something new to me as my knowledge of it was only what I gained in my winter's journey to Cumberland by walking on the towpath from Washington to Point of Rocks. The canal then was only a cold, dry ditch, as the water was drawn off for winter and was deserted by everyone but a few laborers who were making repairs. The trip would be a change of scenes and I would get acquainted with the life of the canal for I had seen nothing of the live boats and still livelier mules, the barge men, tow boys, cooks and lock-keepers which make up the life of the canal in summer. The trip was not to be a picnic or a personally conducted excursion, and I soon found that it was not to be a junket. I was to go as a boatman, to work, dress, eat and sleep as other boatmen did.

This all happened thirty odd years ago and as I kept no notes, the record of the trip will be the impressions that are left on my memory rather than the incidents just as they happened at the time, and they will probably differ from the impressions one would receive if they should make the same trip today, for no one ever sees the same things the same as another and time has softened the shadows of all the unpleasant things and thrown a halo of light over the pleasant ones. No great event occurred or could be expected to occur to the humble actors of such a trip and I have only the sayings and doings, the little episodes and the everyday happenings that made an impression on my memory to record. The names of many of the little hamlets, warehouses and locks and the detail of much of the scenery has now passed from my mind which will account for the brief mention that I make of them.

As I have said, I was drifting. In the same manner I drifted on over the canal spending days in doing the humble work that from time to time fell to my lot, or basking in the sun, watching the passing scenes. On and on we sailed, with rude hills or high steep cliffs forming a wall on one side for the greater part of the distance.

On the other side the bright shimmering river, now rolling swiftly, now placidly, now roaring over some natural cascade or artificial waterfall. Between the hills and the river lay the canal, mirroring on its calm surface the shady banks or the clouds above, its edge fringed with a border of green grass and water plants. Alongside lay the long gray ribbon-like tow path, and outside of this, at the foot of the bank, a hedge of wild brush and trees connected us with the river. The canal ran nearly its whole distance through an uninhabited solitude.

Only the almost inaudible ripple of the boat in the water, the distant click of the mules' feet, the purring of the river, the hum of insects, and occasional chirp of a bird broke the stillness. It was almost an ideal state of repose. The days drifted by as a dream and as I look back it was a very tranquil dream, day ran into day, sunshine into sunshine, with no care or thought for the morrow.

## Cumberland—Mountain City of Maryland

We left Cumberland the last of June, stopping at Williamsport several days over the 4th of July, then went on to Georgetown and from there to Alexandria, Va., where it took a day to unload the boat. We then returned, making a short stop at Williamsport, arriving at Cumberland about the first of August.

Cumberland is the mountain city of Maryland. It lies in a narrow valley between the Wills and Knobby Mountains, outlying ranges of the Alleghenys, running nearly north and south. The Potomoc river follows up this valley, crowding on the western part of the Knobbs passed [*sic*] the town then breaks through a notch takes a sharp turn to the south and follows the range back on its opposite side. Wills creek, a sizable stream, divides the town in the opposite direction, flowing through a wild gorge in the Wills mountain[,] called the narrows. This gorge is nearly a mile long with almost vertical sides several hundred feet high and was cut by some convulsion of nature through solid rock in nearly a straight line across the mountain. Cumberland at this time had two or three thousand inhabitants and had considerable trade with the back country; it was the center of the eastern soft coal trade known as the Cumberland or Georgetown coal, it being brought from the mines a few miles back in the mountains by several branch railroads which were connected by a gridiron of tracks to the extensive canal basins [*sic*] and also to the main line of the B. & O. R. R. to Baltimore.

Among its industries was a Rosendale cement works with its quarries, kilns and mill for grinding; a small railroad repair shop and not far back in the mountains were iron mines and extensive iron works. These in good times made Cumberland a busy place, especially in the summer.

Cumberland was also at the eastern end of the great National Turnpike built by the U. S. Government over the Allegheny Mountains and away across the prairies to the Mississippi Valley passing through the states of Md., Va., Penn., Ohio and Indiana. It was built in the most substantial manner with Macadamized road bed, stone arch bridges and milestones. It cost the Government vast sums of money but was of incalculable benefit in settling the then new states of the West and was the grand thoroughfare of travel until the railroads were built.



"Taking a few steps to get a nearer view of the animals, one of the tow boys yelled, Take care, them mules will kick a chaw of tobacco out of a man's mouth three rods off." (Photo courtesy of National Park Service)

I spent most of my time in Cumberland rambling around in the study of natural history, climbing the mountains, paddling in the river and creeks for snails and muscles, searching the woods for land shells, digging in the quarries for fossils and racing across the fields for moths and butterflies. On one occasion I met a black bear in an old barn and had various experiences with the country people outside of the village who could not understand my erratic zigzagging from creek to rock and from rock to wild flower and back to creek again as one thing after another attracted my attention. One man wanted to know if I was lost and others probably thought I was crazy and others probably considered it simply as one of the common habits of those peculiar people called Yankees.

The day after the Capt. arrived I went down to see the boat, which with many others was moored at the ship yard a short distance down the canal waiting their turn to load.

The mules were tethered in a long string at the side of the fence bordering a neighboring field and were being groomed and fed by the attending drivers. Taking a few steps to get a nearer view of the animals, one of the tow boys yelled, "take care there, them mules will kick a chaw of tobacco out of a man's mouth three rods off." After that I took good care to keep a reasonable distance from a strange mule's heels. The next morning the boat was towed up to the basin for its load which was put in very quickly as the coal was dumped through the bottom of hopper cars standing on trustles beside the boat, ten tons at a time, a dozen car loads furnishing the one hundred and twenty tons that the boat carried.

## On Our Way

I packed my bag with the very few things needed for the journey, bid my friends goodbye and met the boat at the ship yard on its return where, after a short wait for hay, grain and other provisions and for the Capt. who had gone for his boat papers, our journey and my experience as a naturalist on a canal boat commenced.

The crew consisted of Captain Coss who was the commander of our floating palace. Although Coss was no part of his name yet it was the prefix by which he was always known even by the members of his family[;] therefore I shall use it in place of his real name.

For a short time in his younger days he had served as "prentice" on board of a war ship but he soon sighed for the placid waters of his own native canal and took the first opportunity to regain them. Here he had thrived[,] owning a comfortable home in Williamsport and two canal boats. For bows man, the second in rank on the boat, we had a stalwart free colored man full six feet tall named Henry Butler[,] who was generally called Pic. A few years before, a man named Henry Butler ran for congress and was for some reason or other nicknamed Picayune Butler and consequently in the height of the political excitement the name picayune was in everybody's mouth and the colored Henry also became Picayune Butler. He made no objections, for a member of congress was a great man and he was willing to be named after one even if the name did mean one of those thin worn-out Spanish silver coins commonly called a four pence in the east and was worth only six and one fourth cents. Pic was strong and trustworthy and made a good boatman and was also the source of much amusement on board for Pic had a lot of vacant shelves in the back of his cranium where he had stored away all the big words he had ever heard in the forty years of his life. These were packed in helter skelter like bric-brac or broken crockery to be brought out whenever his limited vocabulary was not sufficiently forcible to express his ideas. They were used in all manners of ways, the right word in the wrong place, the wrong word in any place and in all the variations and distortions that he was capable of placing them and the more incongruous the word the happier was Pic. Although the words I shall put in Pic's mouth may not always be the exact ones he used[,] yet they are by no means a "gagaration" as Pic would say of the language he used. The writer held the third place on the boat but what it was I can hardly tell as I acted in every position from pilot to tow boy but think I made myself the most useful as cook. We had two tow boys, each about twelve years old. One was little Pic, one of Pic's children who could lay [*sic*] on his back on deck and absorb the July sun by the hour; the other was Tommy, a white boy the captain had picked up on a previous voyage.

## Down The Canal

The list of the crew would not be complete without the four bay mules which were as sleek fat and gentle as a ladies' driving pony.

We are now on our journey down the canal. For the first few miles we were between the railroad and the river with a narrow meadow on the left with hills beyond. Across the river the Knobby mountains raised a

row of rough peaks resembling the knuckles of a closed hand. After a time we came in sight of some locks, the first of perhaps eighty, that we had to pass before we got to Georgetown. This was our first level, for the canal consists of a series of short canals called levels connected one with the other by locks. These short canals are narrow reservoirs of still water, perfectly level from end to end, and when built where the natural surface will admit are made by excavating a shallow ditch and building banks on each side of the earth taken out and when they are filled with water will stand one or two feet above the land through which it runs. But very little of our canal was built through natural plains, in fact it required the most scientific engineering skill to find a place in which it could be built, skirting as it does the Potomoc river almost its entire distance, it had to be cut here into its sloping banks, there built bodily at the foot of some precipitous bluff, now crowded out into the river bed, then cut through some projecting spur or built high on masonry walls over a deep ravine, crossing the larger streams on wooden aqueducts and the smaller ones over stone arches and culverts. In one place it gives up all pretense of being a canal and the boat glides for a half mile on the edge of a big eddy in the river the tow path being a trail in the edge of the high bluff that forms the shore. At another place it cuts across a band of the river and passes through a mountain in a tunnel three-fourths of a mile long.

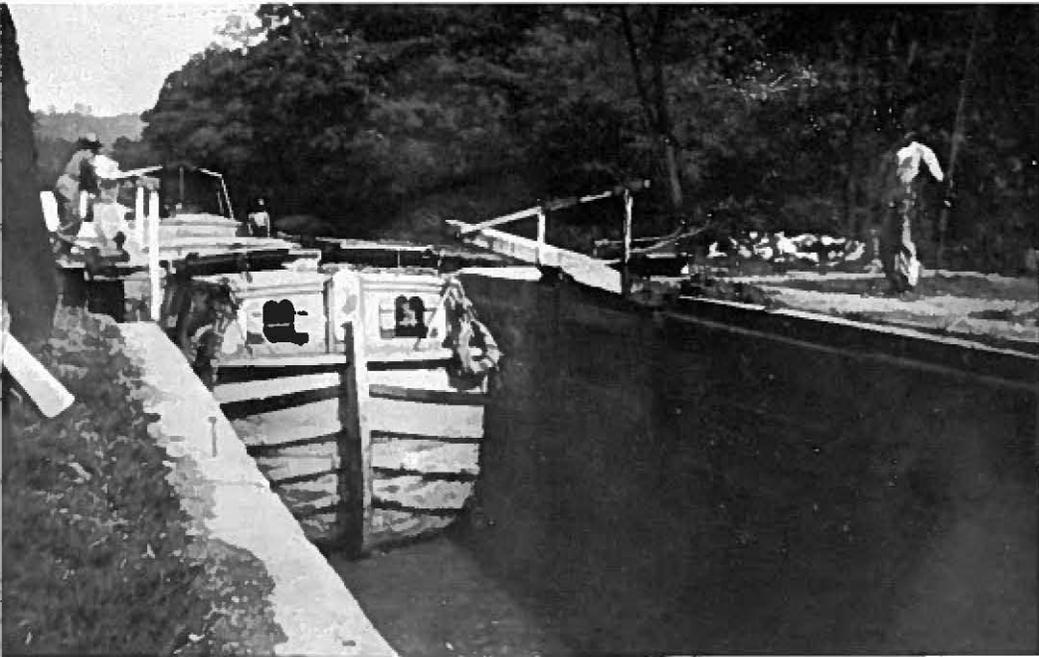
Each of the levels, which may be but a few rods in length, or may stretch out for miles, is a complete canal by itself and begins and ends with a lock through which a boat may be lowered to a level below or raised to one above.

The lock is the connecting link between two levels and are [*sic*] hydraulic lifts or elevators by which the boats are raised up or lowered down from one to the others. They are short canals with sides built of strong masonry with the bottom as low as that of the lower canal and the top as high as the upper one, and at each end is a strong, watertight gate, through which the boats pass in and out. The length of the locks were [*sic*] sufficient to admit a boat about seventy five feet long, ten feet wide, drawing about five feet of water. When the lock is full the water stands in at the same level as in the canal above, and by opening the upper gate a boat can be floated in. The gate is now closed separating the lock from the canal, and small wicket or sluice gates are opened letting the water run slowly out of the lock into the canal below lowering the boat down to the lower level, the lower gates are then opened and the boat floats out. When the boat is going upstream it enters the lock from the lower level and the gate [*is*] closed after it, the lock is then filled through wickets in the upper gate which raises the boat to the upper level and it passes out through the gate into the canal.

The difference of the heights between the two levels is from eight to ten feet, making the lower gate from fourteen to sixteen feet high. A higher lift would increase the pressure of the water and require stronger masonry and gates than it is economy to build. The gates are made in halves and fold back in recesses in the side walls when open, and in closing strike sills at the bottom and come together at the center of an

1. There were 74 lift locks on the C & O Canal.

2. The locks could accommodate boats up to 90 feet long and 14½ feet wide, generally drawing less than five feet of water.



"To enter a lock required care and patience. The boat had to be steered in a direct line in the center of the canal, for the least deviation would cause a collision with the stone walls that might sink it, for it fitted the lock like a nickel in a slot."

angle pointing up stream making a brace against each other and against the side of the lock, forming watertight joints. When the difference of two levels [is] greater than ten feet[,] then two or more locks are placed end to end the lower gate of one forming the upper of the one below it; and as a boat passes out of one lock it enters the next and so on to the end of the series, which are like a flight of giant stairs. It is not often that more than three or four locks are placed together without a short canal or basin in between, where boats can pass each other, but on some canals where this can not be done, two sets of locks are built side by side, one used for boats going up and the other for those going down, avoiding the delay that would occur with a single unit.

As we came in sight of our first lock the captain brought out his tin horn and gave several loud blasts. The tin horn was almost as much a part of the outfit as the mule. The horns were made of all sizes and shapes; some were very long, others were bent back and forth like the French horn. The average length was from two to three feet and [they] were all of the old-fashioned fish-horn type, where the noise was made by the lips and not by blowing through a reed as in the modern toys used by the boys on Fourth of July and occasionally blown by woman at summer resorts. The horns were used to call up the lockmen and were blown when you were a quarter to half mile from the lock. Some of the boatmen, especially the negroes became very expert in blowing the horn and could play very respectable bugle call on them. The Capt. blast brought the

3. There were no staircase or double locks on the C & O Canal.

keeper from his house and he had the lock filled and the gate open ready for us to enter.

To enter a lock requires care and experience. The boat had to be steered in a direct line in the center of the canal, for the least deviation would cause a collision with the stone walls that might sink it, for it fitted the lock like a nickle in a slot. The boat must also have sufficient motion to carry it to the end of the lock and at the same time it must not strike the lower gate. The Capt. steered the boat in, Pic stood on the bow and jumped ashore with a line and give it two turns around the snubbing post. At the right moment the Capt. gave the word to the tow boy to stop; Pic tightened the rope on the post and the boat came to a standstill just before the cutwater touched the gate. The friction of the rope around the post has to be carefully governed or the momentum of the boat and its load will break it. This friction and the rubbing of the boat against the side of the lock and the force of the water confined in the end of the lock combined to bring the boat to a stop.

### I Learn About Mules

The first time I drove the mules when the boat entered a lock we came near having a bad accident. When the Capt. gave the word to stop I said "Whoa" and stood still and expected the mules would do the same. Instead of stopping they laid back their long ears, rolled out their eyes and sprang into their harness and pulled as I never saw four mules pull before. Whoa is not a part of the canal mules language and they supposed it was a new and awful cuss word and probably would have stampeded if the tow line had been broken. The more I whoaed the more they pulled, and the boat was in fair way of going right through the lock, so I rushed to the head of the front mule, pushed him back against the next and in this manner stopped the whole line in time. The word that they use to stop the mules, as near as I can spell it, is ye-yip-ye, but you must put in all the right accents, inflections and quavers, or the mules will as likely gee off as stop. I took lessons of Capt. Coss, of Pic, little Pic, and of Tommy, and after considerable practice got so that I could pronounce it sufficiently well to stop the mules, but I always imagined that I could detect a smile on the mules' faces when they heard it.

Each lock had its keeper whose duty was to open and close the gates for the boat at any time of day or night. When the locks were connected one keeper might have charge of two locks but if they were any distance apart he could not, as there might be boats that wished to pass each at the same time. Every lockman was furnished a house near the lock where if the ground was suitable he could have a garden and if there were several locks near enough each other to be neighborly it was not an unpleasant place to live[;] and even where they were several miles apart the family could easily visit each other riding back and forth on the passing boats. The lock keeper also kept watch of the canal banks in his vicinity[,] and where there were connections with the river he attended the gates that supplied the canal with water. There was also an inspector or tow-path keeper who rode back and forth over his section of the canal to see that there were no breaks, leaks or washouts, and to make light repairs whenever they were needed. At the first lock the railroad passed



"A boat is divided into three apartments, the center is left open except a narrow walk around the edge and formed the hold where the freight is stored. Over this are placed movable hatches, making a watertight covering. At each end of the boat is a cabin with the roof raised about three feet above the deck. The front one is used for a stable and the rear one is divided into a stateroom and cooking galley." (Photo courtesy National Park Service)

over the canal and crossed the river to the Virginia side and was not seen again until we reached Harper's Ferry, over a hundred miles below.

There were two kinds of boats on the canal[,] one of very primitive shape, being nearly the shape of an oblong box with great square ends. These boats would carry large loads but were very slow sailors, as the water made a great resistance to the flat end in front and did not leave the boat easily at the stern. There were very few of these boats left and those that were painted at all were covered with a coat of coal tar. The other boats had their ends moulded and formed the same as a ship, making as fine lines as was consistent with the load they were to carry and the slow speed they sailed. All the new boats were built at Cumberland where they had a miniature ship yard employing the various mechanics as ship carpenter, smiths, painter, and calkers to be found in large shipyards.

A boat is divided into three apartments, the center was left open except a narrow walk around the edge and formed the hold where the freight is stored. Over this were placed movable hatches making a watertight covering. At each end of the boat is a cabin with the roof raised about three feet above the deck. The front one is used for a stable and the rear one is divided into a stateroom with berths and cooking galley. The cabin was not so wide as the boat above the deck leaving foot ways on

each side. Behind the rear cabin was the tiller deck from which the cabin stairs went down, and under it a kind of cockpit, about four feet high, where Pic and his boy slept and no place could suit them better as it was the hottest and least ventilated part of the boat.

When the boat was loaded the water came within a foot of the deck but when it was light it just skimmed over the water not drawing more than one or two feet and would be almost unmanageable outside of the canal as it had no keel to prevent it from drifting with the wind. There were some three or four hundred boats on the canal and [they] were of all ages and in every stage of repairs from those that were bright and shiny to those that you could not tell what was the color of the last coat of paint. A hundred or more of these boats were brought from the Erie canal, when that was enlarged, by the canal companies who now own nearly all the boats, the boatmen furnishing teams and outfit, receiving so much a ton for hauling the coal, paying their own expenses and the toll on the empty boat back to Cumberland. The cost of a new boat was from twelve to fifteen hundred dollars.

Capt. Coss owned his own boat, the "Caroline of Williamsport." The boat was new clean and white and the Capt. was very proud of it. By owning the boat he could come and go as he pleased, get a better price for carrying the coal and when there was a change he would take in a cargo for any point along the canal.

### A Lesson In Steering

I was not long on board before I was given a lesson in boat steering, Pic keeping watch with a hand ready to grasp the tiller if by some mischance the boat should get the advantage of me and try to run ashore. Boat steering is very simple; you stand with one arm over the tiller and sight across the bow of the boat[;] then pull or push according to the direction you wish it to go, but it requires constant attention and the steersman has to be constantly on the watch for the slightest deviation from the direct line and immediately overcome it by moving the rudder. This soon becomes instinctive, like steering a bicycle, and requires but little exertion but sometimes, by carelessness or otherwise, and you often feel that it was mere wantonness on the part of the boat, it will take a start for one side and, do the best you can it will hardly escape striking the bank, when over it will go to the other side and just miss grounding there, back and forth it will go half a dozen times before you get it calmed down to straight ahead then perhaps for miles it will not deviate a foot from the right direction. This erratic steering reduces the speed of the boat and adds to the pull of the mules, besides, there was the danger of running the boat aground or in some places of bumping a hole in the bottom on a ledge.

The connection between the mules and the boat was the tow line, a strong rope three fourths of an inch in diameter and near a hundred feet long, which was fastened to an eye-bolt on one side near the middle of the boat, and as this was near the pivot point on which the boat turned and drew nearly straight ahead, it had but little effect on the steering.

In canal language the mules were geared together and not harnessed. The mule gearing was of the simplest description possible consisting of

a bridle and breast plate with a strap around the body to keep it in place. The traces were chains that hooked into rings on the mule in the rear with spread sticks between each mule and one where the chains came together at the tow line. When we had all four mules hitched tandem they formed a straight line between two long chains that were nearly as rigid as wooden poles[,] the spread sticks keeping the chains a sufficient distance apart as not to chafe them. It took no little power to start a boat loaded with one hundred and twenty tons of coal drawing five feet of water for a standstill and get it up to speed of two miles per hour. A quick pull of an hundred horses would have but little effect except to break the tow-line, yet a boy ten years old could start the boat by making a long steady pull[;] after a while he would feel it yield and perhaps in three or five minutes could make a single step, then another until the boat would move at a slow but steady speed according to the strength of the boy. In the same way the well trained mule could draw the tow-line tight and make an easy pull leaning against their breastplates until the boat began to move, then step after step until the boat was up to speed and all day they seemed to be resting on their breastplates and stopping only to keep from falling forward.

"Some of the boats were drawn by a single mule, others had what was once a horse, still others had two or more but none had a better team than ours. We saw very few boats going in our direction either in the down or return trip except when we were tied up to the bank, for the rate of speed was so near the same on all of the boats that the time spent in passing a lock would keep them separate . . ."

At night, or when we stopped to feed, the boat was hauled up to the shore and made fast, the mules ungeared and the feed trough brought out. This was about a yard long and large enough to hold two buckets of corn in the ear and had but two legs, a tree, post, or fence serving for the others, being fastened to it by a rope which passed through two holes in the back. This made the trough a fixture that could not be tipped over or run away with.

We are sailing on and on making from a mile and three fourths to two miles an hour according to the number of mules in use at a time; occasionally we met a boat going up the canal some of whose crews saluted Capt. Coss or Pic but most of them passed silently by. Some of the boats were drawn by a single mule others had what was once a horse, still others had two or more but none had a better team than ours. We saw very few boats going in our direction either in the down or return trip except when we were tied up to the bank, for the rate of speed was so near the same in all of the boats that the time spent in passing a lock would keep them separate until they came to the next and only on long levels could one gain enough to pass another. We were tied up to no regular hours and lived in Arcadian simplicity. We rose with the early morning light, fed the mules, and when they had eaten their breakfast a pair was hitched up and we started on our day's journey driving them about four hours when they were changed for the other pair; at the end of the next four hours they were again changed, and so on making four shifts and sailing from sixteen to eighteen hours a day, the Capt. Pic and myself taking turns at the rudder while the two boys changed off from time to time and occasionally Pic and myself would drive for an hour or two, walking for exercise; the boys usually rode the rear mule.

### The Canaler's Day Is a Long Day

Some days the four mules were hitched tandem, then we drove about twelve hours, with a short rest at noon, ungearing them to let them roll which seemed to refresh them nearly as much as a half day's rest. These might seem long days to work in the present eight and ten hour times, but as far as the work was concerned, it mattered little whether the boat sailed or not. There were the meals to cook, someone must stand at the tiller, and the mules must be driven, and there was about five minutes work for one of the others at each lock, the rest of the time could be spent reading, sleeping, viewing the landscape or telling stories, in which all but the boy driving could take part.

We had several ways of getting ashore from the boat. At the locks we could step off and on as the boat touched the sides. On the long levels there were guard locks made by building dams across the canal with narrow openings for the boat to pass through where we could get off when the boat was in motion. These guard locks could be closed by plank that fitted in a groove in the stone work and were used in case of an accident to shut off a portion of the canal for repairs. At other places we would run the boat alongside the bank, but that took time so instead of stopping we usually let someone drop the end of the plank on shore and the moment it touched [we would] run down. It seemed very simple for the boat could not move far while you ran a dozen feet but the end of the plank on shore was stationery while the other end kept moving with the



boat and as you ran in a straight line the plank would twist under your feet and you would run off the edge when about two thirds the way down; then you would have to jump, perhaps on shore, perhaps in the edge of the canal. Another way was to take one of the boat poles place the end in the water and with a running jump swing your self ashore. When you wished to get on board again, if the Capt. did not feel like stopping you could trudge along the towpath until you came to a lock.

James Buchanan was president at the time and he spent his summer vacations at Bedford Springs, Penn., a watering place about thirty miles north of Cumberland. He came by rail to Cumberland stopped over night at the Revere house and in the morning took a coach for the springs. Of course the whole town turned out to see him off for it was not every day or every one even that had a chance to see a live president.

It was worth while for anyone to see President Buchanan for he was a noble, dignified looking man, at least six feet and two inches high and in perfect proportion.

Pic went up from the boat the morning we started and with little Pic saw him off on the coach. Pic knew he was a great man, that the President of the United States was the greatest man in the country, and if he went to see him he would have something to brag about to his friends down the canal. After we had started Capt. Coss said, "Pic, did you see the President?" "Yes sar." "What did you think of him?" "Well, I tell you, boss, I shouldn't want to tackle him." That was Pic's idea of greatness.

Along the canal at villages, or important agricultural districts, or where valleys break through the mountains, there were warehouses where mule feed and other boat stores including bread could be procured, and where goods could be received and delivered by the boats, and occasionally there were basins where several boats could be stored to turned around, for the canal was not wide enough to turn a loaded boat. It was at one of these way side warehouses that we made fast to the side of a low long building. In a few minutes a clerkish looking man said all right through the window and we went on, Capt. Coss said he had weighed the boat but as I saw only the man and the side of the building I did not get any idea how it was done and it has always been a question with me if he did weigh or only gauge the depth of the boat in the water.

Once in a while the boat would take a quantity of hay or grain on speculation and peddle it out to the other boats. We met one who had oats for sale and we bought a few bushels at a discount but found when we used them that they were so light in weight that we had paid more than they were worth. Every boat carries what might be called ship papers, that is a bill of lading which states what you have carried for freight to the smallest item, and the distance it was carried, as the canal charges toll on all freight and also on the boat itself. These papers have to be subscribed to under oath. The only extra freight we had was two barrels of whiskey sent from one village to another. Pic. and the Capt. sampled the whiskey by driving down a hoop and boring a small hole with a gimlet and drawing out a flask-full. After plugging the hole they drove the hoop back and none but the crew were the wiser for it. On the previous trip the Capt. had a boat load of lumber from some point up the canal to Cumberland.

## A Near Miss

Our quiet life was occasionally enlivened by some little incident which would give us something to talk about for an hour or two. One such was the collision. Coming up the canal was an old lugger standing high out of the water drawn by a poor old white horse on which Pic. was making a mental calculation on how many more trips it could make. The only person in sight was a mulatto woman at the tiller. She gave us a wide berth and everything seemed all right until we were within a few feet of each other when the boat took a tack and came direct for our port side where a collision with the sharp corner of her boat would have stove a hole in ours and have sunk us, but Pic. with wonderful presence of mind threw his helm hard over and the stern of ours struck square on the corner of theirs giving a shock that brought us nearly to stand still and fairly raised the boat up out of the water. In a moment the woman's husband appeared from the cabin where he had been asleep. When we passed we saw the cause of the accident, the woman had steered very near the vern side to give us plenty of room and struck on an old tree that had fallen into the canal and sent the boat over to us. As it was, it did not harm but it was a narrow escape for us. We met the other boat on our return with a load of coal and they reported that it had not leaked a drop.

At another time two of the mules fell over board. As Pic was driving them out of the cabin on a narrow gangway of planks one slipped off and both went over into the water. A couple of young boatmen who were standing near sprang in and led them up the steep bank on the tow path none the worse for their bath. If they had got tangled in their harness they might have both been drowned.

The first question asked a boatman is how do you live on board. We had a small cook stove in which we burned the soft coal with which the boat was loaded, a spider, an iron teakettle, plates, knives, forks, and several of the small cooking utensils including a molasses jug. The bread was purchased at the warehouses along the canal and at the village grocery stores. Ham and bread was the standby. Luxuries in the shape of fresh meat and vegetables were occasionally purchased.

It was bread, dried bread, bread and molasses, and bread. Ham, fried ham, and ham that made up the usual variety. By bringing the slices of ham to a boil in one or two changes of water removed much of the salt and smoke and made it much more palatable and tender. Potatoes when we had them were boiled in the teakettle, then the coffee was made and the dish water heated all in the same utensil. I did most of the cooking but shall not brag of any fancy dishes for I lacked that essential for young housekeepers, a cook book. Perhaps an extract from a letter written by a friend who traveled on a canal in Ohio will illustrate canal living. He writes "I rode on a canal boat to Cleveland, where the captain swore at the cook for breaking all the dishes and the cook swore at the captain because he had never bought any, eat with a one tined fork and did not

4. Term "vern" is interesting. Side opposite the towpath is "berm," "vern" could be a corruption; another possibility—the German "fern," means "far" or far side.

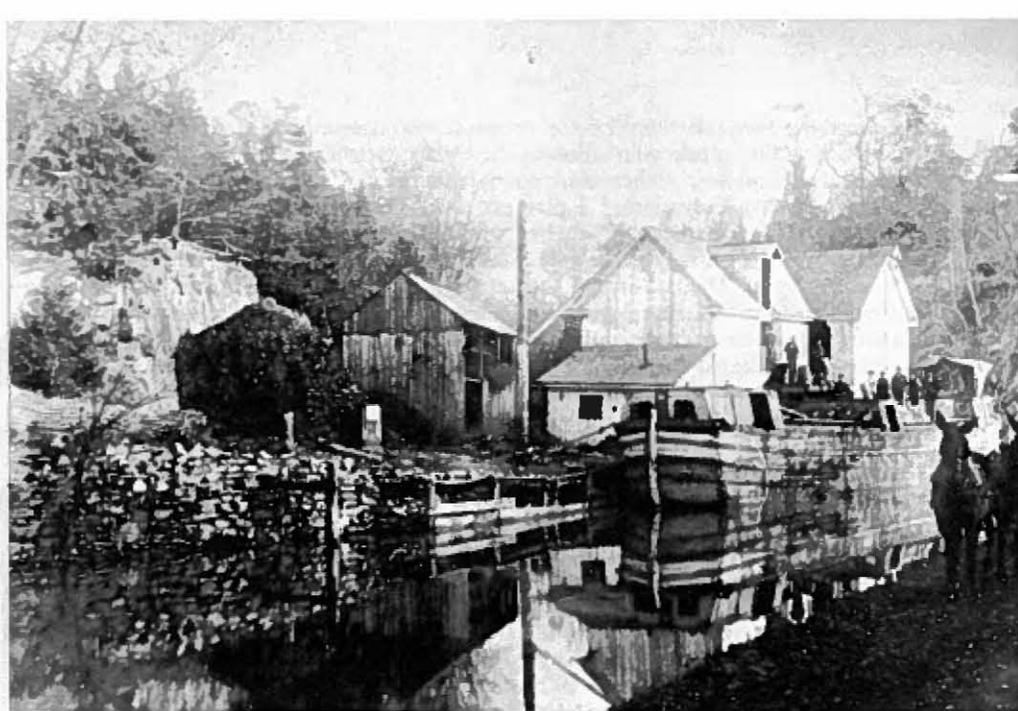
have any appetite." When Tommy the tow boy first came on board, he had a dog. The captain soon disposed of it but not until he had left a number of his messmates, these in the shape of fleas took possession of the berth in the cabin and drove the captain out to sleep on deck in the hay. When I came on board he kindly gave me the stateroom so it fell to me to fight the fleas.

Fleas are very lively animals and more often felt than seen. After a while I arranged a trap and caught numbers of them. Perhaps a description of my trap may be of interest to you. Whenever I felt one of the fleas walking along on the bare skin giving a bite now and then I would put on the teakettle and when it began to boil I would quietly roll the little fellow up in my shirt, take it off and put it in a pail and pour the boiling water over it. When the water was cool enough I would take out the shirt and unroll it and find the flea every time. It was a slow but sure method of catching them. A few minutes in the sun would dry the shirt, which was much freshened by the operation. I do not suppose that I caught them all, probably some jumped overboard but I thined [*sic*] them down so they did not make life a burden before I left.

## The Great Bone Gathering Scheme

When there was nothing else to talk about on board we used to discuss the great bone gathering scheme. Ever since the canal was completed a large share of the horses and mules employed in towing the boats were in their last stages of usefulness. These never left the canal, they paddled on day after day until they dropped in their tracks or were turned out to die in the narrow space between the canal and the river. Here their forgotten bones had been gathering for thirty years and to these were to be added all of those that had been sacrificed in the building and in the subsequent repairs of the canal. I think Capt. Coss first suggested the enterprise, Pic. and myself immediately fell in with the idea and even the tow boys showed considerable interest in it. I was to get a cheap mule and take the Captain's old boat then with another young fellow and a tow boy start from Cumberland and follow the canal down to Georgetown, gathering up all of these bones. The probabilities were that we could get a boat load which would weigh from sixty to seventy tons and that they could be sold for two or three dollars a ton which would make a very good venture. Every time we passed through a zone of perfumed air that told the tale of the disaster that had befallen the motive power of some boat or where we saw the half dried and half dismembered anatomy where the hog and fox had made many a meal or even a single bone cleaned by insects and bleached white and shining by sun and weather then the fruitful subject would come up and whenever we passed a boat Pics. critical eye scanned their team and if there were a care-worn or discouraged looking mule in it he would remark that we "had a morggrum on dat mule" and we can soon add his bones to the load, which was Pics. way of saying that we had a mortgage on it which in all probability nature would soon foreclose.

One day when we were talking it over I asked the Capt. what use they could make of the bones. As the Capt. hesitated a little before he answered, Pic said "I'll tell you boss, you know Capt. Coss dat Yank Bill



"Along the canal at villages, or important agricultural districts, or where valleys break through the mountains, there were warehouses where mule feed and other boat stores including bread could be procured, and where goods could be received and delivered by the boats . . ." (Photo is of Pinesburg Station, above Williamsport.)

dat use to run on the Red Bird?" "Yes?" "Well he done tole me about it. He say dat da take the bones up noff [north] in New Jersey where he lib and grind them all fine like hominy then they put them in a big tank and cover them with oil." "Oil! Pic, what kind of oil?" "Vitriol oil sar." "Oh! oil of vitriol?" "Yes sar, day put dem in the tank and cover them with vitriol oil, and it sets up a contageous decomposition dat confiscates the bones then they are put in a big kettle that goes rolling over and over on gudgeons until it produces a conjection and when it comes out it is a fust-trate of lime which they sell to the farmers for manure at four or five dollars a barrel.' I don't know nothin' about it myself but that is what dat Yankey Bill said, and I saw a barrel of dat fust-trate of lime at a warehouse in Frederick Co. and I should think that it contained the conglomerated essence of de abstract of a whole boat load of burnt bones by the esubrium it devolved." Again and again was the scheme talked over, and many were the castles we built and the millions we saw in it, but yet we took not the first step of practical work towards it. We did not even explore a single section of the canal to see how many bones there actually were or even ask if there was a market at Georgetown for them and when I arrived at Cumberland the whole subject passed out of my mind and was not thought of again for years.

I had watched at Cumberland a colony of solitary bees who made their nests in clay pockets in the perpendicular cliff, and the Capt. called my attention to another colony in a rock cutting along side of the canal. These

bees were the size and shape of the common "bumble" bees of the field and although they worked in colonies they were not socialists but worked independently of each other, each one having his own separate nest. When the colony had selected a place on the side of a cliff where there was a cavity filled with clay each bee would go to the nearest pool and fill his stomach with water then she would pour it on the clay making a small damp spot. The damp clay is carefully scraped up into a ball about one eighth of an inch in diameter and left sticking to the edge of the place where it was excavated. The bee flies away and gets another drop of water and enlarges the hole by digging out another ball of clay which she leaves at the side of the first. This is repeated and shortly she has a hole the size of her body with a ring of clay balls around its edge. The bee keeps on digging, sticking the next row of balls on to the first forming a tube extending out from the face of the bank. This tube one-half inch in diameter and when finished three or more inches in length extends straight out for a short distance and then bends down making a round elbow parallel to the face of the bank and contains from two hundred and fifty to three hundred clay balls. When the tube is fairly started the bee gathers up the ball with her front feet then passes it to the middle feet and then to her hind feet with which she carries it to the end of the tube and puts it in position. The speed at which they work is wonderful the tube showing the color of wet clay for the space of more than a half inch on a hot June day. After the bees have excavated the holes three inches or so deep they gather a quantity of pollen or other food for her future young and [she] lays an egg at the bottom of the hole. The bee now fills up the hole by wetting each ball separately and breaking it off from the tube and carrying it back into the hole, for the tube is no part of the nest but the most convenient place to store material until she wishes to use it again, leaving the face of the wall nearly as smooth as it was when she began. A colony of these bees with one or two hundred tubes in the space of a yard square hanging from the face of a perpendicular rock is a sight not soon to be forgotten and when he has studied their work [he] is inclined to question the idea that only man has reason.

Pic had his idea of natural history. One of these was that frogs rained down. Whenever a person has made up his mind that something is produced by some supernatural cause, no amount of argument or proof that it was produced according to the common law of nature will have the least effect with him. I described to Pic. how the frogs and toads lay their eggs in shallow ponds where they are hatched into polliwogs, and that the polliwogs gradually turned into little frogs and toads by absorbing their tails and growing legs and that when their time comes, generally on some warm, damp day, they would crawl out of the water on to the land where they would begin to breath[e] air and become real frogs or toads. "That all may be so," says Pic, "but I don't see them rain right down on the brickyard floor where I use to work and da would bound like rubber balls when they struck the ground. I seed it with my own eyes, don't you spose I know?" I gave it up, it was no use to remind him that all around the brick yard were pools of water full of growing frogs waiting for that shower to come and that the bounding of the frogs was only their jumping as they started off on their journey of life. But this is no worse than an otherwise intelligent man in New Hampshire who declared that the common "rose bug" lost off its wing covers and turned into horse

flies in July and August. Speaking of horse flies, there were among others a very large species of fly that would occasionally alight on the mules and nearly drive them frantic. In shape it was like a common house fly, nearly black, one inch or more long and broad as your thumb.

### "Dare Is Ghosts!"

Our conversation drifted from one thing to another one day, until someone made a remark about ghosts. I said I did not take much stock in them. Pic's eyes began to roll, "Dare is ghosts" said he "I've seed'en wid my own two eyes." Are you sure they were ghosts Pic? "By golly, I knowed they were ghosts!" Where did you see them? "Well I tell you. One evening I was coming home up through the old squaw bog road from Uncle Peters. It was a lonely night and I started just as the moon went down behind terrapin hill. All the evening the ball bats had been sailing around with their boo, boo. As I passed the old mill a partridge flew out of the road with a fearful whirring den at the bridge ober the creek there seemed to be a whole regiment of frogs with more different voices den you eber heard at de colored campmeeting over the de ridge. I went along but I kept both of my eyes and ears open for dare was a kinder of a creepy feeling down my back. I passed the deserted house up through the thick hemlocks to the old cellar hole where they say the squaw was murdered. Just then there was a louder boo then eber and dis niggers wool began to straighten out and as true as we are here on the canal dare was a ghost standing on the hearth stone in front of the old fireplace." What did you do, Pic? "I just angulated my legs and run." What did the ghost do? "He ran too. He ran after me." Did he catch you? "No, by golly, I outran him. O didn't I run, why I was ready to lie down prostrate in a dead faint and go into convulsions when I got home I was so scared and ex-hoss-tocated."

What did the ghost look like? "Well I can't preterzactly tell, howsomever he loomed up awful and spooky like then he kinder spread out a pair of white wings like the cerabibs on the old gravestones then he started for me and I could hear his great hoofs clomp clomp over the stones. Why! he come like de wind taking more den ten foot at a stride." And you kept ahead of him? "Yes, I did, but once or twice I could feel his breath on the back of my neck and I expected every minute he would put his paw on me and that I should be fugaciously destroyed. But I tuckered him out at last and gotaway, but I do not know how." Says I, "Pic, was you drunk?" "No, sar, I was not drunk but I will allow dat I had two or three glasses of whiskey just before I started from Uncle Peters to kinder keep my courage up." Pic did not seem to enjoy the smile that passed over the faces of the listeners and ominously shaking his head said "that story is true, it is just a [sic] true as I stand here and steer this boat and aint saggerated one mite. And you would not laugh if you had been there that night."

Capt. Coss said he had a little experience in that line once but he would hardly call it a ghost story. I had been to a singing school, he said, and had walked home with a young lady and when I left it was getting late, in fact it was beginning to be early so I hurried along thinking of the singing school and of those that were there so I did not take much notice of the road side, of course I knew when I came to the graveyard and

took occasional glances at the white stones and the black posts and the blacker chains that surrounded some of the graves, and the old weeping willow that hung over the hearse house swaying in the wind. I had got opposite the old town tomb and was thinking if I should find the back door unlocked or if I should have to skin up the apple tree and crawl over the shed roof and in at the attic window when I got home. Just then a terrible shriek as if the whole graveyard had broken loose seemed to come right out of the tomb. Every hair on my head stood on end and I jumped more than ten feet and started to run for dear life but brought up against a pitching post that nearly knocked me senseless. While waiting to get my breath and considering what to do next I heard the shriek again, but it did not seem so loud, turning quickly around, I saw two enormous tom cats just in the act of clinching in mortal combat on the very top of the tomb. I stopped long enough to see a wheel of legs, tails and fur whirling in the air. I then went on, but it took a long time to get over the effect of the fright. Pic scratched his woolly head awhile and then said, "dat will do, Captain Coss, dat will do, but I done seen a real ghost sure."

### We Arrive at Williamsport

A few days sail brought us to Williamsport where Captain Coss and Pic's family lived and where we stopped about a week over the Fourth of July Tommy and myself living on the boat.

Williamsport was a quiet village of a thousand or more inhabitants lying a short distance back from the river in the valley of Washington Creek and hidden from the canal by low hills. There was a flour mill, two churches a few country stores, bakery, and blacksmith shop.

The Hagerstown [*sic*] Pike ran through the town and was probably one of the best-kept roads in the country. Down by the canal was a basin where the Capt.'s old boat was stored, near which we tied up. A small sawmill and an old barn was [*sic*] the only buildings in sight except the top of the church spire over the hill in the village. Just above the boat landing, the highway from Williamsport to Martinsburgh, Virginia, crossed the canal and Potomac River. This was one of the roads used by General Lee in his retreats from his raids in to Maryland. There were but few bridges across the river, ferries and fords taking their place. While I was at Williamsport the few people that crossed the river forded it as the water was only about two feet deep.

Just after noon one very hot day an old gentleman and his wife started from the Williamsport side in an open wagon and went bumping over the stones that formed the river bed until about half way across when the whiffle tree bolt broke and they came to a standstill. Instead of taking some of the straps from the harness and fastening the whiffle tree to the cross bar of the shafts until he could pull the wagon ashore he left the team and his wife in the river and waded back and hunted up the village blacksmith. Then he and the blacksmith waded out to the carriage took out the broken part, waded ashore again mended it and then waded out to the wagon and put it in place taking in all about two hours. All this time the woman was holding the horse in the broiling sun with only a small sunshade to protect her from the sun overhead while every wave



"Williamsport was a quiet village of a thousand or more inhabitants lying a short distance back from the river in the valley of Washington Creek [Conococheague Creek] and hidden from the canal by low hills. There was a flour mill, two churches, a few country stores, bakery and blacksmith shop." (Pictured here is the C & O Canal Aqueduct across Conococheague Creek at Williamsport.)

and ripple reflected the sunlight from below. A little Yankee gumption would have taken her ashore and saved her all the discomfort.

On the side of the hill about half way from where the boat was moored to the road were some oak trees under whose shade the colored women of the village did their washing bringing their water from the canal a distance of ten or a dozen rods. I wondered why they came there, if it was for lack of water or simply habit, or for the sociability as several would come together, but found it was for the soft water that came through the canal from the river as the village wells were all very hard.

One evening Capt. Coss, his brother and myself went a gig fishing. There was a little flat bottomed boat in the basin, which we took over to the river and floated down half a mile or so. The gig or jack as it is sometimes called, was an openwork iron basket set on the end of a handle about four feet long and when filled with pitchwood formed a torch giving a very brilliant light. This torch was fastened to the front end of the boat and lighted up, then we took off our pants and waded into the river, the Capt. going on one side, his brother on the other each with a spear in one hand. I followed behind pushing at the stern while they guided the bow. We took the middle of the river and worked upstream

the bright light of the gig illuminating the bed of the river. When ever a fish was seen, one would let go of the boat, poise his spear with both hands and strike for it. His success depended on the accuracy of his aim, the refraction of the water and the quickness of the fish, as it was we caught enough for a meal for both families, and frypan full for Tommy and myself on the boat. The fish we caught were the white and common catfish or bullheads, chub and a fish of the perch kind. The only inconveniences we found was [*sic*] the sharp snail shells which covered the stones. These hurt our feet so that we had to put on our shoes.

I made considerable study of the shells in the Potomoc River. There was one species nearly an inch long and about one-half inch in diameter that was found below Williamsport and in Washington Creek so common that you could get several specimens on every stone you might pick out of the water yet a short distance above I could not find one. Another a smooth cone about one-half inch in diameter and the same in length was common everywhere below the Cumberland and up the Wills Creek but I could find none in the river above. All the shells in the river had their small ends eaten a way by the carbonic acid in the water while those in the two creeks were perfect.

### The Blackberry Party

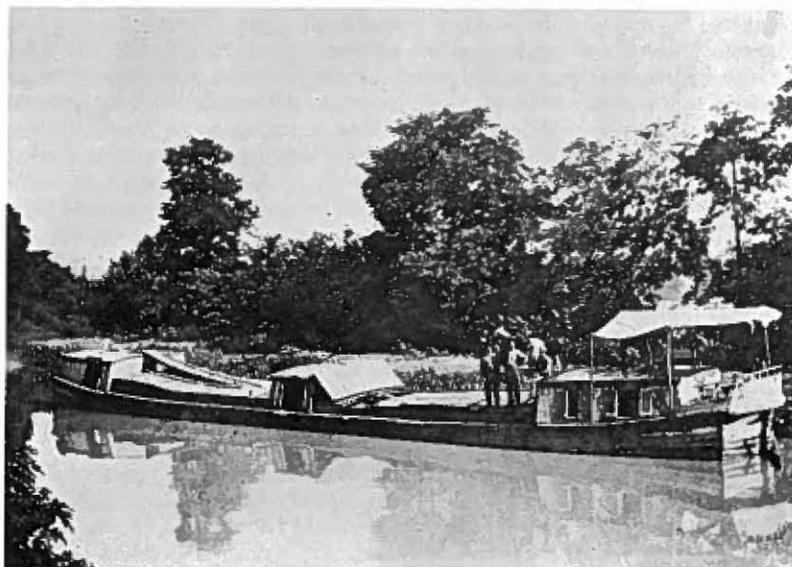
Before we left Williamsburg Capt. Coss got up a blackberry party which included his daughter, Tommy and myself. We carried the little boat down below the lock and I got a strip of edging from the saw mill to splice out the pointer for a tow-line, for there was only a paddle made from a bit of board to row with. I towed them apiece[;] then Tommy took my place and I sat in the bow and had the grandest panorama of water snakes I ever saw. Before this I had never seen a snake in or around the canal although Capt. had warned me to look out for copper-heads among the brush. It seems that the snakes were along the edge of the canal hid by the low shrubs and water plants and the pole that we used to tow the boat dragged through these and stirred them up and they started for the other side of the canal and went wiggling across about four feet in front of the boat and about five feet apart giving an average of a thousand snakes to the mile. We landed on the vern side a mile or more down the canal and went through the woods and on to a side hill. I followed an old stone wall and in an out-of-the-way corner of a pasture found a considerable patch of vines. The small tin cup I had was soon filled and as the others had disappeared with the pails and were out of hearing, I took off my cap lined it with leaves and picked it full, two quarts or more. I then came back to the canal and found the boat gone and no one in hearing. A short distance below I found a culvert where I could crawl under the canal and get on the tow path side and walked back bareheaded. I found a dish at the boat to put the berries in and sent them up to Capt. Coss house. My berries were about the only ones picked the others getting discouraged went home. I was invited out to dine the next day and we had blackberry pudding for dinner. A few days later when we were below Harpers Ferry the blackberries were in their prime and I stopped off and picked a two-quart pail full along the tow path, overtaking the boat, which had sailed along, after a short walk. They made a fine relish to our ham and bread.

On the Fourth of July the church that Capt. Coss' family attended had a picnic about three or four miles up the canal. A flat forty or fifty feet long used for transporting gravel for canal repairs was improvised as a barge and was trimmed up with evergreens, flags and banners. Seats of various kinds were placed on it with two arm chairs in the center for the minister and his wife. The sabbath school marched over and filed on board.

The old maids and matrons with the babies occupied the middle of the boat. The young men and maidens took the outside seats, while the deacons and the sabbath school officers patrolled the edges to see that no one fell overboard for there was no railing. Someone loaned them an old white horse for motive power and our boy Tommy held the place of Honor being delegated as driver of which he felt very proud and had spent most of the day before fitting a new cracker to his whip.

After the first half mile Tommy was called in to sample the popcorn and lemonade while some other kid mounted the tow-horse. To insure perfect safety to the excursion Capt. Coss held the tiller and piloted them to their journeys end. It would seem to be hardly worth the while to be to so much trouble to go so short a distance but then it was an hour or an hour and one half journey which would be equal to twenty five or thirty miles by rail or excursion boat and with a chance to see as much or more of the scenery and with no danger of accident. Pic with his young Pickaninnys had their celebration with the members of Zions Wesleyan First Colored Methodist Episcopal Church of Williamsport, while I spent the day alone in the boat thinking over the declaration of independence, how all men (except negroes) were made free and equal.

One afternoon I walked out on the Haggerstown Pike beyond Williamsport village where I found great numbers of tumble bugs rolling up their balls. In one place I counted one hundred and twenty five in the space of a rod. They were of different species from those I had seen in New England being nearly round with thin black wing covers while the northern species are more angular in shape and have thicker wing covers which are often rough in texture. There are also those that have bright green and others mahogany brown wing covers, but these are not very common. All I saw that afternoon were of one species and were about one-half inch across and were making their balls out of horse manure found in the road. These beetles worked in pairs although there were sometimes three at one ball which was nearly round and from five-eighths to three-fourths of an inch in diameter and after it was shaped it was rolled to some place where it could be buried for the road bed was as hard as a stone. It was very interesting to watch them roll the ball. The male climbed up on one side clinging to it with its claws so as to throw the ball out of balance and pull it over toward him. The female went behind the ball and placing her front and middle feet on the ground with her head down pushed and guided the ball with her hind feet. Thus they pushed and pulled the ball, little by little, both going backwards until it arrived at its destination, often two or three rods distant. On the smooth road it rolled comparatively easy, but even here every little pebble formed an obstruction; at the edge of the road the serious work commenced, there was the ditch where often the ball and beetles would go rolling down together for they never let go. Then came the road side bank, often steep and obstructed by stones, grass and twigs. Up this they would tug



"While waiting at Williamsport the Captain had made an awning of cotton cloth covering the steering deck and cabin. It was high enough to clear the pilot's head and give plenty of room to sit under on the cabin roof . . . The awning made the boat very comfortable through the long hot days that followed."

and push, rolling this way and that, but always striving to keep in the same direction, now getting part way up and then rolling back, over and over again but never giving up. Now and then they would make a short reconnoitre to select the best path and then at it again. On they pushed it, across the road, through the ditch, up the slope, under the fence, out into the field where they had selected a soft spot, there they would dig a pit five or ten times their own depth and roll the ball into it and fill up the hole. In the meantime the female had laid an egg on the ball which was to serve as food to the grub when the egg hatched and as a single ball would furnish food to one grub only, a pair of beetles would probably have to roll up several hundred balls in the course of the season.

I did not have the time to watch one pair of beetles from the commencement of a ball to its final deposit in the ground, therefore could not tell how long a time was occupied or how many balls a pair would roll up in a day, but I saw then in all the different processes, the forming of the ball from the fresh manure, the roll across the road, the exciting tumble down the ditch, which might be compared to two men rolling down a fifty-foot cliff clinging to a barrel, then all the various stages of climbing up the bank, a mountain in size to them, and rolling back down again, the journey through the field and the digging of the pits where they were buried.

I was on the shore grooming the mules when a strange object came walking down the canal carrying a fiddle under its arm and went on board the boat. It had a drabbed calico dress with skirts hanging straight down which was more noticeable as hoops were then in the height of

fashion. Tommy was aboard and entertained the visitor but I kept an eye on the object. After talking with Tommy a while it played him a tune or two and went on its way. I afterwards learned its history. It seems that when it was born it was a serious question whether it should be called Abby or John, but it was finally decided to call it Abby and by that name it was christened and the mistake was not found out until it was too late, but from the time the child could speak it protested by word and action and now grown to full stature it was a veritable vagabond traveling around the village with fiddle, a palm-leaf hat, whiskers, heavy bass voice and dressed in petticoats.

### "Pigs, Pigs, Pigs"

Those people whose knowledge of a hog is limited to one confined in a dirty pen six feet square and fed regularly all he can eat three times a day have but little idea of the real nature of a hog that has unlimited range and who has to get most of his living by foraging. Really there is hardly any animal that shows more cunning, energy, perseverance and neatness than the hog when he has his liberty. Everywhere in this part of the country the hog has free range, even in Washington the hogs were at that time as common in the streets as dogs, and you could frequently find them asleep on the walk with their nose over the curbstone and their tail curled through the front-yard fence. When a Lady came along she had her choice of punching him up with her parasol or going around through the mud or dust of the street. We did not often see them along the canal unless we stopped to feed the mules, then a hog was sure to appear even if it was miles from any habitation. They would seem to come up right out of the ground. I had more experience with them at Williamsport than at any other place. The mules were picketed out by the side of a barn daytimes and at noon were fed with corn on the cob. I would carry out a bucket full and put it in the manger before one pair. Not a hog would be in sight. I would then return to the boat and fill the bucket for the other pair and by the time I got back there would be a hog standing on his hind legs with one fore foot in the manger eating the corn while the mules stood back and looked on. When I came up the hog would turn his head and with a kind of merry twinkle in his eye look at me as much as to say, "What are you going to do about it?" Of course I would drop the bucket and give a jump for him, then with a grab for the corn, getting at least two ears in his mouth away he would run and I after him. He would take an easy gallop with first one eye then the other looking over his shoulder keeping about a rod ahead of me whatever speed I ran, circling about until he stumbled over something and dropped his corn which I would pick up and bring back in triumph while the hog turned around and trotted along behind me. My triumph would be of short duration for another hog by this time would have arrived and would be interviewing the bucket I had left behind. . . . As long as I remained they kept busy, rooting around, turning over stick and stones, but always had an eye on me and [were] ever ready to make a forage if opportunity should occur until the mules had eaten the last grain of corn. Then they disappeared as suddenly as they appeared. . . . Hogs soon learn when and where they are liable to find food. At Piedmont, Va., the village

hogs, a drove of perhaps forty or fifty, spent most of their time feeding on the side of the mountain, but when they heard the whistle of the freight trains they would come scampering down to the station, where they would follow from car to car the man who greased the axles. They would put one foot on the frame of the truck raise the box cover with the gristle of their nose and scoop out the grease with their under lip. After a dozen hogs with different sized and shaped lips had been through a box there was little grease left. You could not drive them away; if you tried, they would run under the car and by the time you had crawled over they would have the boxes cleaned out on the other side and were coming back under the car again. After they had extracted the grease to their satisfaction they would go to sleep under the cars and when the cars started which they always did with a jerk there would be rather a startling appearance of a drove of hogs coming out among the wheels. Occasionally one lost a leg and went hopping around on three feet the rest of his life.

When I came up the canal in February they were at work making repairs. At one place there was an old man with wheelbarrow and shovel digging out a sand-bar formed by a little rill that ran into the canal. As I came near him I saw something moving on the outside slope of the tow path and a step or two brought me in full view of a good-sized pig rolling a tin pail over and over but had not succeeded in getting the cover off as it was tied on with a handkerchief. The old man, perfectly unconcerned, was busy with his work. "Look here, old fellow" said I, "you will lose your dinner." He straightened up and looked at with surprise and said, "Why?" "There is a hog—" He dropped his shovel and exclaimed, "O, my Lord!" sprang across the bottom of the canal and scrambled up the bank on to the tow-path without stopping to hear any more. The pig heard him and stopped rooting to see what was coming. As soon as the head of the old man appeared above the bank, the pig gave a grab, caught the pail by the bail in his mouth, and was off like a flash with the old man after him. It was one of the most exciting races I ever saw. The ground was nearly level about three rods wide between the canal and driver and six or seven feet below the tow path where I stood, and was filled with small clumps of bushes with clear spaces around them. The hog kept about six feet ahead, with one eye on his pursuer. On they went first around this bush and then around that circling this way and then the other according to the way the pig's eye was turned, cutting regular figures of eight and not getting more than two rods from the starting point. The old man was bent nearly double to grab him, his gray hair flowing out behind; every time he overhauled him the pig would make a tack around a bush and go galloping off in another direction, so it went round and round, back and forth, until the pig stubbed his toe over a rock and dropped the pail, then the old man came puffing up the bank and thanked me over and over again for he said, "that pig would have had the pail open in another minute and I should have had to work all day without any dinner, for I am three miles from home." As it was all that saved it was the handkerchief tied on the cover.

There is an amusing side but sometimes it has a more serious aspect as one has experience with the hog. A boy about a dozen years old in Washington concluded that he could have some amusement at the expense of a good sized hog that acted as scavenger on C street. He provided

himself with a pocket full of corn which he dropped grain by grain along the gutter thereby getting the confidence of the porker. When he got the hog opposite a carriage stone he would with the dexterity of a cow-boy vault on to the animal's back, grasping him by both ears. Away they would go the hog taking tremendous strides at the same time squealing at the top of his voice, up C Street into Seventh out of sight the boy clinging for all he was worth, going, how far I never knew but could hear squeal after squeal until they died out in the distance. The last time I saw the performance the boy was the one that suffered for the hog did not take more than two leaps before he made a short turn t[h]rowing the boy with great force against a stone that bridged the gutter. The boy took up the cry where the hog left off, picked himself up and went home holding on to his side. The hog crossed the street and was immediately absorbed in a mute study of a cabbage leaf. The other incident was at Wheeling where I ventured too near a hog with a litter of pigs. This ended in a foot race where I came in only one length ahead. I would have been glad to have been two or three lengths ahead for it is not a pleasant sensation to feel that an enraged hog is only six feet behind you with every bristle standing on end, his mouth wide open with two long tuskes [*sic*] ready to gnash you and his face covered with foam and froth and at every leap is giving one of his peculiar puffs of sound which is neither a grunt or a growl.

## Turtle Soup

The Williamsport vacation came at last to an end and we geared up our mules and were off down the canal again. While waiting at Williamsport the Capt. had made an awning of cotton cloth covering the steering deck and Cabin. It was high enough to clear the pilot's head and gave plenty of room to sit under on the cabin roof. It was kept in place by cleats screwed to the sides of the boat and did not have to be lowered for any of the bridges on the down trip and only occasionally on the return. This awning made the boat very comfortable through the long hot days that followed.

There were four or more species of turtles along the canal: the common spotted turtle, three or four inches long with bright red and yellow spots. The painted turtle, an inch or so larger with red blotches on its head and feet and a stripe around each scale of its shell; a black turtle, and the snapping turtle. The three first were very common, floating on the water or sunning themselves on the banks of the canal. The snapping turtle was not easily distinguished from the black at a distance on the water but at a near view the big head, thicker hump backed shell and pugnacious disposition was easily recognized. The snapper is the game fish of the turtle kind. The black turtle is some [times] eaten but the spotted and painted ones never except perhaps sometimes by the blacks. Capt. Coss had from time to time given me lively descriptions of turtle hunting and of the big old snappers to be found in the river and told me of the turtle harpoon he had at home. I never expected to see the harpoon or a turtle caught with it, but just before we left Williamsport he brought it out and had the blacksmith sharpen it and took it back with us down the canal. The harpoon was made by putting a pointed socket on the end of

a strong hickory stick and a steel hook on the other the whole being four or five feet long. The pointed end was used to probe in the mud holes along the bank of the river and at the mouth of the creeks. We could tell by the feeling what he struck; if it was mud or sand it went in easy; if it hit a log it would stick, on a stone it would jingle but if it hit a turtle's back it gave a dull thud and rebounded like rubber. A day or two after we started the Capt. remarked that he thought it might be a good day for turtles and jumped ashore with his harpoon and followed along down by the river bank. Pic. was at the helm, Tommy was driving, little Pic was on his back asleep in the sun, and I was sitting on the cabin looking back along the tow-path wondering what success the Capt. was having. All at once he appeared about a quarter of a mile back with some black object in his hand hollooming like a loon. We ran the boat ashore to wait for the Capt. but soon found that he was calling for Pic to come back and help. At almost the first hole, the Capt. struck a thirty five pound turtle and hauled him out with the hook on the harpoon and brought him up on the tow-path, but he was a slippery fellow to carry so Pic. went back to help him. Pic grasped the turtle by the tail and held him at nearly arm's length, for he was in mortal fear of the turtle's jaws, which kept snapping like a steel trap, never letting the head which kept twisting around get within two feet of his legs. We had to laugh at poor Pic. who was straining every muscle to keep his balance with this heavy weight at the end of his arm keeping the turtle twice as far from him as there was any need of. "By golly, boss, if dat durned hummock back cotch hold of me wid them grappling irons I would be just spontaneously annihilated!"

Pic. was not far from right for I have seen a snapping turtle grasp on to a steel shovel blade with sufficient force to be lifted from the ground,



"As we sailed along one hot afternoon we turned from the river and came face to face with a mountain and soon found ourselves at the mouth of the tunnel. The Captain blew the horn and as the tunnel was clear we entered."

and they will often hang on to a stick and be drawn on their backs for rods. We put the turtle in the bottom of a flour barrel which was just large enough to hold him but he could not run his head out only by raising himself on his tail. We kept him several days and then dressed him having meat enough to fill a common water pail full. We parboiled the legs and then fried them making a meal that I long remembered, but whether it was my good appetite or the change from ham or the extra good flavor of the turtle I do not know but presume it was part of each. The rest of the meat was given to Pic who took it home and had a feast with his family. To illustrate with what tenacity the turtle sticks to life I will describe the Capt. experience in dressing it. He cut the head off the night before, then the next day cut off the under shell and took out the heart, liver and intestines, then began cutting out the flesh while I held the shell steady on the deck. He had cut out the two fore legs and one hind leg leaving the last hind leg and tail. When he began to cut this the turtle drew back and kicked with sufficient force to draw blood on the Capt.'s hand.

### Through the Tunnel

As we sailed along one hot afternoon we turned from the river and came face to face with a mountain and soon found ourselves at the mouth of the tunnel. The Capt. blew the horn and as the tunnel was clear we entered. The canal through the mountain narrowed to a single track but a few inches wider than the boat with vertical walls on each side. A shelf on one of the walls about four feet wide formed the tow-path and the whole was arched over with brick giving plenty of head room above. The space was so narrow that the boat required no steering so we all sat around the edge of the cabin and listened to the sharp clicking of the mules feet and the crack of the tow boys whip, which echoed and re-echoed through the long walled room. We could see a point of light dimly in the distance[;] this was the far end of the tunnel which grew larger and brighter as we sailed slowly, very slowly along, while the end we entered grew smaller and smaller. Around us was a dusky twilight and the mules were the outline of a deep dark shadow. In spots the dampness oozed through the walls and occasionally small gray stalactites hung from the arch above formed from the lime in the cement. We were nearly an hour sailing through, although it was only about three fourths of a mile long, for it is so narrow that the boat fitted it like a loose piston that crowded the water up into a wall in front of us, making hard pulling for the mules. So there was no room for boats to pass each other those that were coming in the opposite direction had to wait at the entrance until we came out and if there had been a half dozen boats following us, as they sometimes do, so near together that each could get into the tunnel before the one in front got out it would cause a long delay, but the great essential of a boatman's life is patience[;] time is of little account to him, as it was there were none to follow and we met no boat for a considerable distance below. The air was clear and of a grateful coolness in the tunnel, but the gloomy light and hollow sepulchral sound of our voices gave us a feeling of loneliness and we were glad to leave the dreary cave and come out again into the sunlight where the world is full of life and activity, not but what the tunnel had life for on the walls grew green



"In contrast to the tunnel there was a short reach of slackwater navigation where we were locked down out of the canal into the river, which formed a bay or eddy extending up to the deep side of the mountain, along the foot of which a path had been cut for the mules." (Photo, courtesy of National Park Service, is of Guard Lock 5 at slackwater above Dam 5.)

moss, diatom and fungus made their homes in the cavities, bats fluttered here and there, while the water below was teeming with multitudes of living things, but this was not the life like that of the birds, insects, and flowers, the life of the sunshine and fields. Coming out, we passed through a deep cut, rounded a short curve and was soon hugging the river bank again.

In contrast to the tunnel there was a short reach of slackwater navigation where we were locked down out of the canal into the river which formed a bay or eddy extending up to the steep side of the mountain along the foot of which a path had been cut for the mules. The boat kept some distance from the shore making a pleasant change from the narrow canal although they sometimes have trouble in a heavy wind especially with a light boat that rides high on the water as they have no keel or center board to keep them from drifting. At the end of the reach we were locked into the canal again for there must be a lock to and from the river for the water in the canal must always be the same height while that of the river changes everyday. The height of the water in the canal is maintained by sluice gates and short canals from the river or stream that will bring it from a higher level. There are also overflows or [weirs]

along the bank every mile or two to let out the surplus water, which in case of an accident to a lock or a heavy shower, or a long storm, might be sufficient to cause a break in the bank.

There were a dozen or more dams across the river between Georgetown and Cumberland for furnishing water for the canal. Some of these had names and others went by number. A few of these were well built, but most of them were very rude structures made by building square cribs of timber, cob house fashion, and filling them with boulders from the river bed. The intervening spaces were closed by stretching timber from crib to crib and sheathing them with plank. Each year some of the cribs would get undermined or tipped over by the spring freshet, and a section of the canal would be dry until they were repaired. The dam at Little Falls furnished water by which extensive flour mills were run in Georgetown, this section of the canal being kept full the year round. At Great Falls the Government owned the dam it being the source of the water supply for the city of Washington, and they have spent nearly half a million dollars on a new one since. At Harper's Ferry the U. S. Armory and the canal were joint owners of a stone dam and a new one was in process of building just below it. This was stopped by the war and I think never finished.

## Nature Stuff

Of the birds I saw on my summer trip I have no distinct remembrance as at this season the birds were raising their young and did not make themselves conspicuous. In the winter I saw a great many—I should say thousands of Whistler ducks which flew up in great flocks at every bend of the river between Georgetown and Point of Rocks. They are a wild bird and have sharp eyes, and my appearance on the tow path was sufficient to send them off long before I was in gun shot of them. I also at the same time saw a number of bright red birds, probably grossbeak, in the thickets beside the river and were particularly noticeable among the leafless branches.

When we sailed after dark we lighted a square lantern and hung it on the bow of the boat for a head light which lighted the canal for a considerable distance and gave warning to those coming in the opposite direction. One damp night not far below the tunnel we ran into a perfect storm of May flies, or shad flies as they are called along the Connecticut River. They are a class of insects called ephemera which means an insect that lives but a day. They were a soft insect, with gauze-like wings that spread about one and one half inches and came up out of the water in countless numbers crawling over everything and sticking wherever they touched. So many crawled through a small hole broken in the corner of the lantern that they were three inches deep in the bottom. For miles the next day the surface of the canal was covered with the pupa skins out of which the insects came. You would get hundreds by dipping a pail of water. It is supposed that they live during the larva or grub state in the water for one [year] at least and probably for several years, and when they have arrived at maturity they seem as by appointment to all rise to

5. There were only seven feeder dams on the C & O Canal.

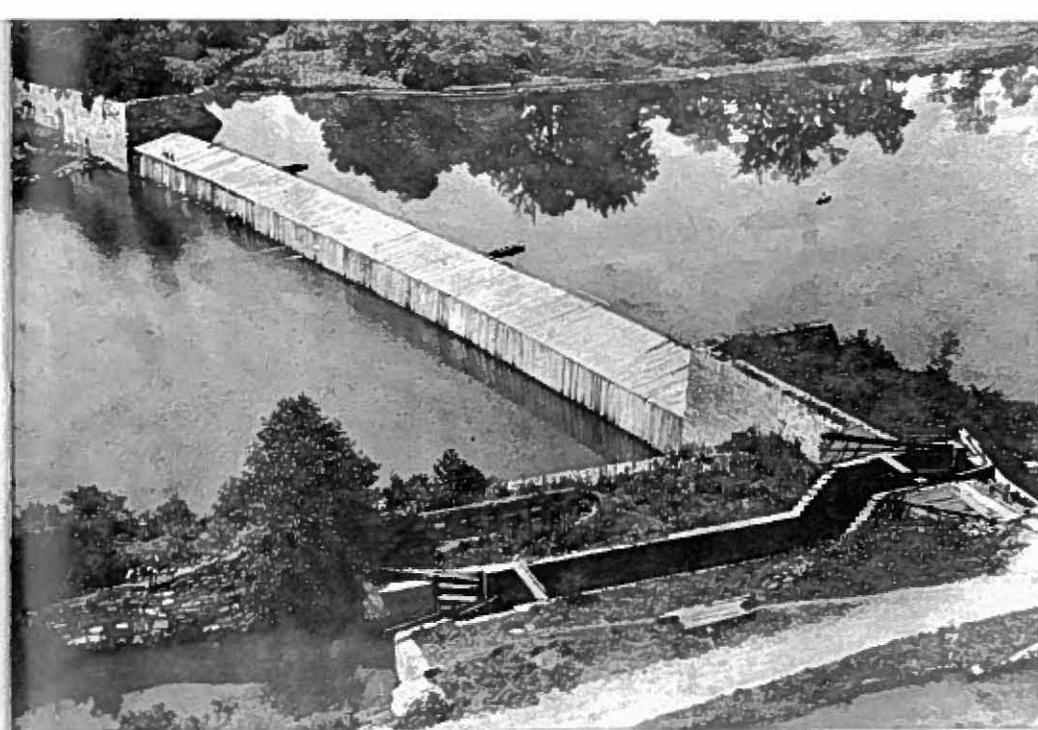
the top and at almost the same moment burst their pupa skins and fly away in the world of air where they mate, lay their eggs and die. Some species seem to live only a day or two, others may live for a week or more. . . . These insects are seen more or less every season, but only in such prodigious quantities at rare intervals.

One of the great pleasures of canal boat travel is [that] you never feel hurried. If you want to stop and fish, hunt, sketch, botanize or geologize, all you have to do is to step ashore and stop as long as you wish and a brisk walk will bring you to the boat again probably at the next lock. Near Antietam I went over to the old ironworks but saw little to interest me. It was near this place that the calico rock, so called, is found. It is a formation of stone broken an inch or so square, blue and red, cemented together with some white material making a peculiar check of the crazy patchwork pattern. Opposite Harper's Ferry I waded out to a small island and made a rude sketch of the notch through the Blue Ridge Mountains and as this was only a few weeks before the John Brown raid, probably some of the villagers who saw me there afterwards associated me with him, and to this day tell their children and grandchildren how they saw one of the raiders sketch the town.

## Harper's Ferry and Point of Rocks

We were now nearing the Blue Ridge Mountains and the celebrated Harper's Ferry notch and as we entered it, the mountain on the north called Bolivar Heights crowded more and more on the canal until it had to be built in the edge of the river. Opposite this mountain is the town of Harper's Ferry, built on two slopes of a very steep hill one house rising above the other in terraces. At the foot on one slope at the side of the Potomoc River were the U. S. Arsenal and gun shops, the other slope ran down to the banks of the Shenandoah river which came rattling in from the south through a narrow valley at the foot of the western slope of the Blue Ridge Mountains. After we round Bolivar Heights and just before we get opposite the Shenandoah the mountains fall back a little giving room for the highway and railroad which crossed the river together on the old wooden bridge to Harper's Ferry and for the few houses that formed the hamlet of Bolivar.

The young men of Harper's Ferry use[d] to amuse themselves by gathering at the bridge evenings and waylay such darkeys as were caught out after 9 o'clock without a pass and as they called it "wallop them." It might be funny for the boys, but it was not so funny for the victims as they dared not complain. It was also across the bridge that John Brown, whose soul goes marching on, marched his little army. This bridge was destroyed the next year by the rebels. As I now recall it the mountains on the Virginia side from the mouth of the Shenandoah to the Point of Rocks, twelve miles below, rose direct from the water steep, black, half wooded, from one to two thousand feet high, a wild uninhabited wilderness. On the Maryland side the mountains were divided into ridges leaving openings between in some of which were small hamlets, as at Weaverton, where the water power had been developed and a large pile cutting establishment built only to be deserted and fall into the river.



"There were a dozen or more [actually seven] dams across the river between Georgetown and Cumberland for furnishing water for the canal. . . . A few of these were well built, but most of them were very rude structures made by building square cribs of timber, cob house fashion, and filling them with boulders from the river bed. The intervening spaces were closed by stretching timber from crib to crib and sheathing them with plank." (Photo is of Dam 6 and Guard Lock 6.)

Knoxville was in another valley through which a branch railroad has been built since the war finding its way out through some notch to Hagerstown on the west. It is a wild, picturesque ride from the Ferry to the Point of Rocks. Dark mountains on either side crowd the river which rolls and tumbles over its rocky bed. Here and there the mountains interlock and seemingly form a barrier against further progress, then as we round some point the vista opens again only to close and open again. Point of Rocks is at the east gate of the Harper's Ferry notch. On the north shore the river washes the foot of a near-by perpendicular cliff several hundred feet high. On the top of this cliff was a boulder from which the place took its name. At the foot of this cliff they first built a carriage road, then came the canal which cut partially into the mountain and partially filled in the river sharing the tow path with the highway and last the railroad which had to cut still further in and wall up the slope of the canal to get through. This place was the end of my winter journey although I had intended to continue my walk through the notch to Harper's Ferry, but forty-eight miles in two days with a thin film of clay mud on the road that would pile up on my boots until they were very heavy was sufficient exercise for one time. To pass the time the next forenoon while waiting for the train I climbed up to the big boulder. It was eight or ten feet high and as large in its other dimensions and so



"We were now nearing the Blue Ridge Mountains and the celebrated Harper's Ferry notch and as we entered it, the mountain on the north called Bolivar Heights crowded more and more on the canal until it had to be built in the edge of the river." (This photo of Lock 33, opposite Harper's Ferry, is probably contemporary with the author's visit, as it was possibly taken in 1859.)

nearly poised on the slope that a wall of masonry had been built on its lower side to prevent it from accidentally rolling off on to the road or canal below. One night during the rebellion some persons dug out the props and set the stone rolling over the bank where it went thundering down, just passing the railroad, which it was intended to destroy, into the canal but by good luck it fell near the edge on the vern side where it now stands with the top two or three feet out of water covering a space half as large as a freight car but not interfering with the passage of boats.

The village itself consisted of half a dozen whitewashed cabins and two hotels one on each side of the tracks; from each when the trains arrived came a stalwart negro with bells as big as two quart jugs which they rang lustily while the train stopped, but there were no passengers to reward them for their labor. The night I stopped there they had a grand ball in the warehouse as the building was called that served for the freight house. Point of Rocks was noted as a hard place, and one of the guests at breakfast was bragging that the ball had redeemed the name of the place, as there had been no fights, or at least only one or two misunderstandings, during the whole evening.

A short distance below Point of Rocks we came to a little glade where standing some twenty rods back was a small cabin fifteen or eighteen feet square where the Captain said there were at least half a dozen children all of a size, so we kept watch and they came out one by one to see the boat until we counted thirteen. Twelve did not vary three inches in height and were dressed in a single garment, a cotton nightgown which once might have been white, the other was a boy a few inches taller and wore pants, with them were two women. As they were all colored we concluded that it was the young stock department of some plantation and they would have made a very artistic group for an amateur photographer or painter.

Before the Rail Roads small packet boats ran on the canal in opposition to the stagecoach and would make nearly as good time where there were not to [sic] many locks. One of these boats had survived the changes of time and was used for excursions. We met the boat with a private party going up the canal between Harper's Ferry and Washington, sailing at the rate of four or five miles an hour. What attracted our attention the most was one of the party who stood on the roof over the cabin with a dip net on a long pole with which he was scooping up the floating turtles and dropping them into a barrel. Undoubtedly they had turtle soup for dinner.

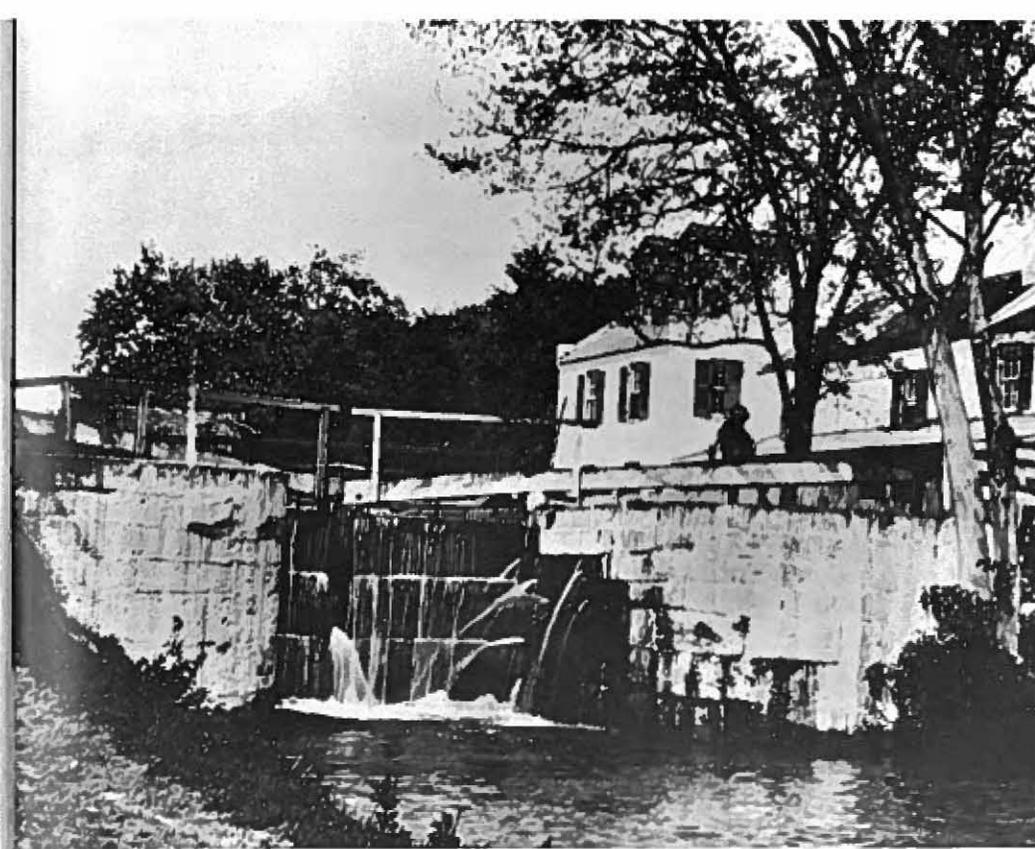
"Point of Rocks is at the east gate of the Harper's Ferry notch. . . . On the top of this cliff was a boulder from which the place took its name. . . . One night during the rebellion [Civil War] some persons dug out the props and set the stone rolling over the bank where it went thundering down, just passing the railroad, which it was intended to destroy, into the canal . . ."



## In a Small Hotel

Seneca Locks are about twenty-four miles from Georgetown and not far from Ball's Bluff and Edward's Ferry where one of the battles of the rebellion was fought. On my foot journey in the winter I stopped over night here at a canal hotel. I was told at a lockkeeper's below that I would find a hotel here so I walked the plank over the lock and went across a field to what I found to be a plantation residence. My idea of a plantation was taken from novels and was rather highly colored. The "beautiful green lawn" of my mental picture was without a tree for shade and had been plowed and replowed by a drove of razor backed hogs. The veranda floor was frescoed with the tracks of a generation of clay covered brogans and the surroundings were directly opposite to my impressions of Southern life. I was directed by a white boy to a smaller house which he said was the hotel.

I climbed a seven rail fence and crossed a creek on a round log and applied at the "office" for food and shelter and received a favorable answer. The "office" was in a small wing of the house and its furniture consisted of a four-legged bench with the top made of a slab, a chair without any back, another with a dilapidated seat and a sizable box stove with a cracked lid and a broken hearth. A niche was fenced off on one side with a lattice work of lathes behind which the landlord immediately went and opened a small gate and beamed on me, but as I did not respond he soon closed it and went his way about his chores. I was furnished a very good supper of fried ham, small river fish cooked in Southern style with head tail and fins on, eating with the family. . . . The cooking was done somewhere in the rear of the house and we were waited on by a small colored girl whose head was a perfect ball of knotted wool. After supper we heard the click of horse hoofs and one of the young country gentleman who said he had been to town that day came in to tell the news. Just below the locks lying on the bottom of the dry canal was a stranded boat. The owner had been caught here when navigation closed and as his boat was his home this was as good a place as any to spend the winter. The boatman had also heard the click of the horses hoofs and arrived nearly as soon as the country gentleman whom we will call Chivalry. The little gate in the lattice work was again opened and this time for a purpose for Chivalry immediately ordered his favorite drink concocted and the boatman did not wait for a second invitation to help and had his whiskey straight. Then Chivalry invited the stranger to join and have a smile. I very politely declined. This Chivalry took as an insult to the blue blood of Maryland and demanded to know if I refused to drink with him. I humbly begged his pardon stating that I would drink with him as soon as with anyone but I did not drink at all. "Aw, you are a tee-to-tee-lar then, I presume[.] If I had been a teetoteelar when I was a young man I might by this time have been the president of the Sons of Temperance." I assured him that there was no doubt about that. In a short time Chivalry and the Boatman took possession of the bench both astride with a pack of greasy cards between them. Standing on his knees at one end of the bench was the older boy, and at the other end in the same position was the younger boy. They were getting their education. The landlord stood by making frequent trips to



"Great Falls are about fourteen miles from Georgetown and are the source of water for the city of Washington. (Photo is of Lock 20 and Crommelin House—Great Falls Tavern—at Great Falls. Courtesy of the National Park Service)

and from the bar. This was their position when I left them for the triple bedded room over the dining room. When I came down the next morning Chivalry was just mounting his horse while the Boatman and Landlord were talking over their night's work. Chivalry, Boatman, Landlord and boys had kept their respective places until daylight. The Boatman was five dollars richer and would have been seven if one of the boys had not said something. The Landlord had done a thriving trade, and the boys—well, they had not missed any of the tricks of the game.

### "This Ain't No Town, Them's Government Shacks"

Great Falls are about fourteen miles from Georgetown and are the source of the water supply of the city of Washington. The Government has spent large sums of money in building the dam and aqueduct. For the first few miles below the aqueduct is a wonderful piece of engineering it being built in the face of a rocky cliff and in some places it is a combination of tunnel and bridge one commencing where the other leaves off. The Cabin John bridge, 220 feet long and 90 feet rise, the longest single



"Not far below the falls [Little Falls] is the old chain bridge over which so many gallant soldiers marched to fight the battles of the rebellion, never to return." (Courtesy of the Library of Congress)

6. arch in the world, is one of the wonders of this aqueduct. This part of the work had been completed the summer before and a great number of small storehouses which were radiant with whitewash gave the appearance of a small village but there was but one house besides the lock-keeper's. This house was a hotel supported principally by fishermen from the capital. I took my dinner here on my winter trip and particularly remember the yawning fireplace. Here Senators, Diplomats, Judges, Secretaries, and notable men of every degree have, for the last seventy-five years, sat before the big log fire to dry their boots and tell stories of their day's sport.

And I remember the ringing of the big bell—large enough for a small factory—that called me to the leg of cold ham and the slices of white bread that formed my dinner. I had to do my own carving. I asked the landlord what town this was. He said "this aint no town, them's government shanties, the town is three miles off." I realized that *town* had a different meaning in different places. Here it meant a collection of houses, and all land outside of the houses was county; with me it was the land

6. The Cabin John (or Union Arch) Bridge is now designated as the longest single arch in the Western Hemisphere.

Court records indicate that Cabin John Creek was named before 1750 for "a mysterious hermit who lived in a log cabin near the spot. In one legend he is an Indian; in another, the more generally accepted version, he is a pirate with a plentiful supply of stolen riches. So seriously was the latter story taken that until recent years purchasers of land in the neighborhood were required to sign an agreement to surrender half of any buried treasure found on the property.

that formed the town with or without houses. I began to feel that I was three miles from anywhere. Little Falls is about four miles above Georgetown at the head of the last level which continues across the Potomac River to Alexandria, Va. It also furnishes the power to the flouring mills at Georgetown the water being taken from the canal. These falls are a wild rapids but as their name indicates are not so large as the one above. They are also at the end of the steep bluff, the country below being more rolling and coming to the river with a gentle incline. Not far below the falls is the old chain bridge over which so many gallant soldiers marched to fight the battles of the rebellion never to return. Not far from this bridge we ran aground on a sand bar that had been washed into the canal by a little brook. Pic. and myself went overboard and sounded with our feet and found the position of the bar then by twisting the boat back and forth and with some hard pushing got it off and was on our way again.

7.

## We Arrive at Georgetown

At Georgetown the canal crossed the Potomac on a long wooden bridge or aqueduct built similar to a carriage bridge but instead of a roadway it had to support a box filled with water through which the boat sailed. This required that the sides should be braced and made sufficiently strong to keep the water from pressing them out. At the very top was a narrow tow path and rail to keep the mules and driver from falling into the river below. After the river is crossed, the canal runs through a nearly level country some distance from the river but makes many a turn and crook before it reaches Alexandria a distance of about twelve miles. We arrived at Alexandria towards evening and ran into a spacious bason [sic] where several boats were waiting to unload. The town is not very interesting, as many of the buildings which showed signs of past respectability were going into decay, the stores were closed, the grass grew in the streets and very few inhabitants were in sight. In summer there was a little business, loading coal from the canal boats into schooners which either came empty or had carried a load of ice or lumber to Washington. In the evening I was much amused at a young darkey dancing on a neighboring boat, he kicked up his heels, cut pigeon wings and went through breakdowns and into contortions that would have astonished a professional. The Capt. reported the next morning that the boat would be unloaded that day and that it would take several hours, as they were unloaded by longshoremen into buckets and hoisted on board the ships by horses.

8.

7. The  $7\frac{1}{4}$  mile Alexandria Canal crossed the Potomac River at Georgetown in an aqueduct.

8. When the Chesapeake and Ohio Canal was being discussed, Georgetown, Alexandria, and Washington could not agree on its location. Georgetown saw no reason why it should extend farther than Rock Creek. Washington, having a system of municipal canals designed by L'Enfant, wanted the Chesapeake and Ohio Canal to connect with their system. "In Alexandria the citizens turned up their noses at the possibility of using the broad Potomac itself, and eventually organized a separate canal company which threw a viaduct across the river at Georgetown, and brought the canal down the Virginia side to Alexandria."

The feeder canals below Georgetown were soon abandoned, for in the early days the trade was not great enough to support them.



"At Georgetown the canal crossed the Potomac on a long wooden bridge, or aqueduct, built similar to a carriage bridge but instead of a roadway it had to support a box filled with water through which the boat sailed."

So I took the day off and spent the day in Washington meeting the boat at Georgetown towards evening and started on our home voyage. At this time the Government paid all their bills in gold and while I was in Washington a department store clerk received five twenty dollar gold pieces for his month's pay which he slipped into his vest pocket and while crossing the ferry to his home in Alexandria [he] looked over the rail at something in the water and at that moment heard a splash and saw to his sorrow his five eagles fast flying to the bottom of the river.

East of the Blue Ridge the country is more level and better adapted for plantations than west of the mountains and being farther from the free state line of Penn. the slave population was much larger but as there is [sic] very few houses near the river we saw little of it. One evening as we sailed along up through this part of the country Capt. Coss remarked that we must be on the lookout for Montgomery County merchants. "What is a Montgomery County merchant?" say I. "If you hear a whistle or any peculiar sound stop the boat and run it over to the vern side and you will see," says the Capt. "but don't ask too many questions." We kept our ears open but heard not a sound; either the merchants were not abroad or they did not like the looks of us as customers. A day or two after the Capt. made an explanation. It seemed that the colored people occasionally felt the want of a little money to spend and were not long in finding some commodity for which the boatmen were willing to exchange it. Our Capt. did not encourage stealing by any means but if the white eyes of one of these M. Co. merchants were seen glistening through the shadows of the trees loaded down with a bag of corn or oats a few dozen of eggs or a ham or even a pig tied by one leg, he would not pass him by but would stop and take pity on him and not even ask him if he was free or a slave. If he considered the question at all in a moral point of view he would come to the same conclusion that many a one has come to before that the one that worked and raised an article

ought to own at least a share in it and probably the fellow was not getting more than his share. One night as Capt. Coss was coming up the canal he heard a whistle and stopped the boat. After a while an ancient colored man put in his appearance and after considerable parleying on both sides and when the merchant was satisfied that everything was safe he led out a one hundred and fifty pound pig which he offered at a very reasonable price—in fact, a very extremely reasonable price. The offer was accepted and the money paid while the pig stood calmly by giving grunts of satisfaction. But when they came to put him on board he made decided objection and the merchant had to throw him on his back and carry him, the pig squealing as only a pig can squeal. The Capt. asked him if he was not afraid they would hear him up at the house. ["Oh, no, massa. There is not a living person within two miles of here."] The pig was dropped in the hold, the darkey disappeared in the darkness and when the sun rose the boat with its living freight was twenty miles away. The darkey ran but little risk in the business for neither the slaves or the poor whites had any interest in stopping it and if he was caught his master might whip him, take away some of his liberties or change his work. The amount of punishment would depend on the master and somewhat on the slave and the chance he might take in running away. The only disgrace the darkey would feel would be that of the lack of success in his commercial undertaking. With the white man it was very different. There was nothing that was considered so mean by the slave holders as to purchase anything from a slave, and the law took the same view, for the judges were all slave holders consequently there was more or less friction between them and the poor whites. Along the canal in the season it was open the poor whites would hold up their hands in innocence laying every case of disappearance of personal property to the boatman and perhaps with good reason for there were some, in fact to [sic] many, whose perception of the right of property was very dim. It is a common saying that certain persons would not steal anything they could not carry off but this did not hold good with the canal boatmen for they would steal anything they could hitch a mule to. A person on the canal has to use as much care about his personal property as he would in the Italian quarter of a city. Every bit of rope has to be brought in at night and put out of sight and it was always deemed best to picket the mules on the vern side when left out at night for fear they might steal their halters and let them loose. A boat left for any length of time without an occupant would be stripped of every loose article about it and when they are gone they will begin to tear off the iron work. Capt. Coss had a boat stored at Williamsport. He had taken off everything he supposed to be movable and locked them up but when he arrived there great was his surprise to find that somebody had stolen the sheet iron chimney. This is not the place to record the remarks he made as he gave his opinion of boatmen in general and of the one that stole the chimney in particular. . . .

At one place we were what might be called blockaded. We were going up and had run the boat into the lock. The keeper shut one of the gates but the other would close only part way leaving an open space a few inches wide between the two. After making several attempts to close it the keeper opened the sluice gates above thinking that the water might force them together but it did not and the space was so wide that after the water had raised a short distance it ran out as fast as it came in,

besides the gates not being supported were being dangerously sprung out of place. So the sluices were closed and the water ran out of the lock again while all hands stood round in a quandary what to do next. I volunteered to dive down to see what was the matter. They made no objection or gave any encouragement to the suggestion. I went back a little ways under a bridge and took off my clothes, for the lock was right in front of the lockkeeper's house and some women sat in the window, then with a run and a flying leap [I] dove to the bottom of the canal where I found a piece of water-soaked timber against the sill. At about the third dive I succeeded in getting the block of timber out. I then crawled up the bank put on my clothes and was ready to join the boat as it sailed out of the lock no worse for my bath.

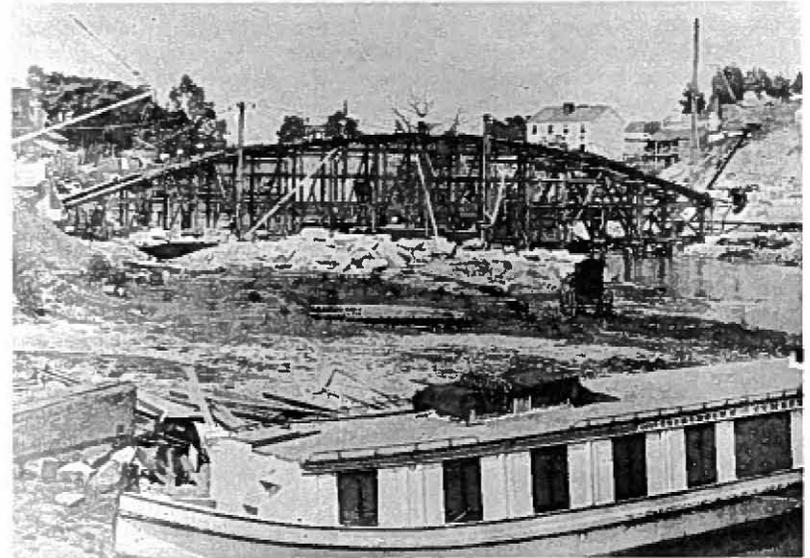
### Our Homeward Voyage

A little incident happened to our homeward voige [*sic*] that solved what had been to me a mystery in natural history. Years before and a thousand miles from the place I had found under a pile of boards a peculiar nest of some insect. It was in the shape of a tiny barrel three eighths of an inch in diameter and one inch long. The outside was formed by rolling up leaves and the inside was packed full of circular disks also cut from leaves and the end of the nest was neatly finished by rolling the outside over the edge of the disks. I took this nest apart piece by piece and wondered what insect would have made it, for each piece was as clean cut as if made by a tailor.

We were in the lock slowly rising up between the walls when a small green bee flew past me and alighted on one of the stones, ran a few steps and disappeared in a crevice. It carried one of those green disks in its mouth. It was but a moment in view but that was sufficient to finish the story of the nest and tell me what was the builder. I have since found that this is the insect that cuts the round holes so often seen in the leaves of the rose bush.

When we left Williamsport on our return we took as a passenger a young man from up in the mountains beyond Cumberland who had been at work harvesting and as the season here is several weeks earlier than at his home he had taken the chance to earn a little money and see some of the world besides. Among the money he had received was a five dollar gold piece that seemed to interest him very much and he showed it to me with the remark "that was the kind of money to have." As I had two ten dollar gold pieces in my pocket I was sorely tempted to draw them forth with the remark that I thought these were the better kind, but I resisted the temptation and suggested the propriety of not showing his money around the canal. Gold was nearly as common as bills in this part of the country as the old state banks were not very reliable.

From time to time Capt. Coss gave me items about the canal which with those collected from other sources I have compiled the following account: The early settlers, here as elsewhere, followed the lines of the waterways and as there were no roads except mule paths the river was used to transport their produce to market and bring their supplies home. Light flat boats were first used propelled by poles in the level stretches but they had to carry their goods around the falls and rapids. A canal was proposed as early as 1784 and various surveys made. A few years later a



"Before the Railroads small packet boats ran on the canal in opposition to the stagecoach and would make nearly as good time when there were not too many locks." (Photo is of the Georgetown to Cumberland Packet, shown, I think, below Lock 1 in Rock Creek below Pennsylvania Bridge in Georgetown, which would make this photo about an 1859 contemporary of the author.)

company was formed and several thousand dollars spent in locks and dams to improve the river. In 1823 the Government engineers made a careful survey for a canal from Georgetown to Pittsburg[h], Pa. making an estimate, which included a tunnel four miles long through the Allegheny Mountains, the cost of which seemed almost fabulous in those days. The Potomoc River rises far up on the eastern slope of the Allegheny Mountains, while on the western slope nearly opposite its headwaters is the Youghioghny a branch of the Monogohela which empties its water into the Ohio at Pittsburgh making nearly a complete chain of waterways. But the lowest notch on the mountain was 2000 feet above tide water requiring some 200 locks to get up and 150 or more to get down the western slope to the Ohio. But then there were the faster growing states and the fertile prairies beyond the mountains to be connected with the seaboard. This was before the days of the Railroads. Various sizes of canals were proposed from one three feet deep to that of six the depth of the present canal. In building a canal a very important point is to have a supply of water for it is a very thirsty thing. It evaporates in the sun. It is continually being absorbed into the ground and it leaks at every culvert and aqueduct; besides a lock full is used whenever a boat passes in or out of a level, and this water must be supplied to the highest level and if not furnished by natural streams it must be stored in reservoirs back in the mountains. The canal as now built was commenced in

9. This was the Potomac Company, which spent over \$700,000 on canals, locks and improvement on the Potomac and Shenandoah.

1828 and cost over twelve million dollars to which has been added some three millions in repairs before the general work caused by the storms of May 31, 1889, which took nearly two years to repair and which will long be remembered by the terrible disaster at Johnstown, Pa. The distance from Georgetown to Cumberland is 186 miles and the height of rise is about 800 feet requiring some 80 locks. The canal was built by a joint stock company in which several towns and I think the state took part.

## The Railroad Can Be Built Anywhere

The Railroad coming into use so soon after this part of the canal was built took away all need of extension, and for its coal trade only has it remained in existence until now. For slow heavy freight there is nothing equal to the canal but the Railroad can be built almost anywhere up hill or down regardless of water supply and at a far less cost and can be run so much faster that they have supplanted all the canals except in a very few particularly favored places. As this canal connects the soft coal mines of Maryland with tide water it furnishes return cargoes to the schooners that bring ice to Washington and at the same time served as a regulator of the price of transportation. At the time of the break in 1889 the price of coal went up several dollars on a ton along the line of the canal which had much to do to arouse the people to rebuild it.

Boating was a profitable business when they had a lucky season. If I remember rightly they had about one dollar a ton for transporting the coal when you used your own boat and somewhat less in the company's boats. With a good team two round trips could be made in each month from April to December and the expense was for the help, board, team, and seven dollars toll on each return trip. It was easy to figure a profit on this basis especially in the dull times and low prices that followed the panic of 1857, but the "ifs" were so many that the margin for profit was very small. Sometimes they had to wait for their load at Cumberland as you had to take your turn with the other boats, or there might be an accident at the mines or on their railroad as they might be filling a special order by rail and there is always the possibility of a strike. Then the delay at the other end of the canal was often longer for a storm or head wind sometimes prevents the arrival of any schooners sometimes for weeks. You might wait in Georgetown or Alexandria for a chance to unload while your neighbor made two round trips for one of the other lines. Still worse than these were the breaks and wash-outs on the canal that detained all the boats alike[;] these sometimes caused months' delay. Almost every year there was a break somewhere, part of one of the rude dams would go out, a local storm would gather and come rushing down undermining a culvert or sweeping away an aqueduct wrecking all the boats on that level. They could not be repaired in the same way as they repair a railroad by carrying around or trestling over but have to be built anew from the foundation up. That seemingly harmless animal the musk-

10. There were 74 lift locks between Georgetown and Cumberland, each having the capacity to lift or lower a boat approximately 8 feet. Twenty-three of these are located on the restored Georgetown division. The locks measure 100 feet long, 15 feet wide, and about 16 feet deep. The length of the canal is 184.5 miles. Total rise between Georgetown and Cumberland is 605 feet.

rat often causes thousands of dollars damage by boring their channels through the banks starting a leak that will sometimes make a break rods in width. On some canals they employ hunters and give bounties for all that are caught within a certain distance of it. In some season these breaks will follow one after the other until the whole season is used up and in the fall the boatmen will not have enough money to pay expenses. There was more or less freight to be carried besides the coal but as Washington was not a commercial city a larger share went to and from Baltimore. Sometimes the boatmen and warehouse men would pick up a boat of fruit or grain to be sold on speculation and after harvest there was considerable wheat and corn delivered to the mills at Georgetown but when all the local freight was divided among the three or four hundred boats it amounted to very little to each. At the end of the season the navigation is closed. It is desirable to keep the canal open as long as possible and not have the boats freeze in or the locks freeze up and burst. When freezing weather grows near a day is appointed giving a few weeks' notice when the canal will be drawn off, then there is a hurrying around with their last load and getting their boats home or in some place where they can lay [*sic*] in safety until spring. There would of course be a few who would be belated like the boatman of Seneca locks and find themselves stranded along the canal.

Sometimes on the more northern canals nature will close the canal before the appointed time catching hundreds of boats in transit. On the day appointed the [illegible word] gates are closed and the water drawn off from every canal except the one at Georgetown which supplies the mills and during the winter the canal is cleaned and the many needed repairs made. The next spring soon after the arrival of the bluebird the water is turned in and as the canal is free from ice the navigation is resumed.

## Journey's End

We were near our journey's end and we overtook a boat on our line which we wished to pass and I was sent out to drive past the boat. It was one of the hottest days of the season. To the right of the canal was a steep sandy slope, to the left was the river and overhead the hottest kind of midday sun with hardly a breath of air stirring. We were soon alongside and their tow boy, a sleepy kind of a fellow who did not turn out far enough so one of our spread sticks that keep the traces in place caught his harness and turned the horse end for end. I stopped and let the boy get untangled and then started on only to catch the next stick which nearly threw his horse to the ground. I stopped again and this time he gave me room to pass. If he had not it would not have been the fault of the tow boy's captain who used the most forcible canal English to impress on him his duty to get out of my way.

There was a law of the road, the same on the canal as on the land, which had to be arranged to accommodate [*sic*] both the mules on the tow path and the boats on the water. When we met the boats passed to the right of each other the one at the tow path side having the right of way the other team stopping and let its tow line sink to the bottom of the canal while the moving boat and team passed over it. When both boats were



A Civil War View of the Canal, by Thomas Nast. Though the narrative takes place before the Civil War, the author, having actually written his memories down 30 years after they took place, makes reference to the Civil War in the text. (Courtesy of the Enoch Pratt Free Library)

going in the same direction the rear boat had the right of way and passed on the tow path side the front team turning out to give room for the other to pass between it and the bank. If the front team does not turn out and give them the track the other will pass on the outside and the tow line will sweep them into the canal. Sometimes when the bottom of the boat is rough or has projecting slivers the tow line has to be unhitched or is carried over the boat.

At last the journey was ended. We had passed the last lock, sailed over the last level, and were again back at the shipyard at Cumberland. Here I packed my things and bid the boat and its crew goodby, and returned to my friends.

When the trip was ended, the spell was broken and a feeling of unrest overtook me. I felt that I must be up and doing. Finding nothing for me at Cumberland I faithfully promised my friends not to go farther east than Baltimore, packed up my things and started. A single day at Baltimore was sufficient to send me on without inquiring for employment. Eastward by slow but by economic means I proceeded, stopping but once for work where I made at least thirty applications without result, until I reached my starting place in New Hampshire. Here after an absence of about eight months the wheels of industry were just beginning to move, and I was met at the door of my former place of employment with the cheerful salutation that there was a place waiting for me. The tide was turned and the spell was truly broken and I stopped drifting.

## Other Canal Publications Offered by the American Canal and Transportation Center

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HEY-EY-EY, LOCK!—Adventure-history story of the Chesapeake and Ohio Canal by Morris Fradin. Barge up-canal to Cumberland, Md., in 1908 with Captain Tom Clark and his family. Illustrated by Carol Stuart Watson, 120 pp. 8 x 10½ in.—\$3.95.

I DROVE MULES ON THE C & O CANAL—Fourth and last edition of this colorful hardbound 210 pp. book, 8 x 10 in., contains 100 stories of rough-and-ready life on the Chesapeake and Ohio Canal by mule driver George W. "Hooper" Wolfe, 120 photos—\$9.95.

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