

## THE CHESAPEAKE AND OHIO CANAL

### Promotion and Organization

The men who supported the movement for an improved means of communication along the Potomac route envisioned a continuous canal of some 360 miles in length connecting tidewater of the Potomac River, near Georgetown, with the navigable waters of the Ohio River at Pittsburgh. The feverish enthusiasm which arose in Maryland, Virginia, and the District of Columbia in the 1820's for this new thoroughfare resulted only in part from the failure of the Potowmack Company to establish reliable water communication with the West. Great stimulus came after 1817 when the rival States of New York and Pennsylvania began to plan and build extensive canal systems connecting their tidewater cities with the interior. The threat to trade already coming to Baltimore via the Cumberland Road and the desire of the District of Columbia cities to enhance their commercial position were convincing arguments used by the promoters of a Chesapeake & Ohio Canal.

The canal movement gained momentum when the first surveys indicated the practicability of the undertaking. Local and state-wide conventions called to consider the project were enthusiastically attended. The route of the canal, its dimensions, and probable cost were carefully studied. In June of 1828 the Chesapeake & Ohio Canal Company was organized, with a capital stock totaling some \$3,000,000. Soon afterwards the old Potowmack Company turned over all its charter rights and privileges along the Potomac Valley to the new company.

### Construction

Construction was officially begun on July 4, 1828, when President John Quincy Adams turned the first spadeful of earth at elaborate ceremonies held near Little Falls. During the next month, contracts were let for approximately 17 miles of the canal, extending from Little Falls to Seneca, MD. By the next year, the scene along the Potomac Valley became one of intense activity when hundreds of laborers using the axe and stump-puller, the horse-drawn plow and scraper, shovel, wagon, and wheelbarrow began the excavation of the canal ditch. During the same season, many boatloads of stone secured from the nearby quarries were delivered along the canal right-of-way where expert stonemasons began the construction of the locks and lockhouses.

Labor trouble was one of the many difficulties which the Chesapeake & Ohio Co. encountered during its long period of construction. The tremendous demand for workmen on the many canal projects under way throughout the East brought about a general shortage of labor. To meet this situation, the company sent agents abroad to contract for the importation of men to be employed under terms of indenture for their passage to this country. During 1829 and 1830 more than a thousand English and Irish laborers were added to the work crews on the Chesapeake & Ohio Canal by this means. Camps were established along the Potomac Valley where the contractors furnished food, lodging, and medical care to the hundreds of men in their employ. The meager wage of \$10 a month, the long hours of labor, poor housing and food, and a generous daily allowance of whiskey were the causes of serious dissension among the laborers. Skilled masons received as much as \$20 a month. Insubordination and general disorder were common. Many of the indentured workmen ran away from the canal project and had to be returned by force to complete their terms of service. On one occasion, considerable canal and private property was destroyed when two Irish factions, known as the

Longfords and Corkonians, attempted to settle a dispute in a pitched battle fought near Oldtown, MD. In 1829 the working force totaled more than 3100. The unhealthy "shanty" conditions under which the men lived made them easy victims of the dreadful cholera epidemic of the early 1830's. In some areas the laboring forces were so depleted by this disease that work had to be suspended.

In November of 1830 the first completed section of the canal, extending from Little Falls to Seneca, MD, was opened to navigation. The following summer water was admitted to the Georgetown level between Little Falls and Rock Creek at Georgetown. A controversy between the Chesapeake & Ohio Company and the rival Baltimore & Ohio Railroad Company over the right-of-way along the narrows of the Potomac Valley between Point of Rocks and Harper's Ferry delayed the opening of the canal above Seneca until 1833. By this early date, when only 62 miles of the canal were completed, the resources of the company had been practically exhausted. There followed a long 17-year period of severe financial struggle before the canal finally reached Cumberland. The State of Maryland repeatedly responded to the company's plea for aid and by 1839 had invested more than \$6,000,000 in the project. During this period the waterway slowly extended its line westward: by 1837 it had been completed as far as Dam 5, 107 miles from Georgetown; in 1839 it reached Dam 6, 50 miles from Cumberland. At this point, 7 miles west of Hancock, MD, navigation of the canal terminated from 1839 until October 10, 1850 when the line was opened to Cumberland. The extension of the canal across the mountains to Pittsburgh, as originally planned, had long before been given up in the face of mounting financial troubles. The cost of construction totaled more than \$11,000,000 or an average of some \$60,000 a mile.

#### Years of Operation

Boats began to appear on the canal soon after the first short sections were completed. As water was admitted to the upper division reaching out into Western Maryland, the trade on the canal increased when cargoes of flour, grain, building stone, and whiskey began to float along the winding levels toward Georgetown. It was not until the canal reached Cumberland, however, that the tonnage transported reached an appreciable figure. Coal from the rich mines of this locality then began to follow the canal route to tidewater in great quantities. It was to become the sole profitable carrying trade. Throughout the entire history of the canal the ascending traffic amounted to only a small percentage of the total tonnage, and consisted largely of fish, salt, fertilizer, and iron ore. During the two decades following the War Between the States the coal trade increased rapidly. In 1871, the peak year, about 850,000 tons were carried on the Chesapeake & Ohio Canal. In some years of this period the canal company made a considerable operating profit which was quickly applied to the payment of back interest on its tremendous debt. During these halcyon years of the canal's prosperity about 550 boats were in operation.

In the later 1870's the canal trade commenced to decline when many of the Allegheny boat operators began to ship over the Baltimore & Ohio Railroad, the canal's greatest competitor. In later years, 250,000 tons of commerce yearly were considered an average season. The great flood disaster of 1889 found the company with insufficient funds to repair the serious damage done to the canal embankments. Forced into bankruptcy, the company passed into the hands of the bondholders. Trustees were appointed, and the canal entered the last period of its existence. In 1924, after the railroad had captured almost all of its carrying trade, the old Chesapeake & Ohio Canal ceased to operate.

### Canal Locks and Lock Tenders

The total distance by the canal between Georgetown, D.C., and Cumberland, MD, was 184.5 miles. The elevation of the western terminus at Cumberland was about 605 feet higher than Georgetown, D.C., where the canal reached tidewater. To overcome this rise, or incline, 74 lift locks were constructed, each having the capacity to lift or lower a boat approximately 8 feet. The distance between the lock, called "levels", varied from less than 100 feet to 8 miles.

The locks are constructed of stone which was quarried, in most cases, near the building site. They measure 100 feet long, 15 feet wide, and about 16 feet deep. The lock is filled, or emptied, by the small iron paddle gates, or valves, located near the bottom of the large wooden gates at each end of the lock chamber. Boats moving "down canal" entered a full lock through the upper gates, whereupon the lock was emptied by opening the small iron paddles or sluice gates in the lower gates. When the water in the lock dropped to the level of the lower section of the canal, the gates were opened and the boat passed out of the lock. This process was reversed for boats going "up canal". After the boat had entered the lock and all gates were closed, the sluice gates in the upper gates were opened, and the lock was filled. By this method the boat was elevated approximately 8 feet, a "stepping process" which was repeated 74 times in making the "climb" of 605 feet between Georgetown and Cumberland.

During the first and final years in the life of the canal, when traffic was light, the simple and unhurried existence of the lock tender was only occasionally interrupted by the boatman's sing-song cry "lock ready", or his bugle, which were the lock tender's cues to prepare the lock for going through. Between 1868 and 1880, however, when the canal reached the heyday of its existence, there were but few leisure hours at the lock. In the peak year of 1871, the cargoes transported totaled approximately a million tons, and it was necessary for the locks to be in almost continual operation. On some occasions during the busy years of this period, more than a hundred boats passed through a single lock in one day. The lock tender's hours of duty ran from "dawn to dawn", and the boatman's call was heard almost as often at night as it was during the day. Although record time for "locking through" was set at 3 or 4 minutes, it usually required about 10 minutes for one boat, or 15 to 20 minutes for two boats, going in opposite directions, to pass through the same lock.

The use of the familiar stone, brick, or frame lockhouse seen at almost every lock, and a small garden plot, were a part of the compensation for the services of the lock tender. In addition to furnishing the house and garden plot, the company paid a salary, which ranged from \$100 a year to \$75 a month during the long years when the canal was in operation.

### Canal Boats and Boatmen

Prior to 1850, before the canal was completed, there were but few boats operating on the Chesapeake & Ohio Canal. Beginning with 1850, however, they began to increase steadily. In 1851, the first full boating season after the canal reached Cumberland, the number advanced from 154 to 205. As the business expanded, other men were attracted to the boating occupation. In 1871, the peak year in the canal's prosperity, as many as 540 boats were navigating the Chesapeake & Ohio. Soon afterwards the coal trade, which had become the only important commodity transported on the canal, began to decline. In 1878 only 378 boats were listed on the "register". The number decreased as the business of the canal became less. After 1900, scarcely a hundred boats were in use.

The overall size, draught, and cargo capacity of boats varied little in the fleet which navigated the canal. The restricting dimensions of the locks, and the desire of boat owners to carry as much tonnage as possible each trip, were controlling factors which had to be considered in the boat design. The barge which met these conditions best, judging from the great number falling into this class, measured 92 feet long, 14 feet 6 inches wide and had a draught, when loaded, of 4 feet 6 inches. Its cargo capacity was 110 to 130 tons. The expert steersmen had little difficulty in guiding a boat of this size into the locks of 100 feet in length and 15 feet in width.

The many and varied boat names listed on the company register make an interesting study. Hero worship, pride in the beauty and construction of their craft, patriotism, and humor were all reflected in the owners' selection of names. Almost every American hero was remembered, including General George Washington, Andrew Jackson No. 1 (and No. 2), Tip and Tyler, A. Lincoln, and Old Zack. During the decade before the War Between the States there appeared the Union, Yankee, American Flag, Liberty, Constitution, and Scow Uncle Sam. Much of the earth's fauna was represented among the Chesapeake & Ohio Canal boats, including the Ant, May Fly, Cock Robin, Reindeer, and Scow Lion. Honor was also conferred upon Jenny Lind, Katie Darling, Granpa, Susan, and Ida. It may be inferred that to question the superiority of the Belle, Enterprise, Advance, Rough and Ready, and Morning Star was a considerable personal risk not to be ventured by the man of ordinary stature.

Certain regulations for the navigation of the canal governing speed, right-of-way, preference in passing locks, and other matters were established by the Chesapeake & Ohio Company. The interpretation of these rules by the boatmen often depended upon the circumstances at hand. To be defeated in a race to the 150 yard post, a station above and below the lock which determined the order in which the boats passed through, was a mark of discredit upon the boat, teams, and captain's skill. No self-respecting crew would accept so serious a brand without question; disputes were often heated and sometimes developed into fights. It is certain that the sternly phrased rules and regulations had little bearing on the boatman's behavior when so much was at stake. The physical superiority of a boat crew had other advantages, as shown on one occasion when a boat was actually pulled from the lock chamber and forced to wait until the opponent passed through. On the whole, however, most of the regulations were reasonably well observed. The captain of the ascending boat did not ordinarily question the right-of-way of the boat moving down the canal. He usually pulled over to the berm side of the canal, opposite the towpath, while the descending boat passed. Nor does it appear that the speed limit of 4 miles an hour was often violated.

Usually two mules pulled a boat, averaging between two and three miles an hour. At speeds greater than 3 1/2 miles an hour the wake of the boats began to cause erosion on the banks. A team of relief mules was carried in the bow of the boat, while the after cabin housed the captain and his family. Many children were born and spent most of their lives on the canal. At the early age of 6 or 7 some began to help with the driving of the mules. The boys often advanced from driver to steersman to captain as they grew up, and the girls usually married men who worked on the canal.