The South Hadley Canal 1795-1847

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In 1795, the country's first successful canal for navigation was built in South Hadley. This first step, emulated by other New England states and by the rest of the country for that matter, began what historians now call the "Canal Boom." The story of the South Hadley Canal is not only historically significant, but it is socially and economically important. Throughout the colonial period, the Connecticut River was a highway of importance for the pursuit of trade. At first, the river was only navigable for sixty miles from Long Island Sound to the Enfield Rapids. Not long after the settlement of the valley, the flatboat was utilized, which allowed navigation in only two to three feet of water, and passage through to Springfield. William Pynchon, the founder of Springfield, was the first to establish systematic trade along the river. In order to facilitate trade between Springfield and the Enfield Falls, Pynchon built a warehouse below the falls, at a spot still known as Warehouse Point.

It is not known exactly when the first flatboats were put into service on the river, but they were more than likely running very early between Springfield and Warehouse Point. As settlement began to expand above Springfield, larger flatboats were necessary to carry the extra cargo. Where falls were located on the river, goods had to be unloaded, transported around the falls, and then reloaded on another flatboat. Originally, ox-teams were used for the overland segment, but later horses were used to speed the process.[1]

Generally, flatboats had a mast and one main sail. When the winds were not favorable, the boats had to be propelled by poling, or "snubbing" along the shore with "setting poles." These poles were about twelve feet long with a socket spike on one end. One person on each side of the boat had to push it on its way. The larger flatboats required as many as three men on each side, and the work was slow and laborious. By the end of the colonial period, transportation by flatboats between the falls and overland around the falls had extended many miles to the north. By the time of the American Revolution, this form of transportation extended as far north as Wells River, Vermont. Yet, it was a slow and expensive method of carrying cargo. Innovations were needed, and businessmen along the Connecticut River began to plan canals.[2]

Canals were the nation's most heavily capitalized form of transportation from approximately 1795 to 1830. Even with the great amount of capital outlay put into canals, America was as advanced as Europe in building canals. Europe had far more capital to invest than did young America, and many of the earlier canals built in the United States were financed from abroad. Moreover, engineering was not a well-known science in America, and most of the difficulties that were encountered required engineering skills. The Connecticut River was the first waterway in the United States to be improved by canals. Unlike most of the later canals, the majority of those constructed on the Connecticut were privately financed. The objective of the canal was to increase commercial activity and to bring profits to the investors. The earliest charter for a canal was for one at Bellows Falls, Vermont. In 1792, the Vermont legislature authorized construction of a canal around the falls. The charter was granted to General Lewis B. Morris of Springfield, Vermont, and Dr. William Page of Charlestown, Vermont. They were the two most important officers of "The Company for Rendering the Connecticut River Navigable by Bellows Falls." Lacking local capital, that canal was financed by an English investor, but it was not to be completed until 1802. Other investors and businessmen to the south could envision the possibility of a complete network of canals along the Connecticut and began to make plans for other canals.[3]

The biggest obstacle to navigation to the north was the South Hadley Falls. In 1792 a group of twenty-two local businessmen formed "The Proprietors of the Locks and Canals on the Connecticut River." Their main objective was to make the river "passable for boats and other things." A regional breakdown of the proprietors shows that they came from Springfield, Northampton, Deerfield, and a few from the Berkshires. Of the twenty-two members of the corporation, the two most prestigious were John Worthington and Caleb Strong. Worthington, a lawyer from Springfield, was president of the corporation from 1795 to 1800. Strong was later to become governor of Massachusetts, and he had national, state, and local political connections. He was a member of the First Continental Congress, and it was said that he was a trusted friend of George Washington. The proprietors had originally planned to build canals at South Hadley and Turners Falls. Due to lack of capital and an apparent dispute over where to begin construction, a new corporation was formed to the north. There were several men, among the original twenty-two, from the Deerfield/Northampton area, and they apparently wanted construction at Turners Falls started immediately. This new group, incorporated in 1794 as "The Proprietors of the Upper Locks and Canals on the Connecticut River," were to construct a canal at Turners Falls. The stockholders in the new company, however, were basically the same people as in the earlier corporation.[4]

Meanwhile, at South Hadley, initial investment estimates were much higher than expected. As a result, it was necessary to locate additional financial backers for the South Hadley canal. The proprietors sent an agent to Holland (the then financial capital of Europe) and Dutch businessmen purchased 256 of the 504 shares. A survey of the sites of both canals was done by Christopher Collins of New York. Benjamin Prescott was chosen as engineer for the canal at South Hadley.[5] Finally, Ariel Cooley, an engineer from Chicopee, was given the contract to construct the canal.[6] In the midst of construction, many problems

were encountered. To begin with, the terrain was very rocky. The *Town Reminder* described the land as "too soft to blast and too hard to dig, but dig they did," with hand shovels and picks. At one point, as many as 150 laborers were employed.[7] Due to the ruggedness of the land, it was necessary to reduce the width of the canal. The original plan for a canal which would accommodate boats twenty feet wide by sixty feet long, was altered to provide for boats that were sixteen feet by forty feet.[8] Also, a new oblique dam had to be built when the original one collapsed. On October 25, 1793, the proprietors declared that "Ariel Cooley . . . hath completed [his project] in a work-man-like manner . . . and to the satisfaction of the Proprietors . . . ."[9] It would be about eighteen months, probably due to the winter freeze and the need to complete the inclined plane before commercial navigation could begin.

The most pressing problem for the proprietors was that the river had a fifty-five foot drop over the two and one-half mile stretch of the canal. In other words, the river bed was lower than the canal bed. In order to offset the difference, Prescott devised the "incline plane." The *History of the Sesqui Centennial Anniversary Celebration of the Town of South Hadley, Massachusetts* described how the mechanism worked:

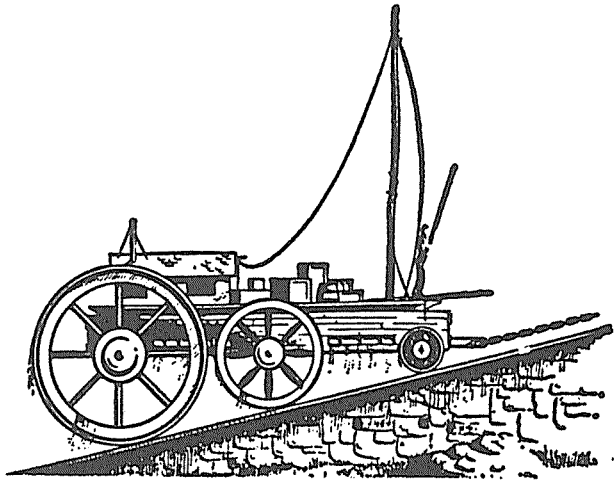
> On each side of the end of the 'incline plane' was an overshot water wheel. These wheels were connected by a shaft on which was wound a strong chain, attached to the carriage. When all was ready, the wheels were set into motion to unwind the chain, and the carriage rolled into the lower lock where the flooding doors opened to let the boat float out.[10]

In the fall of 1794, a crowd of thousands cheered as the inclined plane was used for the first time. The first boat that went through the canal carried approximately seventy people, including the proprietors and their distinguished guests. On April 16, 1795, the first commercial craft passed through the canal. Rates were four shillings, sixpence (about seventy-five cents) per ton, or per thousand feet of lumber. During the first year a total of $3,109 was paid in tolls. As previously mentioned, other canals were also being constructed along the Connecticut. In 1800, the Turners Falls Canal, built by the Proprietors of the Upper Locks and Canals on the Connecticut River, was completed. This three-mile canal ran from Deerfield to just north of Turners Falls. The businessmen of Bellows Falls, Vermont, had, by 1802, finished their ten year quest by completing their canal. By 1810, it was possible to go from Hartford, Connecticut, to Barnet, Vermont. Canals at Summers Falls and Wilder, Vermont, (both completed in 1810), made possible this 150 mile journey. On the average, it took from twenty to twenty-five days to go from Hartford to Wells River (Vermont) and back. Generally, it took fourteen to sixteen days upstream, and about half that time downstream. Molasses, sugar, and salt were brought upstream, while downstream canal boats carried wood, shooks (unassembled barrels), and shingles.[11]

Basically, there were two types of craft used on the river. The first were Pine Boats, built in nearby White River, Vermont, and used to carry small loads. As there was no cabin, the captain and crew had to sleep ashore. The other type

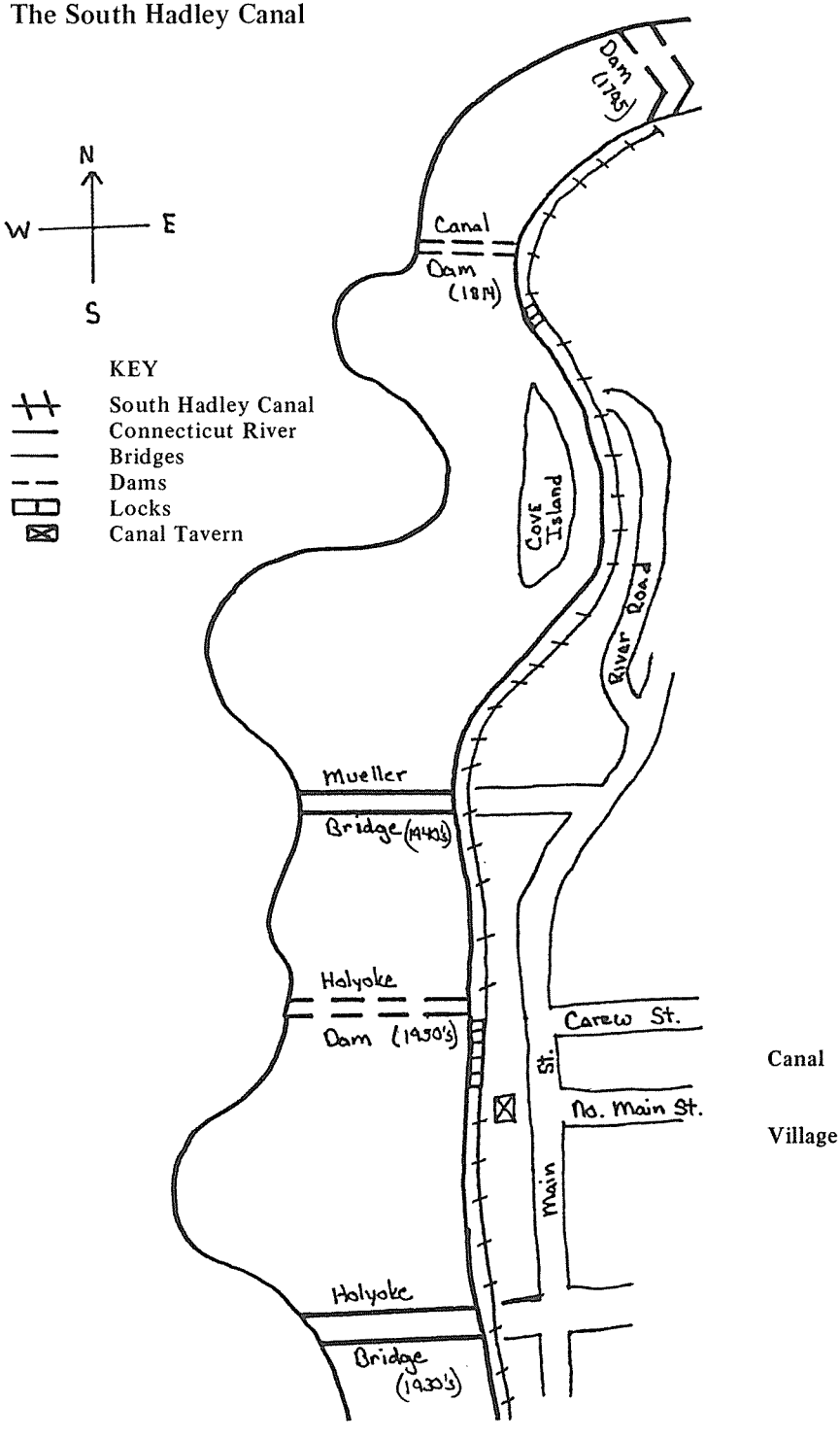
of craft was the Oak Boats. These were much larger, carrying up to forty tons of cargo. There was a cabin onboard, so the captain slept on the ship, while the crew slept ashore.[12] Moving these boats up and down the river was no easy task. Rowmen were usually big, hefty men. They had to use long poles that could reach the canal bed (or the river bed) and push the boat forward. Many times, people along the shore were needed to help move the boats. One such person was Seth Hapgood. For years he kept his two oxen along the shore in Bellows Falls. When a strong southern wind prevailed, it pushed the boat into "contrary currents," and "Old Seth" would attach his oxen to the vessel, and pull the boat past the currents. It became an old river saying that "Old Seth" prayed every morning for a south wind. The average charge to go from Hartford to Wells River, Vermont, was nearly six dollars a ton each way. But even with this seemingly costly means of transportation, commerce was still expanding and profitable. This demonstrates how much it earlier cost to transport goods over land. Another canal in Massachusetts was the Middlesex Canal which ran from Boston to the Merrimack River in New Hampshire. Many proposals were made to connect the two canals, but none ever materialized.[13]

"So Pleasing, Ingenious And Useful"



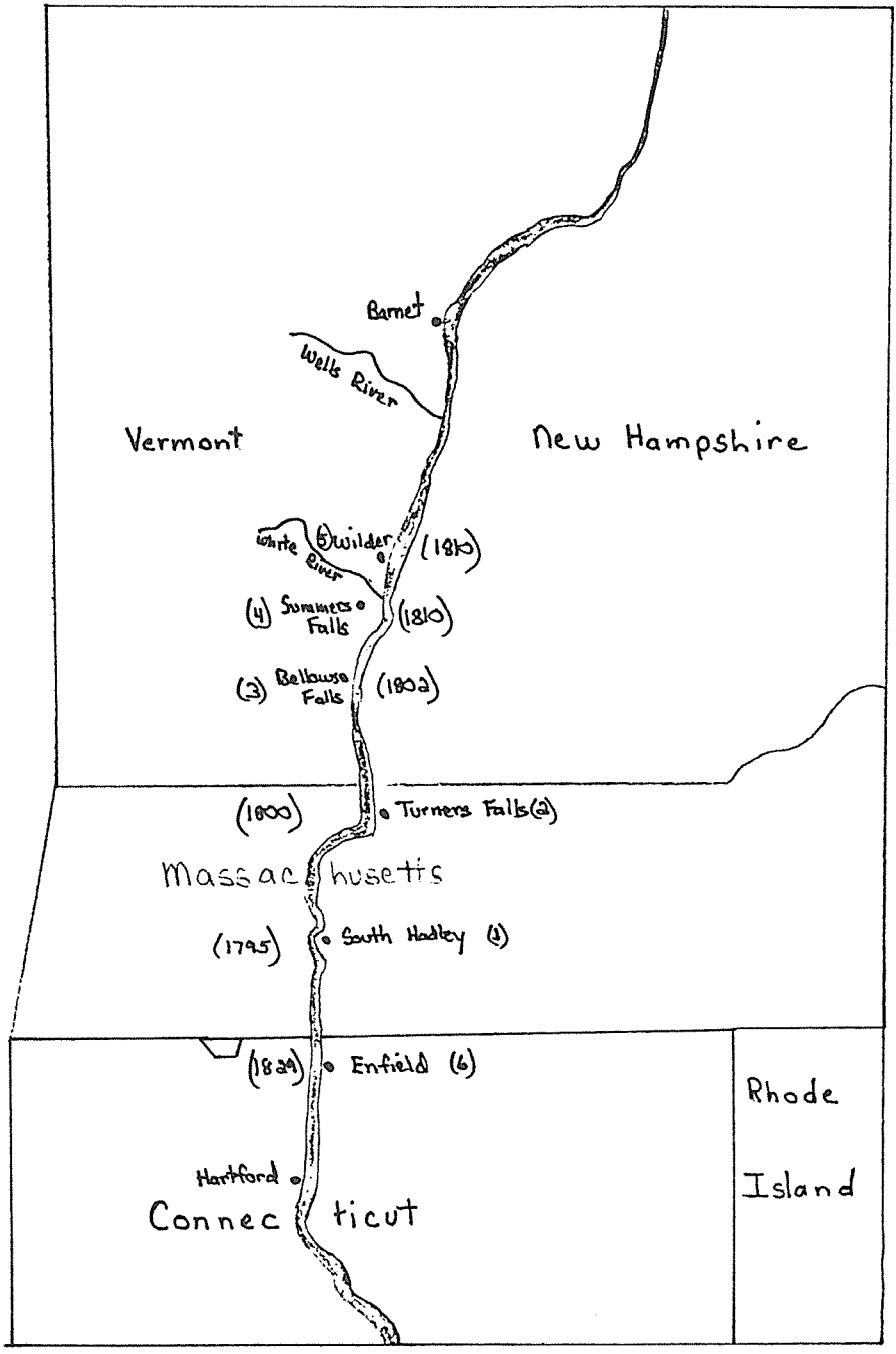
THE INCLINED PLANE that raised and lowered river boats to and from the level of the Connecticut above the rapids in the late 1700s and early 1800s is shown in the diagram above. The "pleasing, ingenious and useful" label was applied to the device by a writer of the day. The plane and the South Hadley Canal, too, won similar tributes from tourists, some famous in their day, who visited the village.

The South Hadley Canal



CANALS ALONG THE CONNECTICUT RIVER

(Numbers in parenthesis indicate order of completion.)



During their first ten years, the proprietors dealt with many difficulties. Basically, their problems evolved around their dam, which was needed to divert water from the river into the canal in order to allow the boats to pass. The dam was again in need of repair by 1801. The attempt to repair the dam caused flooding and it was blamed for spreading sickness in the towns upstream. As a result of the flooding, many lawsuits were filed against the proprietors. The state legislature ordered the western side of the dam removed, which prevented further flooding. By 1804, the Dutch investors were fearful of further lawsuits and decided to sell their shares. At that time, construction costs had exceeded $81,000.[14] These excluded annual operating expenses and repairs. This shows the tremendous expense associated with operating and maintaining a canal. Unfortunately for the Dutch, the canal was just beginning to show some profit. By 1805, the first returns on investment were received.[15] One share in 1793 had a market value of $181. If a person held the stock until the demise of the canal in 1847, the value of that share would then have been $787.[16] This means that the stock increased in value by almost 434 percent, or an annual return of 11.2 percent.

In 1804, the dam was again in need of repair. This was necessary due to the river eroding what was in effect half of a dam. The General Court passed legislation for a state lottery to raise $20,000 to repair the dam. Another $10,000 was needed, and raised through the lottery, to lower the bed of the canal.[17] Cooley was again contracted to widen and lower the bed of the canal at a cost of $25,000.[18] For the two years that it took to complete the construction, cargo had to be loaded and unloaded around the falls. The fishing industry was constantly at odds with the canal. The new dam, built in 1814, prevented fish from moving upstream. The General Court ordered the proprietors to correct the problem immediately. An eddy, which allowed the fish to pass through the dam, was built by Cooley to make peace with the fisheries. It is important to note that back in 1790, the General Court enacted legislation protecting the fishing industry, and all of the New England states had within a few years followed Massachusetts' lead and adopted similar legislation. Connecticut repealed its protection of the fisheries in 1797, when it became obvious that the economic benefit of the dams was more important than their effects on the fish.[19]

The Connecticut River trade system was soon to be competing against a new canal system. Merchants in New Haven wanted to compete with Hartford for the north-south trade, especially since the Enfield Falls prevented Hartford from reaping the benefits of the canal connection to the north. New Haven's project, incorporated in 1822 as "The Presidents, Directors and Company of the Farmington Canal," planned a canal from New Haven to Southwick, Massachusetts, and from there, "The Hampshire and Hampden Canal Company," chartered in 1823, was to complete the network from Southwick to the Connecticut River at Northampton. The years from 1823 to 1829 saw New Haven trying to expand the network of canals all the way to the Canadian border.[20] On August 30, 1834, "the canal was complete from New Haven to Northampton, a distance of eighty-five miles." It was not until June 29, 1835, that the canal was officially open for business. In its first three years, the canal lost over $140,000. By 1843, the financial situation had improved, as had the

nation's economy. Unfortunately in that year, within "two days, thirty different breaks occurred in the Canal." This problem was compounded by the coming of the railroad. Lack of capital, high operating costs, and competition with the new form of transportation were responsible for the financial failure of the New Haven Canal.[21]

Obviously afraid of the potential loss of revenue, Hartford business leaders rallied to offset the new and larger enterprise from New Haven. Chartered in 1824, the new organization was "The Connecticut River Company," whose objective was to "improve the boat navigation through the Valley of the Connecticut River from Hartford to its source." These men also were looking to extend their transportation network as far as Canada. They succeeded by constructing the Enfield Canal, completed in 1829. Now it was possible to transport goods from European or American ports to every town along the Connecticut River. By then, steamboats were in operation, and regular service between Hartford and Springfield began. The dam for the Enfield Canal also supplied power for the town's residents. As was the case with the New Haven Project, the Hartford plan was soon made obsolete by the railroad.[22]

The years from 1800 to 1847 were the busiest and most profitable for the South Hadley Canal. The best year was 1833, when the tolls collected totaled $20,016. The slowest year, 1795, the first year of the canal, only netted $3,109 in tolls. The final passage through the South Hadley Canal was on Thanksgiving Day, 1847. The canal, officially on September 21, 1847, was now the possession of the Hadley Falls Company, which was in the process of completing the canal network through the new industrial area soon to become in 1850 the town of Holyoke. The proprietors met so infrequently that on November 24, 1883, they conveyed a deed to all properties to the successor of the Hadley Falls Company, the Holyoke Water Power Company.[23]

Had the proprietors realized that the railroads would, in about thirty years, provide a quicker, more profitable mode of transportation, they probably would not have invested in canals. As it happened canal construction remained the major capital investment in transportation in the years from 1795 to 1830. And it appears that most of the successful canals were those built prior to 1820. The importance of these enterprises should not be underestimated. From both a social and economic standpoint, canals were important in the development of many towns.

The real success of the South Hadley Canal was its economic impact. The canal was crucial to the economic development of South Hadley. Having the canal, and being able to utilize water transportation, brought goods at cheaper price for the people of South Hadley. There also were many jobs and businesses created–places to feed and house the crewmen at night, institutions for the expanding commerce, and establishments for the growing money supply. All these were directly or indirectly related to the canal.

Socially, the canal was also important to the residents of "Canal Village." The new marvel, the inclined plane, attracted tourists to South Hadley. Many important people of the late 19th century came and wrote about South Hadley's

new invention. Tourism gave the residents a new sense of self-esteem, and it also put South Hadley on the map. Canal taverns also contributed to the social life of South Hadley. Originally built to house and feed the sailors, they quickly became the "hot spot" of the town. Very frequently the taverns would be the site of dances, balls, or other types of entertainment for the townspeople.[24] The canal was also used by the general public. In the winter, it provided an extensive skating area, and during the summer, the two and one-half miles of wooded area along the banks of the canal, enabled nature lovers and young couples to have an ideal place for a stroll or picnic.

The Seal of the Proprietors of the Locks and Canals Along the Connecticut River indicated that the purpose was to benefit the public, as well as to provide income for investors. The public benefited by the expansion of trade, which resulted in numerous offerings to South Hadley's residents. An annual return of 11.2 percent was very good for the private investors. New jobs, and national recognition, were beneficial to the public served by the canal. The proprietors deserve to be commended for fulfilling their promise to the public and private sectors of the community.

NOTES

1. Edwin Bacon, *The Connecticut River and the Valley of the Connecticut* (New York, 1965), pp. 303-6.

2. *Ibid.*, pp. 307-8.

3. George Rogers Taylor, *The Economic History of the United States* (New York, 1965), p. 52; Bacon, pp. 311, 314; and Walter Hard, *The Connecticut* (New York, 1947), p. 168.

4. Margaret E. Martin, *Merchants on the Connecticut River Valley, 1750-1820* (Wenasha, Wis., 1939), p. 9; *Holyoke Transcript-Telegram*, September 14, 1960, p. 12A, col. 1; and Bacon, p. 311.

5. *A History of the Sesqui Centenial Anniversary Celebration of the Town of South Hadley, Massachusetts* (N.P., 1906), p. 66.

6. Proprietors of the Locks and Canals Along the Connecticut River to Ariel Cooley, April 30, 1793, ms. Springfield City Library, Archives, pp. 1-2 (hereafter, Chapin Collection).

7. *Town Reminder* (South Hadley), June 5, 1984, p. 18, col. 1.

8. *Sesqui Centennial*, p. 66.

9. Proprietors of the Locks and Canals on the Connecticut River to Ariel Cooley, October 25, 1793, Chapin Collection, Archives, p. 1.

10. *Sesqui Centennial*, p. 67.

11. *Holyoke Transcript-Telegram*, September 14, 1960, p. 12A, col. 3; *Town Reminder*, June 5, 1984, p. 18, col. 1; and Bacon, p. 318.

12. Maguerite Allis, *Connecticut River* (New York, 1939), p. 128.

13. Bacon, pp. 310, 317-8.

14. *Sesqui Centennial*, p. 68.

15. *Hampshire Gazette*, May 29, 1903.

16. *Town Reminder*, June 5, 1984, p. 18, col. 1.

17. *Sesqui Centennial*, p. 68.

18. Proprietors of the Locks and Canals on the Connecticut River to Ariel Cooley, January 20, 1804, Chapin Collection, Archives, pp. 1-3.

19. *Sesqui Centennial*, pp. 69-70.

20. Bacon, p. 319 to 324.

21. James Camposeo, "The History of the Canal System Between New Haven and Northampton," *Historical Journal of Western Massachusetts* (Fall 1977), Vol. VI, No. 1, pp. 47-8, 51-2.

22. Bacon, pp. 322-3.

23. *Holyoke Transcript-Telegram*, September 14, 1960, p. 12A, col. 5-9.

24. *Ibid.*, p. 12A, col. 5.