

THE NAVIGATION OF THE CONNECTICUT RIVER.

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THE discovery of the Connecticut river has been generally attributed by historians to Adriaen Block. If Giovanni da Verrazano in 1524 or Estévan Gomez in 1525 sailed by its mouth, we have no record of the fact; and it is very doubtful whether a river, whose semicircle of sand bars must have proclaimed it such, would have attracted much attention from any navigator seeking a northwest passage. In 1614, Block, having completed his yacht the *Onrust* [Restless], set sail from Manhattan to explore the bays and rivers to the eastward. His vessel was well adapted to his purpose, being of sixteen tons burden, forty-four and a half feet long and eleven and a half feet wide. He was able thus to obtain a more exact knowledge of the coast, as may be seen by the "Figurative Map," which is supposed to exhibit the results of his explorations.¹ At the mouth of the Connecticut river he found the water quite shallow, but the draught of his yacht enabled him to cross the bar without danger and the white man was soon for the first time following northward the course of New England's longest river. There were few inhabitants to be seen near the mouth, but at a point which is thought to have been just above the bend near Middletown, he came upon the lodges of the *Sequins*, located on both banks of the river. Still farther up he saw an Indian village "resembling a fort for protection against the attacks of their enemies." This was in latitude 41° 48', and was,

¹ De Laet's "Description of the New Netherlands," *N. Y. Hist. Soc. Coll.* New Ser. I.: 295, 296. De Laet undoubtedly followed the journal of Adriaen Block. On the "Figurative Map" see Brodhead's *Hist. of N. Y.* I.: 755-757. *Doc. rel. to the Col. Hist. of N. Y.* I.: 13. O'Callaghan's *New Netherland*, I.: 72ff. Winsor's *Narr. and Crit. Hist. of America*, III.: 381, IV.: 433. Cassell's *United States*, I.: 247.

in the opinion of Dr. J. Hammond Trumbull, on the east bank, between the Podunk and Scantic rivers. This tribe was called the *Nowaas*, and if we may interpret the fact that he gave the name of their chief and their native word for bread to mean that he paid them a visit, he probably learned from them of the *Horikans* whom he mentioned, a tribe farther north, whose name will be found west of the river on some of the later Dutch maps.

Our earliest information concerning the navigable character of the Connecticut river is derived from this exploration. The depth of the water was not over twelve feet in any place where soundings were taken. This may indicate that the voyage was not made during the high water of the spring. Here and there the depth decreased to four or five feet and then increased to eight or nine, which was Block's description of the several sand bars he crossed. The bends in the river were also noted, and we may infer from his language that he experienced some difficulty in sailing round them with head winds. Probably he did not ascend the river higher than the Indian village, though his journal professed to cover a distance of seventy-five miles from the river's mouth. He made, however, this statement concerning its navigation: "The river is not navigable with yachts for more than six miles farther, as it is very shallow and has a rocky bottom." Such was the first reference in history to Enfield falls, which have ever since played an important part in the navigation of the Connecticut river.

The name Block gave to this river was the "Fresh River," as written on his map *Versche rivier*, because it had "always a downward current" sufficient to overcome to some extent the rise of the tides. Van der Donck afterwards wrote of it: "This river is called the Fresh river, because it affords more fresh water than many other rivers."¹ Among the English the river took its name

¹ Van der Donck's "Description of the New Netherlands," *N. Y. Hist. Soc. Coll.* New Ser. I: 144.

from the valley through which it flowed, called in the Indian tongue *Quinni-tuk-ut*, meaning "on long river." In this word the syllable *tuk* signifies "a river whose waters are driven in waves, by tides or wind," so that both names had reference to the character of the stream. The name *Connecticut* probably exhibits as many varieties in its orthography as any English word of Indian derivation. There are no less than forty-one in earlier colonial letters and documents. How it happened that this name passed from its Indian form to its present spelling rather than to some other much nearer the original is an interesting critical question. The natural conclusion is that it was due to Governor Winthrop, who for some unknown reason adopted this orthography in 1633, though he afterwards used others and many years passed before this was general.¹

The Connecticut river is named on early Dutch maps *Versche rivier*, and extends only so far north as it was first explored. The later group of Dutch maps—those of the Visscher type, 1655—prolong the river far to the north, and such as have been examined note the location of *Mr. Pinsers Cleyne val* and the *Horikans*. Some maps also have the river's name *Varse*—another form of the Dutch word—and even have *Varse* at the mouth of the river and *Versche* inland. The map of Dudley in his *Arcano del mare*, 1646, exhibits an interesting feature which was quite characteristic of him. He gave to the river the

¹ Governor Winthrop, in 1631, wrote this name *Quonehtacut*, but in 1633 he has in his "History of New England" the spelling *Connecticut* seven times. He occasionally wrote it later *Conecticot* or *Conecticott*. The commission of the younger Winthrop in 1635 has "Governour of the riuier *Conecticut*," though he more commonly wrote it *Queneticut*. In the commission issued by Massachusetts it was *Coñecticott*. Bradford has the forms *Conightecute*, *Conigtecute*, *Conightecutt*, *Coontgtecute* and *Connightecute*. Roger Williams has *Quonihicut*, *Quunihicut* and *Quunticut*, though his usual spelling after 1637 was *Connecticut*. Pynchon in 1636 has *Quinnetecot*. The first spelling in the Colonial Records is *Conectecott*. Other forms noted are: *Quinetucquet*, *Quenticutt*, *Queneticott*, *Quenectecot*, *Quonck-tacut*, *Quinnehtuk*, *Conectacotte*, *Conectacote*, *Canedicott*, *Canetticut*, *Conectecot*, *Conecticote*, *Conectecotte*, *Conectecote*, *Conectigus*, *Conittcock*, *Conittcot*, *Conitycot*, *Conecticate*, *Counetticott*, *Connetticcott*, *Coneticot*, *Connitte Cock* and *Conitte Kock*.

name *Ruersche*, joining the letter *R*, which stood for river, to the Dutch name *Versche*, indicating the position of Saybrook fort at its mouth and noting the presence of the sand bar by dotted lines. Some distance to the westward, however, he also has the name *R*: *Conokteook*, without any river to keep it company. We conjecture that Dudley, though he followed the Dutch in naming the river *Versche*, also had some knowledge of the Connecticut river or its people, but did not recognize the identity between the names. If he intended by his word *Conokteook* to refer to the Connecticut river, this is, so far as we know, the first instance where it is so named on a map. Allowing for a corrupt spelling this word means rather "the long river people," and several later Dutch maps have the word *Conittekock* or *Conittekook* inscribed in the interior of the territory west of the river. The latter name appears on Van der Donck's map in 1656. In Peter Heylyn's *Cosmographie*, 1657, there is a map engraved by "Will: Trevethen, Sculp. 1652," which has the name *Conectacut* applied to the country. It seems therefore that the name *Connecticut* was commonly given to the territory even by those who retained the name *Versche* for the river. In Ogilby's *America*, 1670, the river is called *Versche* on one map and *Conectecut* on another. Little by little, as the Dutch influence declined, the name they had given to this river in 1614 disappeared, and Cotton Mather in his *Magnalia*, 1702, without any intention of irony, inscribed upon his map the name *Conecticut River* and gave the name *Fresh Water River* to a small stream—possibly the Podunk—flowing into it from the eastward. In 1666, the Dutch produced an enlarged map of *De Versche Rivier* in connection with the controversy between Sir George Downing and the States General. This map, now well-known through Winsor's reproduction of it, shows the river in some detail, noting the sand bars at the mouth and the channel through them, the high bluffs at

the narrows, the larger islands in the stream and the settlements along the banks as far north as Springfield.¹

We have no record of any white man's ship sailing the Connecticut river after the exploration of Adriaen Block for nineteen years. Some small Dutch boats may have traded there meanwhile, but in 1633 the Dutch came to establish themselves and build their "House of Hope" at Hartford. The same year Captain William Holmes, of Plymouth, entered the river and built a trading house at Windsor, and Governor Winthrop's bark, the "Blessing of the Bay," thirty tons, also visited it. Other vessels followed, the "Rebecca," sixty tons, in 1635; and the next year the vessel that carried the supplies of William Pynchon sailed up to Enfield falls, the head of navigation. Here at Warehouse Point he afterwards built a landing to facilitate the transportation of his goods up the river. In 1637, he had a shallop there, which with a pinnace and a pink, formed the fleet in the Pequot war.

There is no doubt that the navigation of the Connecticut river was considered dangerous even for small vessels in those early times. Winthrop has been charged with a lack of ingenuousness when he refused, in 1633, to engage with Plymouth in the Connecticut trade; but there is room to think he was honestly deterred by such fears quite as much as by distrust of the Indians. He wrote, "the river [is] not to be gone into but by small pinnaces, having a bar affording but six feet at high water" and "no vessels can get in for seven months in the year, partly by reason of the ice, and then the violent stream, etc."² In this opinion the Dutch agreed. De Vries sailed up to the "House of Hope" in 1638, and of the difficulties of navigation he wrote, "They cannot sail with large ships into this river, and vessels must not draw more than six feet [of] water to navigate up to our little fort, which lies fifteen miles

¹ Winsor's *Narr. and Crit. Hist. of America*, III.: 333.

² Winthrop's *Hist. of N. E.* I.: 125.

from the mouth of the river. Besides, there are many bare places or stone reefs, over which the Indians go with canoes."¹ Lion Gardiner, who was in command of Saybrook fort in 1636, counted it good fortune when he had two Dutchmen come to him, one of whom was a shipwright, for "I doe intend," he wrote, "to sett the Duchman to worke to make a Dutch smacke sayle, which shall carry 30 or 40 tun of goods, and not draw 3 foote and a halfe of water, principally to transport goods and passengers vp the river in safety."² Doubtless these fears were exaggerated because they were ignorant of the channel, and were dispelled in part by experience. They were willing, too, to take greater risks as soon as the advantages of the river trade were known. A Dutch writer expressed his opinion of those English adventurers thus: "Having had a smack of the goodness and convenience of this river, and discovered the difference between the land there and that more easterly, they would not go back."³ The idea which Winthrop expressed in 1633 that "This river runs so far northward, that it comes within a day's journey of a part of Merrimack called [blank] and so runs thence N. W. so near the Great Lake as [allows] the Indians to pass their canoes into it over the land" raised great expectations. Edward Howes wrote John Winthrop, Jr., at Saybrook, in 1636, wanting to know how far he had discovered the river, and how he liked it and "what news of the Lake."⁴ Sanson's map of 1656 shows the river flowing from a lake. Thus their hopes of a profitable trade with the north by means of the river were awakened. They were largely realized, though not in the way anticipated. For two centuries this river was one of the great avenues of trade in which Boston had no small part.

The first controversy between Massachusetts and Con-

¹ *Voyages of De Vries*, Murphy's translation, p. 125.

² *Mass. Hist. Soc. Coll.* 4 Ser. VII.: 54.

³ *Verloogh*, etc., Murphy's translation, p. 34.

⁴ *Mass. Hist. Soc. Coll.* 4 Ser. VI.: 503.

necticut, of which this river was the cause, arose out of the imposition of tolls by the latter on all exports of grain, skins, etc., passing by Saybrook fort to sea. A mere statement of the case, which is fully set forth elsewhere, will be sufficient here.¹ The above mentioned action was taken by the Connecticut General Court, February 5, 1644-5, in view of their agreement made with George Fenwick, Esq., two months before, by which they were to pay these tolls to him for ten years in return for his land on the river, Saybrook fort and its appurtenances and his pledge to convey all the land included in the Warwick patent *if it came into his power*. "They had no right of jurisdiction," says Dr. Trumbull, "except such as grew out of occupation, purchase from the native proprietors or conquest." Herein therefore was one weakness of their case when they demanded toll from Springfield, "chiefly to maintayne the fort for security & conveniency," as they expressed it or they were really requiring part of the purchase money from a town claiming to be under the jurisdiction of Massachusetts. Springfield refused, through Mr. Pynchon, to pay the tolls and carried the matter to the General Court of Massachusetts, which sent a remonstrance to the Commissioners of the United Colonies, to whom Connecticut had appealed. The representatives of Plymouth and New Haven, who judged the case, decided in Connecticut's favor, whereupon the Massachusetts Court took action demanding tolls from all the other colonies for the maintenance of the fort at Boston. The Massachusetts Commissioners pressed their right to see the order of Connecticut imposing the customs and also the Colony's patent. In fact, the Colony had not secured any assignment of the Warwick grant, and perhaps had not then, any more than in 1661, even a copy of it. The Court's order was only a

¹ *Conn. Col. Rec.* I.: 119-122, 189, 190, 258, 266-272, 568-570; *Mass. Col. Rec.* II.: 182, 183, 268-270, III.: 32, 89, 151, 152, 191; *Ply. Col. Rec.* IX.: 80, 89-93, 120-136, 155-158. *Hutchinson's History*, I.: 153-156. *Palfrey's Hist. of N. E.* I.: Bk. II., Chap. VI.

re-statement of the terms of their agreement with Fenwick, which they were not disposed to have examined and did not enter upon their Colonial records until ten years after its date; and both documents would have shown that the tolls were purchase money. Meanwhile, however, in the mid-winter of 1647, the Saybrook fort was burned to the ground. It seems to have been so providential an event that the fire might have been set by some adherent of either party. The Massachusetts men could then say there was no reason for tolls as there was no fort to maintain; and the Connecticut men were spared the embarrassment of confessing that they had no patent or of producing an agreement which did not convey even the right of jurisdiction that was conceded to them. Thus the first issue of intercolonial commerce on the Connecticut river was suffered to die unattended and in 1650 Massachusetts repealed her obnoxious order.

From this time on for a century and a half the subject has mainly to do with the lower portion of the river and belongs to Connecticut history. This Colony early sought to foster the shipping interests on the river. In 1642, the General Court took action to secure the building of a ship by the towns and ordered the cultivation of hemp "for the better furnishing the Riuer wth Cordage towards the rigging of Shippes." Later all vessels while on the stocks were exempted from taxation, an order soon afterwards limited to those of thirty tons burden and over. Some vessels were built in those days along the river, but they were mostly of small tonnage. At Wethersfield, in 1649, Thomas Deming built the "Tryall," the first built by private enterprise and perhaps the first in the Colony. In 1681, an act was passed for the proper inspection of all over fifteen tons burden. The answers made by the Governor to the questions of the "Committee for Trade and Foreign Plantations," in 1680, show that twenty-seven vessels were then owned in the Colony. Of these, seven

were owned on Connecticut river,—at Hartford 1 ship, 90 tons; at Middletown 1 ship, 70 tons; at Lyme 1 ketch, 70 tons; at Saybrook 2 small sloops; and at Kenilworth 1 sloop, 18 tons, and 1 sloop, 14 tons.¹ This summary, however, does not include the numerous smaller boats used in the river traffic, nor does it adequately represent the shipping interests, for most of the intercolonial trade was carried on by vessels owned in New York and Boston. At that time a ship of ninety tons was as large as it was thought wise to build for river use. Few as large were built for many years. Smaller vessels had an advantage in low water and in crossing the Saybrook bar. So the river commerce grew. In 1730, fourteen vessels were owned in its towns, averaging thirty tons, and forty-two in the Colony. If this proportion continued, there were thirty-four owned on the river in 1762 and sixty in 1774. We have reason to think, however, that after the French wars there was an awakening of the river's shipping interests. More vessels certainly were built at the river towns,—especially at Hartford, Wethersfield, Glastonbury, Middletown and farther south.² It is said that a schooner was built at Chicopee in 1749 and came down over Enfield falls in the springtime freshet. Doubtless others followed this example. During the Revolution several ships of war were constructed and equipped along the river—the state man-of-war "Oliver Cromwell," 260 tons and twenty-four guns, at Essex, and the frigate "Trumbull" at Chatham—and the river towns furnished many adventurous privateers.³

The principal exports from the Connecticut river during the Colonial period were provisions for New York and Boston, and lumber, horses, etc., sent to the West Indies in exchange for rum, sugar and molasses. Occasionally a ship was laden for England with "pot and pearl ashes," or

¹ *Conn. Col. Rec.* III.: 299.

² "Scraps of Wethersfield History," by S. W. Adams, *Wethersfield Farmer*, 1887.

³ *Ibid.*; *Record of Conn. Men, etc.*, pp. 593-607.

lumber and salted provisions. Early in 1767, within a period of forty days, there arrived in Barbadoes thirteen ships from Connecticut river. As early as 1765 some river sloops were fitted with accommodations for passenger traffic, and passage boats ran with some regularity to New York, Boston, and Long Island ports. After the Revolution there were several regular packet lines.

It was in consequence of this foreign trade that the first movement arose for improving the river's channel. Hitherto little or nothing had been contemplated, except between adjoining towns, such as deepening the channel between Hartford and Wethersfield, in 1686.¹ Sea-going ships needed more water and it was seen that unless something was done to improve the navigation of the river, its commerce could not expect large development. So in 1764, on the memorial of Joseph Talcott and others, setting forth that there were sundry sand bars between Rocky Hill and Hartford, the Connecticut General Court gave the petitioners authority to raise funds and expend the same in clearing away the bars, and if they secured and maintained a channel seven feet deep in the summer season, they were empowered to collect a toll of six pence a ton on all vessels over fifteen tons using the river above Rocky Hill.² Probably nothing was accomplished by this company. In 1774 and in 1788, the water on these same bars was not over five and a half feet deep at high water and a common tide. It is thought that objections to the plan arose on account of the tolls. Then and for many years thereafter sea captains had a great prejudice against any such payment. Many ships of over fifteen tons would not be benefitted by the improvement, as they could generally use the channel in its natural condition.

This movement was soon followed by another for facilitating a safe entrance into the river. The General Court received a memorial in 1770 from Matthew Talcott, Silas

¹ *Conn. Hist. Soc. Coll.*, VI.: 218. ² *Conn. Col. Rec.* XII.: 318-320.

Dean and others, stating that "the navigation into and out of said river is difficult, expensive and dangerous, by reason of bars and shoals of sand not sufficiently defined and known at the mouth," that Captain Abner Parker, of Saybrook, had lately made "a compleat chart or map of said bars and shoals with the channels and soundings," that "buoys or water-marks" might be erected on these bars and "maintained by a small duty laid on the vessels sailing into and out of said river," and praying for a committee to examine into the matter. This memorial had a wearisome legislative journey, the final outcome of which was that the memorialists were granted the privilege of a lottery to raise £337, afterwards increased to £537, to do the work and remunerate Captain Parker. This "Saybrook Bar Lottery," however, did not yield its revenue until 1777, and then it was so greatly depleted by expenses that the balance, about £200, was insufficient for the work. As the projectors were given permission to use the stone of the old fort at Saybrook, masonry of some sort must have been contemplated. Nothing was ever done, and in 1786 Captain Parker, then aged and dependent, petitioned for further remuneration out of the unexpended balance. Two years later the Assembly ordered the managers of the lottery to render an account, settle this claim and pay the balance into the treasury of the state, but Captain Parker had died two months before. His chart, however, had been engraved on two copper plates and published at an expense of £36. 5s. It is valuable as showing the condition of Saybrook bar at that time, and was the first map issued on the subject.¹ There is in

¹ Abner Parker, son of Ebenezer and Mary (Smith) Parker of Saybrook, was born May 14, 1697, and died March 24, 1788. He had followed the sea all his life and was a well-known character at Saybrook. His claim to have "discovered" a new channel must be taken with some allowance under the circumstances. "Capt. Parker's Chart of Saybrook Barr" was engraved by Abel Buell and is inscribed: "To the Hon^{ble} | Govenor & | Company, of the Colony of | Connecticut in New England This Map | is Humbly Dedicated by Your Honours | most Obedient Humble Servt. | Abner Parker | 1771." | Dr. J. Hammond Trumbull once had a copy of this chart

the Record Office in London an earlier map, which was made in 1720 by Mr. John Copp of Norwalk, and of which a tracing is preserved in the State Library. This is an outline map of the coast, but it indicates the position of the bars sufficiently for a comparison. It appears that the flood channel had changed slightly to the westward during the half century and that the eastern, or Poverty Point, once extended farther out into the river. Other changes also may be noted in the channels and their depth of water, one of which is now entirely closed, and all of these changes seem to justify the dread the ancient mariner had of the bars at the mouth of the Connecticut river.¹

There was great activity along the river during the Revolution, but no one had any time to think of improving navigation. As soon as this storm passed, however, there was a revival of former schemes. Other causes stimulated this interest. Trade increased and emigration up the river demanded more facilities for transportation. In 1784, two years before John Fitch made his success with the steamboat at Philadelphia, a newly invented craft made its appearance on the river. Its projector astonished the river men by his ingenuity and probably also amused them. This craft consisted of two scows or flat-boats lashed together side by side, with a platform on top, where two horses walked round and round to give power to paddle wheels on each side. A speed of three miles an hour up stream was thus attained.² It was not much of an invention for a Connecticut Yankee, but it clearly indicates the trend of interest along the river.

and a facsimile of a tracing is given in the Colonial Records. [Cf. *Conn. Col. Rec.* XIII.: 503 n., and *Report of Chief of Engineers of U. S.*, 1873, p. 993.] See *Conn. Col. Rec.* XIII.: 383, 384, 503, 504, 643, 644; XIV.: 94, 96, 97, 118-120; XV.: 144, 322; *Rec. of State of Conn.* I.: 36, 139, 140; State Archives, *Lotteries and Divorces*, pp. 86-108, 155, 156; *Trade and Maritime Affairs*, II.: 94-96, 138.

¹ The Copp map was made by the Colony at the command of the Board of Trade, expressed in a letter dated "Whitehall, Aug^t ye 7th 1719," and was sent to England. [State Archives, *Foreign Correspondence* I.: 140.] The tracing was secured by Dr. Charles J. Hoadly.

² *Conn. Courant*, July 13, 1784.

In 1788, Jeremiah Wadsworth, supported by fifty-seven prominent citizens of Hartford, petitioned the Assembly with reference to deepening the channel between Hartford and Middletown from five and one-half to ten feet, proposing to defray the expense by tolls on all vessels drawing more water than the channel then afforded.¹ This movement failed for the time because of the Assembly's jealousy of a monopoly, but it eventually resulted in the plan then approved by the citizens—the granting of encouragement to a private corporation who would undertake the work. The next year a lottery was granted for the purpose of erecting wharves at Hartford.² In 1790, the "River-Bank Lottery" was authorized—to raise money for "supporting the Bank of the River, adjoining the Public Road through the Long Meadow in Middletown."³ There were other similar projects. Then, too, began the movement for improving the navigation above Hartford, to which reference will presently be made. The whole matter was fully stated in a series of articles printed in the *Connecticut Courant*, beginning January 2, 1792, and written under the pseudonym "Patriot." From these articles it appears that the wise already foresaw that the Connecticut river was destined to become the main avenue of trade in western New England. The expectation was expressed that the river would be navigable to Coos, by clearing the channel and constructing canals at Enfield, South Hadley, and the falls above. It was a true prophecy. As to the river below Hartford the importance of clearing the channel between Hartford and Middletown was strongly urged. This interest centered naturally in Hartford. The towns below Middletown were much better accommodated, the obstructing sand bars being mostly above them. The naval returns show that Middletown

¹ State Archives, *Trade and Maritime Affairs*, II.: 221-223.

² State Archives, *Lotteries and Divorces*, p. 160.

³ *Middlesex Gazette*, March 20, and June 12, 1790.

had a great commercial advantage at this time in trade with foreign ports. In a single week in 1786, eight such ships arrived and as many sailed from that port, and there was a constant increase in this trade until the sand bars were cleared away. Still Hartford had other advantages as the acknowledged head of navigation and the point of departure for all the traffic up the river.¹ Indeed, the commercial interests of that city are asserted in the seal adopted February 21, 1785, the year after its incorporation, on the report of Colonel Samuel Wyllys and John Trumbull, Esq.: "Connecticut River represented by the figure of an old man, crowned with rushes, seated against a rock, holding an urn with a stream flowing from it; at his feet a net, and fish peculiar to the river lying by it, with a barrel and bales; over his head an oak growing out of a cleft in the rock; and round the whole these words, 'Sigillum Civitatis Hartfordiensis.'"² This seal having become obsolete by the decline of the river trade was displaced in 1852 by the present one representing a hart crossing a ford.

All this interest culminated in the incorporation of John Caldwell, John Morgan and others, in October, 1800, as the "Union Company," with power to remove obstructions to navigation, build wharves, piers, etc., and, when they

¹ A careful examination of such data as are obtainable shows that the most prosperous period of up-river traffic began about 1790, reached its height about 1805, and gradually declined thereafter, though the aggregate of exports constantly increased. This is contrary to the general impression. Notwithstanding the canal improvements, the river did not compete with the turnpike roads leading from the upper Connecticut valley eastward to Boston. The third New Hampshire turnpike, running from Bellows Falls to Boston, was incorporated in 1799, and the fourth, from White River Falls to Boston, in 1800. These and other roads diverted much of the trade. The friends of river navigation made the following statement in 1824: "Notwithstanding all that has been done by the proprietors of the present locks and canals, the amount of transportation on the river has diminished since their construction. The boating from above Miller's falls was considerable twenty years ago. It is now comparatively trifling, and in a few years more will probably be almost if not wholly abandoned. The principal causes which have produced this result are improvements in roads, a reduction in the price of land carriage and some diminution of water in Connecticut river."—*Two Reports, etc.*, p. 16. Cf. *Journal of the Convention, etc.*, 1830, pp. 15-17.

² *Mem. Hist. of Hartford Co.*, I.: 380, 381.

had secured a channel more than six feet deep between Hartford and Middletown, they were authorized to collect tolls proportionate to the distance and the draught of each vessel using the same, for a period of sixty years. This company expended a considerable sum on the river's channel, dredging the bars, removing obstructions, erecting piers, stoning the banks and planting willows on them. They succeeded in securing a channel with about seven and a half feet of water over the sand bars, where from the beginning of navigation there had been not more than five and a half. The bars which received this improvement were as follows: Hartford Bar, Hartford Bar, Jr. [Clay Banks], Wethersfield Bar [Pratts Ferry Bar], Log Bar [Press Barn Bar], Log Bar, Jr., Glastonbury Bar, Dividend Bar, Pistol Point Bar and Quarry Bar.¹ The toll system went into effect as provided March 26, 1806. It met with opposition from the first, and in 1831 and 1836 attempts were made to induce the Assembly to repeal the company's act of incorporation or direct a Quo Warranto to issue against them. One of the main questions raised was whether the State had a right to tax a class for travelling upon its "navigable tide waters." Undoubtedly the tax was a hardship for many, as some vessels had managed to get over the bars by means of an anchor and windlass, and most of them did not profit by the improvement during high water. On the other hand, larger vessels were thus enabled to reach Hartford and trade was relieved of many interruptions and embarrassments. Had it not been for this improvement, even the small steamboat plying between Hartford and New York in 1834 could not have ascended the river above Middletown. The "Union Company" continued in operation

¹ *Affidavits and Statements, etc.*, 1834; *Remarks, Affidavits, etc.*, 1836; *Statement of facts, etc.*, pp. 5, 6; *Report of Chief of Engineers, U. S.*, 1880, p. 396ff.

until the expiration of its charter, its last annual meeting recorded being held May 28, 1864.¹

One of the chief characteristics of the Connecticut river is its springtime floods. The exact time of this inundation and the height of the water varies with the season; but the fact was early discovered by navigators that every flood made some changes in the channel.² The very bed of the river in some places has thus been moved in the course of time from east to west or west to east apparently at the river's caprice. The channel is filled more or less by every flood, and sand bars have been known to appear and disappear without due notice. The bar called Log Bar, Jr., once well-defined, is now entirely buried. Land has apparently been moved from one side of the river to the other, and the boundaries of towns have been altered. At Saybrook the tide, which has there an average rise of three and a half feet when the river is at its lowest stage, has had some influence; but at Hartford under the same conditions this rise is only one foot, and when the river is five feet above its lowest stage it is hardly appreciable. It was evident therefore a century ago that the channel demanded attention annually. In addition to the amount expended by the "Union Company," which was about forty-five thousand dollars, in 1835, the steamboat company expended thirty-four thousand dollars and the City of Hartford twelve thousand dollars before 1868 in such work. This outlay, however, did scarcely more than to keep the channel open and deeper water was

¹ *Ibid.*; MS. Rec. of the "Union Company," Conn. Hist. Soc.; *Private Laws of Conn.*, I.: 517-523, V.: 507; 1837: 18; 1838: 75; 1861: 97; *Report of the Committee*, etc., [1836]; *Report of Chief of Engineers, U. S.*, 1868, p. 766.

² In the "great flood" of March 10, 1639, the river was the highest it had been within the memory of the Indians. The greatest flood since that time was May 1, 1854, when the water rose to a height of 29 feet, 10 inches above low water at Hartford. Other extraordinary floods were in May and June, 1642, July and August, 1683, 1692, Jan. 12, 1767, 1798, 1801, 1841, 1843, 1859, 1862, 1869, 1870, 1895, 1896, 1901 and 1902. It has been generally thought that some diminution of water in the Connecticut river has been caused by the cutting off of the forests. Great floods seem to be more frequent, probably for the same reason. In 1818, nearly every bridge on the river was carried away or injured by the ice during a freshet.

needed for commerce. Thus the work came finally into the hands of the United States government at the above date, when a preliminary examination of the case was made. It is unnecessary to follow in detail here the improvements by the government, the same being fully covered by the Reports of the Chief of Engineers of the United States.¹ In 1870, the government began its work of dredging the channel, removing rock and driving piles, and in two years secured a channel eight feet deep and nearly one hundred feet wide at low water. It has been necessary, an account of the above-mentioned conditions, to continue the dredging each year, at an annual expense of about ten thousand dollars. At Saybrook Bar the government did some dredging in 1836, when a survey was made by the government, but it had long been evident that some construction work was necessary for the protection of the channel. In 1872, therefore, the building of jetties was begun, one on the west and the other on the east side, which, with the lights, have rendered the mouth of the river an easy and safe harbor for all vessels. Thus the obstacles that formerly existed in the navigation of the river have been overcome.

We now turn to the consideration of developments in the navigation of the Connecticut river above Hartford, to which the interest in the first half of the nineteenth century largely pertained. Here was a river more than four hundred miles long, including all its windings, running through a most fertile valley which had early become a highway of emigration. Its source in Connecticut Lake was sixteen hundred feet above the tide water at its mouth; and even from Barnet, Vermont, which the friends of navigation early made their prospective terminus, there was a fall of over four hundred feet to Hart-

¹ *Index of Reports of Chief of Engineers, 1866-1879, pp. 156-158; 1880-1887, pp. 151-153; 1888-1892, pp. 136, 137.*

ford.¹ To overcome these obstacles was their ambition.

As already stated, the vessels that carried the goods of William Pynchon and the early settlers of Springfield ascended the river to Enfield falls. There a warehouse was built and long maintained, from which fact the name "Warehouse Point" was derived. In Revolutionary times one was standing about forty rods south of the new bridge. This is thought to have been at or near the location of Mr. Pynchon's warehouse. At first goods were conveyed from there by the river trail, but soon the Springfield settlers built canoes and small flat-boats for this work. At times these boats were able to go over the falls. The upper river towns also used this method of transportation. Such boats were used at Northampton as early as 1675, at Hadley in 1668, and at other places farther north from the beginning of their settlement. It was necessary of course to transfer freight around South Hadley and Miller's falls by the road. The increase of population in the up-river towns augmented this trade and after the peace of 1763 the freighting and lumber business on the river became an important factor in its navigation. Then the construction of flat-boats that could be poled up over Enfield falls, or could pass the many shoals in the river above, was multiplied. There is good evidence that in every section of the river as far north as the settlements extended such boats were used soon after the Revolutionary war. A writer, in 1792, says: "It is only six or seven years since the first boat was built at Windsor (Vt.) and business is now increased to hundreds of tons yearly." These facilities for transportation above Enfield falls brought many vessels to the head of navigation at Warehouse Point. In 1790, as many as sixteen sloops

¹ *The American Journal of Science*, XXII.: No. 2, p. 206; *Two Reports, etc.*, 1825; *Report of the Conn. River Co.*, 1826; *Report of Chief of Engineers, U. S.*, 1888, p. 528.

were counted there at anchor waiting to receive and discharge their cargoes. After the building of the Hartford bridge in 1809, this reshipment usually took place at that port. There was "an apology for a draw" in this bridge on the east side of the river, but it was of no great use, for the water was too shallow in summer, and "it was a job of several hours to raise and lower it." So this bridge practically closed navigation for sloops above Hartford from 1809 to 1818, when a new draw was put in on the west side. The river flat-boat continued to be the standard means of conveyance until long after the canal round Enfield falls was built, though its size was then increased. The earlier type was a simple scow, drawing little water and fashioned at the ends conveniently for the work. Its capacity was from twelve to eighteen tons, but all the freight over fifteen tons had to be carted around the falls by ox teams. Each boat was rigged with a square sail and sometimes a topsail, which was especially useful in a strong up-river wind. When there was no wind the boat was poled by men, who tied up their craft by night and slept in some inn or farmhouse near at hand. In propelling the boat up over Enfield falls, extra men were required, called "falls-men," who received one dollar a day as their wages. The river flat-boats of the later type were much larger than the former, having a capacity of from twenty-five to forty tons. Some were built of pine, without floor or cabin, for the conveyance of lumber and potash, and after the voyage down the river they were sold and broken up. Others were of oak, usually of about thirty-five tons capacity, with a cabin and accommodations for a crew of four, a mast twenty-five feet high, where a large square sail was rigged, and a narrow walk along the sides for poling. The boat's dimensions were regulated by the size of the canal locks through which it was obliged to pass. Usually the length was about seventy-five feet and the width about fifteen, the ends being

narrowed to ten or twelve feet. This class of boats carried cargoes up the river as well as down in the regular freighting service. The round trip required about fifteen days. When they were poled they could make one mile an hour going up the river, but with a fair wind five miles. So many a time a favorable breeze would start them out from Hartford for the up-river voyage in large numbers, and as many as thirty in a day have been counted passing a river man's home.¹

The improvements along the Connecticut river above Hartford were due to the demands of this traffic. Only a brief sketch of each can be given, leaving the details to be gathered, if desired, from the authorities noted.

The project of improving navigation at Enfield falls dates from 1791, when the Connecticut Assembly granted to Roger Newbury, John Reynolds and others, the privilege of a lottery "for the purposes of cutting a Channel thro' the Falls in Connecticut River and clearing the Sand Bars, so as to make the river navigable between said falls and the city of Hartford."² In 1798, the Assembly incorporated John Reynolds and others as "The Company for erecting and supporting a Toll bridge, with Locks, from Enfield to Suffield." After an extension of time the bridge was built and opened November 9, 1808, but the locks contemplated were too great an undertaking and the same year the company was empowered "to make a shore channel by excavating the bed of the river," in lieu of them. The year following the company was released from this obligation.³ Thus nothing was accomplished, and in 1818 the

¹ On this up-river navigation see "Early River Navigation," *Historical Sketches*, Jabez H. Hayden; also articles by the same writer in the *Hartford Courant*, May 26, 1886, the *Windsor Locks Journal*, Oct. 10, 1902, and the *Springfield Republican*, July 6, 13, 20, 1899; "Old Time Traffic and Travel on the Connecticut," George Sheldon, *Hist. and Proc. P. V. Mem. Ass.*, III.: 117-129; "Navigation of Connecticut River," T. M. Dewey, *Papers and Proc. Conn. Valley Hist. Soc.*, 1876-1881, pp. 114-122; "Traffic on the Connecticut River," Nellie G. Abbe, *The Connecticut Quarterly*, III.: 268ff.; "Early Traffic on the Connecticut River," Collins G. Burnham, *N. E. Mag.*, Oct., 1900.

² *Conn. Courant*, March 5, 1792.

³ *Private Laws of Conn.*, I.: 249-252; *Petition of Conn. River Co.*, 1828.

Assembly chartered "The Proprietors of Enfield Locks and Channels," the projector being John L. Sullivan, Esq., a well-known engineer.¹ The plans of this company also failed, mainly for the same reason as its predecessor—inability to raise the capital required. Finally in 1824, the time limit of the latter company having expired, and notwithstanding the protest of the former, "The Connecticut River Company" was incorporated with ample powers to improve the channel above Hartford, "to lock the falls at Enfield," "to construct a canal on either bank of said river near said falls," and "to construct a dam or dams for the purpose of entering and leaving the locks in still water."² As a financial adjunct to this company, "The Connecticut River Banking Company" was incorporated the year following by an amendment to this charter. The creation of "The Connecticut River Company" was the inevitable result of the conditions then existing. It was an era of inland navigation. The Erie canal was opened in 1825. Another great canal had been projected to cross Massachusetts from east to west and intersect the Connecticut river. A movement of still greater importance to the lower river towns was that to construct a canal from New Haven to Northampton, which had been inaugurated by the incorporation of a company to build the Farmington canal in 1822. To develop the resources of the river in opposition to this, an association had been formed at Hartford, the leaders of which were substantially the organizers of "The Connecticut River Company."³ The war between the "Canalites" and the "Riverites," to which reference will be made later, had already begun. Moreover, in 1824, the first steamboat line between Hartford and New York was established, and this had suggested up-river navigation by steam. Several canals around falls

¹ *Private Laws of Conn.*, I.: 507-510; *Brinley Catalogue*, No. 9313.

² *Private Laws of Conn.*, I.: 73-83; *Brinley Catalogue*, Nos. 9307, 9315.

³ *Two Reports*, etc., 1825, pp. 3, 17, 22; *Report of the Conn. River Co.*, p. 1.

above had been in operation for more than a quarter of a century. It seemed therefore to many that the construction of a canal at Enfield falls was all that was necessary to make the Connecticut river a great highway of commerce. So "The Connecticut River Company" was organized under most favorable conditions and with strong financial support. In its charter there was also a provision to cover all improvements on the river above, provided the necessary authority was granted by Massachusetts, New Hampshire and Vermont. Obviously this scheme to consolidate all the canal properties on the river, to which further reference will be made, was the natural outcome under the circumstances. To this company surely more than to any other was due all that was ever accomplished to bring about an improved system of navigation on the upper section of the river. The preliminary surveys for the Enfield falls canal were made therefore with great expectations in 1825. The fall of the river here was thirty feet. To overcome this the canal, which was six miles long, had three locks. It is now well-known to every traveller through Windsor Locks as furnishing water-power to a number of mills.

The next obstacle in the navigation of the river was the fall at South Hadley. Here the earliest canal improvement was effected and it is said that this was the first canal, of any importance at least, attempted to be built in the United States. The river flat-boats, which could ascend the rapids at Enfield, met here an insurmountable difficulty in a waterfall of about fifty feet descent in two and a quarter miles. In early times the boats were poled up over Willimansett rapids, landing their cargoes below the fall on either side of the river, for transportation by road to other boats above. There seems to have been a gorge-like irregularity in the rocks on the east side of the fall, which may have suggested a canal and through which it was built. In 1791, a petition was presented to the

Massachusetts Legislature for the incorporation of a company to effect this improvement. The project was opposed on the ground that it would facilitate communication between the upper Connecticut and New York, thus diverting trade from Boston. This opposition failed, and an act was passed February 23, 1792, incorporating the "Proprietors of the Locks and Canals on Connecticut River," with power to construct canals and make the river "passable for boats and other things" from Chicopee river to the northern limits of the state, and to collect tolls according to a schedule fixed by the charter. The moving spirits of this enterprise were John Worthington of Springfield, Jonathan Dwight of Springfield, John Williams of Deerfield, and Benjamin Prescott of Northampton. It is doubtful whether they would have been able to accomplish their purpose had it not been for the financial assistance of four Dutch firms of Amsterdam, who became interested through their Boston agent and subscribed for a considerable part of the company's stock, of which there were five hundred and four shares. The original plan embraced a canal at Miller's falls, but it was soon thought best to divide the corporation and an act was passed February 27, 1794, constituting "The Proprietors of the Upper Locks and Canals on Connecticut River, in the County of Hampshire." The building of the upper canal was assigned to this company and the old company, with its Dutch stockholders, retained the lower. It happened afterwards that the Amsterdam firms became discouraged by their assessments and the litigation arising from the supposed unhealthfulness of the water at their dam, and sold out their interests—the last of them in 1804. Soon afterwards the company paid dividends. The surveys for the South Hadley canal were made in 1792, by Christopher Collis of New York, and the necessary lands were purchased the year following, the first deed being dated March 12th. The construction work

was begun April 20, 1793. This included the digging of the canal two and a third miles long, the construction of a dam across the river at the upper end, the erection of one building for the uses of the company and another as an inn for the accommodation of river men, and the construction of an inclined plane by which the boats were to be carried from one level to the other. It was almost too much of an enterprise for the times, but its projectors were energetic men, and Benjamin Prescott was himself an engineer. The original act provided for the transportation of rafts twenty feet in width and sixty feet in length, but by an amendment passed June 21, 1793, this provision was changed to sixteen feet in width and forty feet in length. It was also necessary for the company to make the Willimansett rapids, where there was a fall of nine feet, passable for boats. This work was begun in 1795. A canal or channel was first built along the east bank. This became filled up after a time and a shore channel was made on the west side. A towpath ran alongside of it, and boats were drawn up against the current by oxen.

The canal itself was completed in the autumn of 1794, sufficiently at least to be dedicated with some ceremony by the directors. In the spring following it was opened for traffic. The tolls were collected at the inclined plane and a duplicate receipt was retained by the collector. Some idea of the number of boats and rafts that passed through this canal the first year can be formed from the fact that receipt No. 118 was dated June 6th, and many of these receipts were for more than one boat. The amount of tolls in 1795 was \$3,109.45. Usually the river men made it convenient to spend the night at the "Canal Tavern," which was built in 1793 and is still standing. Sometimes they had cause to complain of the delay in passing over the inclined plane. The most serious troubles of the company, however, were occasioned by their dam, which raised the water some feet as far up the river as Northamp-

ton and occasioned, it was claimed, much sickness. Many protests were made and finally the Legislature, by an act passed February 25, 1802, granted the company authority to raise money by a lottery for the purpose of making the canal passable without the aid of a dam. In 1805, under the supervision of Ariel Cooley, to whom the property was thereafter leased, the bed of the canal was lowered four feet, the dam three feet, and five locks were substituted for the inclined plane. The canal finally became remunerative, passed in 1849 to the Hadley Falls Company and in 1859 to the Holyoke Water Power Company.

The most interesting feature of this enterprise was its use of the inclined plane to raise and lower boats from one level to another. No earlier instance is known in this country, and it was first adopted in England on the Ketley canal in 1789. This device, however, is of ancient origin and use on canals. It has been thought that the Dutch stockholders suggested it at South Hadley, which is quite likely, as it was used on other canals in which the Dutch were interested. It is especially useful where the descent is great and water worth saving. The seal which the South Hadley company adopted, as authorized by an act of February 25, 1793, had a representation of an inclined plane as its main feature. In the company's records this seal is thus described: "The figure of an inclined plane with a loaded boat passing down the same—over which the words *sic transit*, underneath the words, *public & private good*, around the seal the words 'The Proprietors of Locks & Canals, County of Hampshire, Mass.'" The embossed impression of this seal is seen on the company's certificate of stock. It has been doubted whether the inclined plane was ever actually used at South Hadley, but there are many references to it in the company's records and deeds of property. Indeed, Dwight, in his *Travels*, gives a minute description of it, written within a few years after its use was discontinued and

doubtless from information obtained on the spot. He says, "At the lower end of the canal was erected an inclined plane, fifty-three feet in height, and two hundred and thirty in length; built of stone obtained in the neighbourhood. The face of the plane was elevated $13\frac{1}{2}^{\circ}$, and was covered with strong plank. The outlet of the canal was secured by a sufficient lock, of the common construction. When boats were to be conveyed down the intended plane, they passed through the lower lock, and were received immediately through folding-doors into a carriage, which admitted a sufficient quantity of water from the canal to float the boat. As soon as the boat was fairly within the carriage, the lock and the folding-doors were closed, and the water suffered to run out of the carriage through sluices made for that purpose. The carriage was then let slowly down the inclined plane on three sets of wheels; the second and third sets being so much larger than the first as to keep the carriage exactly level. The machinery, by which the carriage was raised or lowered, consisted of a water-wheel, sixteen feet in diameter, on each side of the inclined plane; on the axis of which was wound a strong iron chain formed like that of a watch, and fastened to the carriage. When the carriage was to be let down, a gate was opened at the bottom of the canal; and the water, passing through a sluice, turned these wheels, and thus slowly unwinding the chain, suffered the carriage to proceed to the foot of the plane by its own weight. When the carriage was to be drawn up, this process was reversed. The motion was perfectly regular, easy, and free from danger. At the foot of the inclined plane another canal is formed round a small rift; and through this, boats make their entrance again into the river. The boats which pass this canal are from fifty to sixty-five feet in length, and carry from ten to twenty-five tons. At first cables were employed to raise and let down the boats, and were found insufficient, as well as

expensive. The chains, which were substituted for them, were frequently broken; and thus embarrassed the regular course of the navigation." This description does not tally in every detail with the representation on the seal, which was probably made from a drawing before the inclined plane was built. In the seal the inclined plane rests upon timbers, and there are only two sets of wheels, of the same size. The water-wheels, however, are shown, and from other sources we learn that the water was supplied to them from a reservoir, as suggested by the following clause in a deed,—“at gates enclosing the water of the reservoir next above the inclined plane.” An examination of the locality shows distinct traces of the canal bed, extending north to Stony Brook as well as below the fall, the reservoir, and the locks which supplied the place of the inclined plane. A fragment of the later dam is visible at low water. On the whole, this canal must be considered one of the most interesting ever constructed in New England.¹

As already noted, the improvements at Miller's falls were, by the division of the original South Hadley company, placed in the hands of "The Proprietors of the Upper Locks and Canals on Connecticut River, in the County of Hampshire." The fall here was about seventy feet. A preliminary examination was begun July 3, 1792, and several plans were considered. As finally located, the canal was on the east side of the river, was three miles long and had eight locks. It had two sections, with a dam at Montague falls and another above at Miller's falls. The former of these was begun in 1793 and completed the next year. In the construction of the upper works there was

¹ On the history of this canal and the inclined plane see: MS. records and papers, Holyoke Water Power Company; *Acts, decrees, deeds, etc.*, printed by the H. W. P. Co., Boston, 1882; "Early traffic on the Connecticut River," Collins G. Burnham, *N. E. Mag.*, Oct., 1900; "Navigation of Connecticut River," T. M. Dewey; *Papers and Proc. Conn. Valley Hist. Soc.*, 1876-1881, pp. 114ff; *Dwight's Travels*, etc., Lond. edn., I.: 286-290; Trumbull's *Hist. of Northampton*, II.: 574-582; Holland's *Hist. of Western Mass.*, I.: 303-308; Sheldon's *Hist. of Deerfield*, II.: 906, 907; *Two Reports*, etc., 1825, pp. 7, 8, 18; *Report of the Conn. River Co.*, 1826, pp. 2, 26, 27, 28, 34.

considerable delay, occasioned by doubt as to the best plan. A meeting of the proprietors was held June 10, 1795, "to determine on the route of the proposed canal and the mode of making the same." The time for the completion of the work was extended two years by an act passed February 25, 1800, but on the 29th of October following, the first boats passed through it. The following spring it was opened for regular traffic. This canal, as originally chartered, was to be twenty feet wide, but in 1819 the company was permitted to reduce this to fifteen feet. A large amount of money was expended on this improvement, said to have been \$150,000. The tolls the first year were \$3,795.51. During the first twenty years of its history the expenses were \$66,526.96 and the receipts \$146,955.74. The average dividend for this period on the 441 shares of stock issued, was $4\frac{1}{2}$ per cent. In 1827, the stock of this company was valued at \$200 a share and that of the lower company at \$280. The traffic through this upper canal was never so extensive as that through the lower.¹

A third company was incorporated March 8, 1828, called "The Proprietors of the Central Locks and Canals on Connecticut River." This company was chartered nominally for the purpose of clearing the channel between the works of the above two companies; but really, as a provision in its charter discloses, to provide for a possible consolidation of these companies in the interests of the larger scheme of the "Riverites" for them proved navigation of the river.²

The movement to improve the navigation of the Connecticut river about 1790 also extended to the river towns

¹ On the Miller's falls canal, see: *Mass. Special Laws*, I.: 329, 406, 461, 515; II.: 270, 360; III.: 528; IV.: 382; V.: 294; "Early Traffic," etc. *N. E. Mag.*, Oct., 1900, pp. 140-144; "Old Time Traffic," etc., *Hist. and Proc. P. V. Mem. Ass.*, III.: 119-121; Gay's *Hampshire Co. Gaz.*, p. 309; Holland's *Hist. of Western Mass.*, I.: 308-310; Dwight's *Travels*, II.: 335; *Report of the Conn. River Co.*, 1826, pp. 21-24.

² *Mass. Special Laws*, VI.: 663; *Two Reports*, etc., 1825, p. 8; *Report of the Conn. River Co.*, 1826, pp. 24-26.

of New Hampshire and Vermont. As early as 1791, some of the inhabitants of Windsor, Vt., petitioned for a lottery to raise money for clearing out the river, and the Legislature the same year took into consideration not only "the expediency of opening a communication between the waters of Lake Champlain and Hudson's river," but also the means for "rendering the navigation of Connecticut river more easy and advantageous." At this session, October 31, 1791, the House passed an act granting to William Page of Charlestown, N. H., and Lewis R. Morris of Springfield, Vt., "the exclusive privilege of locking Bellows Falls," and directing the governor to issue a charter to the grantees, as "The Company for rendering Connecticut River navigable by Bellows Falls." For some reason the governor did not act, and the company was incorporated by the Legislature in 1792, and the same year in New Hampshire. Several years passed before the canal contemplated by this company was sufficiently completed to be used. Dwight says it was about two-thirds finished in 1797, the very year in which William Page asked the Legislature to increase the toll which had been fixed by the charter. It was in operation soon afterwards. The canal is on the west side of the river, is three-fourths of a mile long, and was originally eighteen feet wide, with seven locks to provide for a descent of about fifty feet. Some of the channel was excavated out of the rock and the construction was very expensive. In 1826, the property was valued at \$70,000, there being eighteen shares of stock. It is now well known in connection with extensive mills.¹

The next improvement up the river was at Sumner's or Quechee falls. The privilege of locking these falls was given to Joseph Kimball in 1791, by the Legislature of

¹ On this canal, see: *Governor and Council*, Vt. IV.: 93, 131, 142, 208, 346, 352, 355, 377, 393, 448; V.: 70, 78; *N. H. State Papers*, XXII.: 622, 683; Dwight's *Travels*, II.: 83, 84; *Two Reports*, etc., 1825, pp. 10, 19; *Report of the Conn. River Co.*, 1826, pp. 1, 2, 17, 18.

New Hampshire. In 1794, the Vermont Legislature gave to Perez Gallup and others the exclusive right to lock these falls and incorporated them as "The Company for rendering Connecticut River navigable by Water Quechee Falls." It was some time, however, before the dam, canal and locks necessary were in operation. The descent here was comparatively small, about twelve feet, mostly by rapids. The canal, therefore, was short, and the toll was less than at the others. In early times boats were able to run down through the rapids, but found it impossible to ascend. The canal was narrower than those below. In 1829, when the steamboat "Vermont" made a trip up from Hartford, she was unable, on account of her width, to pass through this canal. The value of this property in 1826 was estimated at \$12,500, and it was found that if up-river navigation was to be carried on, several times that sum would have to be expended on these works. ¹

About ten miles above Quechee falls were the White river, or Olcott's falls. The Legislature of New Hampshire incorporated, June 20, 1792, Ebenezer Brewster, Aaron Hutchinson and others as the "White River Falls Bridge Company," "for locking falls, cutting canals and building a bridge over Connecticut river between the mouth of Mink Brook, so called, in Hanover, and the eddy below the lower bar in White River Falls." This act was amended in 1794 and 1796, and the time was extended in 1801. The same company was incorporated by Vermont in 1795. Nothing, however, seems to have been accomplished in constructing a canal by this company; and an act of June 12, 1807, granted Mills Olcott and others the privilege of locking these falls as the "White River Falls Company." This company, in 1810, made a canal on the east side of the river with five locks, and built two dams,

¹ *Governor and Council, Vt., IV.*: 74; *N. H. State Papers, XXII.*: 202, 244, 300, 374, 413; *Tucker's Hist. of Hartford, Vt.*, pp. 149, 150; *Two Reports, etc.*, 1825, p. 10; *Report of the Conn. River Co.*, 1826, pp. 13, 14.

one near each fall. Here the descent of the river in one mile was about thirty-six feet. This company was authorized to take such tolls as they saw fit for a period of twelve years, and for some time after its expiration the tolls were not regulated by the State. Hence a high value was placed upon this property in 1826, being \$50,000. This led to a plan for constructing a canal on the west side of the river, which would probably have been adopted if the river properties had been consolidated. The early flat boat traffic through this canal was of course less than through the others, but it was used to a large extent by rafts of lumber from the north.¹

In this survey of the canal improvements of Connecticut river we have the factors that entered into the problem of its navigation during one of the most interesting periods of its history. It must not be inferred, however, that there were not other schemes suggested, some of which were carried out. Here and there sand bars were removed or a channel was cut through them, and other like improvements were made. Companies were formed for locking tributary streams. In Vermont, especially, the river towns were deeply interested in this navigation because of their dependence on it in trade. Some towns made local improvements. Appeals were also made to the state and lotteries were granted. The United States government was asked to make a survey of the river from Barnet to Lake Connecticut and to examine a canal route from the river to Lake Memphremagog.² Of all this interest the Windsor conventions in 1825 and 1830, the Lancaster convention in 1831, and numerous other gatherings to discuss the subject furnish sufficient evidence. But this interest did not originate in the upper Connecti-

¹ *N. H. State Papers*, XXII. : 525, 533, 565, 575, 580; *Laws of N. H.*, VI. : 541, VIII. : 239, X. : 166, XIII. : 207, XVII. : 179; *Governor and Council, Vt.*, IV. : 88, 96; *Tucker's Hist. of Hartford, Vt.*, pp. 131, 132; *Two Reports*, etc., pp. 10, 19; *Report of the Conn. River Co.*, 1826, pp. 1, 12, 13.

² *Governor and Council, Vt.*, VII. : 450, 451, 479-482; *Survey—Connecticut River*, etc., 1826; *Report of the Conn. River Co.*, 1826, pp. 2, 3.

cut valley. It ascended the river from the head of sloop navigation with the river men. This was true of the movement during the last decade of the eighteenth century, in which, as we have seen, every canal on the river had its origin. Then it was the revival of trade and emigration that spread the interest. It was also true of the later movement, which began in 1824, reached its height in 1831, and received its death blow in 1844, with the opening of the railroad. In this case the general conditions of the time operated strongly; but there were two particular causes that had a great influence — one was the opening of steamboat navigation between Hartford and New York, and the other was the building of the Farmington and Hampshire and Hampden canals.

At the outset steam navigation on the Connecticut river encountered a serious obstacle in the monopoly of New York waters, which the legislature of that State granted to Messrs. Livingston and Fulton by its act of March 27, 1798. This forbade such a steamboat connection between the river and New York as would otherwise have arisen. At first steamboats ran from New Haven to Byrams Cove near Rye, the boundary line between the states, and passengers went to New York by stage. On this line the "Fulton" was running in 1817. It is said that "to exhibit herself she ran up the Connecticut river, where she was received with great enthusiasm by large crowds." If so, this was the first steamboat on the river, though Samuel Morey, when he was working on his invention, had exhibited it at Hartford more than twenty years before.¹ The line from New Haven to New York awakened great interest in mercantile circles at Hartford. Already John L. Sullivan, Esq., of Boston, an experienced engineer, and for years superintendent of the Middlesex canal, had con-

¹ Duer's *Reply to Mr. Colden's Vindication of the Steam Boat Monopoly*, p. XVI.; "Navigation of Connecticut River," T. M. Dewey, *Papers and Proc. Conn. Valley Hist. Soc.*, 1876-1881, p. 120; *Facts and Considerations*, etc., pp. 3, 5.

ceived the idea of steam tow boats and had secured some valuable patents in furtherance of his plan. Early in 1817 he offered to sell his rights to a company to be formed for conducting a line of "Steam-Tow-Passage-Boats" on the river below Hartford, and after he had locked Enfield falls navigating the river above. His idea was to tow several freight boats by one steamboat especially constructed for the purpose. This proposition was accepted and led to the incorporation of "The Connecticut Steam Boat Company" in October, 1818.¹ This Company had really been formed some months before, money had been raised and a steamboat was in process of construction at Hartford after Sullivan's ideas, as an "experiment of a new kind of steam engine." As originally planned, this boat was to be seventeen feet wide and about seventy long, but before the keel was laid it was thought best to build a boat large enough "to accommodate passengers going to Saybrook." The *Connecticut Courant*, November 10, 1818, has the following item: "Steam-boat launch.—Last week was launched from the ship-yard in this City, the first steam-boat ever built on Connecticut River. It is designed for a tow-boat, to ply between this City and the mouth of the River." The company had financial difficulties and their boat did not fulfil their expectations. She made her first trip on the river July 16, 1819, and attained a speed of six miles an hour, though "gas fire made from tar was found a very useful auxiliary." On the Merrimac river the month before, Sullivan had made similar trials. Still this steamboat, called the "Experiment," was afterwards put into practical service, and in the summer of 1822 was run by Captain Haskell to Saybrook, and the following season made two trips a week to New London.²

¹*Private Laws of Conn.*, I.: 1110, 1111; *Explanation by John L. Sullivan, etc.*, 1818; *Copy of a Petition, etc.*, 1819; *Facts and Considerations, etc.*, 1819; *Conn. Courant*, Feb. 7, 1817.

²Letter of John L. Sullivan, Sept. 21, 1819; *Conn. Courant*, Nov. 10, 1818; July 6 and 20, 1819; July 23, 1822; and June 3, 1823.

The parties interested in this company at once began a war against the New York monopoly. They petitioned the Connecticut Legislature, May 7, 1819, for an act similar to that passed in 1811 by the State of New Jersey, to prohibit the boats of the monopoly from entering Connecticut waters. Action was delayed, but such an act was finally passed May 27, 1822, by an almost unanimous vote over the veto of Governor Wolcott.¹ The passage of this "retaliatory law" seems to have opened the way for the organization of a company to run a steamboat between Hartford and the New Jersey shore near New York, and "The Connecticut River Steam Boat Company" was chartered in May, 1823.² Already the people generally were hopeful that the New York restriction on steam navigation would be set aside. Interest was awakened everywhere. In the September following its incorporation the above company announced the building of their first steamboat. This was the "Oliver Ellsworth." She was built by Isaac Webb & Co. of New York, and was launched February 4, 1824. On the 6th of May following she began running from New York and arrived in Hartford the next day with sixty passengers and a large freight, being loudly welcomed by enthusiastic friends of the enterprise.³ Meanwhile the question of restricting

¹ *Conn. Statute Laws, 1822-23*, pp. 33-35.

² *Private Laws of Conn.*, I.: 1108-1110; *Conn. Courant*, Sept. 9, 1823.

³ *Conn. Courant*, Sept. 9, 1823; May 4, and 11, 1824. The "Oliver Ellsworth" was of 230 tons burden, 112 feet keel, 24 feet beam, 8 feet hold, 127 feet long on her deck, and 26 feet wide to the outside of her guards. She is said to have had "large, commodious and handsomely furnished" cabins with 62 berths. Her speed was about eight miles an hour. Daniel Havens was her captain the first season, and her agents were Chapin and Northam. She ran on the line until 1833, with a short intermission in 1827, when the "Fulton" supplied her place, and during the cholera of 1832. The "New England," which supplanted her in 1833, burst her boilers at Essex within a few weeks. The "Oliver Ellsworth" was finally sold to New York parties and became a tow-boat on the Hudson river. The following were early steamboats running from Hartford to New York: "Macdonough," 1826-1833; "Commerce," 1825, 1826 and 1829; "Victory," 1830, 1831; "C. J. Marshall," 1832-1835; "New England," 1833-1835; "Water Witch," 1833-1835; "Bunker Hill," 1836-1841; "Lexington," 1835, 1836; "Cleopatra," 1836-1841; "Kingston," 1836-1838; "Charter Oak," 1838, 1839; "Splendid," 1841, 1842; "Globe," 1843-1848; "Kosciusko," 1842-1845; "Champion," 1846-1851; and "Hero," 1848-1852; then superseded by the "City of Hartford." On early Hartford and New York steamboats see: "Early Steamboating," Capt. J. M. Parker, *Hartford Post*, 1879; *Mem. Hist. Hartford Co.*, I.: 555-558.

steam navigation had gone to the Supreme Court of the United States, in the case of *Gibbons v. Ogden*, and March 2, 1824, two months before the "Oliver Ellsworth" was ready, Chief Justice Marshall gave his famous decision against the monopoly. This enabled the Hartford boat to land her passengers in New York. It was evident from the first that there was a large opportunity for steamboat ventures on the Connecticut river. The trade, domestic and foreign, was then large. The issue of the *Connecticut Courant*, which hailed the advent of the "Oliver Ellsworth," announced the arrival of twenty-one vessels and the departure of sixteen in a single week.¹ So naturally other companies sprang into existence. In May, 1824, "The Hartford Steamboat Company" was incorporated and in May, 1825, the "Steam Navigation Company." The former began operations with the steamboat "Macdonough" in 1826, and the latter with the "Commerce." The Hartford and the Connecticut companies continued their lines to New York for some years. Later, steamboats were also run to Sag Harbor and to Norwich. In 1830, the steamboat "Victory" was run as an opposition line and the three boats carried, it is said, two thousand passengers weekly. Cornelius Vanderbilt, in 1833, put on the "Water Witch," under the command of his brother, Captain Jacob H. Vanderbilt, and ran other boats later. The interest of "The Connecticut River Steam Boat Company" finally passed, in 1851, to Colonel Charles H. Northam, who the next year sold to "The Hartford and

¹ In connection with the location of the U. S. Bank, an investigation of the river trade was made in 1816, from which it appears that there were fifty-six vessels then owned at Hartford, twenty-six with a tonnage of 4,839, engaged in the foreign trade, and thirty with a tonnage of 2,351, engaged in the coasting trade. The books of the "Union Company" show that during that year 278 vessels liable to tolls arrived at Hartford, and it was estimated that there were 300 arrivals of vessels not liable, [MSS. U. S. Bank, Conn. Hist. Soc.] In 1846, there were 2,078 arrivals and departures of vessels at Hartford, including 444 steamboats and 208 propellers. Their total freight was 163,430 tons. There were then five regular Boston packets, each making seven trips a season, and five other vessels in this trade. There were also two regular Providence traders, two running to New London and Norwich, three lines of steam propellers to Philadelphia, Albany and New York.

New York Steamboat Company," and so came to "The Hartford and New York Transportation Company," chartered in 1877.

The main purpose of this digression has been accomplished if the interest and even the excitement of 1824 has been duly noted. Steamboats offered a new prospect for the navigation of the river. Trade demanded something better. The up-river traffic would be large if it could be brought down the river.¹ Indeed, this fact was one reason that led to the building of the Farmington canal, the second element referred to as shaping this movement for improving river navigation. At New Haven the steamboat had established a prior claim, and all through the Farmington valley there were abundant prospects for commerce. But above, to be reached at Northampton, was the trade of the upper Connecticut, and the advocates of a canal had some reason to think that the way to the sea was easier by such a water course than by the river, obstructed as it was at Enfield falls. So, in 1822, "The President, Directors and Company of the Farmington Canal" was incorporated to construct a canal from New Haven to the north line of Connecticut.² The incorporation of "The Hampshire and Hampden Canal Company," to continue the canal to Northampton, followed the next year.³ It was seen at once by the people of Hartford and Springfield that unless something was done the trade which from earliest times had gone down the river would be diverted. An "Association for improving the navigation of Connecticut River above Hartford" was therefore formed in 1824, and a committee was appointed "to examine and survey the obstacles" and "to enquire into the most practicable method of improving said navigation." Authorities on the subject were consulted and a preliminary survey was made by Canvass White, Esq., of Troy,

¹ See *ante*, p. 397. ² *Private Laws of Conn.*, I.: 300ff.

³ *Mass. Special Acts*, VI.: 42-49, 320, 702-711, 829; VII.: 186, 675-677.

N. Y. The conclusions are given in "Two Reports," which were made to this association and are in print. One was that "a general meeting of citizens from all the towns on or near the valley" should be called. Pursuant to this suggestion, the first Windsor convention met February 16, 1825. At this meeting a second recommendation to the association was considered and adopted, namely, "That it is desirable to combine the interests in all works and improvements through the valley of Connecticut river upon such principles as shall secure the greatest benefit to the publick, consistent with a fair remuneration to those who shall execute the requisite improvements." The charter of the Connecticut River Company had already anticipated this scheme, but the difficulty was to secure harmonious action in the legislatures of the four states concerned. In Vermont an act was passed November 9, 1825, "to provide for improving the navigation in the valley of Connecticut river," which was to be in force when New Hampshire, Connecticut and Massachusetts should have given their assent. This was never fully given, though it was earnestly sought. In Connecticut the act was passed with certain limitations. A company was also chartered in New Hampshire. The legislature of Massachusetts finally gave its consent to the consolidation of the South Hadley and Miller's Falls canals by incorporating "The Proprietors of the Central Locks and Canals on Connecticut River," March 8, 1828, as already related. Thus this attempt at consolidation, an early movement to form a trust, failed.¹

Meanwhile the organization of the Connecticut River Company was perfected. The surveys were resumed in 1825, and maps and plans were made. Negotiations with the proprietors of the several canal properties were begun and an estimate of their value was obtained. It amounted

¹ *Governor and Council, Vt., VII.: 193; Private Laws of Conn., I.: 482-496; House Report, No. 221, 21st Cong., 1st Ses., p. 6; Ibid., No. 341, p. 1.*

to \$368,000, and the improvements contemplated would have increased the expenditure to \$1,500,000. The report of the directors of the above company in 1826, which is the most important pamphlet on the subject, abundantly sets forth the hopes of this party. On the other hand, the friends of the canal project were not idle. The work of excavating the Farmington canal was begun July 4, 1825, at Salmon Brook in Granby, Conn., with much ceremony. A boat mounted on wheels and drawn by six horses was the triumphant chariot in which the dignitaries rode — Governor Wolcott, Hon. Jonathan H. Lyman, the orator, and Rev. Allen McLean, the chaplain. Work at Northampton was begun Nov. 27, 1826. It went forward with enthusiasm. The canal was opened to Cheshire in 1828, to Farmington in 1829, and completed in 1830. In November, 1829, the canal packet, "General Sheldon," was launched, and in the following spring this boat and the "Warranoco" were advertised to sail regularly from Westfield to New Haven, the former for passengers and the latter for freight. A union of the stock of this company and "The Hampshire and Hampden Canal Company" was effected in 1826. In due time the canal was extended to Northampton and was formally opened July 4, 1835, with more ceremony. In 1836 both companies became insolvent and the "New Haven and Northampton Company" was incorporated to receive their franchises. Navigation on this canal was continued until 1847, when the railroad known as the "Canal Road" took its place.¹

The most virulent issue, however, in this war between the "Riverites" and "Canalites" was a further project of "The Hampshire and Hampden Canal Company" to extend this canal still farther north, along the west side of the Connecticut river. This scheme was brought before

¹ *An Account of the Farmington Canal Company, etc.*, 1850; "Old Time Traffic," etc., George Sheldon, *Hist. and Proc. P. V. Mem. Ass.* III. : 124; Gay's *Hampshire Co. Gazetteer*, p. 94; *Hampden Whig*, Feb. 24 and May 26, 1830.

the Massachusetts legislature in 1826, and by an act approved March 12, 1828, was authorized, after animated and somewhat bitter discussion, memorials and protests having been presented on both sides.¹ This was a decided victory for the "Canalites." Already they had made a survey and laid out their route, as may be seen from the printed report of their engineer, Jarvis Hurd, Esq. The result was influenced without doubt by the success of the Erie canal and the project to construct a canal from Boston westward across the state of Massachusetts. Still the "Canalites" were not satisfied. They also sought from the legislatures of New Hampshire and Vermont the incorporation of the "Connecticut River Canal Company."² In this, too, they were successful. The former state passed such an act December 30, 1828, for the construction of a canal parallel with the river from the south line of the state to Israel's river. In Vermont this company was chartered October 29, 1829, giving authority for such a canal from the south line of the state to Lake Memphremagog. Thus the "Canalites" seemed to have everything their own way. There was nothing left to fight for. The idea frequently reiterated in those times that "the Almighty only made a river to feed a canal" had apparently won the victory. The friends of the ancient river that had served their fathers for generations said the "Canalites" would have its waters "locked up" from source to mouth. To this the advocates of progress in that day replied that the "Riverites" would have nothing by and by but "dammed pools." Of course those who were interested in river navigation were somewhat disheartened, but they did not surrender. Already they had begun the practical work of navigating the river, as it remains for us to show. The matter finally went to the United States government in 1830, with the backing of the Windsor convention, each

¹ See Bibliography, Nos. 25-35.

² *House Reports* 221 and 341, 21st Cong. 1st Ses.; *Governor and Council, Vt.*, VII. : 384.

party seeking national aid for their plan, in which they were disappointed. If we may here forecast the conclusion of the whole matter, this controversy and the success of the friends of canals, kept back the investment of large sums upon enterprises to improve river navigation until the railroad made it no longer necessary. The report of "The Connecticut River Company" in 1826 said, "We think the subject of a railway may safely be dismissed from consideration"; but many of the river's friends lived to find comfort in their defeat and to hear the locomotive triumphantly whistling over the grave which the "Canalites" had unwittingly dug for themselves, as well as humiliating the pride of their own steamboats.

The origin of the movement for up-river navigation by steam is now evident. The friends of the river decided in 1826 to demonstrate the superiority of their schemes. So they contracted in the summer of that year with Messrs. Brown and Bell, of New York, to build a small steamboat that would be able to navigate the upper Connecticut. This boat was named the "Barnet" after the Vermont town she hoped to reach, and was launched September 26, 1826. She reached Hartford on the 15th of November, being towed part of the way by the "Macdonough," and two days later steamed up to Warehouse Point, intending to pass up over Enfield falls, the canal not being as yet constructed. The people along the river turned out to greet her with loud huzzas and salutes of fire-arms, to which the noise of her exhaust steam gave sufficient response. This first attempt to get the "Barnet" over the falls was a failure, though she was poled up nearly to the island. The "Riverites" said the reason was a strong "head wind," but the "Canalites" ironically attributed it to "some confounded obstacles in the way of river navigation." She returned to Hartford, and on the 28th of November made another attempt, coming to Warehouse Point the day before. She had two scows in tow, and it is said that the trip

took six hours. Even the flat boats passed her and the river men mockingly said they had to pole at "low pressure" and "let off steam" to keep her company. This time she was successful. A scow was lashed on either side, in each of which thirty "falls-men" were to effect the task with their "setting poles." Slowly, but steadily, she made the ascent. A river boat that was coming down ran on the rocks to get out of her way. When she reached still water she took one of her scows filled with river men in tow and went on to Springfield, where she was welcomed by the cheers of citizens and a salute of twice twenty-four guns. An excursion on the river was given the next day, and toward night, by the assistance of men on the bank, she passed up through Willimansett rapids to South Hadley falls, where she rested from her labors over Thanksgiving day. On the 1st of December she reached Northampton, on the 2d Miller's Falls, and steamed up Deerfield river to Cheapside. After being icebound for a week she pursued her voyage and finally reached Bellows Falls, where this "plaguey strange contrivance," as some of the natives described her, was received with the ringing of bells and firing of cannon. Here the event was celebrated by a banquet at the Mansion House. They duly toasted the president of the company, Alfred Smith, Esq., their neighbors of Hartford, the Connecticut river, the "Barnet," and the four states. The undertone of sentiment on that occasion can be readily gathered from such a toast as this: "The Valley of the Connecticut—needs no canal while the river runs." The return trip occupied five days, and the "Barnet" arrived at Hartford on the 19th of December, being received with cheers and an artillery salute. Such was the first trip of an up-river steamboat. The venture accomplished its purpose. It convinced some who had considered the scheme as visionary, and awakened enthusiasm in all. The "Riverites" were jubilant. On the return of the "Barnet" they met at Morgan's coffee

house in Hartford, had a great supper, with many invited guests, and otherwise rejoiced. One can easily understand how on such festive occasions such a sentiment as the following, which runs through sixty-three verses of a poem, might have made merriment.

" I heard a fellow say, quoth Dick,
This steamboat could n't get up;
The Hartford folks were all afraid
Canal boats would be set up." ¹

The "Barnet" did not prove to be the best model for an up-river steamboat. She was 75 feet long, 14½ feet wide, drew 22 inches of water and had a flat bottom, wall sides and stern paddle-wheel. Her special task was to ascend the river and she was not so well adapted to pass through the falls. One of the toasts at the Bellows Falls banquet was "The town of Barnet — may she speedily be gratified with a sight of her first-born." She never was, however, and the "Barnet," after the grand opening of the canal, disappeared.

This experiment sufficiently encouraged "The Connecticut River Company" to hasten the construction of its canal. Work was begun in the summer of 1827, and the canal was opened November 11, 1829. In anticipation of this event, Thomas Blanchard, of Springfield, had constructed two steamboats, the "Blanchard" and the "Vermont." These were stern-wheel boats, of the proper size and equipment for this river navigation. The former had been tried up and down the river and met with great favor. It is said that her first trip to Hartford was reported as follows: "Marine Intelligence Extra — Cleared from How-

¹ On the trip of the "Barnet" and other up-river steamboats, see: *Conn. Courant*, Aug. 28, Dec. 4, 11, 25, 1826, May 26, 1836; *Springfield Journal*, Nov. 22, 1826; *Conn. Herald*, Nov. 21, 28; Dec. 5, 12, 1826; *Bellows Falls Intelligencer*, Dec. 1, 1826; *Reply to Trumbull*, etc., pp. 20-22; Hayden's *Hist. Sketches*, pp. 28, 29; "Nav. of Conn. River," T. M. Dewey, *Papers and Proc. Conn. Valley Hist. Soc.*, p. 118; "Old Time Traffic, etc., George Sheldon, *Hist. and Proc. P. V. Mem. Ass.* III. : 126; "Early Traffic," etc., Collins G. Burnham, *N. E. Mag.*, Oct., 1900, p. 146; Gay's *Hampshire Co. Gaz.*, p. 93; Photograph of "The Old Time Steamboat of 1840," Springfield Pub. Lib. *Conn. River Portfolio*.

ard St. Landing, Tuesday, October 9, [?] Steam-boat Blanchard for Hartford and a market. Cargo principally *live stock* (30 or 40 passengers), wine, porter, crackers, cheese, etc."¹ The latter boat had just returned from a trip up the river, in which she went as far as Quechee falls. Both of these boats were able to ascend Enfield falls. On the occasion of the canal opening, the "Blanchard" brought up a party from Hartford, and it is said also that the "Barnet," having in tow the "Safety Barge Lady Palmer" with a party, was present. The "Vermont" brought down another party from Springfield. Others came in carriages, some from quite a distance, to attend the celebration of this great event in the river's history. The boats were locked through the canal and the rejoicing over the happy issue of the enterprise was long remembered in the town.²

One of the most interesting events in connection with this canal was the building of the sloop "Eagle" on its banks. She was built by Samuel Denslow, of Windsor Locks, and launched sideways into the canal. Her dimensions were adapted to pass through these locks and her burden was one hundred tons—larger than the vessels that navigated the river in early times. It was thought that she was to be the first of a great up-river fleet. On the 22d of April, 1830, the citizens of Springfield were "gratified with a novel sight," says the newspaper. It was the arrival of the "Eagle." She brought a cargo of grain directly from Troy, N. Y., and returned with a cargo from Springfield to Hartford and New York. This was the first arrival of the kind. As far as known, she never returned or was above the falls.³

After the opening of this canal, there was a regular line of steamboats between Hartford and Springfield until 1846, but during the latter part of this period they were

¹ "Early Traffic," etc., Collins G. Burnham, *N. E. Mag.*, Oct., 1900, p. 146.

² Hayden's *Hist. Sketches*, pp. 30, 31.

³ *Hampden Whig*, April 28, 1830; *Windsor Locks Journal*, Oct. 10, 1902.

devoted entirely to freight. In 1830, the "Blanchard" and the "Vermont" each made one round trip daily from Springfield, the fare being one dollar. The "Vermont" and a new Blanchard boat, the "Massachusetts," ran in 1831 and 1832. During the cholera of the latter year, while the New York boats did not run, they extended their trips down the river to Saybrook, and the "James Dwight" ran on the same route. The "Massachusetts" was on the line in 1833 and 1834, but she was too large for practicable service through the locks and usually ascended the falls. Other boats followed—the "Agawan," "Franklin," "Hampden," etc. On the first of these Charles Dickens travelled from Springfield to Hartford February 7, 1842, the first trip of the season, and a very rainy day, when the river was full of ice. In his *American Notes* he wrote of this steamboat as follows: "It certainly was not called a small steamboat without reason, I omitted to ask the question, but I should think it must have been of about half a pony power. Mr. Paap, the celebrated Dwarf, might have lived and died happily in the cabin, which was fitted with common sash-windows like an ordinary dwelling-house. These windows had bright red curtains, too, hung on slack strings across the lower panes; so that it looked like the parlour of a Lilliputian public-house, which had got afloat in a flood or some other water accident, and was drifting nobody knew where. But even in this chamber there was a rocking-chair. It would be impossible to get anywhere, in America, without a rocking-chair. I am afraid to tell how many feet short this vessel was, or how many feet narrow; to apply the words length and breadth to such measurement would be a contradiction in terms. But I may state that we all kept the middle of the deck, lest the boat should unexpectedly tip over; and that the machinery, by some surprising process of condensation, worked between it and the keel, the whole forming a warm sandwich about three feet thick."

After it was ascertained that up-river steam navigation was a practicable scheme, the freighting business was modified. The flat-boats were made larger and often towed by steamboats. Several companies were formed to conduct this business, such as the "Hartford and Greenfield Tow Boat Company," the "John Cooley Boating Company," the "Springfield Steamboat Company," etc. In the later years of this traffic it was reduced to two firms, J. Cooley & Co., with six boats and one steamer, and Parker, Douglas & Co., with five boats and one steamer. As late as 1851 an attempt was made to revive this business by the incorporation of "The Steam Boating Company" of Hartford, but the parties soon compromised with the railroad for the steamboat "Granite State." All these boats were finally sold to be used in southern waters. The "C. H. Dexter" was the last of her class.

An attempt was made after the Enfield falls canal was opened to realize the hopes of the "Riverites" for a steamboat line running from Hartford to Barnet. The very autumn of its opening the legislature of Vermont incorporated the "Connecticut River Steamboat Company," the name of which was altered the next year to the "Connecticut River Valley Steam Boat Company."¹ "The Connecticut River Company" was largely interested in this enterprise. In February, 1830, three hundred dollars were offered in prizes for the best three steamboats completed before the 1st of August. These boats were to be not less than seventy-five feet long and fifteen feet wide. At the second Windsor convention, September 29, 1830, the subject was thoroughly considered and a plan was formed. The entire distance was divided into five sections of about forty miles, starting at Hartford, the division points being South Hadley Falls, Miller's Falls, Bellows Falls, White River Falls and Wells River. Five steamboats were to be constructed for this line and it was thought that each

¹ *Governor and Council, Vt.*, VII.:384. Tucker's *Hist. of Hartford, Vt.*, p. 150.

could make two trips a day on its reach. These boats were built and were the "William Hall," "Ariel Cooley," "William Holmes," "David Porter," and "Adam Duncan." An advertisement of March 15, 1831, announces that they had begun to run and were ready for freight. All of them did run during that season, but in the autumn the company failed.¹ In July of that same year the "John Ledyard," which had been built expressly to pass through all the locks on the river, reached the most northerly point ever attained by a river steamboat. This boat was commanded by Captain Samuel Nutt, a famous river man. He had a glorious voyage, was loudly greeted everywhere, and made as brave an attempt to reach the north pole of the "Riverites'" dreams as any man could, but his little steamboat finally got aground on a sand bar just north of Wells river. A poem was written to commemorate his achievement and a stanza will make a good epitaph for the enterprise.

"It's gone! it's gone! the day is past,
And night's dark shade is o'er us cast,
And farther, farther, farther still,
The steamboat's winding through the vale.
The bells ring out their farewell peal,
The cannons roar o'er hill, through dale;
We'll hail the day when Captain Nutt
Sailed up our fair Connecticut."²

The failure of this company ended the hopes of the "Riverites." The movement had reached its height and from that time it declined. In a few years the canal companies failed also. The schemes of both parties were entirely feasible, but the outlay to make them successful was out of proportion to the financial returns. In respect to the passenger traffic, neither of them could compete with even the stage lines when the roads were good. On

¹ *Early Traffic, etc., N. E. Mag.*, Oct., 1900, pp. 147, 148; *Journal of the Convention, etc.*, 1830, pp. 5, 8-11; *Hampden Whig*, Feb. 24, 1830; Feb. 2, 16, 1831; *Vt. Hist. Mag.*, II.: 955.

² Tucker's *Hist. of Hartford, Vt.*, pp. 373-376.

the arrival of the New York boat at Hartford it was the stages rather than the up-river steamboats that received the passengers and hurried them northward. But the boats had the advantage in freighting until the railroads came. A movement was started in 1871 to revive this latter business.¹ The government, at considerable expense, constructed a series of wing dams between Hartford and Warehouse Point, and no doubt the channel was materially improved; but the old-time steamboat did not return. More recently other plans have been discussed and advocated.² Of their merits we express no opinion. The fact of history, however, is unmistakable,—this up-river navigation was an easy victim for the railroad. The "Hartford and New Haven Railroad," opened to Meriden in 1838, and to Hartford in 1839, at once affected the steamboats below Hartford; and the "Hartford and Springfield Railroad," opened in 1844, and consolidated the same year with the former, had a like effect on the up-river boats, which had already felt the competition of the railroad from Springfield eastward. Even the freight traffic that remained was continued beyond its normal limit by the disproportionate rates which the "Short Haul Bill" stopped. In 1846 the future of this up-river navigation was so far conceded that it was proposed to extend the Enfield canal to Hartford for manufacturing purposes.³ This failure was not due to impracticable schemes, to the lack of enterprise, or any unwise management. The navigator triumphed over the falls, floods and sand bars of the Connecticut river. It came to pass by natural means in the progress of the age. The river was bidden by an irresistible authority to seek another mission in furnishing

¹ Papers and Letters, Springfield Pub. Lib. *Conn. River Portfolio*; *Boston Sunday Globe*, Western Mass. Edn., Feb. 2, 1896; *Report of Chief of Engineers*, U. S., 1878, pp. 248-391; *Ex. Doc. No. 101*, 45th Cong. 2nd Ses.

² *The Connecticut River*, etc., 1898; *Hartford Courant*, Oct. 15, 16, 17, 1902; Jan. 12, 13, 17, 1903; *Hartford Times*, Jan. 17, 23, 1903.

³ *Report of the Com. and Engineer*, etc., 1847.

the necessary power for its mills. It almost seems as if this honored river, ere it submitted to its fate, made one last dying struggle *to down* its enemy. Its waters rose higher in the freshet of 1854 than they had since 1639, and drowned out the railroads. On the first of May, they were at their highest. The president of "The Connecticut River Company" had a note to pay in Hartford. So Captain John Abbe, one of the last of the old-time river men, fired up his little steamboat, the "G. P. Goodsell," and with many excursionists aboard, steamed down the swollen river, passing through the draw of the railroad with disdainful toots, going around the Hartford bridge and over its causeway, with several feet of water under her keel, and finally landing his passengers within a stone's throw of the State House.¹ It was the last triumph of steamboat navigation. The Connecticut river was satisfied with showing what it could do on occasion and rested on its ancient honors, which Joel Barlow had commemorated in his "Vision of Columbus."

"No watery gleams through happier valleys shine,
Nor drinks the sea a lovelier wave than thine."

¹ Hayden's *Hist. Sketches*, pp. 34, 35.

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