907

Chelmsford

e of area or section

ddlesex Canal

ral Date or Period 1800

e area uniform? yes

yle

ndition

pe of ownership ?

ıe (Explain) Area is generally wood-open land with some dumping.

5. Is area potentially threatened?

By Zoning

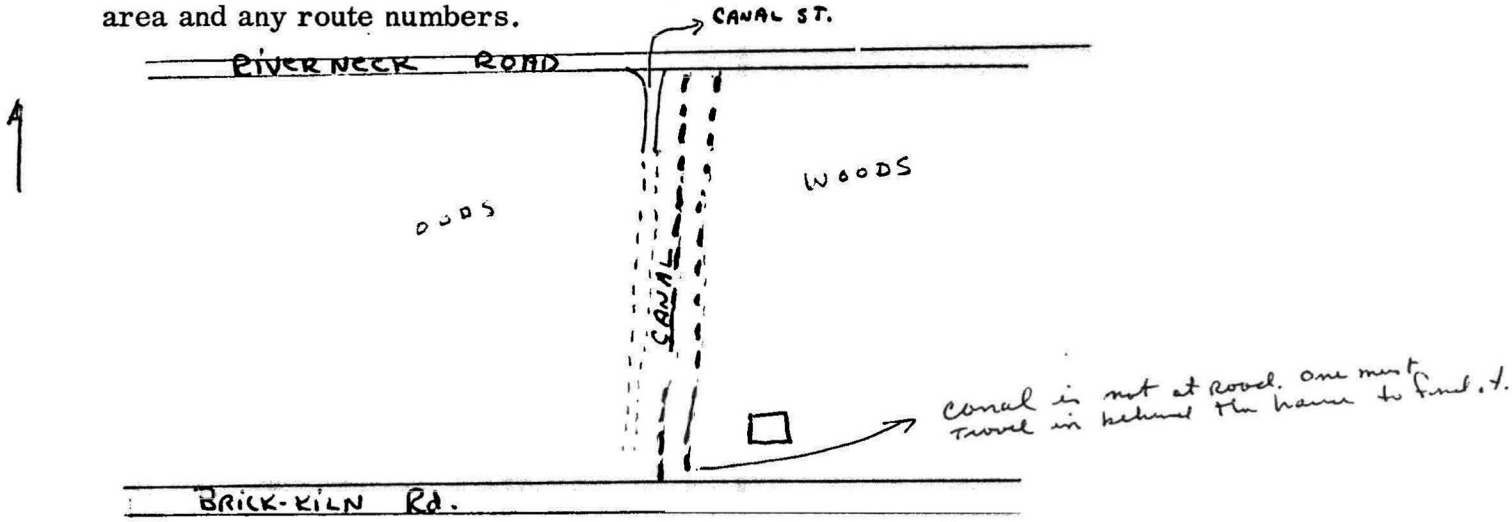
By Roads

By Developers

By Deterioration

U.S.G.S. - ML

7. Draw a general map of the area involved. Please indicate in red any known historic sites on which individual reports are contemplated on Form B. Indicate street boundaries of area and any route numbers.



Recorder J.M. Fumichi 71.60b

For M.H.C.
(Name of Organization)

NOTE: Recorder should obtain written permission from Commission or sponsoring organization before using this form.

FORM - MHCA - 10M-6-66-943017

907

FORM A - AREA AND SITE SURVEY
MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, State House, Boston

1. Town Chelmsford

2. Name of area or section
Middlesex Canal

3. General Date or Period 1800

4. Is the area uniform? yes

In style yes

In condition yes

In type of ownership ?

In use (Explain) residential with some commercial stores.

5. Is area potentially threatened?

By Zoning

By Roads

By Developers ?

By Deterioration

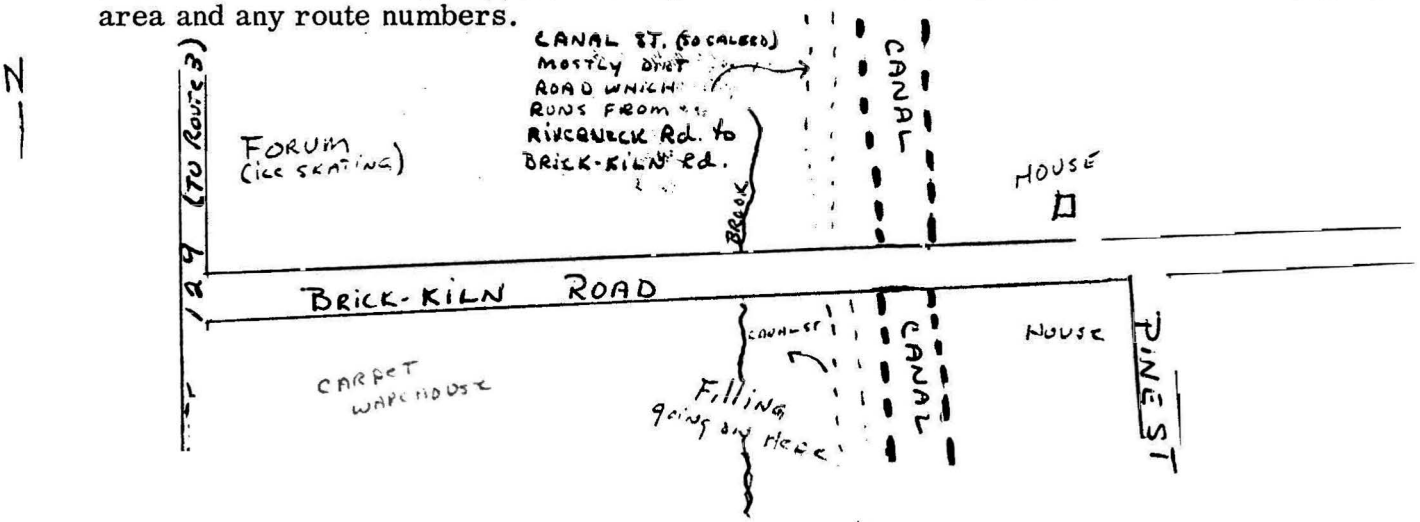
6. Please comment on the Historical or Architectural importance of this area:

Section of Canal after crossing Route 3A from Lowell Avenue. Canal Bed crosses marshy-wooded area (¼ mile) when it next crosses Brick-kiln Road. Area is much overgrown and canal is only discernible north of Brick-kiln Rd.

See, over

U.S.G.S. - 16

7. Draw a general map of the area involved. Please indicate in red any known historic sites on which individual reports are contemplated on Form B. Indicate street boundaries of area and any route numbers.



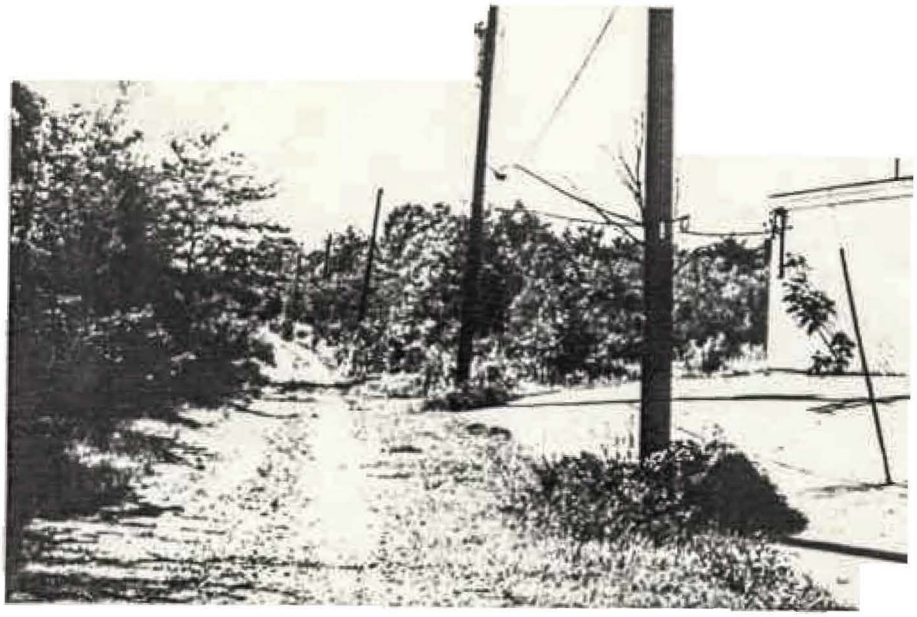
Recorder J. M. Francheschi

For MHC
(Name of Organization)

Route 3A.

NOTE: Recorder should obtain written permission from Commission or sponsoring organization before using this form.

907



Chelmsford

of area or section

dlesex Canal (Canal St.)

al Date or Period 1793 - 1803 ?

area uniform?

le

dition

e of ownership

(Explain) residential. Canal St is wooded/marshy area.

over strip and is not defendable when it crosses Beth-Kim.

5. Is area potentially threatened?

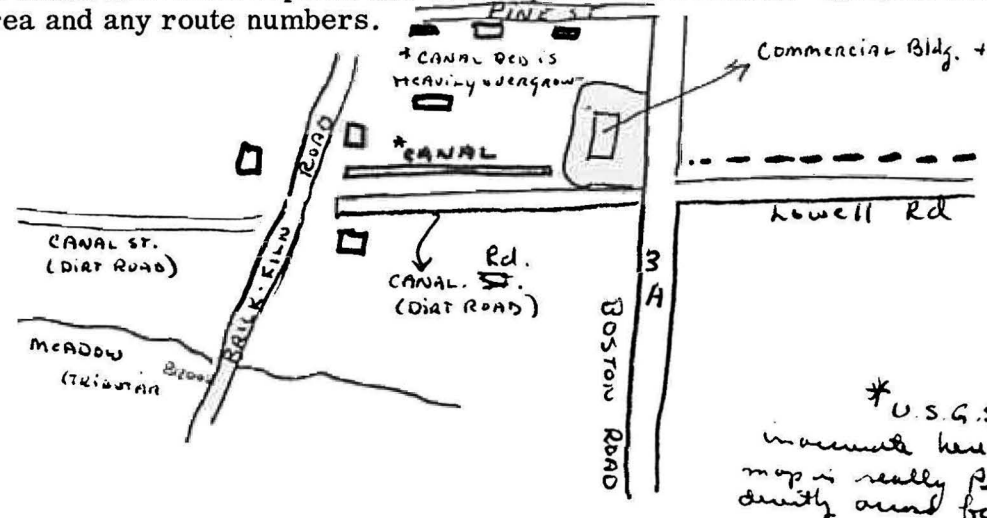
By Zoning

By Roads ✓

By Developers ✓

By Deterioration

7. Draw a general map of the area involved. Please indicate in red any known historic sites on which individual reports are contemplated on Form B. Indicate street boundaries of area and any route numbers.



* U.S.G.S. map is inaccurate here. Canal Ave on their map is really Pine St. the dashed line directly around from Lowell Rd. is Canal St. and is a dirt road.

Recorder J. M. Fiorentini 71.625 71.626

For MHC.
(Name of Organization)

NOTE: Recorder should obtain written permission from Commission or sponsoring organization before using this form.

Daily Journal & Courier

June 3, 1852 Lowell

The old Middlesex Canal which twenty years ago was as important to Lowell as the B & L Railroad is now, being the great channel of travel and trade, has been surrendered by the proprietors. Owners of estates along the line of the canal have been notified accordingly, that part of the canal running through our city farm was purchased by the city some time since, and will be filled up this summer.

Lowell Daily Courier

Monday December 14, 1903

Mr. & Mrs. Charles H. Hanson observed the 63rd anniversary of their marriage on Saturday at the residence of their son-in-law and daughter Mr. & Mrs. Daniel R. Frye 219 Gilison St. Many friends sent congratulations but the anniversary was limited to the immediate family. Mr. Hanson was born in Barnston Canada 82 years ago and came to Lowell in May 1849. Soon after his arrival in this city he went to work on the olf Middlesex Canal on a canal boat that plied between Middlesex Village and Boston. Afterwards he entered the employ of Horace Howard as a teamster and later began a livery stable business in Rock Street in which he continued with marked success until 1887 when he retired from active participation and left it in the hands of his sons Hon. C. H. Hanson and Mr. J. S. Hanson. Mrs. Hanson's maiden name was Mary Copp and she was born in Moultonboro, New Hampshire 84 years ago. She came to Lowell when she was 16 years of age. She and Mr. Hanson were married just over the Derby line which separates the state of New Hampshire from Canada.

MIDDLESEX CANAL
1793-1853

At this location canal boats pulled by horses carried freight and passengers between Boston and the Merrimack River at Lowell before the days of railroads.

The canal ran from Charlestown through what are now Somerville, Medford, Winchester, Woburn, Wilmington, Billerica, and Chelmsford to Lowell.

The canal was just over 27 miles long. It was 20 ft. wide at the bottom, 30½ ft. wide at the surface, and 3½ ft. deep. There were 20 locks, 8 aqueducts, and 50 bridges.

ROUTE OF OLD MIDDLESEX CANAL THROUGH CHELMSFORD

Erected by Middlesex Canal Commission 1987

8/8/2004 F Merriam

them. Mothers were shrieking for their lost children, husbands swimming in search of their wives and daughters; paleness sat on the countenance and anxiety filled the hearts of those on shore for the safety of their friends in the water. All, at length, came safely to land without any material injury. Thus ended the amusement of that memorable day."

THE MIDDLESEX CANAL.

The value of the Pawtucket canal was greatly lessened by the building of the Middlesex canal, which provided a more direct route to Boston.

The surveys between Chelmsford and Charlestown were made by Samuel Thompson of Woburn, superseded by Samuel Weston, an English engineer, and were completed, August 2, 1794. The canal followed closely the ancient bed of the Merrimack, from which it was shifted in the glacial period. Two routes were considered; the rejected route was, forty years later, selected for the B. & L. Railroad. The canal, thirty feet wide, four feet deep, with twenty locks, seven acqueducts, and crossed by fifty bridges, was, in 1802, sufficiently completed for the admission of water, and the following year was opened to public navigation from the Merrimack to the Charles. Its cost, about $500,000, of which one third was for land damages, was but little more than the estimate.

From an article by Lorin L. Dame, in Vol. 3, Old Residents' Contributions:

The curious traveller may still trace with little difficulty the line of the old Middlesex Canal, with here and there a break, from the basin at Charlestown to its junction with the Merrimack at Middlesex Villiage. Like an accusing ghost, it never strays far from the Boston and Lowell Railroad, to which it owes its untimely end.

At Medford, the Woburn sewer runs along one portion of its bed, the Spot Pond water-pipes another. The tow-path, at one point, marks the course of the defunct Mystic Valley Railroad; at others, it has been metamorphosed into sections of the highway; at others, it serves as a cow-path or woodland lane; at Wilmington, the stone sides of a lock have become the lateral walls of a dwelling-house cellar.

Judging the canal by the pecuniary recompense it brought its projectors, it must be admitted a dismal failure; yet, its inception was none the less a comprehensive, far-reaching scheme, which seemed to assure a future of ample profits and great public usefulness. Inconsiderable as this work may appear, compared with the modern achievements of engineering, it was, for the times, a gigantic undertaking, beset with difficulties scarcely conceivable today. Boston was a small town of about twenty thousand inhabitants; Medford, Woburn, and Chelmsford were

insignificant villages; and Lowell was as yet unborn, while the valley of the Merrimack, northward into New Hampshire, supported a sparse agricultural population. But the outlook was encouraging. It was a period of rapid growth and marked improvements. The subject of closer communication with the interior early became a vital question. Turnpikes, controlled by corporations, were the principal avenues over which country produce, lumber, fire-wood, and building-stone found their way to the little metropolis. The cost of entertainment at the various country inns, the frequent tolls, and the inevitable wear and tear of teaming, enhanced very materially the price of all these articles.

The Middlesex Canal was the first step towards the solution of the problem of cheap transportation.

The plan originated with the Hon. James Sullivan, who was, for six years, a judge of the Supreme Court of Massachusetts, attorney-general, from 1790 to 1807, and governor, in 1807 and 1808, dying while holding the latter office.

A brief glance at the map of the New England States will bring out in bold relief the full significance of Sullivan's scheme. It will be seen that the Merrimack River, after pursuing a southerly course as far as Middlesex Village, turns abruptly to the northeast. A canal from Charlestown mill pond to this bend of the river, a distance of 27¼ miles, would open a continuous water-route of eighty miles to Concord, N. H. From this point, taking advantage of Lake Sunapee, a canal could easily be run in a northwesterly direction to the Connecticut at Windsor, Vt.; and thence, making use of intermediate streams, communication could be opened with the St. Lawrence. The speculative mind of Sullivan dwelt upon the pregnant results that must follow the connection of Boston with New Hampshire, and, possibly, Vermont and Canada. He consulted his friend, Col. Baldwin, sheriff of Middlesex, who had a natural taste for engineering, and they came to the conclusion that the plan was feasible. Should the undertaking succeed between Concord and Boston, the gradual increase in population and traffic would, in time, warrant the completion of the programme. Even should communication never be established beyond Concord, the commercial advantages of opening to the market the undeveloped resources of upper New Hampshire would be a sufficient justification. Accordingly, James Sullivan, Loammi Baldwin, Jonathan Porter, Samuel Swan, and five members of the Hall family at Medford, petitioned the General Court for an act of incorporation.

A charter was granted, bearing date of June 22, 1793, "incorporating James Sullivan, Esq., and others, by the name of the Proprietors of the Middlesex Canal," and on the same day was signed by His Excellency, John Hancock, Governor of the Commonwealth. By this charter the proprietors were authorized to lay such assessments from time to time as might be required for the construction of the canal.

Commencing at Charlestown mill pond, it passed through Medford, crossing the Mystic by a wooden aqueduct of 100 feet, to Horn Pond in Woburn. Traversing Woburn and Wilmington, it crossed the Shawshine by an aqueduct of 137 feet, and struck the Concord, from which it received its water, at Billerica Mills. Entering the Concord by a stone guard-lock, it crossed, with a floating tow-path, and passed out on the northern side through another guard-lock; thence it descended 27 feet, in a course of 5¼ miles, through Chelmsford to the Merrimack, making its entire length 27¼ miles.

In 1805, the Town sent a remonstrance to the General Court against the contemplated tow-path on the bank of the Merrimack river, and also against the proprietors of Middlesex Canal having certain privileges on the meadows.

From a Thanksgiving sermon, Nov. 29, 1810, by Rev. Wilkes Allen:

Note—A Middlesex Canal is supplied with water from Concord river at a fall in Billerica, four miles from its mouth. This river in the summer is about 107 feet higher than the waters in Boston Harbor at full tide, and 21 feet above the surface of Merrimack. You ascend from the Merrimack by three Locks to the level of the canal, and thence to Concord river; crossing its surface, you proceed 11 miles on the same level, passing over several small streams and rivers on aqueduct bridges, especially Shawsheen, which is 20 feet below the waters of the canal. From the Concord to Boston are thirteen locks.

From a Paper Read by Prof. Geo. L. Vose of the Massachusetts Institute of Technology, before the Boston Society of Civil Engineers, 1885:

The pioneer work of actual internal improvement in Massachusetts, if not in America, was the Middlesex canal, the inception and execution of which was due mainly to one of the most distinguished men of the last century, James Sullivan. He saw, upon the map, the Merrimack river reaching far up into the heart of the great state, which lacked only the means of sending its products to market to set in motion a thousand wheels of industry. "The connection of Boston," says Mr. Amory, in his excellent life of Sullivan, "by a line of navigable waters with New Hampshire and Vermont, and perhaps with Canada, became early for Sullivan a favorite project. The Merrimack, after issuing from Lake Winnipesaukee, 120 miles from Boston, ran southerly within 27 miles of that capital, and then, turning abruptly to the northeast, discharged itself, after an obstructed course of 50 miles, at Newburyport. Between Concord, in New Hampshire, and Windsor, Vermont, the Sunapee lake gave facility for connecting the Connecticut and Merrimack, and the latter could be made navigable by locks at low cost. Should the undertaking succeed between

Concord and Boston, the gradual traffic would, in time, warrant its extension to the Connecticut, and perhaps to the St. Lawrence. The first step was a canal from Chelmsford to Boston."

The length of the canal was 27 miles; the rise from the Merrimack river at Chelmsford to the Concord river mill-pond at Billerica was 27 feet, and the fall from the mill-pond to Charles river 107 feet. There were in all, 20 locks, 48 bridges over the canal, and 7 aqueducts. The work was under construction from 1795 to 1803. The cost was about $500,000, of which about one-third was for land damages.

In the month of May, 1793, several gentlemen, prominent among whom were James Sullivan, Loammi Baldwin and Jonathan Porter, associated themselves for opening a canal from the waters of the Merrimack, by Concord river or some other way, through the waters of Mystic river to the town of Boston; and a committee proceeded at once to obtain a charter from the General Court, which was signed by Governor Hancock on the 22d of June, 1793. The company organized by the choice of James Sullivan as President, and Loammi Baldwin and John Brooks as vice presidents, and proceeded at once to make the necessary surveys to find the most eligible route between Medford river and the Merrimack.

An accurate survey in those days was almost unknown in this country, and a leveling instrument was an unheard-of thing. In January, 1793, Mr. Sullivan wrote to Gen. Knox: "We are under the necessity of procuring a man who is skilled in the business of canaling, who can point us to the place where, under all circumstances, the canal ought to be cut. We hear that such a person is in Philadelphia, who has come to America on the invitation of Mr. Morris. We beg the favor of your inquiring whether such an artist is there, and whether we can obtain his aid." The "artist" referred to was Mr. Samuel Weston, an engineer brought up in England under James Brindley.

A preliminary examination of the ground was made in the summer of 1793 by Mr. Samuel Thompson, of Woburn. He appears to have made a very careful study of the country, but was not provided with instruments of sufficient precision to obtain the elevations accurately. In March, 1794, the directors voted to send Loammi Baldwin to Philadelphia, that he might try to get Mr. Weston to make the survey for the canal, which he succeeded in doing. The surveys were commenced in July, and on the 2d of August, 1794, a full report was made upon the work. It was found that the route of the canal would be crossed in Billerica by the Concord river, which at that point was 107 feet above tide water at Boston, and 27 feet above the Merrimack at Chelmsford, being at the summit of the canal, and able to supply water in both directions.

The work of building the canal was commenced in the spring of 1795, under the direction of Col. Loammi Baldwin, the elder,

and continued, in the face of numerous difficulties, until 1803, at which time it was so far completed as to be navigable from the Merrimack to the Charles river. The canal was 18 feet wide on the bottom, 30 feet wide at the water line, and 4 feet deep. The locks were 11 feet wide and 76 feet long, with an average lift of about 7 feet. Some of these locks were made of wood, and others of stone. In the wooden locks, the side walls, which were of wood, were inclosed between rough walls of masonry placed a few feet back of the timber-work. The masonry was, thus, the retaining wall for the earth, while the timber formed a tight box for the water, the two walls being well braced apart by struts of wood. In this way, expensive masonry was avoided, but the cost of maintenance in after years was increased.

Although the Middlesex canal was completed in 1803, great expense was incurred for many years, owing to imperfections in the banks and other parts of the work, and nearly the whole income was expended in additions, alterations and repairs, so that no dividend was declared until Feb. 1st, 1819. One hundred assessments were put upon the shares, which, with interest added to the above date, amounted to $1,455.25 on each share, making the whole cost of the canal, $1,164,200. From 1819 to 1843, there were paid in dividends, $504 a share, averaging $20.16 per annum, being an interest on the cost of about 1.39 per cent. per annum. From the year 1819 to the time when the Lowell railroad went into operation, the receipts gradually increased, so that the dividends rose from $10 to $30 a share. The year the Boston & Lowell road was opened, the receipts of the canal were reduced one-third, and when the Nashua & Lowell was opened, they were reduced another third. The receipts of 1842-3 were not enough to cover the cost of repairs and current expenses.

After 1846 the traffic was small, though boats continued to run until 1852. In 1859 the charter was declared forfeited. The property was finally disposed of for about $130,000, and after the final dividend little more than the original assessments had been returned to the stock-holders.

When the Middlesex canal went into operation it was the greatest work of internal improvement in America. It had been twenty-two years in operation when in October, 1825, DeWitt Clinton made his triumphant passage from Lake Erie to the Hudson river. Like many more recent works, it produced a large indirect benefit. It was said by Daniel Webster to have added $5,000,000 to the value of the New Hampshire forests.

The Middlesex passage boat, Governor Sullivan, according to the advertisement, left the head of the canal in Chelmsford precisely at 8 o'clock, on Monday, Wednesday and Friday, and returned on the alternate days. Stages left Lowell and Boston an hour earlier to connect with the boat at Middlesex Village and Charlestown. Fare on the boat was 75 cents; on the stage,

6¼ cents. Previously, in 1831, the fare from Lowell to Boston by stage was $1. This was the fare in the early days of the railroad. Five cents a mile was all that could be demanded [i. e., this was the legal limit].

Some interesting facts are contained in A Historical Sketch of the Canal by the Agent (Caleb Eddy) of the Corporation, printed in 1843 (53 pages). Samuel Thompson of Woburn was appointed engineer. By the original survey, the ascent from Medford river to Concord river was 68½ feet. Actually, it was 104 feet. By the original survey, the Merrimack was 16½ feet above the level at Billerica bridge over the Concord, whereas actually, the water in the Concord at said bridge was about 25 feet above the Merrimack at Chelmsford.

Quantity of water lost by evaporation and filtration of such a canal estimated at	7,560,000	galls. per day
Loss by Lockage at Chelmsford filled and discharged 6,000 times a year	1,000,000	" " "
Loss by Lockage at Charlestown	1,400,000	" " "
do do at Medford	1,000,000	" " "
	10,960,000	

In addition to this, vast quantities pass over the waste wiers.

It was estimated that the cost of conducting water from the canal at Woburn to supply the city of Boston would be $900,000.

Dr. John Farmer, born in Chelmsford, June 12, 1789, son of John, of Chelmsford, a tiller of the soil and a deacon of the church, furnished Allen with much of the material for his history of Chelmsford. In 1816, Farmer printed, in pamphlet form, a history of Billerica in thirty-six pages. His mother was Lydia Richardson, daughter of Josiah. Farmer died August 13, 1838, and was buried in the old cemetery at Concord, N. H. At Billerica, September 18, 1818, he wrote: There is considerable navigation on the canal this season. Boats loaded with wood, barrels, various kinds of timber, the Chelmsford granite, &c., are almost constantly passing. The Middlesex packet, a very pleasant and handsome boat, passes here every day, having ladies and gentlemen on board.

In 1816, the General Court granted to the proprietors of the Middlesex canal two townships of land on the east side of Moosehead lake. The location is indicated on the map of Maine in Johnson's Family Atlas, 1865. Until 1820, Maine belonged to Massachusetts.

The following is the preamble and part of the first section of the act of incorporation:

"An act for incorporating James Sullivan and others, by the name and style of the Proprietors of the Middlesex Canal.

Whereas, James Sullivan, Esq., and others, have petitioned to be incorporated for the purpose of cutting a canal from the waters of the Merrimack river into the waters of the Medford river; and whereas, it is represented that sundry persons are ready to raise funds sufficient for the purpose of opening the same canal:

Sec. 1. Be it therefore enacted, by the Senate and House of Representatives in General Court assembled, that the said James Sullivan, Oliver Prescott, Jas. Winthrop, Loammi Baldwin, Benjamin Hall, Jonathan Porter, Andrew Hall, Ebenezer Hall, Samuel Tufts, Jr., Aaron Brown, Willis Hall, Samuel Swan, Jr., and Ebenezer Hall, Jr., their associates and successors, are hereby incorporated and shall be a corporation forever, under the name of The Proprietors of the Middlesex Canal," &c.

"Ascending the Merrimack through three stone locks, it extended through Chelmsford, and entered Concord river mill-pond by an excavated stone guard-lock, and crossed it with a floating-tow-path. It left Concord river through another guard-lock, and passed through a difficult excavation a quarter of a mile in length over ground low and wet, where a canal could be easily made, but was liable to lose its water. Proceeding through swamps, deep cuttings, and over extensive embankments, it passed through another aqueduct at Woburn to Horn Pond. Here it descended through five locks, somewhat apart, to the head of Medford river; thence by Wilmington valley, across the Brooks estate at Medford, to Medford river; then to tide-water in Charlestown mill-pond, and thence by a tide-lock consummated its connection with Charles river, opposite Boston."

Benjamin Blood of Lowell, who was engaged in boating over the canal for twenty years, says that one year he helped take through the canal 43,000 feet of stone, used in building the state prison at Charlestown.

The stone was quarried at Westford and Chelmsford by Tuck & Reed. The stone used for the U. S. Bank on State street, and the pillars and pedestals of Quincy market, Boston, were got out by Charles Hollis of Tyngsborough and floated down the canal. Much of the first brick used by the Merrimack corporation in Lowell, was transported from Charlestown to Lowell by the canal, 843,000 coming through in one season. During the War of 1812, it supplied material to the navy yard at Charlestown, and in time of peace, it distributed through a wide extent of country many articles of foreign commerce.

The motive power consisted of two horses harnessed "tandem."

Slowly moved the laden boat through the still water, between smiling hedgerows, through patches of woodland, under low bridges, and past pleasant villages, with delicious glimpses all along of charming, romantic or pastoral scenery. Sometimes the canal widened into a miniature lake, mirroring the azure

vault of heaven and the bending foliage of the surrounding trees. Ever and anon a "sail ahead" would appear in the shape of a vast flat-boat, laden with flour or lumber, or the product of some of the nascent factories, or it may be a huge raft of timber, came floating down with two or three mariners in charge, an old spavined horse dragging the establishment along.

Many points on the line were exceedingly picturesque. One in particular, was quite charming—the place where the canal skirted Horn Pond at a much higher elevation, and you looked down through the buttonwood trees on the broad expanse of water, with its little wooded islet in the centre, and across to the mountain that guarded and guards, like a giant sentinel, its southern shores.

In fact, a panorama of the Middlesex Canal, after the fashion of Banvard's Mississippi, would have been by no means an uninteresting exhibition. But the condition of this pleasure was fine weather. To embark on the "raging canawl," in a storm, required a hardihood and nerve vouchsafed to few. Then furious waves, at least an inch in height, disturbed the usually placid surface of the water. The little ponds into which the canal frequently widened realized the descriptions of a mud-puddle in a thunder-storm to be found in ancient poetry. Your safety depended on the strength of the tow-rope, the skill of the rider-boy, the docility of the horses, the vigor of the mariner with the setting-pole, and the experience and energy of the captain, who usually managed the helm. The captain, the ruling spirit of the elements combined in canal-voyaging, must needs be an "ancient mariner" of unequivocal force of character. Fabius told the Roman Senate—and a very sensible gentleman was that same Fabius—that any of the sailors could steer in pleasant weather, but when a storm had arisen, and the deep was disturbed, then the helm required a strong hand. This was emphatically true of canal navigation.

In pleasant weather, the very cabin-boy could steer; in a storm, it took a man, and he "couldn't hardly."

* * * But the voyages of the canal-boats on the Middlesex, though pursued frequently in the midst of storms, had this alleviating feature—they were never made in the night; that horror at least was spared the hardy mariners. When darkness covered the face of the earth and heaven as with a pall, the canal-boat rode out the storm either at Chelmsford or Boston, with both bow and stern anchors under foot, fast grappling in the mud, a stopper on the tow-rope and the tiller lashed amidships. [From an article by Maj. A. C. Varnum in Lowell Vox Populi, July 6, 1881.]

The Merrimack Manufacturing Company was incorporated in 1822; they built a dam across the Merrimack above Pawtucket falls, and, having obtained possession of the Pawtucket canal,

doubled its width, and also built the Merrimack canal, which leaves the Pawtucket canal near the Swamp Locks, and furnishes power to the Machine Shop, Lowell Company, the Merrimack Mills, and the gristmill at the foot of Anne street. In 1825, the Locks and Canals Company was reorganized, and regained possession of the Pawtucket canal.

STEAMBOATS.

The first steamboat was put on the Merrimack by Hon. John L. Sullivan about 1814 or '15. "It had four wheels, two on each side connected by a broad belt or chain, from which stood out at right angles with the belt square pieces of board which, as the wheels revolved, were carried forward on the top of the wheels till they came to the forward wheel, when they were plunged into the water, and passed back to the hind wheel." It was of a size to pass through the locks.
[Old Res. Hist. Soc., Contrib. I, 4.]

In order to afford the passage of boats and rafts by the Wicassee falls, just west of Wicassee Island (Tyng's Island), the present home of the Vesper Country Club, the Middlesex Canal Co. were authorized to widen and straighten the natural waterway of the river on the east side of the island, and construct a lock through which boats and rafts could be lowered to the level of the canal, as the new waterway was called. The original Act of 1793, in which this power appears, was amended in 1814, Chapt. 100, and reads as follows: Be it enacted &c., That the Proprietors of Middlesex Canal be, and hereby are authorized and empowered to demand and receive toll on boats and rafts that shall pass Wicassee Lock and Canal in the town of Tyngsboro, in this Commonwealth, at the following rates, viz., for every cord of pine wood, eight cents; for every other kind of wood, ten cents per cord; for every ton of merchandise or other loading, ten cents; for other articles going down the canal, one tenth of the toll now collected on the same articles at Middlesex Canal, Feb. 11, 1815. [See Chapter: "Annals," 1816.]

The raising of the water by the dam at Pawtucket smoothed out the Wicassee falls, but the remains of the old lock can be clearly seen where the canal leaves the river, just north of the boat house.

The Act of 1812, Chapter 113, provides as follows: "The Proprietors of the Middlesex Canal are hereby authorized and empowered, in order to make Merrimack River completely and conveniently navigable for boats, from the said canal to the boundary of the State, to make and construct a lock and a dam at the rapids in Tyngsborough, known by the name of Wicassee Falls, at such place or point of said rapids or falls, and on whichsoever side of the island that may be found most convenient." The company were required to keep and maintain an opening, slope, or fishway in the dam for the passing of fish and rafts.