

these works under very great difficulties; and for the heavy personal responsibility which he often assumed to maintain the works, when otherwise they would have been sacrificed, this Company entertain the highest consideration."

Just how much Henry Farnam had to do with the early construction is not clear, but it was he who successfully repaired all the breaches and other difficulties of its later years.

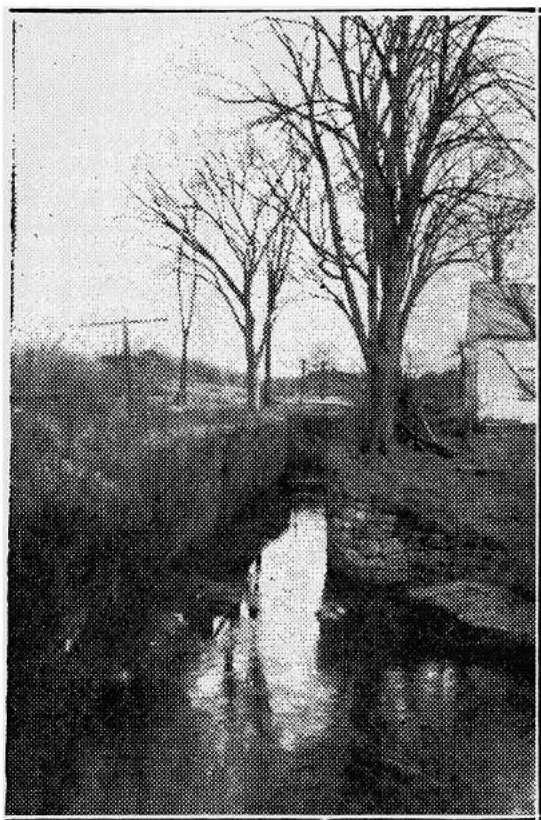


FIG. 10. LOCK NO. 12 NEAR BROOKSVALE, CONNECTICUT

Connecticut used one, and possibly two aqueducts to get the canal over streams. The Wright estimate lists one 20 feet long over Mill River in a single span. The one as to the construction of which there is no question crossed the Farmington River by seven spans of 40 feet each; three of the six piers are still standing, in fair condition, as is the north abutment; the three other piers and the south abutment were taken down

to the ground level for the stone in them. Striking as the structure must have been, not only are there in evidence no plans or sketches, but no one seems to remember how it looked, although Professor Henry W. Farnam, son of Henry Farnam, remembers as a small boy crossing the river on it in company with his father, in 1863. Undoubtedly it consisted of a wooden trough at least 12 feet wide and 5 or 6 feet deep, carried by some form of truss, either along side or above the box, with a towing path on one or both sides of the trough, but even the masonry fails to show any clear indication as to how the trusses were seated.

In Massachusetts, possibly because of more limited headroom, there were six aqueducts ranging in length from 30 feet to 300 feet, but there

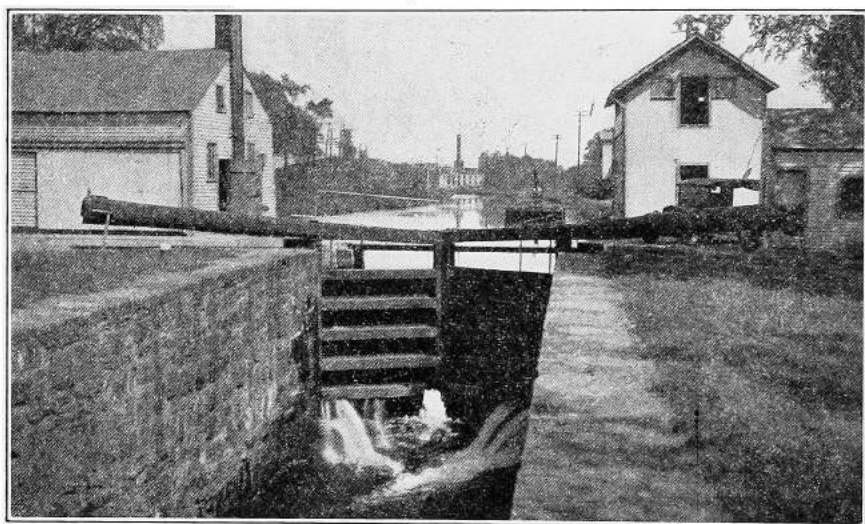


FIG. 11. TYPE OF LOCK USED ON NORTHAMPTON CANAL.

is even less information regarding these than there is of the Connecticut ones, for the Massachusetts masonry either is entirely gone or is so built into other masonry as to have its original appearance entirely concealed.

One other structure remains to be considered. As the canal was located, to reach the Connecticut River at the "Honey Pot Bend" above Northampton, it was necessary first to rise 220 feet to the Congamond Ponds, which was done by means of 28 locks; from the Congamond Ponds to the Westfield Valley there was a drop of 79 feet, by means of 9 locks; it was then necessary to climb out of the valley, 90 feet, by means of 9 more locks; and finally by 14 locks, to drop again 134 feet to the river.

An excellent idea of the appearance of these locks can be had at

Windsor Locks (Fig. 11), where there are in service today locks built originally about 1828, and which have been repaired in kind so that today they are practically the same as when first built. They differ from some of the Farmington and Hampshire and Hampden locks, however, in the fact that they are masonry walled locks, while some of the Northampton Canal locks had stone side walls which were laid dry and served merely as retaining walls. A series of headers were left projecting 14 inches, and against these came the posts of the wooden lining, the space serving to catch any earth and keep it from piling up against the lining

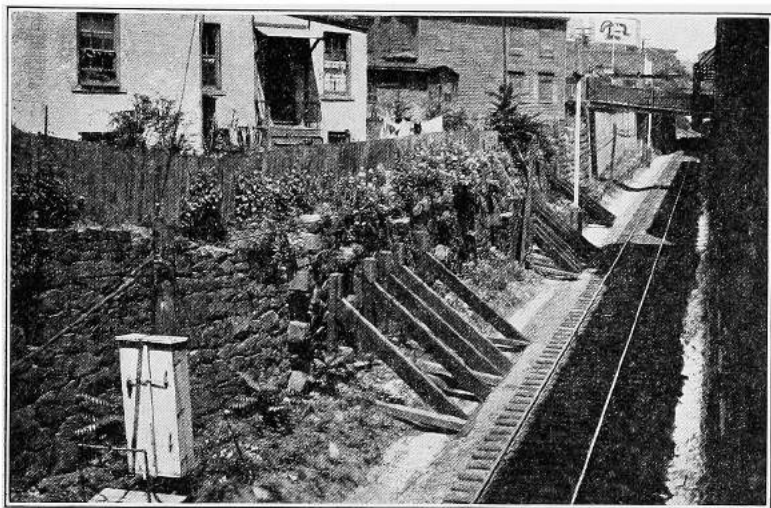


FIG. 12. WEST WALL OF LOCK NO. 27, NEW HAVEN, CONNECTICUT.
(BETWEEN ORANGE AND WALL STREETS.)

to cause decay. The walls were spaced apart the proper distance to give a clear width of the wooden lining of 12 feet, with a length of 80 feet in the clear.

At a later date a change to all-masonry was made. Most of the locks have gone entirely but enough wall remains to show that Connecticut Lock No. 12 (Fig. 10) was all-masonry; and Nos. 10, 11, 13, 14, and 27 (Fig. 12) were wood lined when operation ceased. In Massachusetts there are but two locks of which any appreciable amount of wall remains. No. 9 was wood lined; No. 22 all-masonry. The wood lined lock had proved quite satisfactory on the Middlesex Canal, and cost but 1/3 as much as the all masonry type, but apparently its behavior on the Northampton Canal was unsatisfactory, for the later built locks were chiefly all-masonry.

THE CANAL COMMISSION.

There is a very interesting feature of the Farmington Canal which in part comes under the head of "engineering features." As early as 1797 Connecticut began the practice of establishing a commission for each of its public utility corporations. In some instances their duties were very light, but the "Commissioners for the Farmington Canal" had very extensive duties and powers. They were required not to be "interested in any way whatever" in the corporation, and were sworn to a faithful discharge of their trust. With the assistance of such engineers,

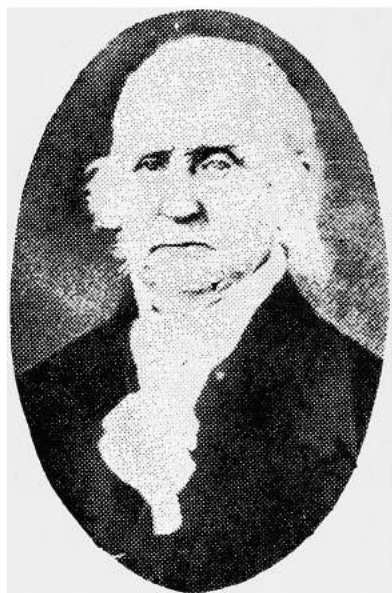


FIG. 13. SIMEON BALDWIN, CHAIRMAN OF THE CANAL COMMISSION.

surveyors and other agents as the corporation might employ, they were to survey and lay out the canal, fix the widths of land takings and determine benefits and damages, the owner having right of appeal to the county court, the decision of which, however, was final; they were to determine the location and dimensions of bridges over the canal and the location of toll houses; they were to open the subscription books, determine the amount of the capital, and warn and call the first meeting of the stockholders. Theirs was the power, annually to license as many boats and at such fees as they deemed expedient, and to fix the toll on the boats and on the articles carried; they were to report the cost of the canal, when finished, to the comptroller of the state, to pass upon the

proposed relocation of any highway, and if approved, to see that it was left in as good repair as before; to make and file with the Secretary of State a report on their survey of the canal location as soon as the canal was completed, and to inspect from time to time the construction, and annually and if necessary oftener, inspect the canal, the bridges and the other works, with power to suspend the collection of tolls, if any order to correct any trouble was not complied with, until such correction was made.

The commission consisted of Messrs. Simeon Baldwin, chairman, Isaac Mills, William Moseley, George Cowles, Jonathan Pettibone Jun., and Roger Mills; they were to be paid "a reasonable compensation" which later was fixed at three dollars a day and expenses, with two dollars a day extra during the period of actual location in the field.

In an "Account of the Farmington Canal," prepared at the request of the President of the New Haven and Northampton Company and published in 1850, it was justly said:

Their duties were arduous, and the responsibilities which devolved upon them very great, but they executed the trust confided to them with scrupulous fidelity, as the carefully kept records of their proceedings will show. It is no more than mere justice to refer in a special manner to the services rendered by the President of the Board, the Hon. Simeon Baldwin, and the Secretary, Mr. William Moseley."

CLOSE.

In closing, the author would point out that the purpose of this paper is two-fold:—to bring together at least some of the known facts regarding the engineering features of the Northampton Canal, and to call attention to the great lack of information as to others. The members of this Society are earnestly urged to be on the lookout for any material relating to the canal, and if any such is found, to put it in the keeping of one of the Historical Societies, if not as a gift, at least as a loan.