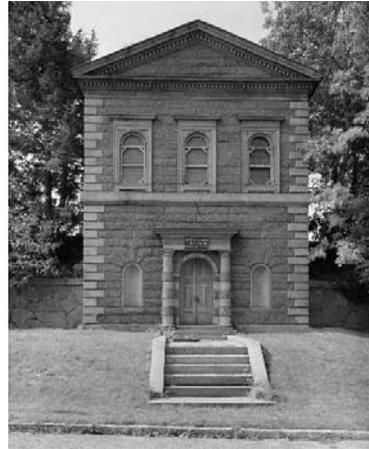
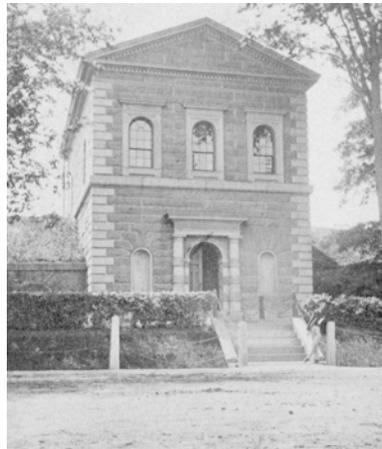


The Principal Gatehouse of the Cochituate Aqueduct

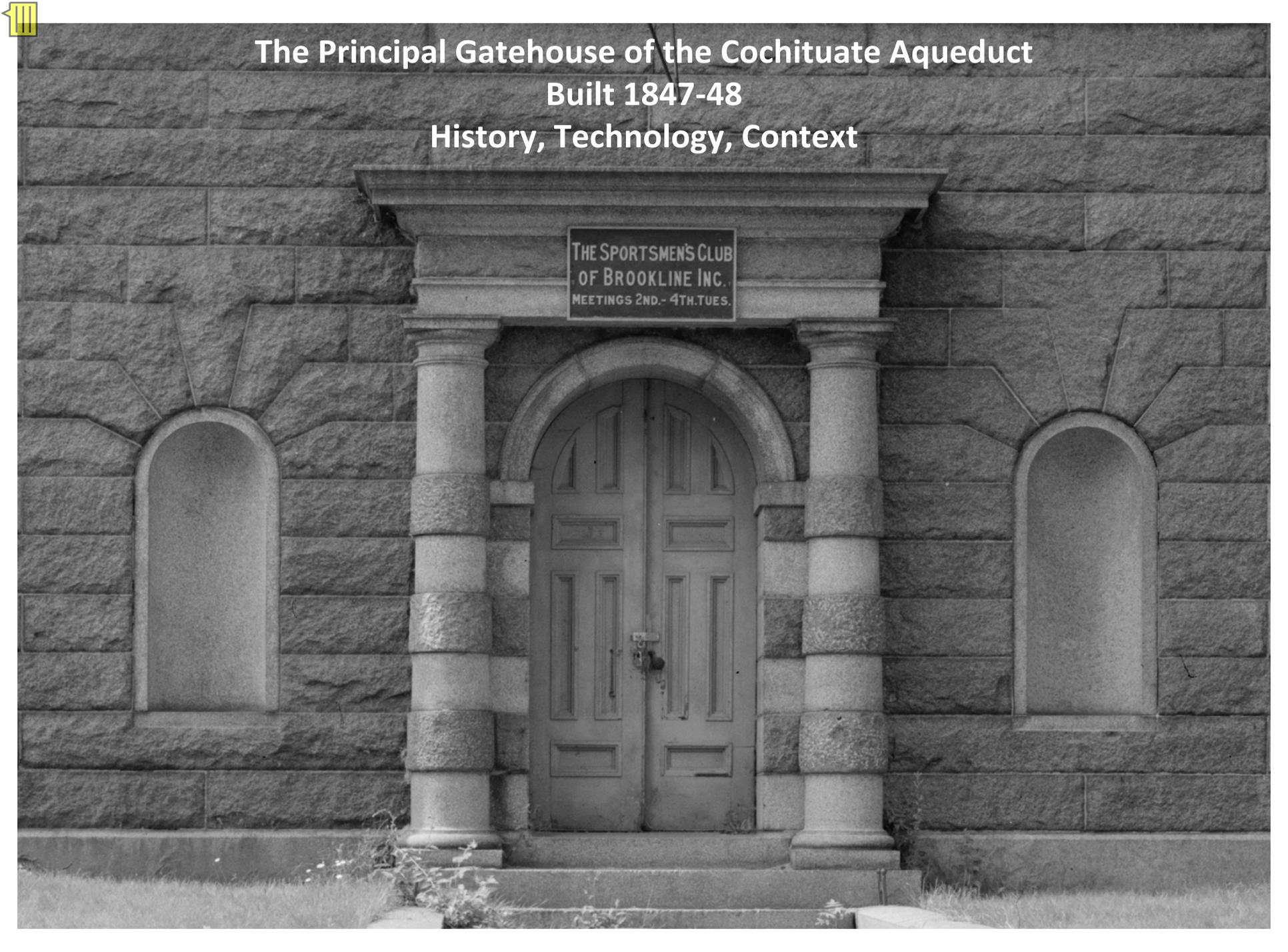
Built 1847-48

History, Technology, Context

- Oldest wrought iron roof in U.S.
- One of two oldest extant wrought iron truss roofs in U.S. — both part of Cochituate Aqueduct
- Oldest extant cast iron staircases intended for public use in U.S.
- Oldest extant public water supply aqueduct principal gatehouses in U.S.
- One of the earliest U.S. architectural uses of modern hydraulic-type mortar
- Second municipal aqueduct in U.S.
- Laid out by John B. Jarvis — pioneering canal, aqueduct, and railroad engineer and inventor of the standard American design steam railway locomotive
- Engineering design supervised by E.S. Chesbrough — pioneering water and sewer engineer who famously reversed the Chicago River and sent it to the Mississippi
- Brookline gatehouse: Architectural frontispiece of Boston's largest municipal project to date



The Principal Gatehouse of the Cochituate Aqueduct
Built 1847-48
History, Technology, Context

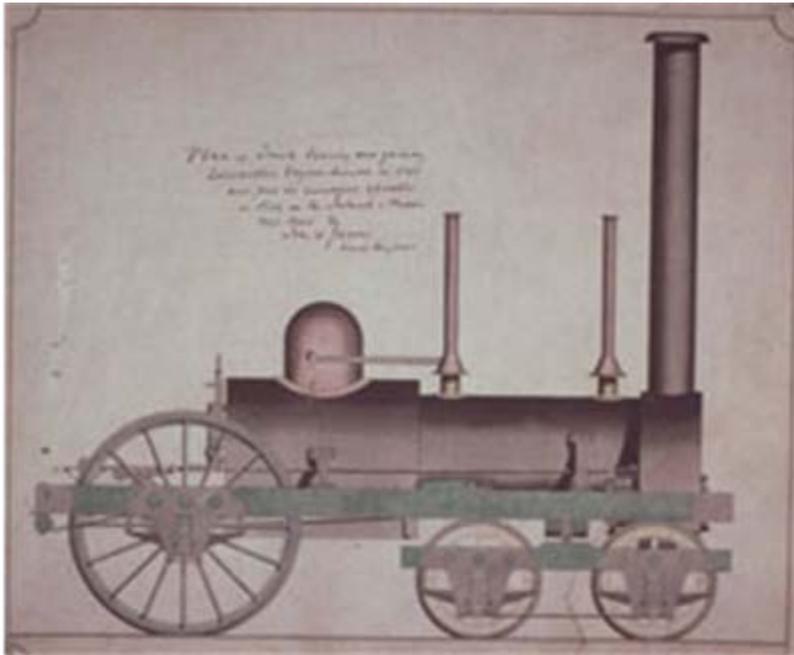


THE SPORTSMEN'S CLUB
OF BROOKLINE INC.
MEETINGS 2ND. - 4TH. TUES.



1652 “the Ancient Conduit” in Boston proper.
1795 private Jamaica Pond company — wooden pipes
1825 first study for city owned water supply



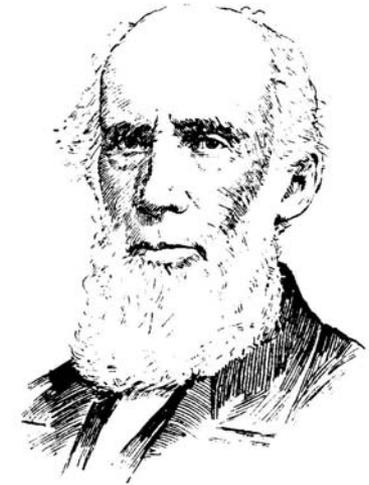


John Bloomfield Jervis
(1795-1885)

Consulting engineer
to Cochituate
aqueduct

Design engineer of
1842 Croton
Aqueduct

Inventor of first high
speed U.S. locomotive
In 1830



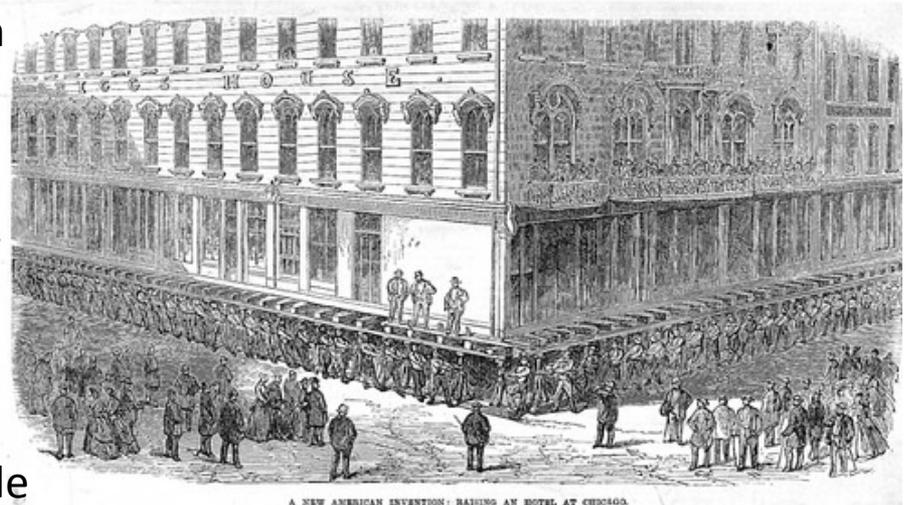
John B. Jervis



E. S. Chesbrough
(1813-1886)

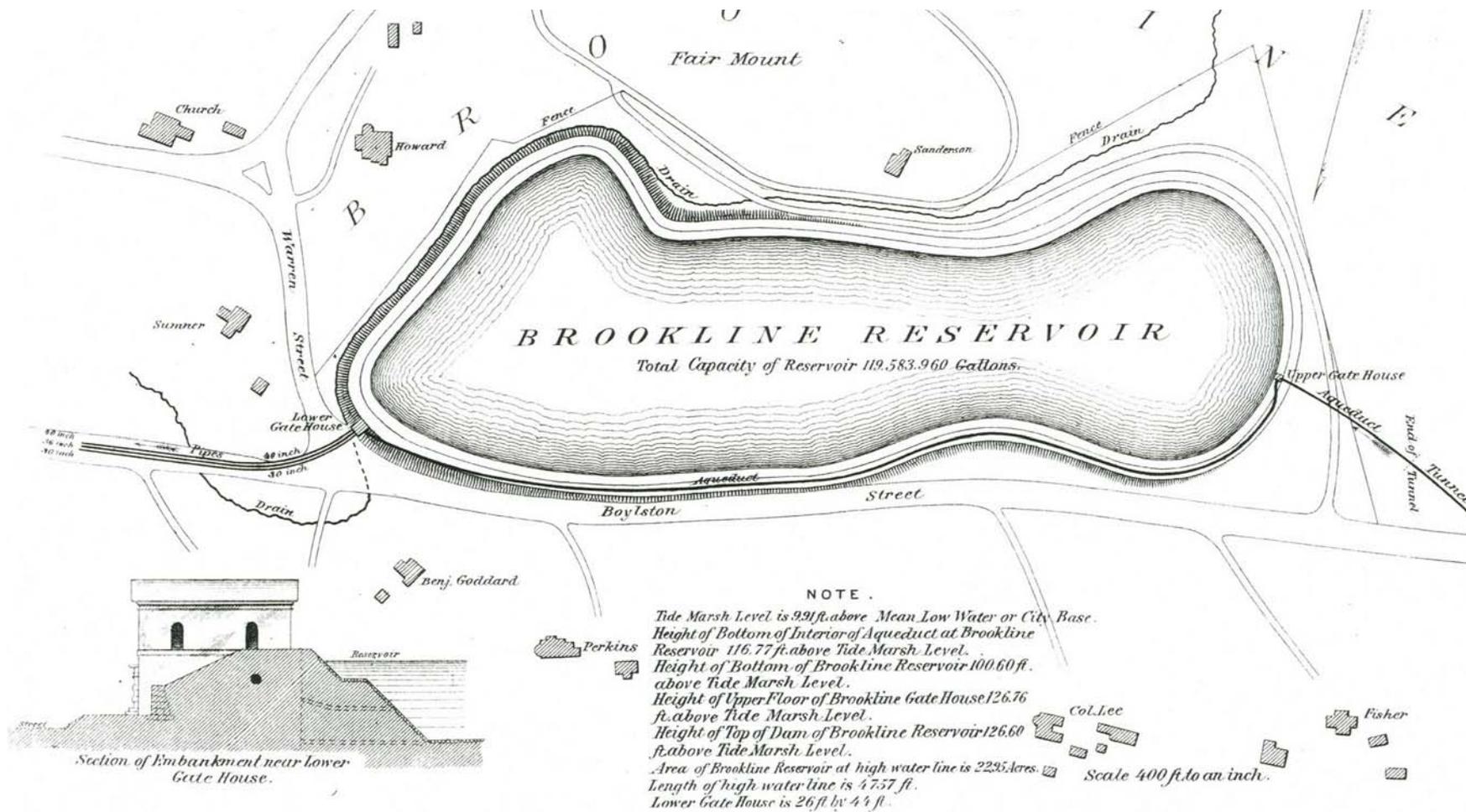
Design engineer
of the aqueduct.

Later reversed
flow of Chicago
river and raised
streets and whole
city blocks there





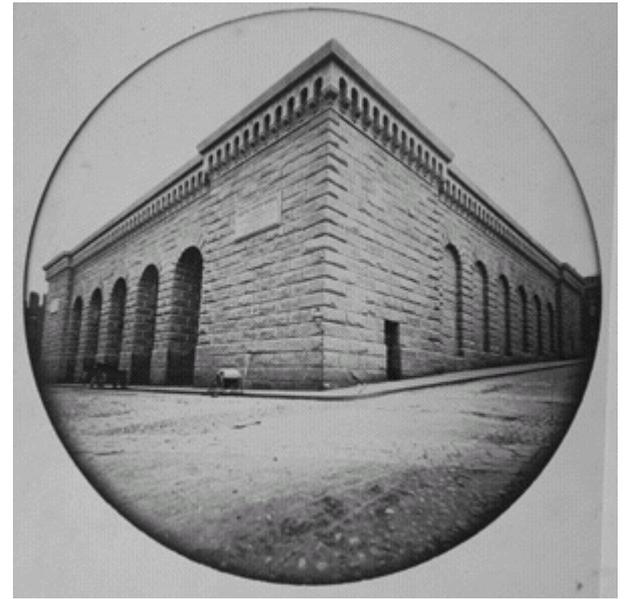
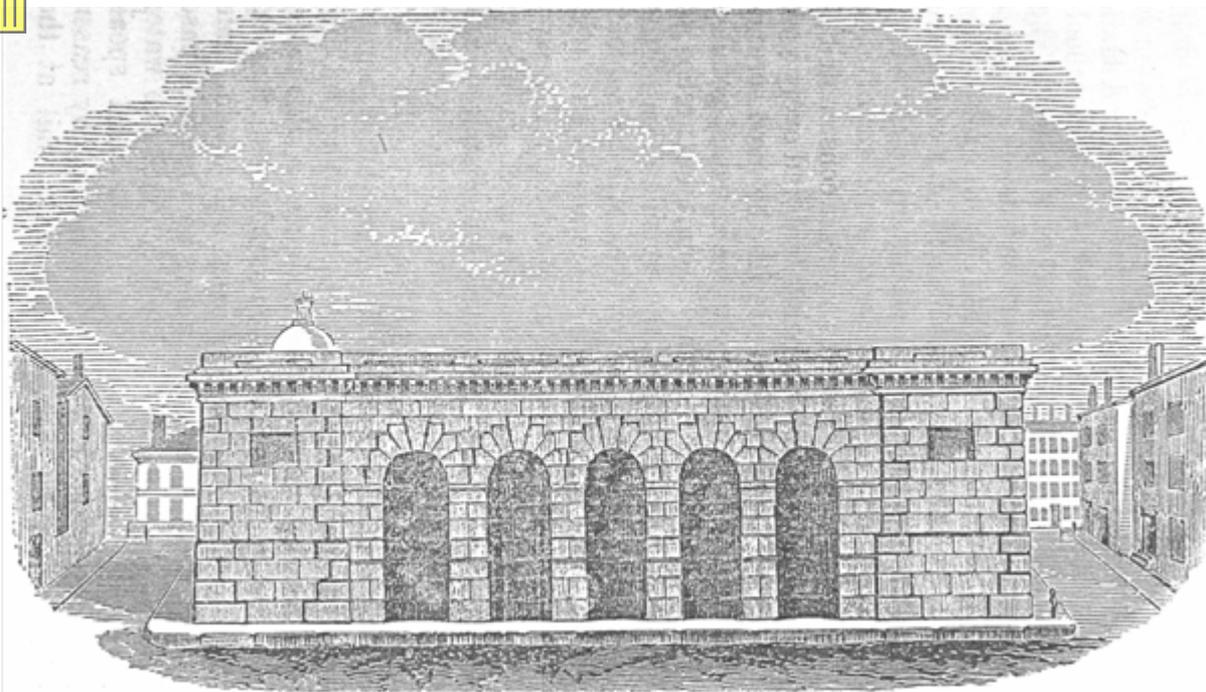
The Cochituate Aqueduct 1846-48:
from Wayland thru Natick, Needham (now Wellesley), & Newton to Brookline



Cochituate Aqueduct tunnel leads to small inlet gatehouse (right end).
 Bypass aqueduct runs under bank along Boylston St. to the lower gatehouse (left end).

Lower left: Section through the dam showing the bypass aqueduct.

The plan is turned with south at the top.

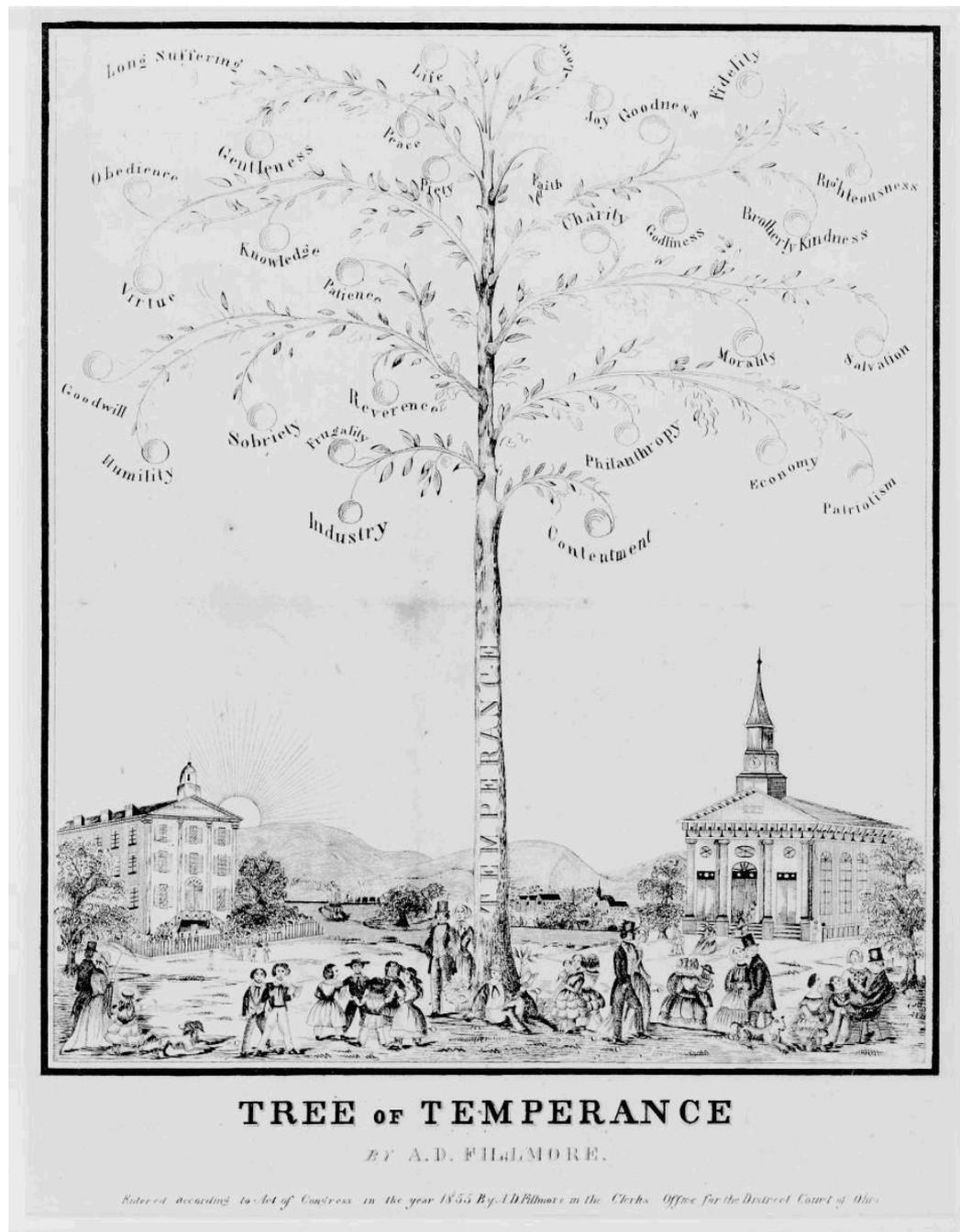


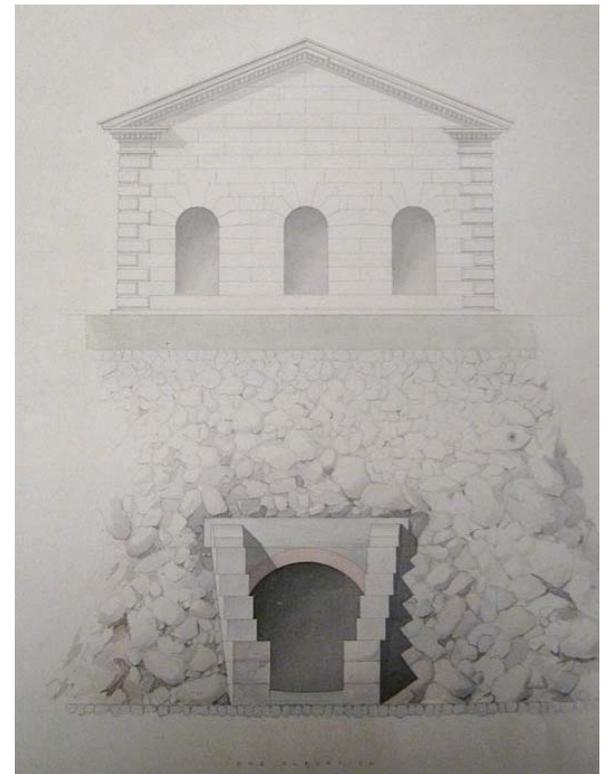


The Great Water Celebration on October 25th, 1848
100,000 people saw a 96 foot high column of water gushing from the Frog Pond almost to the height of the Brookline Reservoir.

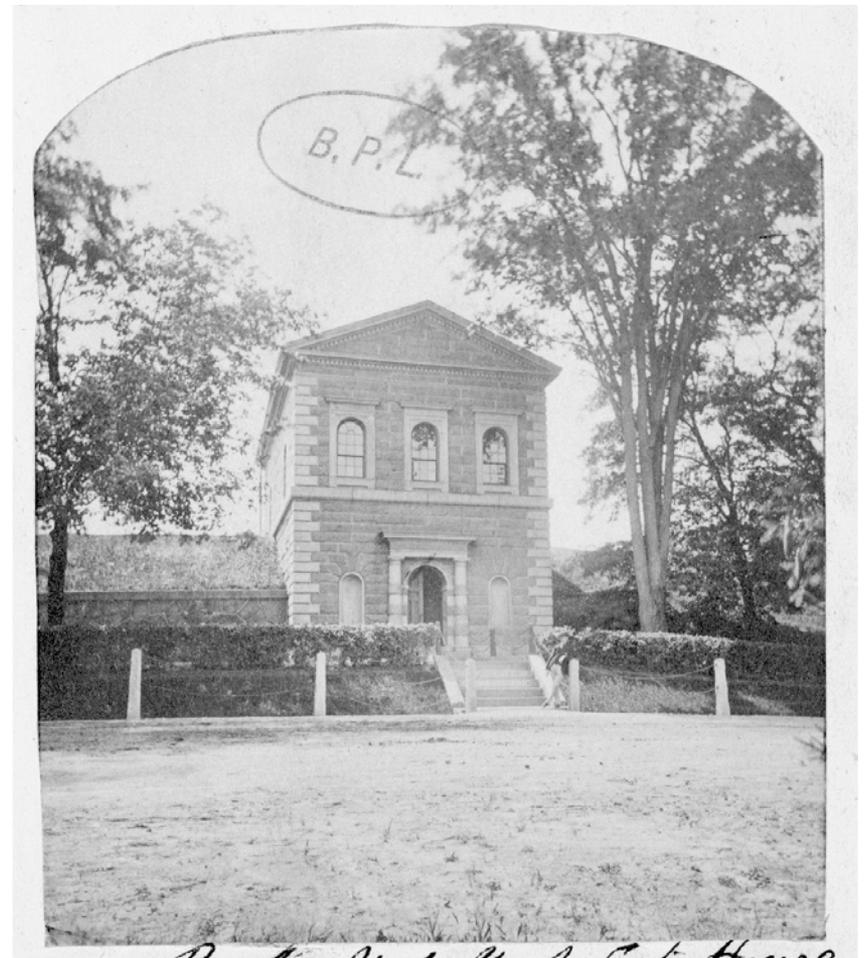
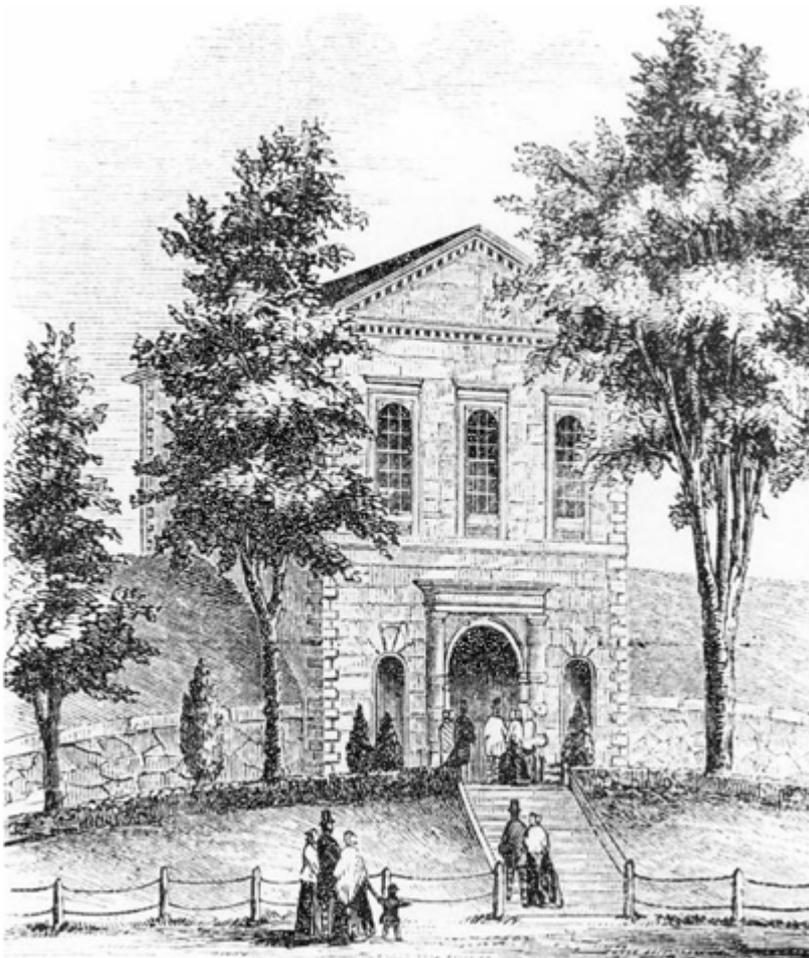


At last, Boston's water was safer than beer

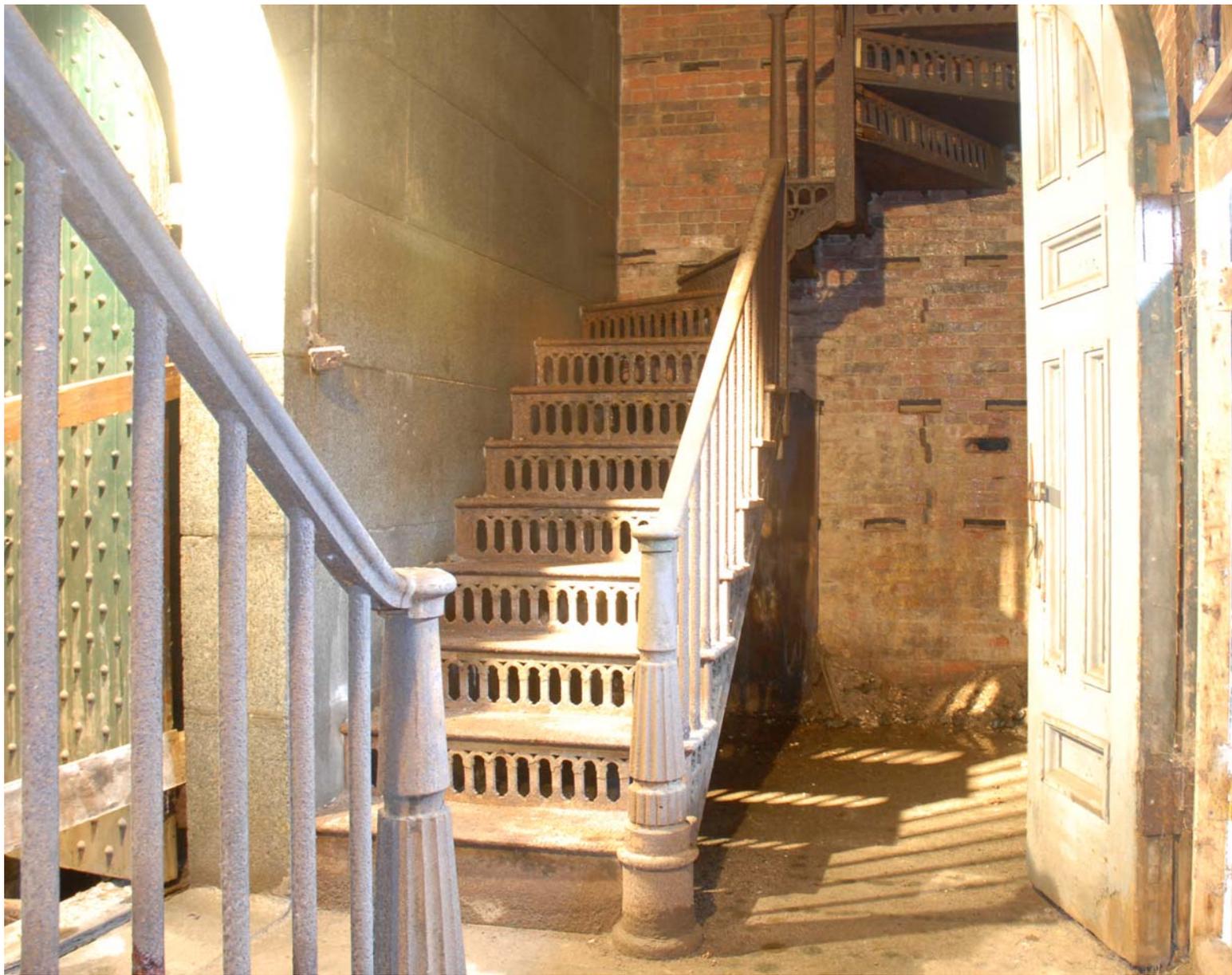




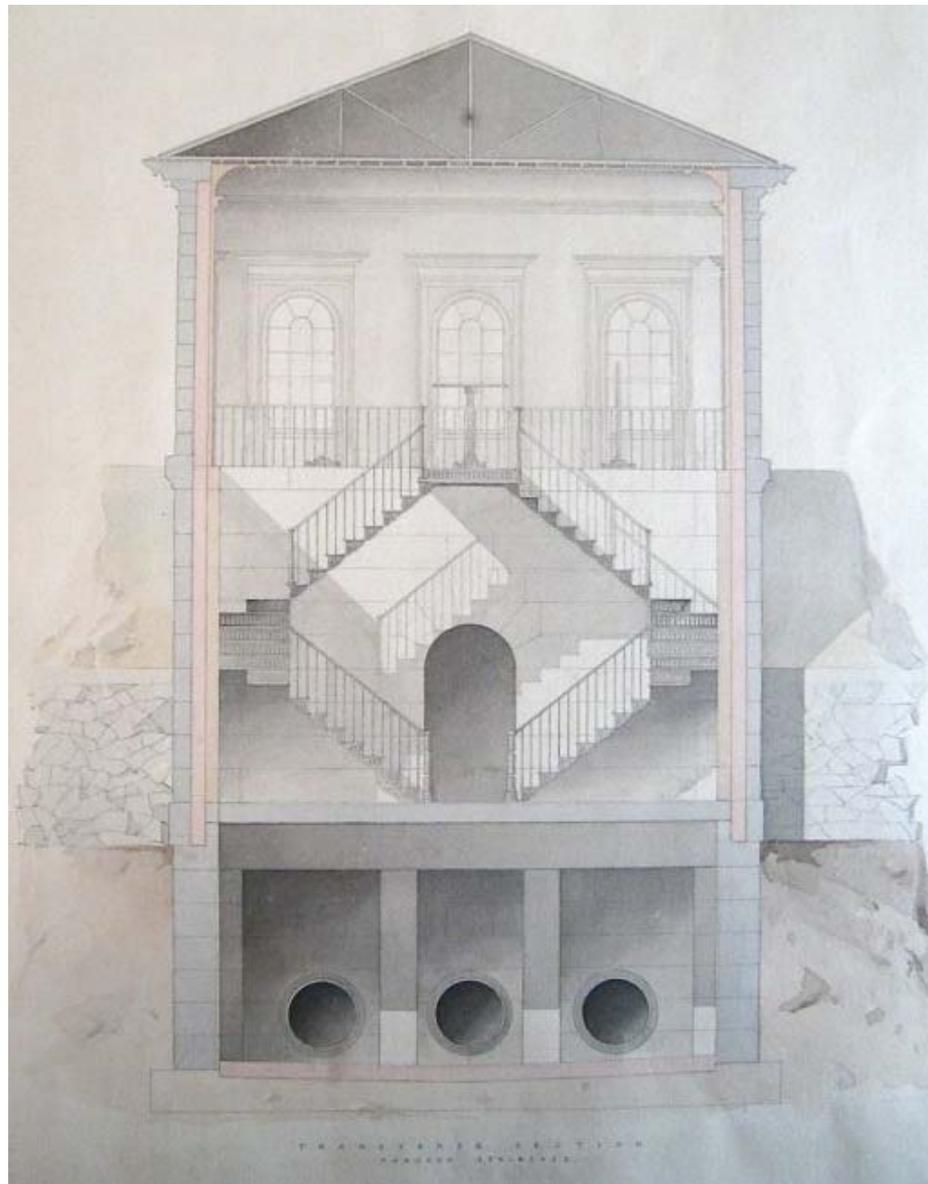
1849 “as built” renderings of the gatehouse — Charles Edward Parker, Architect



The Brookline Gatehouse in 1863 and 1876.
The architectural frontispiece of the entire project
Visitors passed through it to stroll the path around the reservoir.



The cast iron staircases. On their right, the surviving leaf of the entrance doors, on their left a door opening into the void of the bulkhead chamber.



A section drawing through the staircases.
Between them, the arched entrance to the pipes below.
Above, eight large windows with elaborate moldings.



Only earlier U.S. stairs
with iron structures.

Clockwise from above

1834 cast iron stairs, Eastern State Penitentiary, Philadelphia

1839 iron and wood flying staircase, "Pauper's Insane Asylum,"
Blackwell's Island, N.Y.C — destroyed

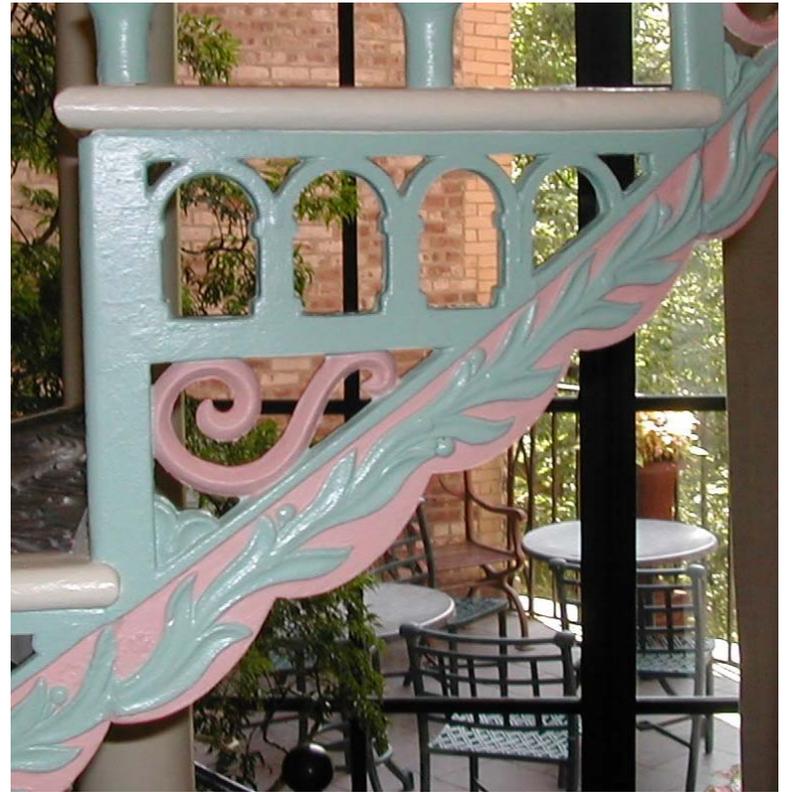
1841 cast iron staircase, Pennsylvania Hospital for the Insane,
Philadelphia — demolished

1847 cast iron stairs, Mt. Desert Rock Lighthouse, Me.





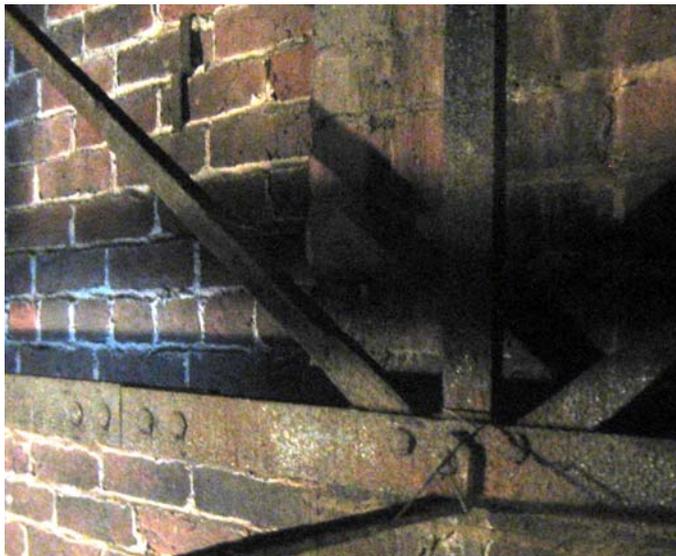
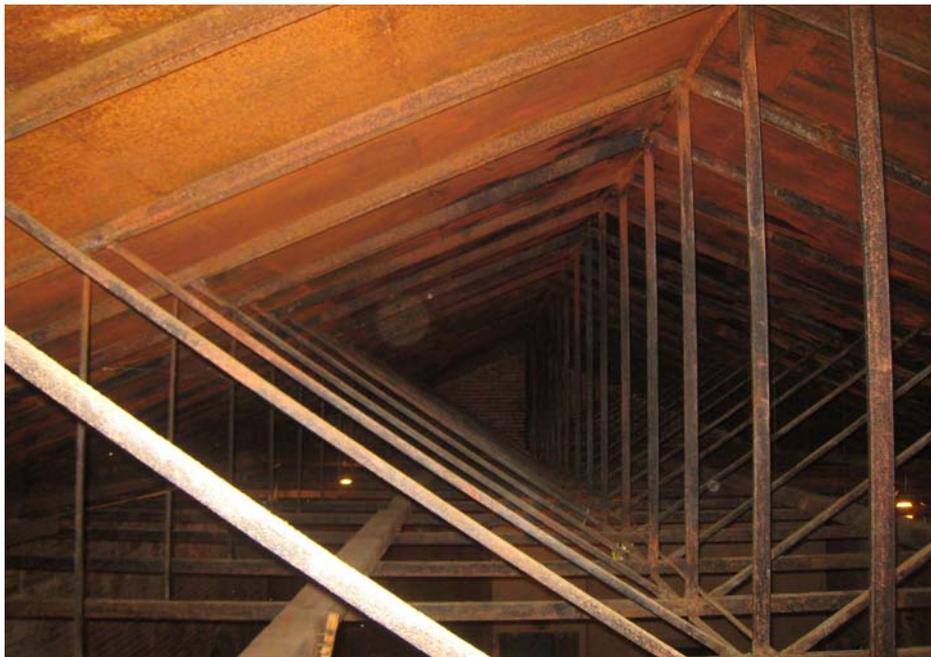
Tread-support of Gatehouse stairs



Athenaeum's surviving spiral staircase

About six months newer

Made by Smith & Lovett

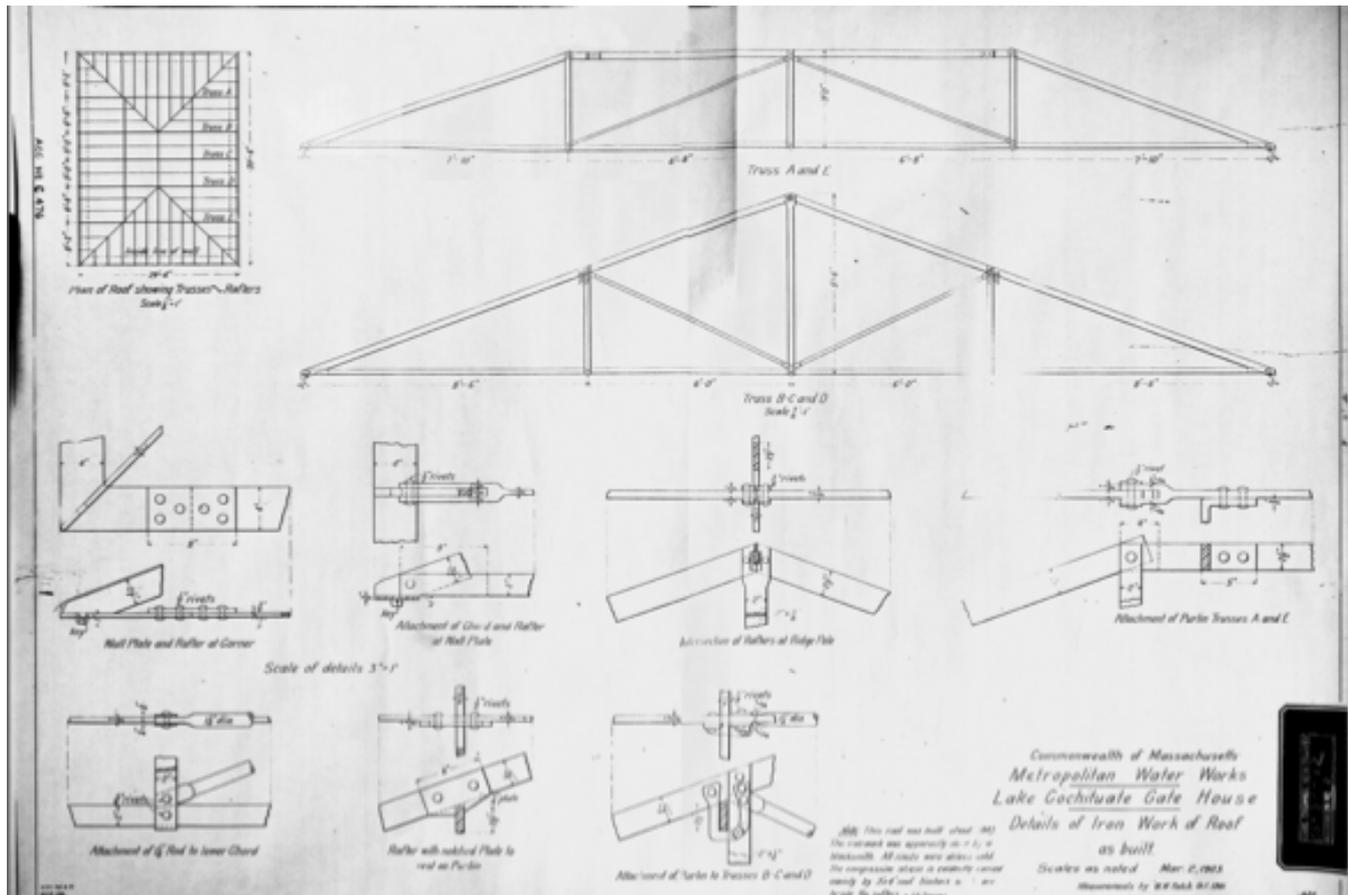


Above: 21 wrought iron roof trusses support iron plate roof

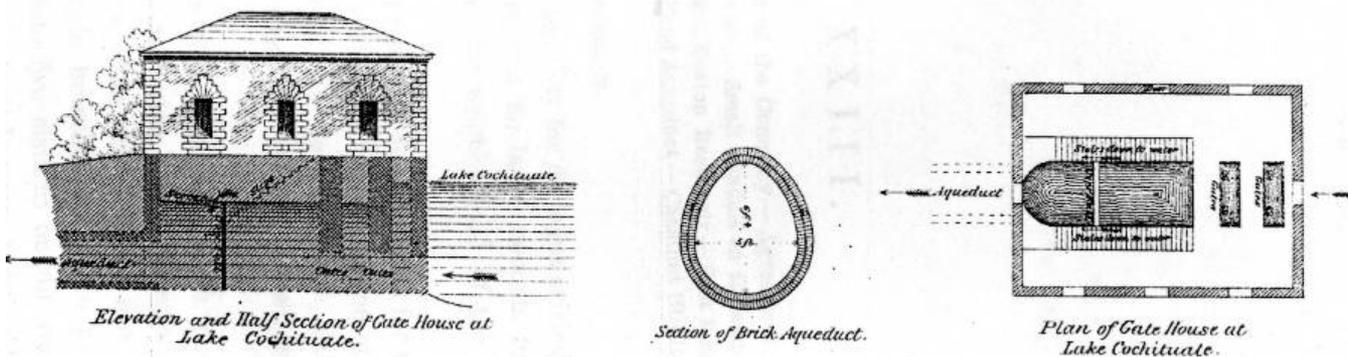
Left: Riveted joints.

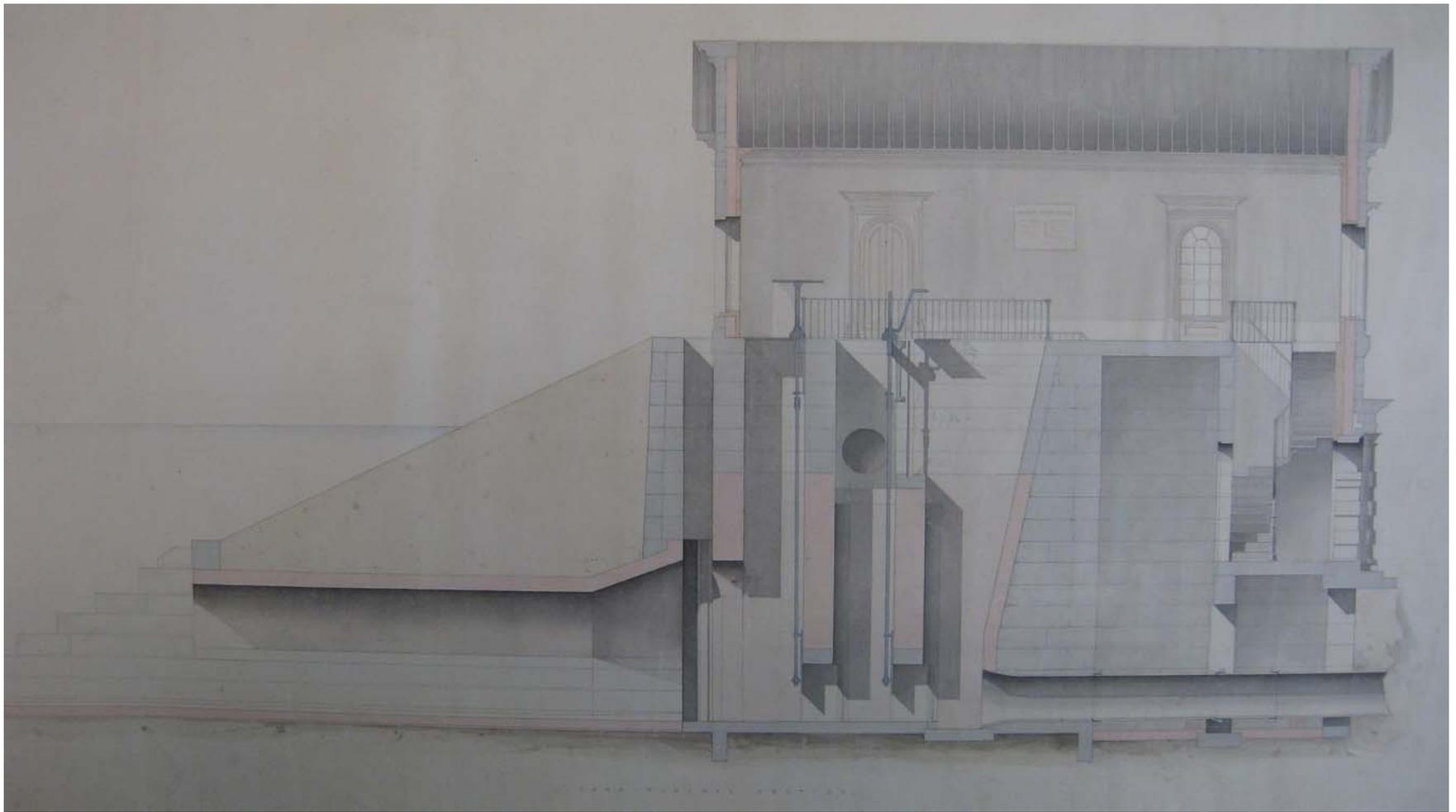
Right: "Clips" held truss to roof.



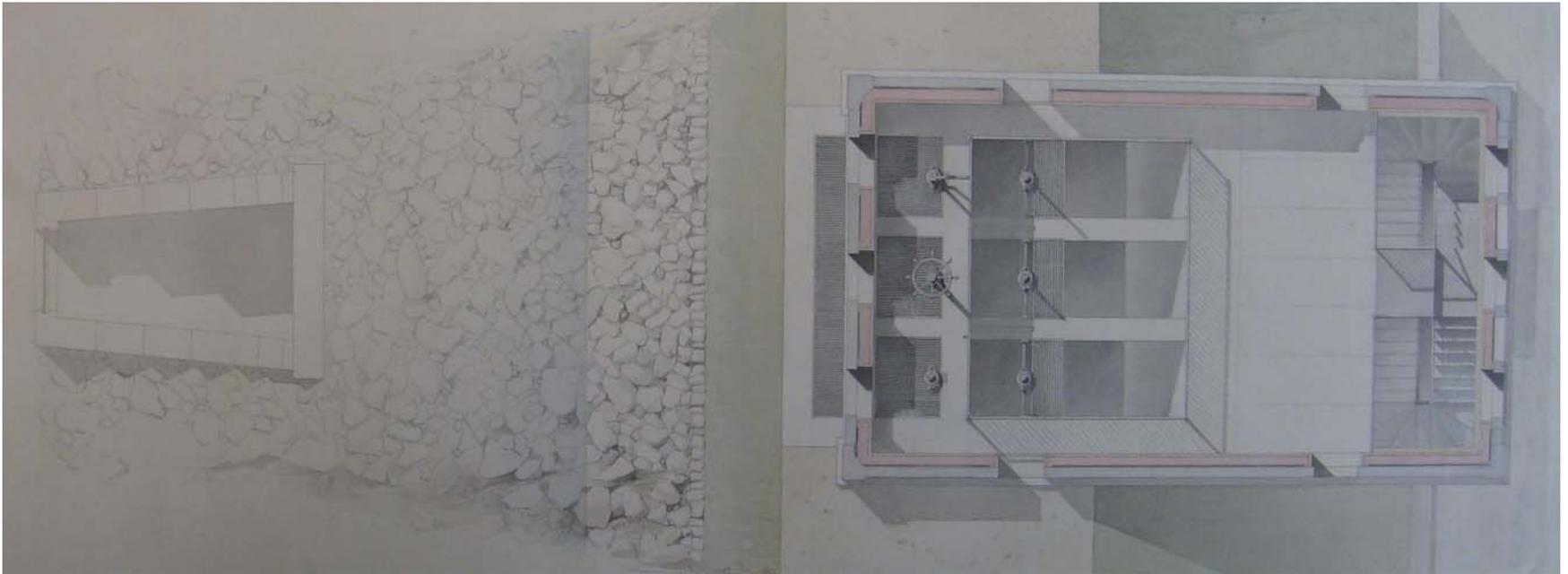


Lake Cochituate Gatehouse and roof truss (1903 “as built” drawing)



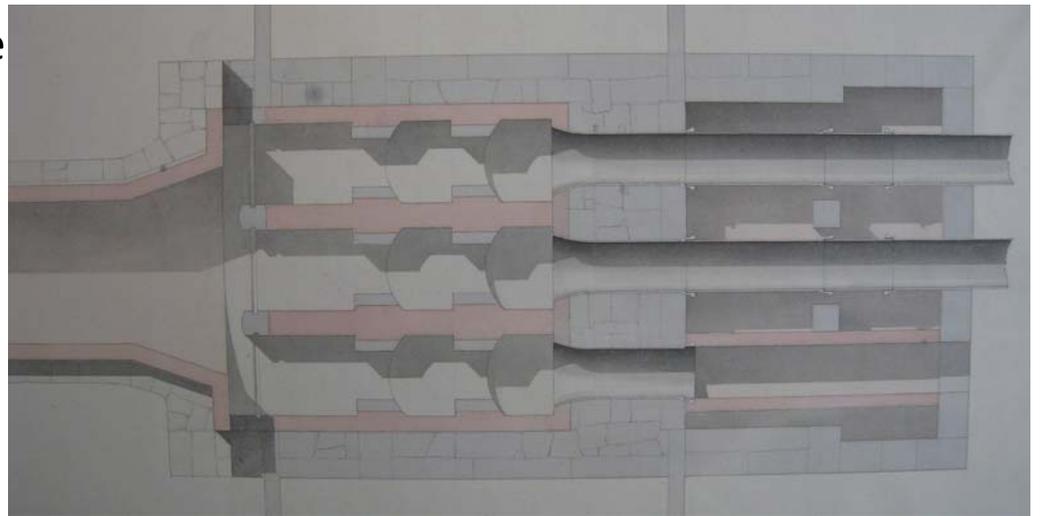


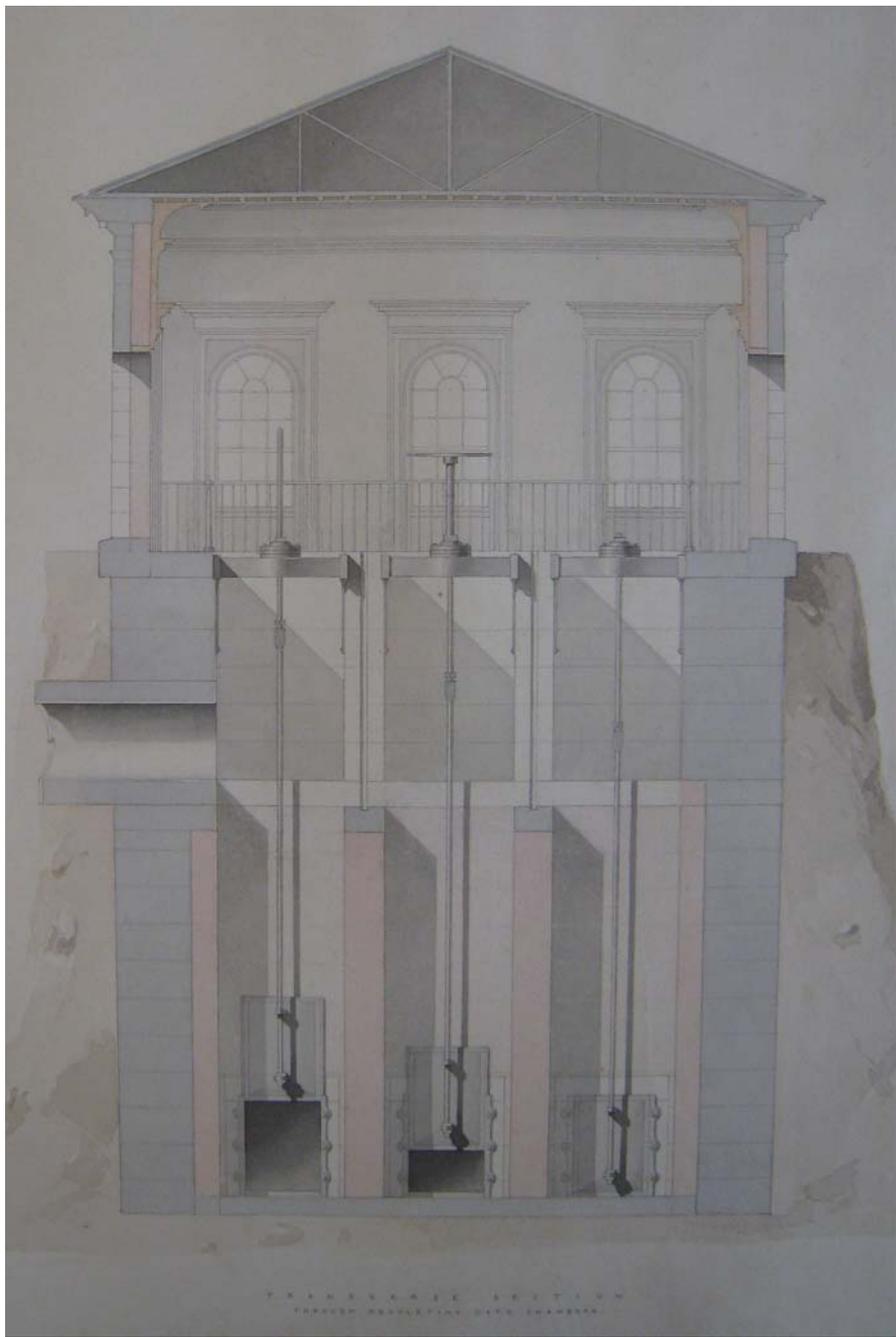
Section cut through center of Brookline Gatehouse with reservoir on left

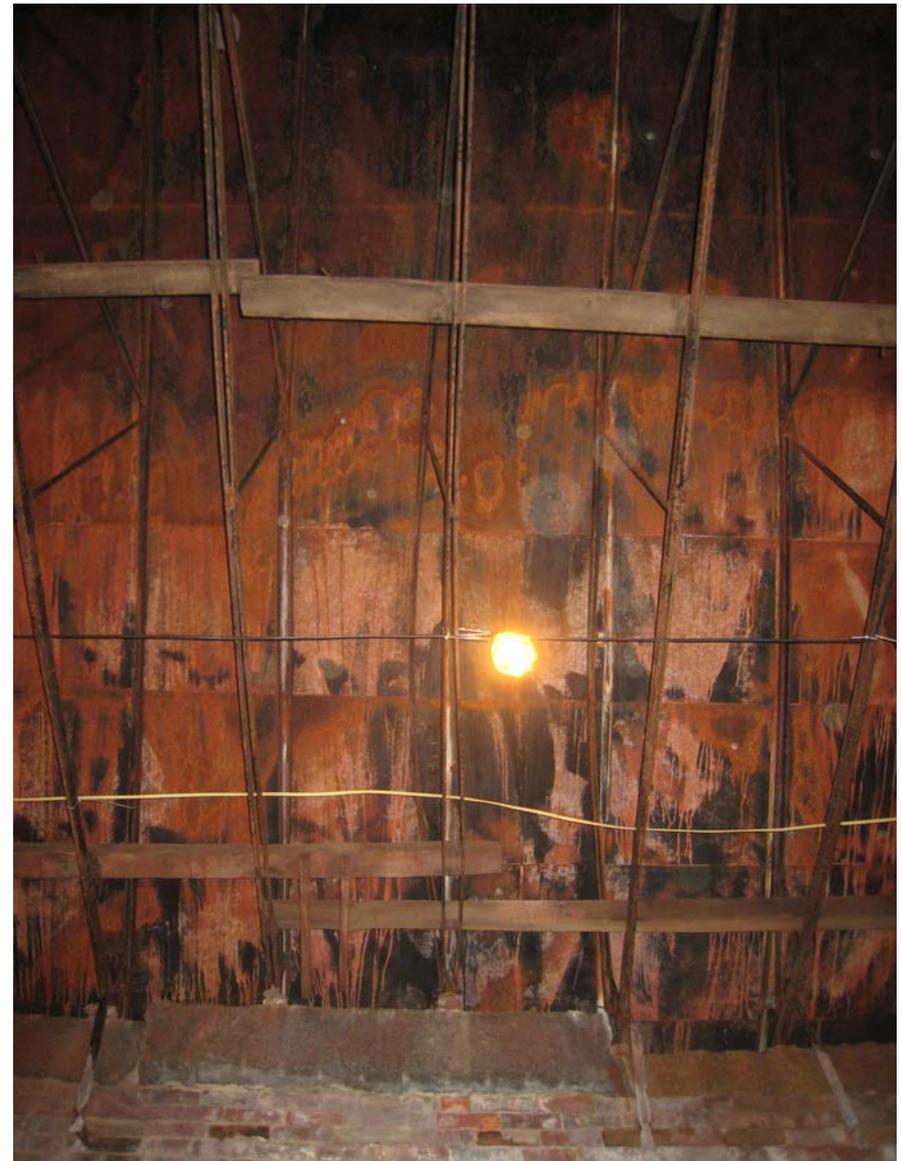
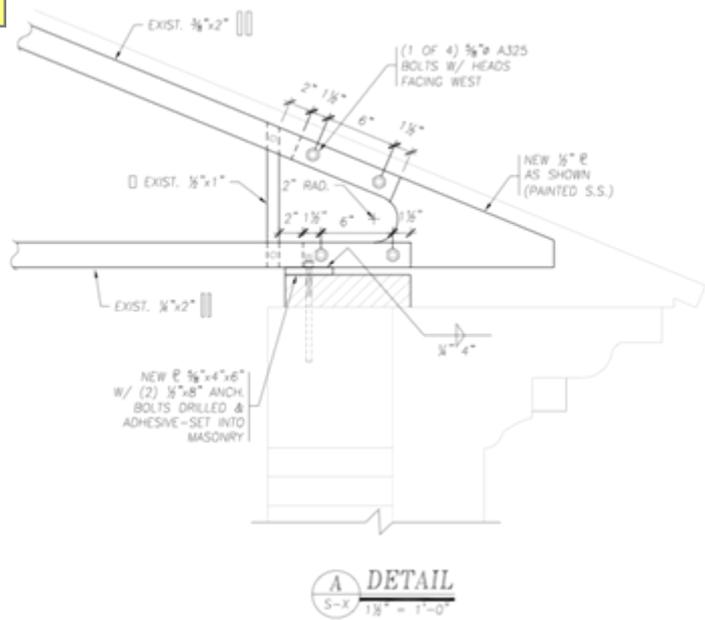


Above: Main floor plan of gatehouse showing inlet below water.

Right: Plan at level of inlet showing iron pipes leaving gatehouse.







To stabilize and save roof truss ends and clips must be repaired



Beginning 1902 — H.S. hockey on reservoir — Daily Crimson reports state of ice for skating
1922 — N.E.A.A.U. swimming races in reservoir.

1926 — Gatehouse fitted with floor for recreation use — 4th of July swimming thru 1950s

- Men's & women's WCs, changing rooms for swimming, warming hut for skating
- Concrete dock for swimming and fishing

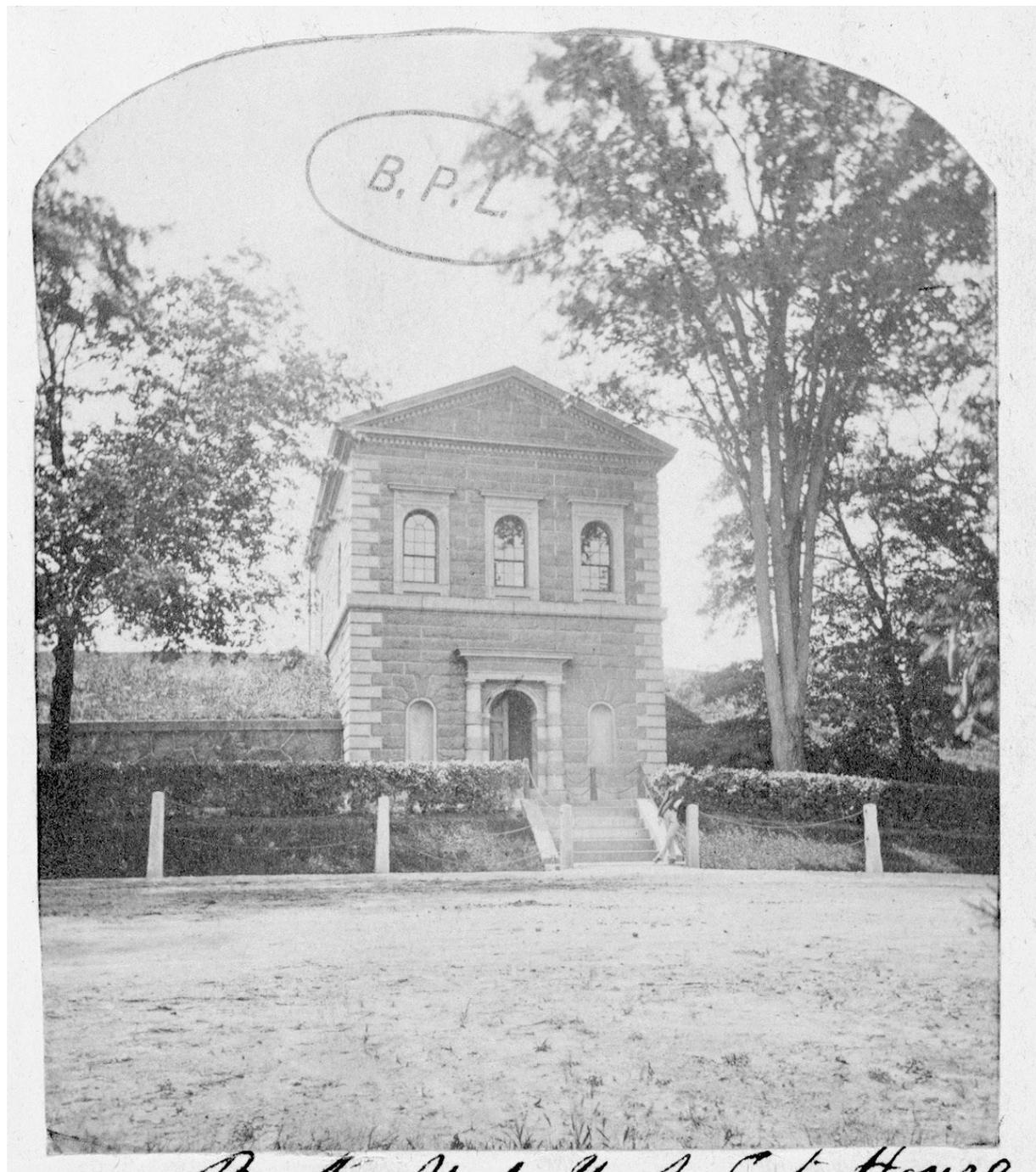
1945 — Proposal for \$500,000 War Memorial recreation center in Reservoir Park.

1952-1960s — Sportsmen's [fishing] Club occupies gatehouse (sign over door)

1970s-90s — ongoing interior gutter leakage, 1926 floor collapses, ceiling & wall plaster lost



In 2009 the collapsing wooden 1944 emergency pumping station and its brick electrical transformer building were removed, restoring to the gatehouse its original setting.



B. P. L.

B. P. L. - U. S. Capitol