Thirty-eighth Annual Convention

JAN 21 1916

OF THE

Catholic Total Abstinence Union of the Diocese of Springfield



Held at Clinton, Massachusetts, October tenth and eleventh, nineteen hundred and twelve

> COMPLIMENTS OF ST. JOHN'S T, A. & M. A. SOCIETY

ITEMS OF INTEREST

HE WACHUSETT DAM, which stems the south branch of the Nashua River, is located in Clinton, in the central part of Massachusetts. Preliminary work for determining the site of the structure began in August, 1895.

Temporary and preliminary work connected with the construction of the Dam began in June, 1897, and the main contract was made October, 1900, and the structure was completed February 27, 1906.

The excavation of 274,087 cubic yards of earth and 102,640 cubic yards of rock was necessary to prepare for the laying of the 274,439 cubic yards of masonry, which required 264,420 barrels, or 1322 carloads of cement.

The main Dam is 971 feet long including terminal structure, the waste weir is 452 feet in length, and extending east is a core wall 53 feet long. From the lowest stone to the top of the cornice stones is 248.2 feet. The extreme thickness is 185 feet, which decreases to 25.04 feet at the high water line. The minimum thickness is 22.20 feet and the top 20 feet above the high water line is 25.75 feet. The masonry showing above the ground, from the downstream side, is 115 feet high.

The bronze railing on the top of the Dam cost \$4,100. The total cost of the Dam is nearly \$2,500,000. The Gate and Power House is 104 feet long, 74 feet wide, and 59 feet high, and cost \$72,937.

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Extending from each end of the Dam to the level of the valley are flights of steps. The east flight has 187, and the west 177 steps.

The water from the Wachusett Reservoir supplies Boston and eighteen cities and towns within ten miles of the State House which compose the Metropolitan Water District.

The population of the District is 960,460. When filled the Reservoir will hold 64,951,400,000 gallons, and flood 6.44 square miles, or 4,123 acres. The shore line is 38.66miles in length, the extreme width 2.05 miles, the greatest depth 129 feet, the length $8\frac{1}{2}$ miles, and the average depth 46 feet.

The length of highways flooded is 19¼ miles, of railroad 6.56 miles. The area of watershed is 118.23 square miles.

The stripping and removing of 6,900,000 cubic yards of earth and buildings from the basin cost \$3.414,837, and the real estate cost \$2,834,485, a total of \$6,249, 322.

In West Boylston 350 buildings were torn down and removed, in Boylston 108, Sterling 7, Clinton 45, a total of 510, occupied by nearly 2,000 people. In the area flooded were 6 large manufacturing plants, 8 school houses and 4 churches, and 2 cemeteries. Where West Boylston Common was, with its adjoining churches, hotel, depot, G. A. R. Hall and other buildings, there is now a depth of 45 feet of water.

Two dikes were necessary: the North Dike of 11,100 feet, or over two miles, and the South Dike of 2,925 feet.

To relocate the Massachusetts Central Railroad, a tunnel, 1133 feet between portals, was driven. A steel bridge 921 feet in length, 133 feet above the river bed and 112 feet above the water, was constructed across the valley, and a rock cut on the west side of the river. The contract price for the bridge was \$90,803.

To relocate the railroad cost \$821,700, nearly nine miles of track being laid.

The Wachusett Aqueduct takes water from the Dam to the Sudbury Reservoir in Southboro, twelve miles away.

A carriage could be driven without difficulty through the aqueduct, which has a capacity of 300,000,000 gallons a day.

Two miles of the aqueduct is rock tunnel, seven miles masonry covered with earth, and three miles open channel.