

this end consulted James Slade, Esquire, City Engineer of Boston. In 1856, Mr. Slade had new surveys made between the City and Loch Lomond, *via* Lake Douglas, by T. W. Davis, C. E., the present accomplished City Surveyor of Boston, Mass., and the lakes and routes leading thereto examined by H. S. McKean, Esquire, an Hydraulic Engineer of much erudition and experience. The report submitted by Mr. McKean, and endorsed by Mr. Slade, discussed very fully most of the questions involved in the contemplated supply for Town and City, and sustained the advice given in relation to the laying of a 24 inch pipe between the Abodican and Little River Reservoir.

As soon as this report was received, steps were immediately taken for the speedy execution of the work, and by the fall of 1857 the new main was placed, and the daily supply increased from about 550,000 to upwards of 5,000,000 imperial gallons, and the water was turned on to Portland, for the first time, on the 10th day of November, 1857, but at this date the mains did not extend beyond "Orange corner."

By the laying of this main the summit supply was immediately restored, so far as it could be, from Little River, and continued satisfactory for a good while after. But as the Works were extended and the consumption increased, the pressure began again to weaken and the supply to fail, until in 1870 and 1871, it had all but ceased in the vicinity of Block-house hill and similar summits. It was partly to remedy this evil that the

#### SECOND 24 INCH MAIN

was laid in 1873, and partly with a view to *duplicate* the pipes leading to the City, so that, in case of an accident happening to either, requiring the water to be shut off for a longer or shorter period, the City would not be wholly deprived of water.

From the last point of view alone, this extension was of immense importance, and has often proved of great value since, when flushings or repairs had to be made on either of the large mains, as they could be done more leisurely and thoroughly, and without practical inconvenience to any one, excepting consumers on the very summits of Saint John and Portland.

#### LEADING MAINS.

The water is now brought to the City by three (3) cast iron pipes, one of which is 12 inches in diameter and two (2) of 24 inches