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The Romance of Lynchburg's Municipal Water Supply

By **RICHARD F. WAGNER**

[Editor's Note:—During Mr. Wagner's term of office, Lynchburg's historical water system has been developing another of its engrossing chapters, and his direction of the department's affairs through those momentous undertakings has been marked with a record for accomplishment that is impressive in its proportions. Because no one in Lynchburg knows the system better than he, an appeal was made to him to tell its story for the benefit of the men who made the pipe for the Pedlar replacement just completed. That he so generously responded to this additional demand on his already crowded time, emphasizes the depth of his interest in the work which has claimed his energies and talents since 1919.

After graduating from Virginia Military Institute in 1909, he pursued additional post graduate studies there through 1911. His engineering career began with the Virginia State Highway Commission and was continued in Panama Canal Work from 1912 to 1915. During the war he saw service in the Navy Department, after which he settled in Lynchburg. By experience, knowledge, character and ability he is representative of the highest type of city official and it is a fact worthy of comment that the affairs of so important a division of the municipal government are in such capable hands.]

The City of Lynchburg had its birth as a township in 1805, when it was incorporated. During the next twenty-five years the town grew to such an extent that the corporate limits were extended five different times. By 1843 the population had grown to 6,000 and it contained beside the ordinary public buildings and places of public worship, eight tobacco warehouses, four flour mills, one paper mill, one carding machine, three cotton and woolen factories, five dry goods stores four book stores and upwards of twenty grocery stores.

The inhabitants at that time secured their water supply individually from wells or springs, though some houses had water piped through bored wood logs from distant springs. A short section of this primitive pipe, which was unearthed recently in Church Street may be seen in the Museum in the City Hall. By 1828, however, the community spirit had grown to such an extent that the procuring of a central supply was broached and during 1829 water from the James River was made available under pressure in homes and places of business by the installation of a pump driven by water power. This pump was located at the foot of Orange Street and delivered James River water through a 7" cast iron pipe located in Seventh Street to a reservoir on Court Street occupying the site of the existing Court Street Methodist Church. It is of interest to note that an ancestor of Mr. John Victor, Mayor of the City from 1928 to 1934, was one of the prime movers in this public project and that John D. Murrell,

Esquire, loaned the City the \$50,000.00 necessary to defray the costs of the works.

By the year 1878, the growth of the City had reached Wise Street for which reason an additional reservoir, known as the College Hill Reservoir, was built. By this time, the original basin on Court Street had become obsolete, and during 1883 a much larger structure, the present Clay Street Reservoir was constructed.

James River, for the better part of a century, furnished the people an acceptable water. Though occasional rains would detract from its physical appearance owing to surface wash from cultivated lands finding its way into the stream, the supply was free from pollution. During the nineties, however, manufacturing plants were located above the City's intake. Industrial wastes from such plants were discharged into the river as the shortest and most economical method of disposal, imparting an objectionable, dark color to



PEDLAR DAM

the supply. This factor, coupled with the growth of the Rivermont section, the sewage of which was piped to the river, prompted forward looking citizens to seek another supply, more attractive physically and free from pollution.

Surveys undertaken toward this end, showed that Pedlar River in Amherst County furnished a flow which would satisfy the demands of the City for many decades. An excellent site was found for a Dam and Reservoir, the elevation being sufficiently high to deliver water in the City by gravity. As is usually the case in questions of general public interest and some magnitude considerable opposition developed towards this project, estimated to cost approximately \$700,000.00.

Its merits, however, were so ably presented that a bond issue for such amount was passed in a general election held for that purpose in 1904. Construction operations, consisting of the installation of a composite wood, steel and cast iron pipe line 30" in diameter, 21 miles long, and the construction of a concrete Dam 40 feet high and 415 feet long, consumed the better part of three years, water from the new source being delivered in the City in September 1907. This supply was more or less satisfactory, both as to quality and quantity. There occurred periods, however, following heavy rainfall when the water would become unsightly and discolored. Finally, public sentiment, becoming more critical, demanded a water which would be beyond criticism at all times. By 1917 this sentiment had reached such proportions that City Council voted the funds necessary for the construction of a modern water Filtration Plant. Such a plant was completed and placed in operation during May 1919.

The Pedlar Supply, both unfiltered and filtered was a great benefit for the people of this City, as illustrated by the following figures: The typhoid fever annual death rate from James River water during the period immediately preceding the inauguration of the Pedlar Supply was 75 per 100,000 of population; while the City used unfiltered Pedlar Water, the death



PEDLAR LAKE

rate over a ten year period was 25 per 100,000, and since filtered Pedlar Water has been supplied such rate has dropped to 5 per 100,000 population.

About the year 1920, it became apparent that some sections of the wood pipe would in the near future require replacement because of rapid decay. This was particularly evident in a four mile portion near the

Dam where the soil traversed consisted largely of shale rock. For this reason, the City in 1921 began to set aside from current earnings of the Water Department, for future replacements, if and when necessary, the sum of \$15,000.00 annually.

Replacement of the original wood conduit between 1927 and 1933 aggregated 11,590 feet. Beginning in the early spring of 1934 an additional section of wood pipe, 48,000 feet long was replaced with 36" Cast Iron pipe. Upon the completion of this job which was financed under a Loan and Grant Agreement by the Federal Emergency Administration of Public Works, all of the Pedlar Supply Conduit lying north of the James river will be cast iron pipe. All of this pipe was manufactured

by the Lynchburg Foundry Company at their Radford, Va., plant, and inspected by the Pittsburgh Testing Laboratory at the manufacturing site. Everyone qualified to speak with authority on this subject, has expressed himself very favorably as to the splendid characteristics of this Foundry product, which promises to render service of outstanding value to the community for many decades in the future.

In addition to the Pedlar Conduit, the City's water

Lynchburg's water system enjoys both a national and an international distinction. According to a recent survey it has still in service "the second oldest existing cast-iron water main in America." This is a 7-inch main in Seventh Street, which was uncovered for inspection in 1931, after continuing its service for 102 years. From July 18, 1829, until 1882 it was used as a pumping main. It was then replaced by a 12-inch cast iron main and has since that change been a part of the distribution system.

Philadelphia's record of a main with 112 years service alone tops the Lynchburg count of 105 years to date. Richmond wins third place with her cast iron main that is still in use after 103 years, and New York follows with a veteran laid 101 years ago.

This same authority (The Cast Iron Pipe Research Association) credits Lynchburg also with "what is probably the world's first high pressure water line installation." Contemporary writers of a hundred years ago likewise point out that fact which has apparently had no challenge. The waterworks completed in 1828 lifted water to a reservoir 240 feet above the level of the river. So far as is known to those who have investigated, this feat had never before been accomplished.

distribution system includes eighty miles of cast iron pipe, most of which was cast in local pipe foundries.

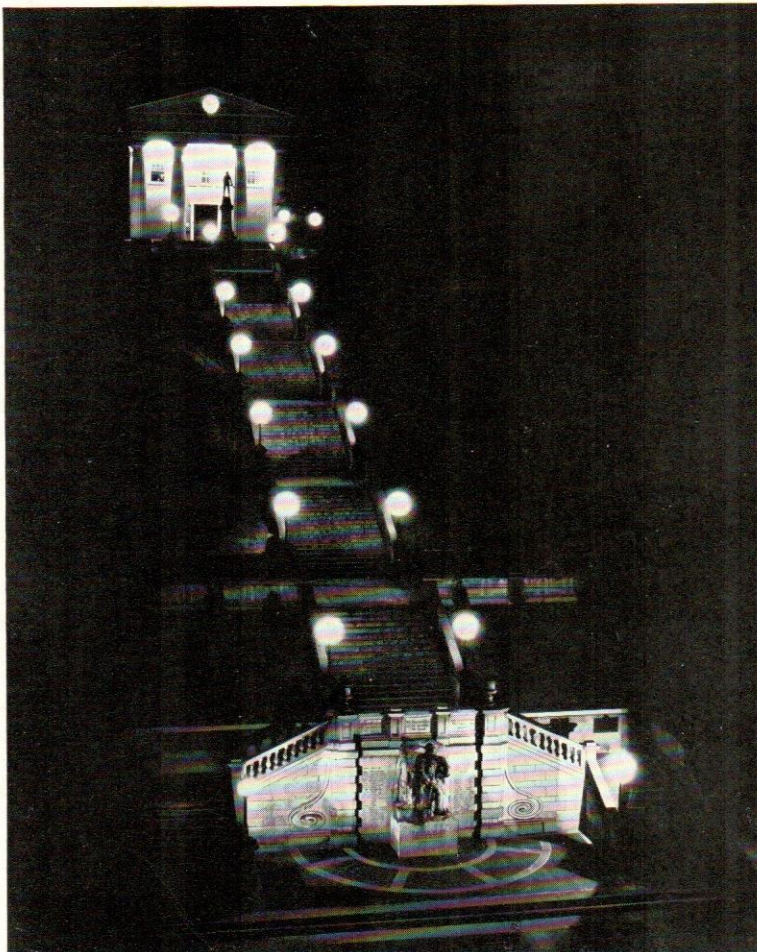
The City's water plant represents an investment of approximately three million dollars. Though over one hundred years old, every effort has been made to keep the works abreast of the times, the main object being to furnish the people a dependable, attractive, wholesome and ample supply of water.



SECTION OF OLD WOOD STAVE CONDUIT

(Interesting in connection with the foregoing is the following historic legislation enacted with regard to the famed water works sponsored by John Victor and Bishop John Early.

Act of Virginia General Assembly, February 13, 1839. Be it enacted, "That the President and Directors of the James River Company and their agents, be, and are hereby authorized and required, to permit the Common Council of the town of Lynchburg to transport, toll free, along the waters of James River and the Canal of the lower section, the cast-iron pipes, machinery and other materials to be used in the construction of the Lynchburg water works; and that any tolls already paid for the transportation thereof be refunded to the Common Council aforesaid on the warrant of the Second Auditor out of any monies of the James River Company arising from tolls. **Provided** that the same does not exceed the amount of tolls on the transportation of one hundred and fifty tons."



Lynchburg's Court House and Ninth Street Steps at night. Where the War Memorial now stands Was the Location of the Town's First Reservoir, A Large Wooden Tank, Twelve Feet Square and Ten Feet Deep.