

NASHVILLE
AND
HER TRADE

FOR
1870.

A WORK CONTAINING INFORMATION VALUABLE ALIKE TO MERCHANTS,
MANUFACTURERS, MECHANICS, EMIGRANTS AND CAPITALISTS, WITH
REFERENCE TO THE PRESENT DEVELOPMENT, AND ADVANTAGES
OF ALL BRANCHES OF BUSINESS IN NASHVILLE. ALSO
NOTES REGARDING THE POPULATION, GEOGRAPHICAL
POSITION, CLIMATE, WATER AND SANITARY CON-
DITION OF THE CITY, TOGETHER WITH FULL
DESCRIPTIONS OF ALL ITS PUBLIC BUILD-
INGS, CHURCHES, SCHOOLS, OBJECTS
OF INTEREST, ETC., ETC.

BY
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City Water Works.

Quoting from an article published some years back, regarding the City Water Works, we find, that "Nashville was located on its present rocky site solely on account of water privileges. The founders of the City could have made a town where South Nashville now is, much easier and with less expense, with smoother streets and more level avenues, had it not been for Judge McNairy's Spring on the north, (now known as Judge's Spring,) Wilson's Spring, in Barrow's Grove, (now in the heart of the City,) and the (then) fine spring at the foot of Spring Street, on the bank of the river. Thousands upon thousands of dollars have been expended on these rocky and uneven streets, which might have been avoided, had it not been for these water facilities. In fact, in the early days of the city, it was an exceedingly doubtful problem whether a city could be made on the spot designated to commemorate the name and fame of the brave General Nash. It was for years 'nip and tuck' between Palmyra, Haysboro, and Nashville, as to which should take precedence in the race for 'city' honors. Finally, the latter prevailed, and the two former have been comparatively forgotten. As the town increased, the public interests required water in a more convenient manner than by sending to either of the springs for it. Temporary and simple water works were resorted to, but soon abandoned, as not being adequate to supply the public demand. In the course of time, the present site of the Water Works was chosen, and the City commenced in earnest to erect a reservoir, secure a steam engine, etc. The undertaking was a magnificent project, worthy of the liberal hearts of those who urged its erection, and of those into whose hands the destinies of the City were for the time entrusted. The reservoir was built, if we are not mistaken, by William Shields, under the direction and management of A. Stein, Engineer."

The Water Works were completed in the Autumn of 1833; and, in anticipation of the event, John M. Bass, Esq., then an Alderman, introduced the following preamble and resolution, which were adopted by the Mayor and Aldermen, to-wit:

"WHEREAS, The introduction of water into the town is an object of great interest and importance to all its citizens, and should be accompanied with some public parade; therefore,

Resolved, That the Watering Committee be authorized and requested to invite the citizens, and strangers now in town, to be present at the Water Works at such time as the Engineer may notify said

committee of his readiness to put said works in operation; and that said committee procure the use of the cannon, and take such other steps as to them may seem fit and suitable to so great an occasion."

In accordance with the above resolution, the inauguration of the Water Works took place on the last day of September, or first day of October, 1833, and great was the rejoicing of the people. The cannon was fired, music obtained, and a procession formed, composed of hundreds of citizens, a large number of ladies, the members of the Legislature then about to assemble, strangers, etc. It was a jubilee. And from that day to this, the Water Works have not ceased to do good service, and were then, as now, one of the most important public improvements in the City.

The cost of the Water Works was reported to be, for ground, superintendence, engine, etc., about \$55,000. In the City Council, John M. Hill, Esq., was Chairman of what was then styled the "Watering Committee," and he devoted much of his time and energy to the important trust. The first public debt incurred by the City was for the Water Works. The laying down of the pipe was an expensive operation, especially in such a rocky city—averaging, perhaps, about \$4 per foot.

The reservoir is situated, according to Mr. Stein's report, 5,800 feet from the Public Square, and stands on an elevated bluff of the river, south-east of the city. Such was the Water Works some years back. In 1860, they were greatly enlarged and remodeled. At present, the pumping apparatus is worked by the puissant efforts of two huge steam engines—one of two hundred and fifty horse power, and the other of one hundred horse power. The former was built in 1854, by the "Nashville Manufacturing Company," whose establishment, at the foot of Broad street, was destroyed by fire a few years since; and is said to be the largest and most powerful engine in the State. The height of the reservoir above low water line, including pump house, etc., is one hundred and eighty feet. The reservoir is constructed with three apartments, divided by transverse walls, and is so built that one can be cleaned out while the others are in use. Forced from the Cumberland River through huge pipes, which run almost perpendicularly up the bluff, the water is turned into a forbay 176 by 180 feet large, and fifteen feet deep, and capable of holding 2,287,400 gallons, and which can be filled in twenty-four hours. From the forebay it descends to numerous conduits, averaging from three to eighteen inches in diameter, through which it distributes and forces its way in unlimited quantities, in almost all parts of the

city. The length of the main or service pipe which runs through the middle of the streets, alone, is approximated at *twenty-five miles*, while the length of the connecting pipe running into buildings, yards, etc., is unascertainable, since there are some 2,800 buildings in the city supplied with water from the reservoir, whose daily consumption throughout the year, will amount to *more than a million of gallons*, or *nearly four hundred millions of gallons annually*; which is about one-third more than was used ten years ago—showing a very handsome increase in population. The highest point in the city to which water is thrown from the reservoir is to the plug located at Mr. Robert Lusk's corner, at the junction of Vine and Union streets—it being, by actual survey, only thirty inches below the height of the reservoir. The cost of the Water Works, including reservoir, pipes, machinery and service, up to the present time, will not fall far short of one million dollars. This includes some \$45,000 worth of improvements that were added during last year.

As to the revenue derived by the City from its conduct, until quite recently, it has been all the time below the cost of furnishing a supply. If pipes were laid throughout the whole city, the tax would be of handsome proportions. It was furnished to so few the first year or two, that the revenue received was only about \$1,500 per annum; and even up to 1860-61, it amounted to only \$25,000, while to-day, with hundreds of manufactories in operation, and thousands of buildings supplied, its returns will not fall far short of \$60,000 per annum.

The force employed in running the Water Works is as follows: Superintendent, Jas. Wyatt; First Engineer, Wm. Wyatt; Second Engineer, Wm. Slinkard; six firemen, and five men engaged in laying pipe, repairing, etc.

The annual cost of conducting the works is as follows:

For salaries, per month, \$830.....	\$9,960	per annum.
For fuel, per day, \$25.....	9,125	“ “
Total,.....	\$19,085	“ “

To this, however, must be added “wear and tear” of machinery, cost of laying new pipes, repairing, etc.

Viewed from any direction, this vast public work, so grand in its design, so vast in its workings, is one of the greatest triumphs of art and effort in the improvement of society, for which this city is distinguished. It exhibits the people of a great city seizing a river of pure water, which comes rolling down in floods from the mountains, and

bringing a large portion of its volume through almost immeasurable aqueducts, into streets and houses miles away, for the promotion of health and comfort. Nowhere else in the United States, perhaps, is there a city of Nashville's size, more rolling and diversified in its topography; and unlimited credit and praise is due the enterprise and sagacity of the noble minds that conceived and carried out a project so beneficial and laudable. But, with all this truthfully said, the elevation of the reservoir is fast becoming inadequate to the wants of upper stories of houses, and of elevated portions of the city; and before no very distant day, will have to be remodeled and considerably extended.

City Gas Works.

During the session of the Legislature of 1849-50, a charter was obtained for the incorporation of the "Nashville Gas Light Company with a capital of one hundred thousand dollars—which was to be increased to five hundred thousand dollars—in the discretion of the stockholders, and as the wants of the City might require." The original incorporators were Messrs. Washington Barrow, John Kirkman, Samuel R. Anderson, N. E. Alloway and W. T. Berry, not one of whom, strange to say, is connected with the company at the present time. The charter was passed November 21st, 1849, but the public-spirited citizens in charge of the affair were confident that its passage was a certainty, and commenced the erection of the works in the Summer preceding, and on February 11th, 1851, made their first Gas, being in less than three months after the charter was granted.

The original cost of the works was \$100,000, but they have since that time built addition after addition, until the present valuation is very moderately estimated at \$350,000. Of this fully \$100,000 is laid in pipes, and is unconsciously walked over by our citizens every day. They commenced business under very unfavorable circumstances, many of our most intelligent citizens doubting the propriety of such an undertaking; and, although its accomplishment was secured without any liability on the part of the City, they shrunk from what was considered a novel and unsafe means of furnishing artificial light. Now, happily, all these apprehensions have yielded to an enlarged experience; and we question whether there are many members of this community willing to abandon an institution that so far has worked so well and added so much to the material progress of the City. Beginning with only about one hundred applications from cit-