

Charleston's Water Supply.

For more than sixty years the problem of a supply of pure water for the city has been the subject of anxious thought and much discussion. From the first settlement of the city the only available sources of supply had been the cisterns, in which rain water was stored, and the shallow wells reaching to the first underlying stratum of water-bearing sand, generally from eight to twelve feet below the surface. The water from the latter however was very hard, and became very impure, being contaminated by the filtering through the superincumbent soil of all ^{the} moisture from the many cess-pools of the city.

The only feasible plan seemed to be the bringing of water from the Edisto river, but as it was found that the expense of conducting the water a distance of at least forty miles would involve the outlay of millions of dollars, while the quality of the water thus obtained would in all probability prove to be impure from the decaying

vegetation of the river swamps, that idea was abandoned. Various attempts to solve the problem by the boring of deep wells were made between the years 1820 and 1840, but all of them resulted in failure.

In 1848 work was commenced upon an artesian well at the corner of Meeting and Wentworth streets, which was continued, with intervals of suspension, until 1867, when further work was finally discontinued, the result being two wells, one 1230 feet deep, and the other 1260 feet deep, both together discharging about thirty or forty thousand gallons per diem.

In 1876 the City Council began the boring of another well on the Citadel (now Marion) Square, and in 1879 work was suspended, leaving a well 1970 feet in depth, with a bore at the bottom of $2\frac{1}{16}$ inches, which continues to flow at the rate of about 300,000 gallons daily.

In January 1880, a contract was

entered into between the City Council and the City of Charleston Water Works Company, by which the company agreed to lay water pipes over the city, utilizing the water from the Marion Square well, and also to sink another and larger well without delay. On the 15th of April 1881, the water company started work upon a new well upon their lot in George street, upon which it had already erected a reservoir of 3,300,000 gallons capacity, and a stand-pipe ninety feet high by eighteen feet in diameter, besides powerful pumping machinery, capable of pumping four million gallons of water daily. Difficulties were met with in the boring of this well, as with all others which had been undertaken through the soil underlying Charleston, but by October, 1884, it was regarded as completed, the depth of 1950 feet having been reached, the diameter of the bore at the bottom being $3\frac{1}{4}$ inches, and the flow about 400,000 gallons per day.

The small size of the bore of these

two deep wells was due to the necessity of frequently reducing the size of the tubing as the many beds of water-bearing sand were encountered, hence the water company immediately began preparations to bore a third deep well, and in January, 1885, a contract was signed with a Mr. Pierce of New York, an experienced deep-well contractor. After working upon the well for a year, Mr. Pierce abandoned his contract, leaving a hole 475 feet deep, with a diameter of ten inches. Not being daunted by the throwing up of his contract by Mr. Pierce, the water company entered without delay into another contract with the experienced firm of Wm. H. Gray & Co., of Chicago, Ill., and work was resumed by them upon this well in the spring of 1886, and has been continued without interruption, save from occasional unavoidable delays in procuring the necessary tools or tubing, and is still being prosecuted by them, a depth of nearly fourteen hundred feet having now been reached. It is hoped that this well will

be finished before the expiration of another year, and that the water supply will then be adequate for all the demands of the city.

The syndicate of Charleston capitalists who control the water works have united themselves together under the name of "The Carolina Construction Company," and are the parties to the contract for this third well. They are also engaged in the construction of a large reservoir, capable of impounding at least ten million gallons of water, which will be completed within the next few months. This reservoir is situated at the site of the last named well, namely, on the lot in the upper wards, bounded by America, Cooper, Lee and Hammer streets, and will be connected by a line of pipe with the reservoir in George street, whence the water from all the wells will be pumped into the stand-pipe for distribution by gravity throughout the city.

There are now 19.31 miles of water mains laid in the city, upon which there are placed 300 fire hydrants, so the greater

part of the city is amply protected from fire; but under the contract with the City Council the water company is to lay in all thirty miles of street mains. This will be done as soon as an adequate supply of water has been secured. We feel assured that "The City of Charleston Water Works Company," and its adjunct, "The Carolina Construction Company," will not relax their efforts until an abundant supply of pure water is obtained, and the entire city is covered with a network of water mains.

The officers of these companies are, Andrew Simonds, President, and Zimmerman Davis, Secretary and Treasurer.

Must be submitted
to Capt Dawson
for approval -
also better send
proof sheet to me
for supervision -

Zimmerman Jan
Aug 30 '88