

A HISTORY
OF THE
CITY GOVERNMENT
OF
Savannah, Ga.,
FROM
1790 to 1901.

Compiled from Official Records by

THOMAS GAMBLE, Jr.,

Secretary to the Mayor,

Under Direction of the City Council,

1900.

pervisor. A special committee on house drainage, of which Alderman D. R. Thomas was made chairman and has continued such, was appointed, which has maintained a careful watch over the progress of the work. Engineer W. H. Chapman prepared a report of the work done in 1899, which is published in the Mayor's report for that year, pages 366-75, and Alderman D. R. Thomas prepared a report of the operations in 1900, published in the Mayor's report for this year. From this latter statement it appears that at the close of 1900 the system had been completed east of Bull street from Bay to Thirty-seventh street; west of Bull street from Anderson to Thirty-eighth street, extending west to West Broad street, Burroughs street and Ogeechee Road; Barnard street from Bolton lane to Henry lane, extending east to Bull and Whitaker streets, and west to Jefferson and West Broad streets.

Lateral connections were made to the western outlet at Indian and West Broad streets, Orange and Farm streets, Zubly and Farm streets, Margaret and Farm streets.

The cost of the system has been:

| | |
|--|--------------|
| Amount paid out in year 1897..... | \$ 4,034 99 |
| Amount paid out in year 1898..... | 9,322 55 |
| Amount paid out in year 1899..... | 73,734 71 |
| Amount paid out in year 1900..... | 102,325 26 |
| | <hr/> |
| Total expenditures to date..... | \$189,417 51 |
| Appropriation to complete gravity system..... | 55,000 00 |
| | <hr/> |
| Actual estimated cost of gravity system..... | \$244,417 51 |
| Estimated cost sections in Collinsville and west Farm street, including pumping stations | 30,000 00 |
| | <hr/> |
| Estimated cost of completed system..... | \$274,417 51 |

One of the greatest factors in the improvement of the health of the city was the introduction of artesian water to the exclusion both of river and well water. In September, 1885, Alderman D. R. Thomas presented a resolution to supply the district west of West Broad and east of East Broad with artesian water. The joint committee on health and water to which it was referred reported September 23 stating that it was possible the entire city could be supplied with artesian water through the regular water mains by means of one or more artesian wells sunk near the waterworks. The committee, of which Alderman Duncan was chairman, recommended that the committee on water be authorized to bore an artesian well in the vicinity of the waterworks as an experiment. Permission was given to the water committee to do so, but it was revoked in December.

The pump or well water used by a large number of residents was badly contaminated by seepage from vaults, and Health Officer McFarland, in his report for 1885, urgently recommended that Council endeavor to substitute artesian well water. Forming his opinion from the results of the different borings for artesian water in the city and vicinity, he held that this would not be an experiment. During 1885 three borings had been made for artesian water in the city and three upon Tybee island. In each instance the boring had been easy and had resulted satisfactorily, the depth of the wells in the city being 700, 302 and 300 feet, and that of those at Tybee being 300. 242 and 240 feet, the water obtained from them being most excellent, as shown by analysis.

The agitation of the question continued in and out of Council. Finally on June 30, 1886, the committee on water was instructed to purchase boring apparatus and bore a well in Greene square. This well was sunk 400 feet. On September 8 the committee was authorized to sink a 10-inch artesian well on the waterworks site, being part of a proposed system to supply the city with artesian water through the existing water mains. Samples of the water obtained were sent to the United States Geographical Survey and Prof. Chandler of New York. The reports were satisfactory, the latter's analysis being as follows:

| NUMBER OF GRAINS IN A UNITED STATES GALLON OF 231 CUBIC INCHES. | |
|---|---------|
| Chlorine of Chlorides..... | 0.6192 |
| Equivalent to Sodium Chlorides..... | 1.0218 |
| Phosphates | Trace. |
| Nitrates | None. |
| Nitrogen of Nitrates..... | 6.0283 |
| Free Ammonia..... | None. |
| Albuminoid Ammonia..... | 0.0017 |
| Hardness equivalent to Carbonate of Lime before boiling..... | 4.0463 |
| Hardness equivalent to Carbonate of Lime after boiling | 1.7804 |
| Soda | 0.7987 |
| Potassia | 0.1252 |
| Lime..... | 2.0344 |
| Magnesia..... | 0.7093 |
| Oxide of Iron and Alumina..... | 0.0233 |
| Silica..... | 2.1929 |
| Sulphuric Acid..... | 0.5160 |
| Equivalent to Sulphate of Iron..... | 0.8772 |
| Organic and Volatile Matter..... | 0.5832 |
| Mineral Matter..... | 12.8299 |
| Total Solids at 110 degrees centigrade..... | 13.4131 |

Biological analysis. 227 colonies in one cubic centimeter.

Appearance in 2 foot tube, clear and colorless.

Odor, none.

Taste, none.

Mayor Lester in his report for 1886, said: "It has been determined by Council to supply the city, if possible, with artesian water. Machinery and apparatus have been purchased for boring the wells, one has been sunk in Greene square for the purpose of supplying that locality, and the result appears to be satisfactory. A number of wells will be sunk at the site of the waterworks and from there water will be supplied through the mains of the waterworks in place of river water. Two wells have been finished there, one 2-inch and one 6-inch and a 10-inch well is nearly completed. The results from the wells now flowing seem to justify the belief that two more 10-inch wells in addition to the one under way will yield an ample supply of water."

7 On September 21, 1887, the committee on water was instructed to have two more wells drilled, not to cost over \$1,200. At the close of the year Mayor Lester was able to say that the supply had been entirely changed from the river to artesian water. At this time there had been completed fifteen artesian wells, two 10-inch, twelve 6-inch, and one 4-inch. In 1888 part of the old waterworks tract was sold to Hammond, Hull & Co., at \$900 an acre. Eight years before this, under a resolution of Council adopted May 12, 1880, part of the wharf property of the first waterworks tract west of the Ogeechee canal was sold at public outcry to the Central railroad on which to erect a grain elevator.

The supply from the wells did not prove sufficient. In 1888 and 1889 eight new wells, making twenty-three at the works, were bored. Then it was decided (1890) to deepen the wells to 1,000 feet, as they were too shallow to meet the demands upon them. The resulting increase in the flow of water was trifling and the plan was abandoned. The wells not giving an adequate supply of water it was found necessary to again resort to the river, leading to general complaints. The large pump was taken down this year and given a thorough overhauling.

The first step toward a new waterworks, the third for Savannah, was on May 15, 1889, when Alderman Myers introduced a resolution instructing the committee on finance to see if sufficient funds could be made available in 1889 and 1890 for this purpose, and if so authorizing the committee on water to select a site for a new pumping station and stand-pipe, to bore such number of artesian wells as might be necessary, and also to get estimates for new mains, pumps, boilers, etc. Here the matter rested until March 5, 1890, when the committee on water was requested to lay before Council on March 19 an

estimate of the cost of a ten-million gallon per day pump, locating the present small pump with a necessary building upon the site of the new artesian well on the Springfield plantation, mains of proper size to connect such new works with the existing system, and a stand-pipe of sufficient size to give at least 40 pounds pressure.

The committee reported that the pump would cost \$62,000. As ten million gallons was not sufficient capacity, it recommended a fifteen-million gallon pump, costing \$75,000. Its erection at the existing works would necessitate laying a new 42-inch forcing main from the works to the city, costing \$12 per foot laid, or \$63,360, being probably 2 1-4 to 2 1-2 miles long. To erect pumps and belongings and connect with conduit and reservoir would require a new engine and boiler house, etc. The building in use was held to be totally unfit for the purpose in many respects. To locate the small pump at the new artesian well on Springfield plantation would require another well like that one, 1,000 feet deep and costing \$5,000; two sets of boilers costing \$6,000, one surface condenser and circulating pump at a probable cost of \$3,000, at least a 20-inch forcing main to reach far enough across the city to distribute this body of water in the regular system of mains, requiring 3,700 feet of 20-inch main to connect with the 12-inch pipe on Whitaker street, and then 1,100 feet of 16-inch pipe to reach and connect with the 16-inch pipe in Abercorn street, making a total of 4,800 feet of forcing main, costing \$18,000. The proposed change, the committee said, would cost in the aggregate \$40,000; too much, it held, to expend on what was to be only a temporary measure. As to a standpipe, it recommended the erection of one with a holding capacity of one-half million gallons and of sufficient height to at all times afford a gravity pressure of from 60 to 70 pounds per square inch. This would enable the fire department at ordinary fires to dispense with the necessity of calling out the steam engine. The approximate cost of such a standpipe it placed at \$45,000.

In view of the fact that the demand for a better supply of water was daily increasing and the present pumping machinery was already performing an amount of labor in excess of that for which it was designed, and believing the water question one of paramount importance, the committee, of which Alderman McDonough was chairman, recommended that plans and specifications be made at once and the work be promptly and vigorously prosecuted of erecting a first-class pumping plant and station on the site of the new well on the Springfield plantation, with a 42-inch or 48-inch forcing main running east on Gwinnett street to the park extension, thence to discharge into a proper standpipe located south of the Confederate monument. To carry out the provisions of this recommendation it held would consume no more time than would be required to make permanent and satisfactory improvements in the present wells.

On May 14, 1890, the committee on water, composed of Aldermen J. J. McDonough, R. B. Harris, George N. Nichols and J. A. G. Carson, recommended that as soon as the proper and necessary surveys then being made were completed agreeable to the recommendations of Engineer T. T. Johnston, a cistern be sunk at the waterworks and a conduit leading to the cistern be constructed at such a depth that the well conduit after having been cut off would deliver the water from the wells through lateral pipes into the cistern, from whence the pumps would draw the water and force it into the city. This conduit to be built in such a manner as to form part of a permanent plant to be extended at once by the most advantageous route to the site of the new artesian well on the Springfield plantation, near the corner of Cemetery and Gwinnett streets. The committee also recommended that new works be built upon this site and that at least two fifteen-million gallon pumps of the latest approved pattern, with all the necessary connections and attachments, be erected at these works, and that the work proceed with the least possible delay. The committee also asked to be empowered to call for bids and make the necessary contracts for carrying out the work recommended and to retain the services of the expert engineer as an adviser.

The question of issuing bonds having arisen, City Attorney Adams gave it as his opinion that it was not possible to issue waterworks bonds, as under the State Constitution the City's indebtedness could not exceed seven per cent. of the taxable property therein, and its debt was already greatly in excess of that limit and had been at the time of the adoption of the constitution.

Resolutions by the committee of the whole were unanimously adopted on June 11 authorizing the boring of more wells on the Springfield plantation, having them connected with earthen or iron pipes to a cistern, which the water committee was also authorized to construct, and to contract for one fifteen-million gallon pumping engine, eight boilers, standpipe, forcing mains and all necessary connections. The committee was also requested to furnish the cost of water meters. In his report for 1890 Mayor McDonough said: "In consequence of the increasing demand for water in the city the twenty-three artesian wells in operation had for some time failed to yield an adequate supply and the deficiency was made up of river water, which gave general dissatisfaction," although the mixed water was analyzed by the Geological Department and declared wholesome. "To obviate this it was decided to sink some of the wells at the works to a depth of 1,000 feet, hoping by so doing to increase the flow. The increase in the quantity of water gained was so trifling compared with the expense of sinking them that this plan was abandoned. Several suggestions were offered and plans proposed to improve the water supply both in quantity and quality. Among others a plan was ad-

vanced by Civil Engineer T. T. Johnston, of Chicago, who was invited to come here and assist in settling the matter, he having had large experience in waterworks building and artesian well supply. Mr. Johnston came here and looked over the situation and his proposition was to erect an entire new plant on the Springfield plantation and build a brick conduit from the present works to the new plant, cut off the wells in use to increase the flow, bore more wells at intervals along the line of conduit and convey all the water from all the wells through such conduit to a cistern to be located near the new pump house, from whence the pump would draw and force it to a standpipe higher up in the city. Mr. Johnston, as chief engineer, had just completed at Memphis, Tenn., a system of waterworks upon this plan and said to be one of the best in the country. But after careful surveys and estimates made by Col. W. J. Winn, city engineer, this plan was considered somewhat too extensive and expensive. Finally at a special meeting of Council on June 11 it was decided to proceed at once to bore two or more 10-inch wells for immediate relief at the present works and as soon as these were finished and sufficient water obtained to warrant the river being shut off, a number of wells should be bored on Springfield plantation, to furnish water for a fifteen-million gallon engine, and it, with the necessary attachments and connections to be contracted for and erected with all possible dispatch. Accordingly on or about June 24 a contract was signed with James Mulligan, well borer of Savannah, to bore two or more 10-inch wells at the present (old) works, each of which he agreed to complete in about forty days. But on account of improper tools he was unable to finish the contract and abandoned it. It was then required of his sureties to complete it. They gave the contract to E. F. Joyce, of St. Augustine, Fla. One well was completed and connected with the system by December 29 and increased the supply of artesian water to such an extent that it was unnecessary to continue the use of river water any longer and the river connection was accordingly shut off the same day." Another well was then drilled, giving four 10-inch, twenty 6-inch and one 4-inch in 1891, a total of twenty-five.

The experiment of shooting or torpedoing the wells for the purpose of increasing the flow had also been tried. An agreement was made with Elisha Gregory, of New York, to do the work. He came on in July, 1890, and torpedoed three wells. It was done by sinking a tin case or shell charged with explosives to the bottom of the well where it was fired by means of a fuse. The result of the experiment was not sufficiently successful to warrant the further prosecution of the work.

In 1891 with twenty-five wells flowing more trouble was experienced. It was found from observations and measurements that the engines were drawing more water from the wells near the engine

house than from those at a distance and that additional wells would be of little service. The lack of water caused the engines to labor greatly and pound badly and fearing injury to the machinery it was found necessary to again resort to the river to meet requirements.

To return to the plans for new works, after carefully viewing the surroundings of the portion of the Springfield plantation on which one 12-inch artesian well had been bored and completed at a depth of 1,500 feet, objections were presented, and it was deemed inadvisable to build the new works and bore other wells at that point. That location was accordingly abandoned and a new site was selected on the west side of the Springfield plantation, at the intersection of Gwinnett street and Stiles avenue. Negotiations were opened with the owners of the land and lots 57, 58 and 59, lying north of Gwinnett street and east of Stiles avenue on the Springfield plantation and containing thirty-one acres, were secured by purchase from the Savannah Brick Manufacturing Company for \$17,050, eight and one-third acres of the tract purchased to be reserved as a site for waterworks and the remainder to be placed in the hands of a committee of Council to be disposed of to the best advantage.

On July 20 bids for furnishing engines were opened and that of the Holly Manufacturing Company of Lockport, N. Y., was regarded favorably by the committee. When the recommendation of the committee was brought before Council objection was raised to receiving the bid on the ground that it had been handed in after the hour named in the advertisement. The objection prevailed and new bids were called for and opened August 20, the Holly Company then securing the contract for two high duty pumping engines, each having a capacity of ten million gallons per day, for \$92,500.

Other bids were awarded later as follows:

E. F. Joyce of St. Augustine, to bore a number of 12-inch wells at \$4.50 a foot to a depth of 430 feet, and any greater depth at \$5 a foot.

John Rourke & Son, of Savannah, for constructing and furnishing necessary boilers, \$13,875.

Robertson & Weaver, of Baltimore, to construct water conduit of masonry or masonry and timber, having an internal depth of six feet and length of 3,000 feet, more or less, \$27,500.

Howard Harrison Iron Company, of Bessemer, Ala., cast iron water pipes, 42 and 36-inch, at \$21.75 a ton of 2,000 pounds, special castings at \$2.75 per 100 pounds.

Rensselaer Manufacturing Company, of Troy, N. Y., valve or water gates, \$4,800.

Palmer Hardware Company, of Savannah, pig lead, 60,000 pounds, at \$4.73 per 100 pounds.

Martin Cooley, of Savannah, laying water pipes, \$1.10 a foot for 42-inch pipe, and 85 cents for 36-inch pipe.

Drayage, John McGrath, of Savannah, \$1.25 a ton.

Trestle work for railroad track, J. H. Rosseau, of Atlanta, \$5,002.84.

Subwork of pumping station, W. F. Chaplin, of Savannah, for excavating, \$2,900; for chimney, \$7,460; for stone caps, \$1,134; brick masonry, per cubic yard, \$9.45; concrete, per cubic yard, \$7.25.

Seventeen months passed before the works were in readiness for operation. In his report for 1892 Mayor McDonough gave an interesting and succinct review of the construction of the new plant. He said:

"Experience at home and elsewhere gave encouragement to the idea that the city could expect a much enlarged supply of pure artesian water and engineering advice was sought in quarters where successful experience in this direction existed. Examination was made of the history, flow and pressure of all accessible wells in the vicinity of Savannah, with the result that a favorable opinion was obtained as to the judiciousness of undertaking improvements looking to an exclusively artesian supply. The conclusion was reached that a vast volume of water flows continuously under Savannah toward the ocean and from the uplands. This water is fed to the ground by the rains on the geological outcrops of the northwest, and being continuously fed as rainfall is continuous, the flow endures continuously and will do so as long as rain falls. The water supply problem could be solved if the flow could be intercepted at reasonable cost

"A suitable location for the interception of the flow was first sought, a public highway being desirable as giving a free and readily available location. Such a highway beginning at the old waterworks and extending southward along Stiles avenue existed. A line of wells may be distributed many miles along the highway. Present purposes, however, required the occupation of only a part of the highway. Considering the cost of a new water pipe, or force main, to convey the water to the city, it resulted that a location in that part of Stiles avenue nearest the center of demand would occasion less expense than any other location and yet yield all the advantages desired. The loss of the Springfield well and the temporary abandonment of all the old wells was fully considered in these computations. Accordingly the pump house location at Stiles avenue and Gwinnett street was decided upon.

"A line of wells, 300 feet apart, extending northward from Gwinnett street and on the side of Stiles avenue to the Louisville road, and thence to near the junction of this road with the Augusta road, was recommended with other things, as follows:

"(1) A brick conduit having six feet internal diameter on the opposite side of Stiles avenue, and a depth corresponding to the ocean level. The depth of the conduit was determined first by the consideration that the deeper the conduit the greater the obtainable flow from the wells; second, the deeper, the greater the expense of construction. It was also considered that to go deeper than ocean level might lead ultimately to some danger of draining salt water from the ocean.

"(2) Pipe connections from the wells to the conduit through which the water might flow from the wells to the conduit.

"(3) The extension of the conduit to an open rectangular wet well at the pump house, from which the water might be pumped without the necessity of a troublesome vacuum or the inconvenience of vapors or gases.

"(4) The wet well.

"(5) Two pumping engines, with proper boilers, each having a capacity of 60 per cent. in excess of present requirements, thus providing reasonably for growth of the city, and also eliminating the long existing menace of having the only available pump disabled with the result of leaving the city without a safe supply.

"(6) A building to contain this machinery.

"(7) A force main to deliver the water to the city and having size enough to not only eliminate friction loss at present but for some years to come.

"These plans were laid before Council in June, 1891, and the work was authorized at the Council meeting July 8. An engineering and construction force was organized, consisting of Thomas T. Johnston, of Chicago, by whom the plans and specifications were made, and to whom a commission of two per cent. of all expenditures was paid, and who acted as consulting and supervising engineer; W. R. Curtis, as engineer in charge of construction, assisted by W. A. Dayton, D. A. Usina and Verne Dyer. On December 9, 1892, at 9:25 a. m., one of the new pumps was put in operation. This constituted the practical accomplishment of the work undertaken, proving that the plans had been complete in all details for the purposes intended. The anticipated capacity of the wells was fully realized. Seven wells out of the twelve designed yielded 7,000,000 gallons per day, or more than all of the twenty-four wells at the old waterworks. The works as constructed embody a conservative provision anticipating any possible failure of the artesian supply, in that they can be readily adapted to furnish water from any other possible source of supply about as cheaply as if they had been originally designed for such a supply."

On January 3, 1894, Alderman William G. Cann, chairman of the committee on water, submitted a final report to Council, in part as follows:

"The total cost of the works complete is \$410,660.21; this is exclusive of interest on deferred payments and cost of widening Stiles avenue, neither of which do I consider a proper charge against the construction of the works, the first named item being in lieu of a bond issue, and the latter for permanent widening of a street. The original estimate was \$364,500. The scope of the work was subsequently enlarged, causing an increase in the cost of the wells, buildings and forcing main. The other items have been completed within the original estimates. * * * * * We went into office with an insufficient supply of artesian water, pumping machinery both incompetent to perform the work required and expensive as to operation, an undesirable location of works necessitating a force main of great length, causing serious loss of pressure from frictional resistance and of insufficient size to properly meet the demands of the city. We now beg to present to you one of the best and most complete waterworks of its size in the country."

) On August 28, 1895, an ordinance was passed prohibiting the use of surface wells after December 31, 1895, in any part of the city where city mains were accessible and ordering all such wells abandoned. The following year water meters were introduced. For some years the superintendents of the waterworks and the mayors of the city had called attention to an apparent enormous waste in water and recommended the introduction of meters as a remedy. Nothing was done until this year, when 159 were set out. For a time they seemed to be received with favor. Then opposition arose to their use and in June, 1897, it was recommended by Council that their use be discontinued after July 1 by the water commissioners, in whose hands the department had been placed the previous year, on the ground that they created dissatisfaction, that there were complaints of irregularity, and furthermore Council did not consider it good public policy to encourage parsimoniousness in the use of water. To political conditions was in some degree due the hostility aroused to the meters. No further efforts were made to force their introduction, a number were taken out, and at the close of 1900 there were but a few in use in the city.

In 1896 an electric lighting plant was installed at the new works and the same year the old Springfield well was connected with the works. On April 30 of this year a resolution was passed to sell the machinery at the old works. It was felt, though, that the wiser course would be to save the old works for emergencies and the project was dropped. In 1897 under authority of Council the work of increasing the flow of the wells was undertaken under plans prepared by Engineer Thomas T. Johnston. The cost was estimated at \$4,000, but the actual expenditures were \$3,680.58. The work consisted of a line of standard 8-inch cast iron pipe, extending along the conduit for

a distance of 3,900 feet. Each well was connected with this main by a 6-inch pipe made with Smith patent fittings. At each well was placed a 6-inch gate valve with locking cover to same, making it convenient to flush any well at any time. After being flushed the wells showed a net gain of 1,392,000 gallons. By flushing every three or four months it was thought the wells could be kept up to their original capacity.

In 1898, under a resolution of Council, the machinery, boilers, buildings and artesian wells at the old waterworks were put in first-class condition for immediate operation, the pumping engines being overhauled and repaired and other parts of the plant receiving proper attention.

The following table gives the expenditures on account of the waterworks, the income therefrom, and the annual pumpage in gallons for each year since 1876:

| Year. | Expenditures. | Income. | Pumpage. |
|------------|---------------|-------------|---------------|
| 1877..... | \$ 17,970 19 | \$29,579 69 | 652,460,349 |
| 1878..... | 33,320 02 | 23,697 88 | 695,654,926 |
| 1879... .. | 14,405 70 | 42,392 59 | 729,934,532 |
| 1880 | 14,026 16 | 41,402 24 | Not given |
| 1881 | 22,181 17 | 36,069 98 | 831,588,808 |
| 1882 | 99,708 71 | 33,626 37 | 1,111,274,055 |
| 1883..... | 79,808 18 | 45,275 01 | 1,160,733,397 |
| 1884..... | 61,031 78 | 47,240 57 | 1,652,407,860 |
| 1885..... | 25,038 97 | 46,117 84 | 1,729,958,160 |
| 1886..... | 30,012 30 | 47,903 65 | 1,882,327,800 |
| 1887..... | 49,803 40 | 49,174 33 | 2,086,361,053 |
| 1888 | 39,770 57 | 51,975 08 | 2,135,841,981 |
| 1889 | 43,520 91 | 54,920 68 | 2,435,683,909 |
| 1890 | 52,426 04 | 66,010 51 | 2,426,646,560 |
| 1891..... | 101,641 37 | 67,485 12 | 2,394,645,680 |
| 1892..... | 198,383 59 | 73,828 01 | 2,347,119,340 |
| 1893..... | 180,250 97 | 89,807 92 | 2,448,238,863 |
| 1894..... | 79,199 19 | 73,648 42 | 2,402,693,708 |
| 1895..... | 57,163 81 | 75,347 35 | 2,402,608,351 |
| 1896... .. | 65,317 36 | 79,953 27 | 2,253,212,145 |
| 1897..... | 48,280 39 | 79,562 61 | 2,183,971,003 |
| 1898..... | 52,906 63 | 83,392 45 | 2,294,965,848 |
| 1899..... | 31,313 35 | 84,700 68 | 2,163,720,554 |
| 1900..... | 33,482 13 | 90,497 60 | 2,132,568,950 |

Total cost of waterworks, not including operating and maintenance expenses, to date:

From report of board of water commissioners to November, 1855 \$ 207,356.07

| | |
|---|----------------|
| From November, 1855, to December, 1894, exclusive of new works | 352,939.97 |
| Cost of the new works..... | 427,553.03 |
| Extensions and improvements since 1894..... | 80,890.62 |
| | \$1,068,739.69 |

Richard D. Guerard, who had served continuously as superintendent of the waterworks from in the 60's, was elected by Council again when the charge of the works was fully placed in its hands on January 1, 1881, but resigned on January 1, 1882. He was succeeded by Alvin N. Miller, who continued superintendent until his death in April, 1889, when James Manning was elected and served until January, 1895. Herbert M. Lofton was then elected and served until March 4, 1899, when he resigned and was succeeded by I. U. Kinsey, the present incumbent, who was re-elected by Council on January 12, 1901, for two years.

➤ For many years the successive mayors and the health officers have been directing attention to the necessity of providing Savannah with a new cemetery. The capacity of Laurel Grove, it was seen, was being rapidly exhausted. In 1889 Mayor Schwarz directed attention to the fact that there were but a few lots unsold and suggested that the low lands adjacent be filled in or other lands be purchased to meet future necessities. In 1890 Health Officer Brunner said: "Laurel Grove cemetery has almost filled up and the city has gradually grown around and beyond it. There are less than fifty lots unsold in the white portion and in a very few years, less than five, I think, it will be necessary to bury people elsewhere. The pauper ground has been used so much that in order to make an interment in that plot graves are often disturbed. It will be no easy matter to secure, within reasonable distance of the city, a suitable tract of land for anything like its fair value, unless it is purchased in the near future." Mayor McDonough in 1891 again called attention to the necessity of selecting a suitable place for the establishment of a new cemetery, and the health officer continued his remarks on the same line. The cemetery used by the colored population he considered a disgrace to the city, the land being too low to admit of deep interments and several bodies being at times disturbed to inter one. In 1892 the Mayor referred to Laurel Grove as a menace to public health and as having but little space left, and the health officer recommended that cremation be adopted for the disposition of the dead and the enactment of a special law to that end, permitting the cremation of the bodies of those having no relatives or friends to claim them, until the public had become accustomed to this method of disposing of bodies. Laurel Grove, he held, should be abandoned at an early date. The following year brought similar comments. The health officer said that this